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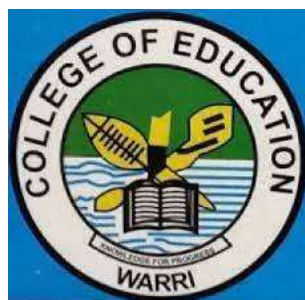
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**WAGE DIFFERENTIALS AND LECTURERS' PRODUCTIVITY IN DELTA STATE
COLLEGES OF EDUCATION, NIGERIA**

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ABSTRACT

This study investigated wage Differentials and Lecturers Job Productivity in Delta State Colleges of Education. The persistent concern over declining lecturers' productivity in Colleges of Education in Delta State, despite variations in wages and career-related conditions, necessitated an empirical examination of the relationship between wage differentials and lecturers' job productivity. This study examined wage differentials and lecturers' job productivity in Delta State Colleges of Education, with the aim of determining how selected wage-related and career variables relate to lecturers' productivity. The study was guided by three objectives, three research questions, and three corresponding null hypotheses. A correlational survey research design was adopted for the study. The population consisted of 774 lecturers from Federal College of Education (Technical), Asaba; College of Education, Warri; and Delta State College of Education, Mosogar. Using proportional and simple random sampling techniques, a sample of 264 lecturers were selected. Data were collected using a self-structured questionnaire titled Wage Differentials and Lecturers' Productivity Questionnaire (WDLPTQ), comprising 52 items. The instrument was validated through face and content validity, while reliability was established using the Cronbach Alpha method with a coefficient of 0.83. Data was analysed using Pearson Product Moment Correlation (PPMC) and simple linear regression analysis at the 0.05 level of significance. The findings revealed that lecturers' educational qualification ($r = .449, p < .05$), working experience ($r = .371, p < .05$), had positive and statistically significant relationships with lecturers' job productivity. However, promotion opportunities did not show significant relationships with lecturers' productivity. The study concluded that lecturers' human capital attributes are key drivers of productivity in Colleges of Education. It was recommended, among others, that greater emphasis should be placed on lecturers' academic development, experience retention, and merit-based career advancement to enhance productivity.

Keywords: Wage Differentials, Lecturers' Productivity, Human Capital Attributes, Colleges of Education.

Reference to this paper should be made as follows:

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INTRODUCTION

Education is widely recognized as a fundamental instrument for national development, and the preparation of competent teachers remains essential to achieving educational goals. In Nigeria, Colleges of Education are specifically mandated to train

qualified teachers for the basic education sector. The extent to which these institutions fulfil this mandate depends largely on the productivity of their lecturers, who serve as the primary drivers of teaching, research, and institutional development. Lecturers' job productivity, which constitutes the dependent variable in this study, refers to the effectiveness and efficiency with which lecturers perform their professional responsibilities.

According to Okolie and Eze (2020), lecturers' productivity is reflected in their ability to deliver quality instruction, contribute to knowledge generation, and support institutional growth through active professional engagement. Similarly, Adebayo and Lawal (2022) describe lecturers' productivity as the measurable outcomes of lecturers' efforts in teaching, students' academic achievement, research activities, and participation in institutional responsibilities. These definitions suggest that productivity is a multidimensional concept encompassing both instructional and non-instructional functions.

In Colleges of Education, lecturers' productivity extends beyond classroom teaching to include lesson planning, curriculum development, student assessment, academic mentoring, research and publication, community service, and participation in administrative activities. The effectiveness with which these responsibilities are carried out significantly influences the quality of teacher education, students' learning outcomes, and the overall performance of the institution. Consequently, high lecturer productivity is indispensable for producing competent graduates capable of contributing meaningfully to Nigeria's educational system.

Despite the strategic role of lecturers, there are growing concerns about the factors influencing their productivity in Colleges of Education, particularly in Delta State. One such factor is wage differentials which refer to disparities in income, allowances, and other financial benefits paid to lecturers based on institutional, personal, or structural factors. Igbokwe and Ofoegbu (2021) argue that wage differentials arise from varying levels of education, experience, institutional classification, employment terms, and internal pay policies, all of which can influence how lecturers perceive their value within an institution. It was further asserted that, these differences in wages among teaching staff especially when not clearly justified can create dissatisfaction, conflict, and low productivity (Musa & James, 2019). In the context of this study, wage differentials are examined in relation to three specific variables: educational qualifications, working experience, and promotion. These factors are essential for understanding how wage-related disparities affect lecturers' productivity in Delta State Colleges of Education

Educational qualifications play a critical role in determining lecturers' salaries, career progression, and professional responsibilities in Colleges of Education. In principle, higher qualifications are expected to attract higher remuneration and greater opportunities for career advancement. Lecturers with advanced degrees, such as master's and doctoral qualifications, often possess deeper subject knowledge, stronger research competence, and enhanced pedagogical skills, which can contribute to improved job performance. Yakubu and Musa (2021) and Afolayan et al. (2020) reported that higher academic qualifications significantly enhance lecturers' instructional effectiveness, research productivity, and overall professional performance. These findings suggest that academic qualification remains an important factor in improving lecturers' productivity.

However, when lecturers with similar qualifications receive different levels of remuneration due to institutional inconsistencies, funding disparities, or administrative discretion, perceptions of inequity may arise. According to Akinyemi (2023), such disparities can reduce trust in the compensation system, weaken motivation, and negatively affect job performance. Furthermore, institutions that fail to adequately reward academic advancement may discourage lecturers from pursuing higher qualifications and engaging fully in academic and research activities. Consequently, educational qualification remains a significant dimension of wage differentials that may influence lecturers' productivity.

Working experience is another factor commonly linked to wage differentials and job productivity. Lecturers with long years of service are expected to possess greater expertise, institutional knowledge, and classroom management skills, which should be reflected in both their remuneration and job performance. According to Okojie and Omorogiuwa (2020), experienced lecturers are more effective in curriculum delivery, student management, and academic mentoring. Similarly, Eze and Nwankwo (2021) and Aminu and Sule (2020) reported that teaching experience contributes positively to lecturers' effectiveness and productivity through enhanced pedagogical competence, professional maturity, and improved handling of academic responsibilities. These studies suggest that accumulated experience enables lecturers to perform their duties more efficiently and effectively.

However, Nnamani and Okeke (2019) argued that prolonged years of service without corresponding opportunities for professional development may result in stagnation and reduced productivity. Despite this concern, experience remains widely recognized as a valuable asset that enhances lecturers' professional competence and overall job performance. Nevertheless, inconsistencies in wage structures sometimes result in less experienced lecturers earning salaries comparable to those of their more experienced counterparts due to factors such as institutional autonomy, funding disparities, and differences in employment conditions. When experienced lecturers perceive that their years of service and contributions are not adequately rewarded, their motivation and commitment may decline, thereby affecting their productivity.

Promotion, as an indicator of career progression, has important implications for wage levels and job performance. Lecturers who are promoted to higher ranks generally receive salary increments, enhanced professional status, and increased responsibilities. Promotion serves not only as recognition of past performance but also as a motivational tool that encourages greater commitment to teaching, research, and institutional service. Adebayo and Lawal (2022) noted that promotion-related wage increases positively influence lecturers' attitudes toward work, encouraging them to invest more time and effort in academic responsibilities. Similarly, Adeyemi and Adeniyi (2018) found that regular and merit-based promotion significantly enhanced lecturers' commitment and instructional effectiveness in Nigerian universities. Olatunji and Yusuf (2019) also reported that promotion opportunities positively influenced lecturers' research productivity and participation in academic activities, as lecturers were motivated to meet promotion requirements through improved performance.

Beyond Nigeria, Mensah and Tawiah (2020) found that promotion opportunities significantly improved lecturers' teaching effectiveness and research engagement in Ghanaian public universities, while Chirwa and Banda (2021) reported that transparent and merit-driven promotion systems enhanced lecturers' job performance in Malawian

universities. These studies suggest that promotion can be an effective motivational mechanism when linked to clear benefits and administered fairly. However, some studies have reported contrary findings. Okoro and Duru (2020) observed that promotion prospects had little influence on lecturers' productivity because many academic staff had lost confidence in institutional promotion systems. Similarly, Ogunode and Musa (2022) found that promotion alone did not significantly predict lecturers' productivity in public Colleges of Education, as many promoted lecturers continued to work under the same challenging conditions. Nwachukwu and Agbaje (2019) further reported that delays and perceived unfairness in promotion processes reduced the motivational value of promotion among lecturers. These findings indicate that the effectiveness of promotion as a productivity-enhancing factor largely depends on the transparency, timeliness, credibility, and financial benefits associated with the promotion system. Therefore, this study investigated how wage differentials relate to lecturers' productivity in Delta State Colleges of Education.

Statement of the Problem

Lecturers' job productivity in public Colleges of Education has become a growing concern due to variations in teaching effectiveness, research output, student supervision, and commitment to institutional responsibilities. In Delta State, concerns have been raised about the declining level of engagement of some lecturers in core academic activities, which may have implications for the quality of teacher education and overall institutional performance. One factor often associated with this situation is the disparity in remuneration arising from differences in educational qualifications, working experience, and promotion opportunities.

Educational qualifications and working experience are expected to enhance lecturers' competence and attract corresponding financial rewards, while promotion opportunities are intended to motivate improved performance and career development. However, where lecturers perceive inequities in compensation or experience delays in promotion, their motivation and commitment to academic responsibilities may be adversely affected. Such conditions can result in reduced productivity, lower research engagement, and diminished enthusiasm for teaching and institutional service.

Although previous studies have examined lecturers' productivity in relation to factors such as motivation, leadership, and job satisfaction, limited empirical attention has been given to the influence of wage differential variables on lecturers' productivity in Colleges of Education, particularly in Delta State. This gap in knowledge necessitated the present study. Therefore, the study sought to determine the relationship between educational qualifications, working experience, promotion opportunities, and lecturers' job productivity in Delta State Colleges of Education. The question therefore is: what is the relationship between wage differentials and lecturers job productivity in Delta State Colleges of Education.?

Aim and Objectives of the Study

The aim of this study was to examine the relationship between wage differentials and Lecturers' job productivity in Colleges of Education in Delta State. The objectives of the study are to:

1. ascertain the relationship between lecturers' educational qualifications and job productivity in Colleges of Education in Delta State.

2. determine the relationship between lecturers' working experience and job productivity in Colleges of Education in Delta State.
3. examine the relationship between promotion opportunities and Lecturers' job productivity in Colleges of Education in Delta State.

Research Questions

Based on the stated objectives, the following research questions are raised to serve as guide the study:

1. Is there any relationship between lecturers' educational qualification and lecturers' job productivity in Delta State Colleges of Education?
2. What is the relationship between lecturers' years of working experience and job productivity in Delta State Colleges of Education?
3. To what extent do promotion opportunities among lecturers correlate with job productivity in Delta State Colleges of Education?

Hypotheses

Based on the stated objectives, the following hypotheses are formulated to guide the study:

1. There is no significant relationship between lecturers' educational qualifications and their job productivity in Delta State Colleges of Education.
2. There is no significant relationship between lecturers' working experience and job productivity in Delta State Colleges of Education.
3. There is no significant relationship between promotion opportunities and lecturers' job productivity in Delta State Colleges of Education.

METHODOLOGY

This study adopted a correlational research design to examine the relationship between wage differentials and lecturers' job productivity in Colleges of Education in Delta State, Nigeria. The study was conducted in three public Colleges of Education: Federal College of Education (Technical), Asaba; College of Education, Warri; and Delta State College of Education, Mosogar. The population comprised 774 lecturers, from which a sample of 264 lecturers was selected using the Taro Yamane formula and proportionate sampling technique, followed by simple random sampling. Data were collected using a researcher-designed instrument titled *Wage Differentials and Lecturers' Job Productivity Questionnaire (WDLJPQ)*, which measured educational qualification, working experience, promotion opportunities, and lecturers' job productivity on a four-point Likert scale. The instrument was validated by experts in Educational Administration and Planning, while a pilot study involving 30 lecturers outside the study area yielded a Cronbach Alpha reliability coefficient of 0.83, indicating high internal consistency. Data were collected with the assistance of trained research assistants and analysed using Pearson Product Moment Correlation (PPMC) to answer the research questions and Linear Regression Analysis to test the hypotheses at the 0.05 level of significance.

RESULTS

Research Question One: Is there any relationship between lecturers' educational qualification and lecturers' job productivity in Delta State Colleges of Education?

Table 1: Pearson Product Moment Correlation between Educational Qualification and Lecturers' Job Productivity

Variables	Mean	Std. Deviation	n	R	Sig. (2-tailed)	Remark
Lecturers' Job Productivity	31.2879	2.73279	264			
Educational Qualification	28.4356	1.73414	264	.449**	.000	Significant

Table 1 presents the descriptive statistics and Pearson Product Moment Correlation (PPMC) results on the relationship between lecturers' educational qualification and job productivity in Delta State Colleges of Education. The result shows that lecturers' job productivity had a mean score of 31.2879 (SD = 2.73279), while educational qualification recorded a mean score of 28.4356 (SD = 1.73414) based on 264 respondents. The correlation analysis revealed a coefficient of $r = .449$ with a significance value of $p = .000$. Since $p < 0.05$, the relationship is statistically significant. The result further indicates a moderate, positive relationship, implying that higher educational qualifications are associated with higher levels of lecturers' job productivity in the study area.

Research Question 2: What is the relationship between lecturers' working experience and lecturers' job productivity in Delta State Colleges of Education?

Table 2: Pearson Product Moment Correlation between Working Experience and Lecturers' Job Productivity

Variables	Mean	Std. Deviation	N	R	Sig. (2-tailed)	Remark
Lecturers' Job Productivity	31.2879	2.73279	264			
Working Experience	25.4811	1.76565	264	.371**	.000	Significant

Table 2 presents the descriptive statistics and Pearson Product Moment Correlation result on the relationship between lecturers' working experience and lecturers' job productivity in Delta State Colleges of Education. The table shows that lecturers' job productivity had a mean score of 31.2879 with a standard deviation of 2.73279, while working experience recorded a mean score of 25.4811 and a standard deviation of 1.76565, based on 264 respondents. The Pearson correlation coefficient obtained between working experience and lecturers' job productivity was $r = .371$, with a corresponding probability value of $p = .000$. At the 0.05 level of significance, the obtained probability value ($p < 0.05$) indicates that the relationship between lecturers' working experience and lecturers' job productivity is statistically significant. The positive correlation coefficient further suggests a moderate positive relationship, implying that lecturers with more years of working experience tend to demonstrate higher levels of job productivity. This indicates that accumulated teaching experience contributes positively to lecturers' effectiveness and overall productivity in Delta State Colleges of Education.

Research Question 3: To what extent do promotion opportunities among lecturers correlate with job productivity in Delta State Colleges of Education?

Table 3: Pearson Correlation between Promotion Opportunities and Lecturers' Job Productivity

Variables	Mean	Std. Deviation	N	R	p-value	Remark
Job Productivity	33.4773	2.83371	264	0.051	0.413	Not Significant
Promotion Opportunities	26.5114	2.85250	264			

Table 3 shows the Pearson Product Moment Correlation between promotion opportunities and lecturers' job productivity in Delta State Colleges of Education. The mean score for lecturers' job productivity is 33.4773 with a standard deviation of 2.83371, indicating a generally moderate and consistent level of productivity among the lecturers. The mean score for promotion opportunities is 26.5114 with a standard deviation of 2.85250, showing moderate variation in how lecturers perceive promotion opportunities. The correlation coefficient ($r = 0.051$) indicates a very weak positive relationship between promotion opportunities and lecturers' job productivity. The p-value (0.413) is greater than the 0.05 level of significance, showing that the relationship is not statistically significant. This suggests that although promotion opportunities show a slight positive direction, they do not significantly influence lecturers' job productivity. This indicates that promotion opportunities do not have a significant relationship with lecturers' job productivity in Delta State Colleges of Education.

Testing of Hypotheses

Ho1: There is no significant relationship between lecturers' educational qualifications and their job productivity in Delta State Colleges of Education.

Table 4: Linear Regression Analysis of Educational Qualification and Lecturers' Job Productivity

Model	R	R ²	Adjusted R ²	F	Sig.	B	Std. Error	Beta	Remark
Constant						11.158	2.478		
Educational Qualification	.449	.202	.199	66.238	.000	.708	.087	.449	Significant

Dependent Variable: Lecturers' Job Productivity

Table 4 presents the linear regression analysis of the relationship between lecturers' educational qualifications and job productivity in Delta State Colleges of Education. The model summary shows a correlation coefficient of $R = .449$ and an R^2 value of .202, indicating that educational qualification accounts for 20.2% of the variance in lecturers' job productivity. The ANOVA result yielded an F-value of 66.238 ($p = .000$), indicating that the model is statistically significant. The regression coefficient further reveals that educational qualification has a positive and significant effect on lecturers' job productivity ($\beta = .449$, $t = 8.139$, $p < .05$). Therefore, the null hypothesis was rejected, indicating a significant relationship between lecturers' educational qualifications and job productivity in Delta State Colleges of Education.

Ho2: There is no significant relationship between lecturers' working experience and their job productivity in Delta State Colleges of Education.

Table 5: Linear Regression Analysis of Working Experience and Lecturers' Job Productivity

Model	R	R ²	Adjusted R ²	F	Sig.	B	Std. Error	Beta	Remark
Constant						16.668	2.268		
Working Experience	.371	.137	.134	41.743	.000	.574	.089	.371	Significant

Dependent Variable: Lecturers' Job Productivity

Table 5 presents the linear regression analysis of the relationship between lecturers' working experience and job productivity in Delta State Colleges of Education. The model summary shows a correlation coefficient of $R = .371$ and an R^2 value of .137, indicating that working experience accounts for 13.7% of the variance in lecturers' job productivity. The ANOVA result yielded an F-value of 41.743 ($p = .000$), indicating that the model is statistically significant. The regression coefficient further reveals that working experience has a positive and significant influence on lecturers' job productivity ($\beta = .371$, $t = 6.461$, $p < .05$). Therefore, the null hypothesis was rejected, indicating a significant relationship between lecturers' working experience and job productivity in Delta State Colleges of Education.

Ho3: There is no significant relationship between promotion opportunities and lecturers' job productivity in Delta State Colleges of Education.

Table 6 Simple Linear Regression of Promotion Opportunities and Lecturers' Job Productivity

	R	R ²	Adj. R ²	F	Beta (β)	T	Sig. (p)	Remark
Constant (Promotion Opportunities)								
	0.051	0.003	-0.001	0.673	0.051	0.820	0.413	Not Significant

b. Dependent Variable: Job Productivity

a. Predictor Variable: Promotion Opportunities

Table 6 presents the simple linear regression analysis of the relationship between promotion opportunities and lecturers' job productivity in Delta State Colleges of Education. The correlation coefficient ($R = 0.051$) indicates a very weak positive relationship between promotion opportunities and job productivity. The coefficient of determination ($R^2 = 0.003$) shows that promotion opportunities explain only 0.3% of the variation in lecturers' job productivity. The ANOVA result gives an F-value of 0.673 with a significance value of 0.413, which is greater than the 0.05 level of significance, indicating that the regression model is not statistically significant. The standardized beta coefficient ($\beta = 0.051$) and the t-value of 0.820 further confirm that promotion opportunities do not significantly predict lecturers' job productivity. This means that promotion opportunities do not significantly

influence lecturers' job productivity in Delta State Colleges of Education; therefore, Hypothesis Three is accepted.

DISCUSSION OF FINDINGS

Educational Qualification and Lecturers' Job Productivity

The study found a moderate, positive, and significant relationship between educational qualification and lecturers' job productivity ($r = .449$, $p < .05$), with qualification accounting for 20.2% of the variance in productivity ($R^2 = .202$). This suggests that lecturers with higher academic qualifications tend to exhibit greater effectiveness in teaching, research, supervision, and institutional responsibilities. Higher qualifications are likely to enhance subject mastery, pedagogical competence, research skills, and professional confidence, thereby improving overall productivity. This finding agrees with studies by Yakubu and Musa (2021), Afolayan et al. (2020), which reported that higher academic qualifications significantly improve lecturers' instructional effectiveness, research output, and professional performance. Hence, the present study confirms that educational qualification remains an important predictor of lecturers' productivity in Delta State Colleges of Education.

Working Experience and Lecturers' Job Productivity

The study revealed a positive and significant relationship between working experience and lecturers' job productivity ($r = .371$, $p < .05$). Working experience explained 13.7% of the variance in productivity ($R^2 = .137$), indicating that experienced lecturers tend to perform better in teaching, supervision, and administrative responsibilities. This may be attributed to the acquisition of practical skills, professional maturity, improved classroom management, and greater familiarity with institutional procedures over time. The finding supports the studies of Eze and Nwankwo (2021) and Aminu and Sule (2020), which reported that teaching experience contributes positively to lecturers' effectiveness and productivity. Although Nnamani and Okeke (2019) argued that prolonged years of service may lead to stagnation, the present study suggests that experience remains a valuable asset for enhancing lecturers' productivity in Colleges of Education.

Promotion Opportunities and Lecturers' Job Productivity

The study found a very weak and insignificant relationship between promotion opportunities and lecturers' job productivity ($r = .051$, $p > .05$), with promotion accounting for only 0.3% of the variance in productivity ($R^2 = .003$). This indicates that promotion opportunities do not significantly influence lecturers' productivity in Delta State Colleges of Education. The finding aligns with Okoro and Duru (2020), and Ogunode and Musa (2022), who reported that promotion prospects had little effect on lecturers' performance due to delays, lack of transparency, and limited benefits associated with promotion. However, it contrasts with Adeyemi and Adeniyi (2018), Olatunji and Yusuf (2019) who found that timely and merit-based promotions enhanced lecturers' commitment and productivity. The insignificant relationship observed in this study may reflect the realities of delayed promotions, inadequate financial rewards, and perceived unfairness in promotion processes, which reduce their motivational value among lecturers.

CONCLUSION

The study concluded that wage differential-related variables influence lecturers' job productivity in Delta State Colleges of Education to varying degrees. Educational qualifications and working experience were found to have significant positive relationships with lecturers' job productivity, while promotion opportunities showed no significant

relationship. The findings suggest that lecturers' academic credentials and accumulated experience contribute more to productivity than promotion prospects, highlighting the importance of continuous professional development and the retention of experienced lecturers to enhance productivity in Colleges of Education.

Recommendations

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

1. Government and College management should support lecturers' pursuit of higher qualifications through sponsorships, study leave, scholarships, and research grants to enhance productivity.
2. College administrators should retain and effectively utilize experienced lecturers through supportive work environments and mentoring opportunities to improve productivity.
3. Promotion processes should be timely, transparent, and merit-based to strengthen lecturers' motivation and career development.

REFERENCES

- Adebayo, A. A., & Lawal, M. O. (2022). *Compensation practices and lecturers' job productivity in Nigerian tertiary institutions*. *Journal of Educational Administration and Policy Studies*, 14(2), 45–58.
- Adeyemi, T. O., & Adeniyi, B. A. (2018). Promotion opportunities and lecturers' job performance in Nigerian universities. *African Journal of Educational Management*, 20(1), 87–99.
- Afolayan, A. O., Adegbite, A. A., & Salami, K. A. (2020). Academic qualifications and lecturers' productivity in public tertiary institutions in Nigeria. *International Journal of Educational Research and Development*, 8(3), 112–124.
- Akinyemi, O. A. (2023). Wage inequality and employee productivity in higher education institutions. *Nigerian Journal of Educational Management*, 21(2), 65–79.
- Aminu, A. M., & Sule, H. A. (2020). Teaching experience and academic staff productivity in public tertiary institutions. *Journal of Educational Research and Practice*, 12(4), 102–115.
- Chirwa, T., & Banda, P. (2021). Promotion systems and lecturers' job performance in Malawian universities. *African Higher Education Review*, 13(2), 77–91.
- Eze, C. N., & Nwankwo, I. N. (2021). Teaching experience and lecturers' effectiveness in Colleges of Education in South-East Nigeria. *Journal of Educational Studies*, 18(1), 55–68.
- Igbokwe, C. C., & Ofoegbu, F. I. (2021). Wage differentials and employee performance in tertiary institutions in Nigeria. *Nigerian Journal of Human Resource Management*, 9(1), 33–47.
- Mensah, K., & Tawiah, S. A. (2020). Promotion opportunities and academic staff productivity in Ghanaian public universities. *International Journal of Higher Education Management*, 7(2), 89–101.
- Musa, Y. A., & James, E. O. (2019). Compensation disparities and employee productivity in educational institutions. *Journal of Educational Administration and Leadership*, 11(3), 74–86.

- Nnamani, E. C., & Okeke, P. N. (2019). Years of service and job productivity among academic staff in Nigerian tertiary institutions. *International Journal of Education and Development Studies*, 6(2), 93–106.
- Nwachukwu, F. N., & Agbaje, A. A. (2019). Promotion practices and lecturers' productivity in Colleges of Education in South-West Nigeria. *Journal of Educational Policy and Management*, 15(1), 41–54.
- Ogunode, N. J., & Musa, A. B. (2022). Promotion and academic staff productivity in public Colleges of Education in Nigeria. *International Journal of Educational Administration and Policy Studies*, 14(1), 23–35.
- Okojie, M. U., & Omorogiuwa, T. B. (2020). Work experience and instructional effectiveness among lecturers in tertiary institutions. *Journal of Educational Foundations*, 10(2), 61–74.
- Okolie, U. C., & Eze, F. N. (2020). Lecturers' productivity and institutional effectiveness in Nigerian Colleges of Education. *Journal of Educational Development and Management*, 15(2), 88–101.
- Okoro, C. N., & Duru, M. C. (2020). Promotion prospects and academic staff productivity in public tertiary institutions. *Nigerian Journal of Educational Administration*, 18(3), 59–72.
- Olatunji, A. O., & Yusuf, M. A. (2019). Promotion opportunities and research productivity among university lecturers in Nigeria. *Journal of Higher Education Studies*, 9(4), 121–133.
- Yakubu, A. M., & Musa, I. S. (2021). Educational qualifications and lecturers' job productivity in Nigerian Colleges of Education. *International Journal of Educational Research*, 10(2), 54–67.



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CAPACITY BUILDING AND SECONDARY SCHOOL TEACHERS' COMMITMENT IN DELTA CENTRAL SENATORIAL DISTRICT

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ABSTRACT

This study investigated capacity building and secondary school teachers' commitment in Delta Central Senatorial District, Nigeria. Three research questions and three hypotheses guided the study. The design of the study was correlational survey research design. The population of the study comprised all public senior secondary school teachers in Delta Central Senatorial District, Nigeria, while the sample size for the study was a total of three hundred and sixty-seven (367) teachers from public secondary schools in Delta Central Senatorial District, Nigeria. The instrument for data collection was a structured questionnaire developed by researcher it is titled "Capacity Building and Teachers' Job Commitment Questionnaire (CBTJCQ)". The instruments were subjected to face and content validation and the reliability of the instruments were ascertained through test re-test method. The reliability of the instrument was computed using Cronbach Alpha reliability coefficient and yielded 0.81. Data analysis was done using Pearson Product Moment Correlation Coefficient to answer research questions, while Regression analysis was used to test the null hypotheses at 0.05 level of significance. Results of the study showed that there is a significant relationship between training and teachers' job commitment in Delta Central Senatorial District, Nigeria. It equally shows that there is a significant relationship between workshop and teachers' job commitment in Delta Central Senatorial District, Nigeria. In view of this finding, it is recommended that secondary school principals should organize symposium for teachers on lesson preparation and student engagement strategies. Secondary school principals should allow teachers with weaknesses to attend workshops on lesson delivery, student management, classroom organization and management.

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INTRODUCTION

It was long recognized in Nigeria that without teachers the educational objectives as specified in the National Policy on education would not be realized, (Federal Republic of Nigeria, 2014). Indeed, reformers of education may establish new schools, effect end and

changes on the structure and curriculum, recommend prescribed teaching methods and aids but in the end the teacher will be responsible for applying them. The teacher is the one that transforms them to students in the classroom. Accordingly, the teacher assists and commands the image of one who improves the physical condition of the classroom through orderliness, effective decision-making, discipline and control and also makes diagnosis of students' feelings and attitude inferred from their behaviour and response in the classroom environment. Here, in the absence of school programmes, the major responsibility of working with children in the school rests with the teachers. Therefore, there is the need for teachers that are committed to their job in secondary schools.

There is no doubt that qualified and committed teachers are prerequisite for successful and excellent education. Teachers perform nation building roles through effective implantation of curriculum in schools. The role of teachers will continue to increase in tandem with the current developments in the world of education because education is a social phenomenon that is dynamic often subjected to changes and innovations in the society. Teachers therefore need to be effective in the performance of their role especially in meeting with national development. Teacher effectiveness is a system of interrelated self-beliefs; it emerges as a function of teachers' global and specific judgments about themselves within the classroom context. Teachers with high level effectiveness are more likely to learn and use innovative strategies for teaching, implement management techniques that provide for students' autonomy, set attainable goals, persist in the face of students' failure, willingly offer special assistance to low achieving students, and design instruction that develops students' self-perceptions of their academic skills.

There have been consistent discussions and lamentations by parents and stakeholders in homes, churches and in public places that teachers' commitment is declining in secondary schools in Delta Central Senatorial District through observable poor attitude of teachers towards work in many secondary schools. For instance, the researcher's personal interaction with officials in the Ministries of Education in Delta Central Senatorial District indicated that several teachers engage in trading during school hours, both inside the school premises and outside more than their teaching responsibilities. The officials interviewed further revealed that the level of absenteeism is high among teachers in secondary schools in Delta Central Senatorial District, although with variation from urban and rural secondary schools. The officials attributed the variation in the level of teachers' absenteeism between urban and rural secondary school teachers on regular supervision of urban schools by inspectors. There are also cases of teachers who usually arrived late in school, but signed the time book as arriving on time in secondary schools in Delta Central Senatorial District.

In much the same way, the researcher observed that there are secondary school teachers in Delta Central Senatorial District who usually exhibit nonchalant attitude towards students' academic achievement and pay less attention to students' discipline. The researcher noticed that most teachers in Delta Central Senatorial District do not pay adequate attention to the writing of their lesson notes and effectiveness of their teaching in classroom. There are teachers who rarely prepare for classes, loaf around, go to class to play with the students and at times teach some topics and leave the rest untaught. All these are indicators of poor attitude to work and lack of commitment among secondary school teachers in Delta Central Senatorial District.

Consequently, the evident of the poor attitude to work and lack of teachers' commitment in secondary schools in Delta Central Senatorial District is the spate of poor academic performance among students. Analysis of result of examination bodies like the West Africa Examination Council (WAEC), the National Examination Council (NECO) and

the Unified Tertiary Matriculation Examination (UTME) provide information regarding students' performance. For instance, the 2022 West Africa School Certificate Examination (WASCE) result analysis revealed that only 25% of the students passed with the National minimum requirement of five (5) credits including English and Mathematics (WAEC, 2022). This situation was buttressed by Yewande et al. (2020), when he reported the lamentation and outcry by parents, churches, and the media over the decline in standards of operation of secondary schools and the low performance of students in public examinations. This dismal performance in external examination may be an indictment of teachers' poor commitment to work and their lack of commitment in secondary schools. Therefore, the need for effective capacity building and welfare packages to ensure teachers commitment to work may be imperative to remedy the situation. In this regard, it is expected that principals should try to enhance the teachers' commitment to work through dynamic capacity building and welfare packages.

Admittedly, the in-service training may have a toll on teachers' commitment to lesson preparation in secondary schools. Teacher commitment begins from lesson preparation. This starts from lesson plan preparation. A lesson plan is the instructor's road map of what students need to learn and how it will be done effectively during the class time. The teacher cannot effectively deliver the lesson without planning well for the lesson. The steps in lesson preparation are supposed to guide the teacher in his/her process of teaching. A successful lesson plan is expected to address and integrate three key components which are objectives for student learning, teaching/learning activities, and strategies to check student understanding. Specifying behavioural/instructional objectives for student learning will help teacher to determine the kinds of teaching and learning activities he will use in class. On the other hand, the teaching and learning activities will guide teacher to know whether the learning objectives have been accomplished or not. In-service training may help the teachers to update knowledge, skills and attitude in line with present and modern professional requirements. Afangideh and Aleru (2023) maintain that the skills which teachers on in-service training need to function in the modern digital age may include skills power-point presentation, teamwork research, computer training, and training the use of integrated white board and collaborative research strategies.

Denga (2017) posited that workshop may help the teachers to learn and broaden their intellectual horizon in classroom management and organization in secondary schools. Classroom organisation by teachers is also of high significance in teaching-learning process. Thus, classroom organization is one of the determining factors of a committed teacher. Possession of classroom organisation and control technique is central to effective delivery of instruction by teacher. However, Imhabekhai (2016) observed that possession of required classroom management skills was inadequate among teachers. Workshop enhance teachers' self-esteem and confidence to enable them impact positively on all aspect of education. He therefore advises all teachers to attend capacity building workshops with zeal, commitment, diligence and open mildness. Teachers should approach capacity' building workshops with much interest hoping to benefit from it. With the knowledge gained, they will be in a better position to impact knowledge, positive attitudes, skills to the students' and the community at large. Based on this background, this study intended to examine capacity building as predictor of secondary school teachers' job commitment in Delta Central Senatorial District

Statement of the Problem

In recent time, basic education has been the major concern of the Government and all stakeholders including the international community. However, it appears secondary education which is one of the levels of education covered by basic education scheme is not realising the

purpose for which it is meant to serve. The student academic performance is not encouraging. Analysis of result of examination bodies like the West Africa Examination Council (WAEC), the National Examination Council (NECO) and the Unified Tertiary Matriculation Examination (UTME) provide information regarding students' performance. For instance, the 2022 West Africa School Certificate Examination (WASCE) result analysis revealed that only 25% of the students passed with the National minimum requirement of five (5) credits including English and Mathematics (WAEC, 2022). All these indicate that our secondary schools are not effective. Knowing fully that teacher commitment is *sine qua non* to effective school; it is assumed that teachers cannot be exonerated from secondary school ineffectiveness.

In a bid to salvage secondary school from ineffectiveness, capacity building programme may be necessary to enhance teachers' commitment in secondary schools. Capacity building may empower secondary school teacher and improve their ability in such areas as lesson plan, instructional method, use of instructional materials, classroom organisation and control, teacher's motivational strategies among others. It is against this background that the study is set out to investigate capacity building and teacher commitment in secondary schools in Delta Central Senatorial District.

Aim and Objectives of the Study

The aim of the study investigated teachers' commitment and capacity building in public secondary school in Delta Central Senatorial District. Specifically, the study intended to:

1. examine the relationship between in-service training and teachers' commitment on lesson preparation in secondary schools in Delta Central Senatorial District.
2. investigates the relationship between conference programme and teachers' commitment on instructional methods in secondary schools in Delta Central Senatorial District.
3. ascertain the relationship between workshop and teachers' commitment on classroom organization in secondary schools in Delta Central Senatorial District

Research Questions

The following research questions were raised to guide the study:

1. What is the relationship between in-service training and teachers' commitment on lesson preparation in secondary schools in Delta Central Senatorial District?
2. What is the relationship between conference programme and teachers' commitment on instructional methods in secondary schools in Delta Central Senatorial District?
3. What is the relationship between workshop and teachers' commitment on classroom organization in secondary schools in Delta Central Senatorial District?

Hypotheses

The following hypotheses were formulated for the study and were tested at 0.05 significance level.

1. There is no significant relationship between in-service training and teachers' commitment on lesson preparation in secondary schools in Delta Central Senatorial District.

2. There is no significant relationship between conference programme and teachers' commitment on instructional methods in secondary schools in Delta Central Senatorial District.
3. There is no significant relationship between workshop and teachers' commitment on classroom organization in secondary schools in Delta Central Senatorial District

METHODOLOGY

Research Design

The correlational research design was adopted for the study. It was deemed suitable because the study ascertained the relationship among capacity building and teachers job commitment secondary school in Delta Central Senatorial District.

Population of the Study

The population of the study comprised of all public secondary school teachers in Delta Central Senatorial District. Available statistics indicated that there are 7,773 (Seven thousand seven hundred and seventy-three) public secondary school teachers in Delta Central Senatorial District.

Sample and Sampling Technique

A total of three hundred and sixty-seven (367) teachers from public secondary schools made up the sample size. The sample size of 367 was determined using Krejcie and Morgan (1970) sample size determination table. The multi-stage sampling technique was employed. First, stratified random sampling was used to get four (4) secondary schools from each selected four local government areas in Delta Central Senatorial District. In selecting the four (4) secondary schools, the researcher used the stratified random sampling technique to dichotomize the schools into urban and rural schools. Thus, two (2) schools were randomly selected from the schools in urban area and two (2) from the rural schools in each local government area giving a total of four secondary schools. Subsequently, the researcher employed proportionate sampling technique to pick teachers from both urban and rural secondary schools in each of the sixteen sampled secondary schools.

Instrument for Data Collection

The instrument that was used for this study was a researcher's developed questionnaire. The questionnaire was titled: "Capacity Building and Teachers' Job Commitment Questionnaire (CBTJCQ)". This questionnaire contained two sections, 'A' and 'B'. Section 'A' elicited demographic information bothering on the local government, school, age, experience and location of school. Section 'B' was designed to obtain information on in-service training, staff development, mentoring, training on the use of ICT, on the job training, orientation and teachers' job commitment in secondary schools in Delta Central Senatorial District. The response categories of the questionnaire were based on four-point Likert Scale of Strongly Agree (SA) (4 points), Agree (A) (3Points), Disagree (D) (2points) and Strongly Disagree (SD) (1point) respectively. The questionnaire was built on three clusters on which respondents were requested to indicate their opinion.

Validity of the Instrument

The questionnaire developed for the study was subjected to face and content validation. The validators advised that the demographic data of the respondents be inserted appropriately. They also recommended that the response modes be changed to strongly

agreed (SA), Agree (A) Disagree (D), strongly disagreed Undecided (U) and (SD). The corrections were reflected in the final instrument.

Reliability of the Instrument

To determine the internal consistency of the instruments, trial testing was carried out using 30 respondents in secondary schools in Delta South Senatorial District. Delta South Senatorial District was chosen because it has almost the same characteristics as the location of this study. Cronbach Alpha was used to determine the internal consistency of the items. Based on the analysis, the result yielded internal consistency of 0.81 for the instrument. The method was considered appropriate because the items in the instrument were not dichotomously scored.

Method of Data Collection

The questionnaires were administered by the researcher herself and two (2) trained research assistants. The research assistants were given copies of the research protocol so that they were familiar with the research. The researcher also discussed the questionnaire with the research assistants on the rubrics guiding the response.

Method of Data Analysis

The data collected were analysed with the use of Pearson Moment Correlational Coefficient to answer the research questions. In testing the hypotheses formulated for the study, the researcher used simple regression at 0.05 significance level.

RESULTS

Research Question One: What is the relationship between in-service training and teachers' commitment on lesson preparation in secondary schools in Delta Central Senatorial District?

Table 1: Relationship between in-service training and teachers' commitment on lesson preparation in secondary schools in Delta Central Senatorial District

		In-service training	Teachers' commitment
In-service training	Pearson Correlation	1	.304**
	Sig. (2-tailed)		.000
	N	367	367
Teachers' commitment	Pearson Correlation	.304**	1
	Sig. (2-tailed)	.000	
	N	367	367

**. Correlation is significant at the 0.05 level (2-tailed).

Table 1 showed the Pearson correlation on the relationship between in-service training and teachers' commitment on lesson preparation in secondary schools in Delta Central Senatorial District. The result revealed that there is a positive relationship between in-service training and teachers' commitment on lesson preparation in secondary schools in Delta Central Senatorial District since the Pearson Correlation is .304** at 0.05 level of significance.

Research Question Two: What is the relationship between conference programme and teachers' commitment on instructional methods in secondary schools in Delta Central Senatorial District?

Table 2: Relationship between conference programme and teachers' commitment on instructional methods in secondary schools in Delta Central Senatorial District

		Conference programme	Teachers' commitment
Conference programme	Pearson Correlation	1	.282**
	Sig. (2-tailed)		.000
	N	367	367
Teachers' commitment	Pearson Correlation	.282**	1
	Sig. (2-tailed)	.000	
	N	367	367

**. Correlation is significant at the 0.05 level (2-tailed).

Table 2 shows the Pearson correlation on the relationship between conference programme and teachers' commitment on instructional methods in secondary schools in Delta Central Senatorial District. The result reveals that there is a positive relationship between conference programme and teachers' commitment on instructional methods in secondary schools in Delta Central Senatorial District since the Pearson Correlation result is .282** at 0.05 level of significance.

Research Question Three: What is the relationship between workshop and teachers' commitment on classroom organization in secondary schools in Delta Central Senatorial District?

Table 3: Relationship between workshop and teachers' commitment on classroom organization in secondary schools in Delta Central Senatorial District

		Workshop	Teachers' commitment
Workshop	Pearson Correlation	1	.096**
	Sig. (2-tailed)		.000
	N	367	367
Teachers' commitment	Pearson Correlation	.096**	1
	Sig. (2-tailed)	.000	
	N	367	367

**. Correlation is significant at the 0.05 level (2-tailed).

Table 3 shows the Pearson correlation on the relationship between workshop and teachers' commitment on classroom organization in secondary schools in Delta Central Senatorial District. The result reveals that there is a positive relationship between workshop and teachers' commitment on classroom organization in secondary schools in Delta Central Senatorial District since the Pearson Correlation is .096** at 0.05 level of significance.

Hypothesis 1: There is no significant relationship between in-service training and teachers' commitment on lesson preparation in secondary schools in Delta Central Senatorial District.

Table 4: Relationship between in-service training and teachers' commitment on lesson preparation in secondary schools in Delta Central Senatorial District

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.954	.134		14.570	.000

In-Service Training	.317	.046	.304	6.853	.000
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a. Dependent Variable: Teachers' Commitment

t – Critical at $p < 0.05$, df 365 = 1.960

The regression results in Table 4 above revealed that in-service training and teachers' commitment on lesson preparation in secondary schools in Delta Central Senatorial District. The results show that the value of t – calculated of in-service training at $p < 0.05$, df 365 = 6.853 which is greater than the t-critical of 1.960. This means that t – calculated is significant, implying a relationship between in-service training and teachers' commitment on lesson preparation in secondary schools in Delta Central Senatorial District. Thus, the null hypothesis which states that there is no significant relationship between in-service training and teachers' commitment on lesson preparation in secondary schools in Delta Central Senatorial District is rejected.

Hypothesis 2: There is no significant relationship between conference programme and teachers' commitment on instructional methods in secondary schools in Delta Central Senatorial District.

Table 5: Relationship between conference programme and teachers' commitment on instructional methods in secondary schools in Delta Central Senatorial District.

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.041	.132		15.467	.000
Conference	.288	.046	.282	6.304	.000

a. Dependent Variable: Teachers' Commitment

t – Critical at $p < 0.05$, df 365 = 1.960

The regression results in Table 5 above revealed that conference programme and teachers' commitment on instructional methods in secondary schools in Delta Central Senatorial District. The results show that the value of t – calculated of conference at $p < 0.05$, df 365 = 6.304 which is greater than the t- critical of 1.960. This means that t – calculated is significant, implying a relationship between conference programme and teachers' commitment on instructional methods in secondary schools in Delta Central Senatorial District. Thus, the null hypothesis which states that there is no significant relationship between conference programme and teachers' commitment on instructional methods in secondary schools in Delta Central Senatorial District is rejected.

Hypothesis 3: There is no significant relationship between workshop and teachers' commitment on classroom organization in secondary schools in Delta Central Senatorial District.

Table 6: Relationship between workshop and teachers' commitment on classroom organization in secondary schools in Delta Central Senatorial District.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.606	.123		21.142	.000
Workshop	.081	.039	.096	2.072	.039

a. Dependent Variable: Teachers' Commitment

t – Critical at $p < 0.05$, df 365 = 1.960

The regression results in Table 6 above workshop and teachers' commitment on classroom organization in secondary schools in Delta Central Senatorial District. The results show that

the value of t – calculated of workshop at $p < 0.05$, $df\ 365 = 2.072$ which is greater than the t -critical of 1.960. This means that t – calculated is significant, implying a significant relationship between workshop and teachers’ commitment on classroom organization in secondary schools in Delta Central Senatorial District. Thus, the null hypothesis which state that there are no significant relationship workshop and teachers’ commitment on classroom organization in secondary schools in Delta Central Senatorial District is rejected.

DISCUSSION OF FINDINGS

The first research question sought to find out the relationship between in-service training and teachers’ commitment on lesson preparation in secondary schools in Delta Central Senatorial District as presented in Table 1. The result reveals that there is a positive relationship between in-service training and teachers’ commitment on lesson preparation in secondary schools in Delta Central Senatorial District since the Pearson Correlation is .304** at 0.05 level of significance. This result corresponds with that of Cass (2017) who said that symposium is a meeting of a number of experts in a particular field at which papers are presented by specialists on particular subjects and discussion with a view to making recommendations concerning the problems under discussion. The result of hypothesis one as presented in Table 4 indicated that there is a significant relationship between the mean scores of in-service training and teachers’ commitment on lesson preparation in secondary schools in Delta Central Senatorial District.

The second research question sought to find out the relationship between conference programme and teachers’ commitment on instructional methods in secondary schools in Delta Central Senatorial District as presented in Table 2, result reveals that there is a positive relationship between conference programme and teachers’ commitment on instructional methods in secondary schools in Delta Central Senatorial District since the Pearson Correlation result is .282** at 0.05 level of significance. This result confirmed with that of Adepoju (2019) who reported that conference is a prearranged meeting for consultation or exchange of information or discussion (especially one with a formal agenda). The result of hypothesis two as presented in Table 5 indicated that there is a significant relationship between the mean scores of conference programme and teachers’ commitment on instructional methods in secondary schools in Delta Central Senatorial District.

The third research question sought to find out the relationship between workshop and teachers’ commitment on classroom organization in secondary schools in Delta Central Senatorial District as presented in Table 3. The result reveals that there is a positive relationship between workshop and teachers’ commitment on classroom organization in secondary schools in Delta Central Senatorial District since the Pearson Correlation is .096** at 0.05 level of significance. This result is in line with that of Adepoju (2019) who said that workshops tend to be smaller and more intense than seminars. The format often involves participant practicing their new skills during the event under the watchful eye of the instruction. The result of hypothesis three as presented in Table 6 which indicated that there is a significant relationship between the mean scores of workshops and teachers’ commitment on classroom organization in secondary schools in Delta Central Senatorial District.

CONCLUSION

The following conclusion is drawn on the basis of data analysed in the study. Firstly, the study concluded that there is a significant relationship between in-service training and teachers’ commitment on lesson preparation in secondary schools in Delta Central Senatorial District. Secondly, the analysis of data showed that there is a significant relationship between conference programme and teachers’ commitment on instructional methods in secondary

schools in Delta Central Senatorial District. Thirdly, the results from the analysis concluded that there is a significant relationship between workshop and teachers' commitment on classroom organization in secondary schools in Delta Central Senatorial District. Therefore, capacity building of teachers can enhance teachers job commitment in Delta Central Senatorial District, Nigeria.

Recommendations

The following recommendations were made in view of the foregoing findings and conclusion:

1. Secondary school principals should organize symposium for teachers on lesson preparation and student engagement strategies.
2. Secondary school principals should allow teachers with weaknesses to attend workshops on lesson delivery, student management, classroom organization and management.
3. Secondary school principals should provide opportunity for teachers to attend conferences that captured relevant issues in classroom management, lesson preparation and instructional delivery as well as management of students' behaviour.

REFERENCES

- Afangideh, S.T. and Aleru, C. J. (2023). Managing innovations in curricular offerings and modes of communication for service delivery in universities in Rivers State. *International Journal of Scientific Research in Education*, 12(1), 34-43.
- Denga, K (2017). Effect of training and manpower development on productivity of workers; retrieved from <http://www.adekass.blogspot.com/impact-of-motivation-on-employee.html> on October 6th, 2011.
- Adepoju, J.A. (2019). Staff welfare scheme: A strategy for motivation in A.D Yahaya and C.I. Akinyele (eds); *New Trend in Personnel Management*, ASCON, Badagry- Lagos. 160.
- Federal Republic of Nigeria (2014). National policy on education, Lagos, Federal Ministry of Education.
- Imhabekhai, C. I. (2016). Manpower training and retraining for effective healthcare delivery. *Benin Journal of Education Studies*, (12 & 13) 1 & 2.



**OPTIMIZING INSTITUTIONAL EFFICIENCY THROUGH ICT IN HIGHER
EDUCATION IN DELTA STATE: POLICY AND PRACTICE CONSIDERATIONS**

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ABSTRACT

This study examined the role of Information and Communication Technology (ICT) in enhancing institutional efficiency in Nigerian higher education. It highlighted key strategies, including ICT policies, infrastructure investment, digital literacy, integrated management systems, leadership, and continuous monitoring. Challenges such as limited funding, technical gaps, infrastructure deficits, resistance to change, and fragmented governance were discussed. The study found that systematic and well-governed ICT adoption improved administrative efficiency, academic productivity, and transparency. Recommendations included policy development, capacity building, infrastructure enhancement, and monitoring mechanisms to ensure sustainable digital transformation.

Keywords: ICT Adoption, Institutional Efficiency, Higher Education, Nigeria.

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INTRODUCTION

Institutional efficiency in higher education refers to the ability of colleges and universities to optimally manage and utilize their resources human, financial, and material to achieve their academic and administrative goals (Ojo, 2017). It encompasses the effectiveness of processes, timeliness of decision-making, reduction of redundancies, and the overall quality of service delivered to students and other stakeholders. Efficient institutions are capable of balancing scarce resources with organizational objectives, ensuring that teaching, research, and administrative functions are performed smoothly and productively. In the Nigerian higher education context, achieving institutional efficiency is particularly critical due to increasing student populations, limited funding, infrastructural challenges, and the imperative for accountability in management practices. An institution that is efficient not only improves its performance but also fosters a culture of transparency, responsiveness, and continuous improvement, which are essential for sustaining academic excellence and competitiveness in a rapidly evolving educational landscape.

Over the past decade, the role of Information and Communication Technology (ICT) in enhancing institutional efficiency has become increasingly evident. ICT encompasses a wide range of tools and applications, including computers, software, internet-based platforms, and digital communication systems, that facilitate the processing, storage, and exchange of

information (Selwyn, 2016). In higher education, these technologies have transformed traditional administrative and academic operations by providing more effective means of managing data, coordinating activities, and supporting teaching and learning. For example, ICT applications such as management information systems, digital record-keeping platforms, and e-learning environments enable institutions to streamline workflows, reduce manual errors, and enhance the accessibility of information. These capabilities are particularly valuable in environments where efficient resource utilization and timely decision-making are critical for achieving institutional goals.

The integration of ICT in institutional processes is not limited to administrative functions. Academic operations, including curriculum delivery, student assessment, research, and faculty collaboration, have been significantly enhanced through digital technologies. E-learning platforms, virtual libraries, and online collaboration tools allow academic staff to deliver content more effectively, engage students interactively, and monitor learning outcomes in real-time (Luckin et al., 2016). Moreover, ICT facilitates data-driven decision-making at managerial levels, enabling leadership to identify inefficiencies, track performance, and optimize resource allocation (Baker & Smith, 2020). Even non-academic operational functions, such as student registration, payroll processing, and inter-departmental communication, have benefited from ICT adoption, leading to improved productivity and reduced administrative bottlenecks (Almalki et al., 2022). These applications collectively demonstrate that ICT is a strategic enabler of institutional efficiency, providing the tools and infrastructure necessary for institutions to achieve their objectives in a complex and resource-constrained environment.

Despite the potential benefits of ICT, most higher education institutions in Nigeria face several challenges in maximizing these advantages. Limited infrastructure, unreliable internet connectivity, inadequate digital literacy among staff, and resistance to technology adoption can impede effective utilization (Huang & Rust, 2021; Bates, 2019). Furthermore, the absence of clear institutional policies and strategic frameworks for ICT integration often results in fragmented adoption, where digital tools are underutilized or deployed inconsistently across departments. Such challenges underscore the need for a coordinated and strategic approach to ICT implementation that aligns with institutional goals and emphasizes capacity building, staff training, and policy support.

Tertiary institutions are at a critical juncture in harnessing ICT to enhance institutional efficiency. With increasing demands for quality education, transparency, accountability, and operational effectiveness, the adoption of ICT must be viewed not merely as a technological upgrade, but as a strategic enabler of institutional performance. This paper argues that deliberate and coordinated ICT utilization, supported by robust policy frameworks, capacity development, and institutional leadership, is pivotal for improving administrative processes, academic productivity, and overall operational efficiency within higher education institutions in Nigeria. By synthesizing insights from literature, policy documents, and best practices, this paper advocates for a structured and strategic approach to ICT adoption that maximizes its potential for institutional transformation, sustainable efficiency, and excellence in the state's tertiary education sector.

Recommendations for Optimizing Institutional Efficiency through ICT in Nigerian Higher Education

To harness ICT effectively and enhance institutional efficiency, higher education institutions in Nigeria must adopt a strategic and coordinated approach that addresses both policy and practice. Based on insights from literature and global best practices, the following recommendations are proposed:

1. Develop Comprehensive ICT Policies Aligned with National Education Goals

Comprehensive ICT policies serve as the backbone for effective technology adoption in Nigerian higher education institutions. Policies provide a structured framework that aligns institutional practices with national directives from the National Universities Commission (NUC) and the Federal Ministry of Education, promoting standardized use of digital tools, ethical practices, and security protocols (Bates, 2019; Oyelaran-Oyeyinka & Lal, 2020). These ICT policies guide both academic and administrative operations, ensuring that processes such as e-learning delivery, digital record management, and research collaboration are coherent and scalable.

The importance of such policies in Nigeria cannot be overstated. Clear policy frameworks enable institutions to coordinate ICT adoption across departments, monitor performance, and establish accountability for technology use (Okoye & Nwankwo, 2020; Nwafor, 2018). They provide standards for infrastructure, define roles and responsibilities for staff, and promote equitable access to ICT resources. In the absence of these frameworks, institutions often experience fragmented adoption, where tools remain underutilized, and administrative inefficiencies persist.

Despite their significance, Nigerian universities and colleges face challenges in developing and implementing ICT policies. Limited technical expertise among staff, resistance to change due to unfamiliarity with digital tools, fragmented governance structures, and financial constraints all hinder effective policy operationalization (Oyelaran-Oyeyinka & Lal, 2020). Resistance may stem from fear of increased workload or scepticism about the benefits of technology. In many cases, ICT initiatives fail to achieve their intended objectives because there is no structured policy guiding their integration into institutional workflows.

To overcome these challenges, institutions must engage stakeholders in policy formulation, ensuring input from academic, administrative, and technical staff. Policies should be aligned with national education goals and NUC directives to facilitate compliance, access to funding, and collaboration with external partners. Additionally, integrating monitoring and evaluation mechanisms, including key performance indicators, can help institutions track policy effectiveness over time (Selwyn, 2016). Continuous professional development for staff further ensures compliance with policies and enhances ICT adoption.

Implementing comprehensive ICT policies has direct implications for institutional efficiency. Centralized digital records streamline administrative processes such as student registration, payroll, and grading, while structured guidelines for e-learning and research collaboration enhance academic productivity (Adeoye & Elegunde, 2019). Institutions that adopt these policies consistently experience reduced redundancy, improved transparency, and evidence-based decision-making. In conclusion, developing clear ICT policies is a strategic imperative for Nigerian higher education, and institutions must prioritize stakeholder engagement, alignment with national frameworks, and continuous monitoring to optimize ICT adoption and institutional efficiency.

2. Invest in Robust ICT Infrastructure

ICT infrastructure the hardware, software, and networking systems is the foundation for digital transformation in higher education. In Nigeria, many tertiary institutions, including the College of Education, Warri, face infrastructural limitations such as insufficient computer labs, unreliable internet connectivity, and frequent power outages (Almalki, Gray, & Martin-Sanchez, 2022). Without robust infrastructure, administrative and academic operations are significantly hindered, affecting everything from student registration to course delivery and research collaboration. Strategic investment in ICT infrastructure enables institutions to meet national standards, improve operational efficiency, and remain competitive globally.

Robust infrastructure facilitates seamless administrative processes by allowing real-time access to student records, faculty schedules, and financial data. High-speed internet, cloud storage, and modern servers enable staff and students to access digital resources, participate in online lectures, and collaborate on research projects (Baker & Smith, 2020). In academic delivery, e-learning platforms, digital course management systems, and virtual libraries expand access to learning materials, promote interactive learning, and support online assessments. These capabilities are particularly important in Nigerian institutions, where rapid student population growth and limited classroom space create pressures on traditional learning and administrative systems.

Despite its benefits, ICT infrastructure development faces several challenges in Nigeria. High procurement and maintenance costs, unstable electricity supply, rapid technological obsolescence, and limited technical expertise impede effective implementation (Adeoye & Elegunde, 2019; Alkali & Nwokolo, 2021). For example, frequent power outages disrupt server operations and online learning, while outdated hardware and software require continuous investment to remain functional. Additionally, many institutions lack ICT personnel skilled in maintaining and upgrading complex digital systems, leading to underutilization of available technology.

To address these challenges, institutions should allocate dedicated budgets for hardware, software, internet bandwidth, and maintenance, while exploring partnerships with government agencies, private sector stakeholders, and donor organizations. Backup power systems, such as generators or solar energy solutions, can mitigate electricity instability, and adopting scalable, cloud-based technologies reduces risks of obsolescence. Training ICT personnel ensures that systems are properly maintained, upgraded, and aligned with institutional needs.

Investing in robust ICT infrastructure significantly enhances institutional efficiency by automating administrative tasks, streamlining course delivery, and facilitating data-driven decision-making. Nigerian institutions would benefit from equitable access to digital resources, improved operational speed, and reduced redundancy, positioning them for sustainable academic and administrative excellence. In conclusion, strategic investment in ICT infrastructure is a critical enabler of institutional efficiency, supporting both operational effectiveness and quality education delivery.

3. Enhance Digital Literacy and Capacity Building

Digital literacy and capacity building are critical for effective ICT adoption in higher education. In Nigerian tertiary institutions, staff and students often have limited experience with digital tools and platforms, which constrains the potential benefits of ICT (Okoye & Nwankwo, 2020; Ezeani & Ezema, 2018). Without sufficient skills, staff may struggle to use learning management systems, maintain digital records, or leverage e-learning tools effectively. Similarly, students may fail to engage fully with online course materials or assessments, limiting academic outcomes. Enhancing digital literacy ensures that all stakeholders can participate meaningfully in the digital ecosystem and maximizes the returns on ICT investments.

Capacity building initiatives in Nigeria have included workshops, training programs, and certification courses aimed at improving staff competencies in ICT use (Afolabi et al., 2019). These programs cover areas such as digital record-keeping, online pedagogy, data analysis, and cybersecurity. They also foster a culture of continuous learning, enabling staff to adapt to new technologies and innovations. Peer-learning initiatives and mentorship programs have proven particularly effective in Nigerian institutions, as they encourage knowledge sharing and practical skill development.

Challenges to digital literacy and capacity building include limited institutional funding for training programs, resistance from staff who perceive ICT as increasing workload, and a lack of qualified trainers to deliver context-specific programs (Okoye & Nwankwo, 2020). Furthermore, disparities in access to devices and internet connectivity between campuses can exacerbate skill gaps, especially in state-funded colleges with limited infrastructure.

To overcome these challenges, Nigerian higher education institutions should integrate ICT training into professional development programs and allocate specific budgets for continuous capacity building. Collaborations with technology providers, NGOs, and government initiatives can provide additional resources and expertise. Incorporating ICT competency modules into faculty and student curricula also ensures systematic skill development.

Effective digital literacy and capacity building have significant implications for institutional efficiency. Staff who are proficient in digital tools can automate administrative tasks, enhance online course delivery, and contribute to research collaboration using ICT platforms. Students with higher digital literacy are better able to navigate e-learning environments, submit assignments, and participate in online assessments, resulting in improved learning outcomes. In conclusion, sustained investment in digital literacy is essential for Nigerian higher education institutions to fully harness ICT for operational efficiency and academic excellence.

4. Implement Integrated Management Systems

Integrated Management Systems (IMS) such as Learning Management Systems (LMS), Management Information Systems (MIS), and digital library platforms are key to streamlining administrative and academic operations in higher education. In Nigeria, tertiary institutions manage large student populations across multiple campuses, making traditional paper-based processes inefficient and prone to errors (Adeoye & Elegunde, 2019). IMS provides a centralized platform for managing student records, faculty schedules, course

delivery, assessments, and financial reporting, thereby reducing redundancies and enhancing operational effectiveness.

The importance of integrated systems is evident in improving coordination and promoting data-driven decision-making. For instance, an MIS allows administrators to track enrolment trends, monitor faculty performance, and evaluate departmental efficiency, while LMS platforms support interactive teaching and real-time monitoring of student engagement and learning outcomes (Ezeani & Ezema, 2018). Digital library systems expand access to academic resources, enabling faculty and students to conduct research efficiently. When implemented effectively, integrated management systems contribute to transparency, accountability, and overall institutional efficiency.

Despite these benefits, Nigerian institutions face challenges in implementing integrated systems. Technical issues such as software incompatibility, limited interoperability between platforms, and inadequate ICT support hinder seamless integration (Adeoye & Elegunde, 2019). Additionally, limited technical skills among staff, resistance to change, and insufficient funding for system acquisition and maintenance further impede adoption. These challenges often result in underutilized systems or fragmented deployment, reducing the potential impact on institutional efficiency.

Strategies to overcome these barriers include adopting scalable and interoperable platforms that can be customized to institutional needs, ensuring staff are adequately trained in system use, and allocating resources for ongoing system maintenance and upgrades (Baker & Smith, 2020). Involving stakeholders in system design and implementation fosters ownership and facilitates smoother adoption across departments. Regular monitoring and feedback mechanisms also help institutions identify issues and optimize system performance.

The implications of implementing integrated management systems are substantial. Automated administrative processes reduce manual errors, save time, and allow staff to focus on value-adding activities such as teaching and research. For students, seamless access to course materials, assessment submission, and feedback enhances engagement and academic performance. In Nigerian higher education, IMS enables equitable access to digital resources, promotes operational transparency, and supports evidence-based decision-making. In conclusion, integrated management systems are vital tools for enhancing institutional efficiency, and Nigerian institutions must prioritize scalable, interoperable, and well-maintained systems for sustainable academic and administrative improvements.

5. Strengthen Leadership and Governance

Effective leadership and governance are central to the successful adoption of ICT in Nigerian higher education. Leaders set the vision for digital transformation, allocate resources, and foster a culture that embraces technology (Huang & Rust, 2021; Adeoye & Elegunde, 2019). Proactive leadership ensures ICT initiatives are aligned with institutional goals, integrated across academic and administrative functions, and embraced by staff and students.

Governance structures provide accountability through policies, reporting systems, and performance indicators (Okoye & Nwankwo, 2020). In Nigeria, where bureaucratic inertia and resistance are common, clear frameworks that define responsibilities, streamline

decision-making, and incentivize ICT use are critical. Leaders who demonstrate digital competence and support capacity-building further strengthen adoption.

To enhance leadership and governance, institutions should invest in ICT training for administrators, embed ICT into strategic plans, and encourage participatory decision-making. Incentives for staff engagement, transparent reporting, and continuous monitoring promote accountability and sustainability (Baker & Smith, 2020). Strong leadership and governance ultimately streamline administration, optimize resource use, and improve academic productivity.

6. Monitor, Evaluate, and Continuously Improve ICT Initiatives

Monitoring and evaluation (M&E) of ICT initiatives are vital for ensuring that investments lead to tangible improvements in institutional efficiency. In Nigerian higher education, many institutions struggle to assess ICT programs due to fragmented systems, limited expertise, and weak performance indicators (Luckin et al., 2016; Okoye & Nwankwo, 2020). Without regular assessment, inefficiencies persist, resources may be misallocated, and opportunities for improvement lost. Systematic M&E helps identify gaps, measure effectiveness, and adapt ICT initiatives to evolving needs. Effective M&E requires establishing key performance indicators (KPIs) such as infrastructure usage, digital literacy, e-learning engagement, and administrative efficiency (Selwyn, 2016). Data from surveys, system logs, and reports support evidence-based decision-making. In resource-constrained Nigerian contexts, M&E ensures that ICT investments deliver measurable outcomes while promoting accountability to stakeholders like the Federal Ministry of Education, NUC, and governing councils.

Challenges include limited technical capacity, lack of standardized frameworks, insufficient funding, and staff resistance to evaluation (Adeoye & Elegunde, 2019). Inconsistent data collection further hinders accurate assessment. To address these barriers, institutions should design comprehensive M&E frameworks with clear objectives, suitable metrics, trained personnel, and regular reporting. Integrating feedback loops enables continuous refinement of ICT strategies, better resource allocation, and greater efficiency (Baker & Smith, 2020). Collaboration with external evaluators can also strengthen M&E capacity.

The implications are significant: ongoing assessment ensures ICT systems align with institutional goals, improve administration, support academic delivery, and enhance efficiency. As Edakpor and Edakpor (2025) note, one key purpose of M&E in education is to promote accountability and evidence-based decision-making. Ultimately, systematic monitoring, evaluation, and continuous improvement are essential for maximizing ICT benefits in higher education.

CONCLUSION

Strategic adoption of Information and Communication Technology (ICT) is vital for enhancing efficiency in Nigerian higher education. Key strategies including ICT policies, robust infrastructure, digital literacy, integrated management systems, leadership, and continuous monitoring support operational efficiency, academic productivity, and transparency. Challenges such as limited funding, technical gaps, infrastructure deficits, resistance to change, and fragmented governance must be addressed through coordinated

efforts. When systematically implemented and monitored, ICT serves as a strategic enabler, optimizing resources, promoting accountability, and fostering excellence in Nigerian tertiary institutions.

Recommendations

The following recommendations were proposed to enhance the adoption and effective utilization of ICT in Nigerian higher education:

1. **Policy Development:** Institutions should prioritize the formulation and implementation of clear ICT policies to provide direction and ensure sustainable digital transformation.
2. **Capacity Building:** Regular training and professional development programs should be instituted to equip staff and students with the necessary digital skills for effective ICT utilization.
3. **Infrastructure Enhancement:** Investments should be made in upgrading and maintaining ICT infrastructure to support seamless academic and administrative operations.
4. **Monitoring Mechanisms:** Robust monitoring and evaluation systems should be established to track progress, ensure accountability, and promote continuous improvement in digital initiatives.

REFERENCES

- Adeoye, F. A., & Elegunde, A. T. (2019). Leadership and governance in the digital transformation of Nigerian universities. *Journal of Educational Administration and Policy Studies*, 11(2), 45–56.
- Afolabi, F., Ogunleye, A., & Ige, O. (2019). Digital literacy and capacity building in Nigerian higher education. *Nigerian Journal of Educational Technology*, 6(1), 23–37.
- Alkali, M., & Nwokolo, J. (2021). Challenges in ICT infrastructure development in Nigerian tertiary institutions. *International Journal of Education and Development using ICT*, 17(2), 89–102.
- Almalki, A., Gray, K., & Martin-Sanchez, F. (2022). The role of ICT infrastructure in enhancing institutional performance in higher education. *International Journal of Educational Technology in Higher Education*, 19(1), 1–18.
- Baker, T., & Smith, L. (2020). Digital transformation and data-driven decision-making in universities. *Higher Education Quarterly*, 74(3), 245–263.
- Bates, A. W. (2019). *Teaching in a digital age: Guidelines for designing teaching and learning* (2nd ed.). Vancouver: Tony Bates Associates Ltd.
- Edakpor, E. & Edakpor, E.E. (2025). *Foundations of programme monitoring and evaluation*. Press Publisher
- Ezeani, C. N., & Ezema, I. J. (2018). Adoption of integrated management systems in Nigerian universities. *African Journal of Educational Research*, 12(2), 55–71.
- Huang, M.-H., & Rust, R. T. (2021). Artificial intelligence in service. *Journal of Service Research*, 24(1), 3–23
- Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). *Intelligence unleashed: An argument for AI in education*. London: Pearson.

- Nwafor, C. (2018). ICT adoption in Nigerian higher education institutions: Challenges and prospects. *African Journal of Educational Technology*, 7(1), 12–25.
- Ojo, A. (2017). Institutional efficiency in Nigerian universities: Resource utilization and administrative effectiveness. *Nigerian Journal of Educational Administration and Planning*, 17(3), 67–81.
- Okoye, R., & Nwankwo, C. (2020). Governance frameworks for ICT adoption in Nigerian tertiary institutions. *International Journal of Education and Development using ICT*, 16(2), 101–118.
- Oyelaran-Oyeyinka, B., & Lal, K. (2020). Digital transformation and ICT policy in African universities: A Nigerian perspective. *Information Development*, 36(4), 501–515.
- Selwyn, N. (2016). *Education and technology: Key issues and debates* (2nd ed.). London: Bloomsbury Academic.



**A PHILOSOPHICAL APPRAISAL OF FREEDOM AND RESPONSIBILITY IN
JEAN-PAUL SARTRE: IMPLICATIONS FOR NIGERIAN YOUTH**

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ABSTRACT

This paper examines the question of agency among Nigerian youth through the philosophical framework of Jean-Paul Sartre's existentialism. Contemporary Nigerian society presents a paradox in which young people possess the capacity for self-determination, yet frequently evade the responsibility that accompanies such freedom. This tendency is reflected in the growing normalisation of internet fraud, ritual practices, and the pursuit of unearned wealth. Drawing on Sartre's principle that existence precedes essence, this paper argues that individuals construct their identities through deliberate choices rather than predetermined conditions. The analysis identifies a pervasive condition of *mauvaise foi* (bad faith), where structural constraints such as corruption, poverty and poor governance are invoked to justify ethical compromise. Through an exploration of the dialectic between facticity and transcendence, this paper contends that external limitations do not eliminate freedom but define the context in which it is exercised. To address this concern, this paper develops an existential reawakening model (ERM), a framework designed to promote ethical agency and responsible action among Nigerian adolescents. It further advocates the formation of Sartre a collective as spaces for civic engagement and accountability. This paper therefore concludes that national transformation depends on the willingness of young people to embrace responsibility and reject self-deception.

Keywords: Existentialism, Freedom and Responsibility, Nigerian Youth, Agency, Facticity and Transcendence

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INTRODUCTION

Nigeria's socio-economic environment presents a complex setting in which adolescents and young adults navigate uncertainty, opportunity, and constraint. While the country possesses a youthful population with significant potential, this potential is often undermined by structural challenges such as unemployment, inequality, governance deficits, and significant others regarding adolescents as people who cannot think for themselves (Sele & Zongo, 2025; World Bank, 2025; Ireyefoju, 2015, 2014). These conditions have contributed to behavioural patterns that raise critical philosophical concerns about responsibility and ethical agency.

The increasing normalisation of cyber fraud and ritualised wealth acquisition reflects a deeper crisis of values. Such practices are often justified through narratives of survival and systemic failure. However, these explanations raise an enduring philosophical question regarding the extent to which individuals remain responsible for their actions in constrained environments (Okpanachi, 2023).

Jean-Paul Sartre's existential philosophy provides a rigorous framework for addressing this issue. His assertion that existence precedes essence challenges deterministic interpretations of human behaviour and emphasises the centrality of rational choice in shaping identity (Sartre, 1973). From this perspective, individuals are not defined by their circumstances but by how they respond to them. Then, this paper argues that, although Nigerian youth operate within significant structural constraints, these constraints do not eliminate responsibility. Rather, they define the context within which freedom must be exercised. The tendency to attribute unethical behaviour solely to external factors reflects a condition of bad faith, where individuals deny their freedom to avoid responsibility.

THEORETICAL FRAMEWORK

This paper is anchored on the comparative philosophical perspective of "existence precedes essence" of Jean-Paul Sartre, Heidegger, Kierkegaard and African philosophy. The proposition that existence precedes essence stands at the centre of Jean-Paul Sartre's existential philosophy. It marks a decisive break from essentialist traditions that assume human beings possess a predetermined nature. Instead, Sartre argues that individuals first exist and subsequently define themselves through their actions (Ireyefoju, 2014; Sartre, 1973). This position places human beings as self-creating agents, responsible for the meanings they bring into existence.

In classical metaphysical systems, particularly those influenced by Aristotelian and theological thought, essence is prior to existence. Human beings are assumed to have a fixed purpose or nature that precedes their lived experience. Sartre rejects this framework, maintaining that no such preordained essence governs human life. Unlike artefacts, whose design precedes their production, human beings emerge without a defined purpose and must construct their identity through conscious engagement with the world (Ireyefoju, 2014; Sartre, 1956).

This formulation places freedom at the centre of human existence. If there is no predetermined essence, then individuals are entirely responsible for what they become. However, Sartre's position gains further depth when examined alongside the philosophical contributions of Søren Kierkegaard and Martin Heidegger, both of whom significantly influenced existential thought, as well as perspectives from African philosophy that provide a culturally grounded reinterpretation of "agency" and "being."

Kierkegaard's philosophy, often regarded as a precursor to existentialism, emphasises the primacy of individual existence and subjective truth. While he does not explicitly formulate the principle that existence precedes essence, his insistence on personal choice and inwardness anticipates Sartre's argument. Kierkegaard (1985) contends that truth is not merely an objective reality but something that must be appropriated subjectively. For him, the individual becomes authentic through decisive commitment, particularly in the face of uncertainty and anxiety. This notion of existential choice aligns with Sartre's emphasis on self-definition, though Kierkegaard places this process in a theistic framework, where the individual's ultimate relationship is with God. Sartre, by contrast, removes this theological foundation, thereby intensifying the burden of responsibility. Without divine guidance, individuals must create values independently, a condition that amplifies both freedom and anxiety.

Heidegger's contribution further complicates the discussion. In his *Being and Time*, Heidegger (1962) introduces the concept of *Dasein*, (being-there), to describe human existence as fundamentally situated and relational. Unlike Sartre, Heidegger does not frame existence in terms of radical freedom alone but emphasises the embeddedness of individuals in a world of meanings, traditions, and social relations. For Heidegger, existence is characterised by *Geworfenheit* (thrownness), the condition of finding oneself already in a particular situation. This notion closely corresponds to Sartre's concept of facticity. However, Heidegger also introduces the idea of "authenticity," which involves recognising one's finite existence and taking ownership of one's possibilities.

While Sartre extends Heidegger's insights by foregrounding freedom and responsibility, Heidegger remains more attentive to the ontological structure of existence. Sartre's emphasis on choice can be seen as a radicalisation of Heidegger's notion of projection, where individuals orient themselves towards future possibilities. The difference lies in Sartre's insistence that individuals are entirely responsible for these projections, whereas Heidegger places them within a broader existential structure that includes historical and social dimensions.

When these European perspectives are placed alongside African philosophy, a richer and more context-sensitive understanding emerges. African philosophical traditions often emphasise relationality, community, and interdependence as central to human existence. Concepts such as *Ubuntu* (expressed as a person is a person through other persons), challenge the individualistic orientation of Sartrean existentialism. From this perspective, identity is not solely self-created but is influenced through relationships and communal belonging.

Nevertheless, African existential thought does not negate the importance of individual agency. Rather, it reframes it in a communal context. Scholars have argued that authenticity in African settings involves balancing personal freedom with social responsibility (Akpa et al., 2023). This perspective complements Sartre's emphasis on responsibility by extending it beyond the individual to include obligations to the community. In this sense, while Sartre focuses on individual self-definition, African philosophy underscores the ethical implications of that self-definition in a network of social relations.

Moreover, African existential perspectives often engage with the realities of colonial history, socio-economic inequality, and cultural transformation. These contexts introduce additional layers to the concept of existence preceding essence. For many African societies, the process of self-definition occurs in conditions influenced by historical and structural forces. Yet, as in Sartre's framework, these conditions do not eliminate agency. Instead, they highlight the tension between constraint and possibility, reinforcing the idea that individuals

must navigate and respond to their circumstances rather than passively accept them (Egbekpalu, 2022).

In the Nigerian context, this comparative framework provides valuable insight into the challenges facing youth. Structural conditions such as unemployment and inequality create a sense of limitation, while cultural and communal expectations influence decision-making. At the same time, globalisation and technological change expose young people to new possibilities and values. Within this complex environment, the principle that existence precedes essence serves as a reminder that individuals are not merely products of their circumstances.

However, the integration of African philosophical perspectives suggests that this principle must be interpreted with sensitivity to communal realities. Freedom is not exercised in isolation but within a network of relationships that shape and are shaped by individual choices. Responsibility, therefore, extends beyond personal accountability to include the impact of one's actions on others.

The comparative analysis also highlights the role of anxiety and uncertainty in human existence. Kierkegaard views anxiety as a necessary condition for authentic choice, while Heidegger interprets it as revealing the fundamental nature of being. Sartre similarly sees anxiety as an expression of freedom, arising from the recognition that individuals are responsible for their actions. In the Nigerian context, where uncertainty is often intensified by socio-economic challenges, anxiety can either motivate responsible action or lead to avoidance and bad faith.

Recent studies on youth development in Africa emphasise the importance of equipping young people with the skills needed to navigate this uncertainty. Critical thinking, adaptability, and ethical awareness are essential for exercising freedom effectively (Akongo et al., 2025). These competencies enable individuals to move beyond deterministic interpretations of their circumstances and engage in purposeful action.

Generally, the concept that existence precedes essence, when viewed through a comparative lens, reveals both its strengths and its limitations. Sartre's emphasis on freedom and responsibility provides a powerful framework for understanding human agency. Kierkegaard's focus on subjective commitment highlights the importance of personal authenticity, while Heidegger's analysis of being underscores the situated nature of existence. African philosophy, in turn, enriches the discussion by emphasising relationality and communal responsibility.

Together, these perspectives offer a more comprehensive understanding of human existence, one that recognises the interplay between individuality and community, freedom and constraint, responsibility and context. For Nigerian youth, this synthesis provides a compelling framework for navigating the challenges of contemporary society. It affirms their capacity for self-definition while acknowledging the realities that shape their experience.

Conceptual Clarification:

Agency refers to the individual's capacity to initiate action and create meaning through conscious choice. In Sartrean philosophy, this capacity is inherent and cannot be extinguished by external conditions (Sartre, 1956). Human beings remain agents even in situations of constraint. Recent scholarship on African existential thought reinforces this position by emphasising authenticity as a pathway to development. Authentic agency involves recognising one's freedom and acting in ways that reflect deliberate self-definition (Akpa et

al., 2023). This suggests that young people retain the ability to choose ethical pathways despite structural challenges.

Freedom, in Sartre's existentialism, is an unavoidable condition of existence. Individuals are compelled to choose, even when they attempt to avoid decision-making (Sartre, 1956). This understanding challenges narratives that present individuals as passive victims of circumstance. Studies on youth development in sub-Saharan Africa indicate that the ability to exercise choice is closely linked to the development of critical thinking and adaptive skills (Akongo et al., 2025). This reinforces the argument that freedom must be understood not merely as a philosophical abstraction but as a practical capacity that can be cultivated.

Choice is the manifestation of freedom in action. Because, freedom is the capacity to make a choice. It is the one that is free that can make a choice. The idea of choice in existentialism sits at the very heart of the tradition, not as a casual preference between options, but as a profound, often unsettling condition of human existence. To speak of choice is to step into an environment where the individual stands, as it were, without a pre-written script, compelled to author their own life under conditions of uncertainty, responsibility, and freedom (Ireyefoju, 2014).

Existentialist thinkers, though diverse in outlook, converge on one central conviction: human beings are fundamentally free, and this freedom is expressed through choice. Sartre captures this vividly when he said “unlike objects whose purposes are predetermined, human beings first *exist* and only later define themselves through their actions” (Sartre, 2007). Choice, therefore, is not merely something humans do; it is the very mechanism through which they *become*. Each decision, whether grand or trivial, contributes to an ongoing construction of one's identity.

Yet this freedom is not a light, playful liberty. It carries weight, even gravity. Sartre insists that individuals are “condemned to be free,” a phrase that reveals the paradox at the core of existential choice (Sartre, 2007). One cannot escape choosing. Even refusal to choose is itself a choice. This inescapability generates what existentialists describe as “anguish” or “existential anxiety.” Søren Kierkegaard explores this in his notion of “dread” or “angst”, where the individual becomes aware of the dizzying openness of possibilities before them (Kierkegaard, 2014). Choice, in this sense, is like standing at the edge of a vast cliff, not because one must fall, but because one *could*.

Closely tied to this is the idea of responsibility. In existentialism, choice is never isolated from its consequences. Sartre argues that when an individual chooses, they do not only define themselves but implicitly affirm a vision of humanity. In choosing what one ought to be, one simultaneously declares what one believes all humans ought to be (Ireyefoju, 2014; Sartre, 2007). This universalising dimension intensifies the burden of choice, making it both a personal and ethical act. There is no external authority, divine command, or fixed moral law to absolve the individual of this responsibility. The individual stands alone, answerable for their decisions.

However, existentialists are equally concerned with the ways individuals attempt to evade this burden, which he termed as *mauvaise foi* (bad faith), a form of self-deception in which individuals deny their freedom by pretending they are determined by roles, social expectations, or external circumstances (Sartre, 2018). A person who claims “I had no choice” is, in existentialist terms, masking their freedom to avoid the discomfort of responsibility. Authentic existence, by contrast, requires an honest acknowledgement of one's freedom and the courage to choose in full awareness of its implications.

Martin Heidegger offers a slightly different, though complementary, perspective. For Heidegger, human beings (*Dasein*) are always already “thrown” into a world not of their choosing, shaped by history, culture, and circumstance (Heidegger, 2010). Yet within this thrownness lies the possibility of authentic choice. Authenticity emerges when individuals take ownership of their existence rather than simply conforming to the anonymous norms of *das Man* (the They). Choice here is not about arbitrary decision-making, but about resolutely embracing one’s finite existence and acting in accordance with a self-understood possibility.

Simone de Beauvoir (2015) deepens the discussion by situating choice within social and ethical contexts. She emphasises that while individuals are free, their freedom is often constrained by material and social conditions, particularly in relation to gender (de Beauvoir, 2015). Nonetheless, she maintains that freedom is realised through projects that affirm both oneself and others. Ethical choice, therefore, involves recognising the interdependence of human freedom. One’s choices ought not negate the freedom of others but contribute to its expansion (Ireyefoju, 2014).

Albert Camus, though sometimes positioned at the margins of existentialism, brings an additional nuance through his philosophy of the absurd. In a world devoid of inherent meaning, the act of choosing becomes an act of defiance. For Camus, to choose is to revolt against absurdity, to create meaning where none is given (Camus, 2013). The individual who continues to choose, to act, and to live passionately despite the absence of ultimate justification embodies a form of existential heroism.

Taken together, existentialist reflections on choice reveal a rich and complex picture. Choice is not simply about selecting between alternatives; it is the defining feature of human existence. It is through choice that individuals shape their identities, confront their freedom, assume responsibility, and strive for authenticity. At the same time, choice exposes individuals to anxiety, uncertainty, and the temptation of self-deception. In the final analysis, existentialism presents choice as both a burden and a gift. It is a burden because it places the weight of existence squarely on the individual’s shoulders, without recourse to absolute certainties. Yet it is also a gift because it affirms the individual’s capacity to create meaning, to define themselves, and to participate actively in the unfolding of their own existence. In this delicate tension, existential choice becomes not just a philosophical concept, but a lived drama, unfolding in every decision, every hesitation, and every act of becoming.

Responsibility is inseparable from freedom. If individuals are free, they must also be accountable for their actions. Sartre’s position extends responsibility beyond the individual, suggesting that human actions contribute to defining broader social values (Sartre, 1973). In contemporary Nigeria, the erosion of moral accountability has been linked to governance challenges and social instability (Okpanachi, 2023). This underscores the need to reassert responsibility as a central ethical principle.

Nigerian Youth occupy a critical position within the socio-economic landscape. High levels of unemployment and underemployment create conditions of uncertainty and frustration (Sele & Zongo, 2025). These conditions can lead to both negative and positive outcomes. Research indicates that youth in Africa can function as agents of either conflict or peace, depending on how they engage with their circumstances (Mbukop, 2025). This dual potential highlights the importance of fostering responsible agency.

Existential Reawakening Model (ERM) provides a structured framework for cultivating authentic agency. It unfolds as a developmental process. The initial stage involves critical awareness, where individuals recognise the distinction between their circumstances and their capacity for choice. This stage requires confronting self-deception and

acknowledging responsibility. The second stage centres on deliberate action. Individuals commit to constructive pursuits that reflect intentional decision-making. Such actions align with broader findings that skill development and purposeful engagement enhance youth agency (Akongo et al., 2025). The third stage emphasises collective engagement. Participation in communities that promote accountability strengthens ethical behaviour. This aligns with evidence that social structures influence youth behaviour and civic participation (Akinyetun et al., 2023). The final stage involves continuous self-evaluation. Authentic existence requires ongoing reflection and adjustment.

Challenges to Freedom and Responsibility

Multiple constraints influence the exercise of freedom among Nigerian youth. Economic hardship remains a significant factor. High unemployment creates pressures that may encourage unethical behaviour (Sele & Zongo, 2025). Cultural beliefs also influence behaviour. In some cases, emphasis on fate or external forces reduces the perceived importance of personal responsibility (Egbekpalu, 2022).

Educational limitations further constrain agency. Systems that prioritise certification over critical thinking may fail to equip individuals with the skills needed for independent decision-making. So also, is it with a system that encourages theoretical knowledge over and above technical knowledge (Akongo et al., 2025; Ireyefoju & Mogbeyiteren, 2009).

Political dynamics contribute to disillusionment. Governance challenges weaken trust in institutions and discourage civic engagement (Okpanachi, 2023).

Psychological factors, including uncertainty and anxiety, can also inhibit action. These interconnected challenges create a complex environment, yet they do not eliminate the possibility of responsible choice.

METHODOLOGY

This study adopts a qualitative descriptive design grounded in systematic literature review and policy analysis. The approach allows for the integration of philosophical and empirical perspectives. Data were sourced from peer-reviewed journals, policy reports, and institutional publications. Selection criteria focused on relevance and credibility. Thematic analysis was employed to identify patterns and relationships. Validity was enhanced through source triangulation and adherence to established research standards (Creswell & Creswell, 2018).

Facticity and Transcendence

The dialectical relationship between facticity and transcendence occupies a central position in Sartre's existential ontology and provides a nuanced framework for understanding human action. Facticity refers to the given conditions of human existence. These are the unchosen aspects of life such as one's birth, socio-economic background, historical moment, heredity, poverty, corruption, and cultural environment. These elements constitute the concrete reality within which individuals find themselves. Transcendence, on the other hand, denotes the human capacity to project beyond these conditions through conscious choice, imagination, and action (Sartre, 1956). Together, these concepts capture the tension between limitation and possibility that defines the human condition.

Sartre's treatment of facticity does not deny the weight of circumstances. Rather, he insists that these conditions, however restrictive, do not fully determine human behaviour. Individuals are always more than the sum of their situations because they possess the ability

to interpret, evaluate, and respond to them. This capacity for transcendence is what distinguishes human existence from mere objecthood. While objects are confined to what they are, human beings are characterised by what they are not yet; they are always in the process of becoming. In this sense, transcendence is not an occasional act but a continuous feature of existence.

The relationship between facticity and transcendence is neither symmetrical nor static. Facticity provides the ground upon which transcendence operates, yet transcendence continually redefines the significance of facticity. For instance, poverty, unemployment, or limited access to education may constrain opportunities, but they do not prescribe a singular response. Individuals may interpret such conditions in ways that either reinforce passivity or inspire creative adaptation. Sartre (1956) emphasises that even refusal to act constitutes a choice, thereby reaffirming the inescapability of responsibility.

This perspective becomes particularly salient when applied to contemporary Nigerian society. Many young people navigate environments marked by economic precarity, institutional instability, and social pressure. These conditions form part of their facticity. However, the tendency to attribute unethical practices solely to these constraints reflects what Sartre describes as *bad faith*, a mode of self-deception in which individuals deny their freedom to evade responsibility. By presenting themselves as products of circumstance, they obscure their role as agents capable of choices (Okpanachi, 2023).

African existential scholarship provides an important extension of this discussion by situating the interplay of facticity and transcendence within a relational and communal context. While acknowledging structural limitations, African philosophers emphasise the capacity for authentic action as a means of overcoming these constraints. Authenticity, in this sense, involves recognising one's embeddedness in a network of social relations while still exercising agency in ways that promote both personal and communal flourishing (Akpa et al., 2023). This perspective does not diminish the significance of transcendence but reframes it as a process that is both individual and collective.

Furthermore, the African philosophical emphasis on historical and socio-political realities adds depth to the concept of facticity. Conditions such as colonial legacies, economic inequality, and cultural expectations are not merely abstract constraints but lived experiences that shape perception and opportunity. Yet, as Egbekpalu (2022) argues, these conditions do not negate the possibility of self-determination. Instead, they highlight the complexity of the choices individuals must make. Transcendence, in this context, involves navigating these layered realities with critical awareness and intentionality.

The interplay between facticity and transcendence also has important implications for understanding moral responsibility. If individuals are always capable of transcending their circumstances, then responsibility cannot be entirely displaced onto external factors. This does not imply that all individuals have equal opportunities or resources, but it affirms that they retain some degree of agency in shaping their responses. Responsibility, therefore, is not eliminated by constraint; rather, it is exercised within it.

At a psychological level, this tension often manifests as anxiety or uncertainty. Sartre interprets such anxiety as an expression of freedom, arising from the recognition that one is responsible for one's choices. Similarly, Kierkegaard views anxiety as the "dizziness of freedom," a necessary condition for authentic existence (Kierkegaard, 1985). In the Nigerian context, where uncertainty is often heightened by socio-economic challenges, this anxiety can either motivate responsible action or lead to avoidance and resignation. The outcome depends

largely on how individuals interpret their situation and whether they acknowledge their capacity for transcendence.

From an educational and developmental perspective, fostering the ability to navigate facticity and transcendence requires more than technical skills. It demands the cultivation of critical thinking, ethical awareness, and reflective capacity. Studies on youth development in sub-Saharan Africa emphasise that such competencies enable individuals to engage more effectively with their circumstances and pursue meaningful life projects (Akongo et al., 2025). Without these capacities, individuals may remain trapped within the confines of their facticity, unable to exercise their freedom in constructive ways.

In practical terms, the recognition of this interplay calls for a balanced approach to social policy and individual responsibility. Structural reforms aimed at reducing inequality and expanding opportunities are essential, as they reshape the conditions of facticity. At the same time, there must be an emphasis on fostering agency and accountability at the individual level. These two dimensions are not mutually exclusive but mutually reinforcing. Improved conditions enhance the scope for transcendence, while responsible action contributes to broader social transformation.

Generally, the relationship between facticity and transcendence underscores a fundamental insight of existential philosophy: human beings are neither wholly determined nor entirely unconstrained. They exist within a dynamic tension that requires continuous negotiation. For Nigerian youth, this insight offers both a challenge and an opportunity. It challenges deterministic narratives that justify unethical behaviour, while also affirming the possibility of self-directed change. By recognising their capacity to transcend their circumstances, individuals can begin to redefine not only their own lives but also the social realities in which they are embedded.

Existential Praxis Framework for Youth Transformation (EPFYT)

Sartre's existentialism is often read as a diagnosis of the burdens of freedom, yet it also carries clear practical implications for ethical transformation. Building on this insight, the

Existential Praxis Framework for Youth Transformation (EPFYT) is proposed as a praxis-oriented framework that translates existentialist principles into actionable strategies. The model is grounded in the dialectic of facticity and transcendence, presenting reawakening as a gradual movement from self-deception (*mauvaise foi*) towards responsible agency. In the Nigerian context,

Existential Praxis Framework for Youth Transformation (EPFYT) reframes adversity not as a fixed limitation but as a field of possibility, where individuals actively construct meaning and contribute to social renewal (Sartre, 1956).

Rather than a rigid sequence, the model operates as a dynamic process composed of four interrelated phases: confrontation, choice, collectivisation, and sustained becoming. Each phase is both analytical and practical, offering pathways through which Nigerian youth can engage their realities with intentionality.

The first phase centres on confronting facticity and bad faith. Reawakening begins with a clear recognition of one's circumstances, including socio-economic constraints such as unemployment, inequality, and institutional instability (National Bureau of Statistics, 2024). However, the emphasis is not merely on acknowledging hardship but on interrogating the narratives constructed around it. Sartre (1956) argues that bad faith arises when individuals deny their freedom by presenting themselves as entirely determined by circumstance.

In practical terms, this phase can be implemented through structured reflective platforms such as university-based seminars, community dialogues, or youth development workshops. For example, a programme within a Nigerian university could invite participants to critically examine common justifications for unethical practices, such as cyber fraud. Through guided discussion, participants may begin to recognise that, although economic hardship is real, the decision to engage in such practices remains a choice. This reflective process fosters a shift from passive acceptance to critical awareness, laying the foundation for responsible action.

The second phase involves radical choice and transcendence. Having recognised their freedom, individuals are encouraged to make deliberate commitments to constructive life projects. Sartre's notion of radical freedom implies that individuals can redefine their trajectory through decisive action (Sartre, 1956).

Practically, this phase can be operationalised through mentorship and innovation platforms. Youth-focused incubator programmes, for instance, can support participants in developing ethical and sustainable ventures. A young graduate in Anambra State might channel digital skills into creating an online agricultural marketplace that connects rural farmers with urban consumers. Another might develop a mobile application that promotes financial literacy among informal traders. These initiatives represent concrete acts of transcendence, where individuals move beyond limiting conditions to create value-driven alternatives. Such engagements reinforce the dignity of labour and demonstrate that freedom can be expressed through productive contribution rather than exploitative practices.

The third phase emphasises collectivising authenticity. While Sartre's early work foregrounds individual responsibility, his later writings acknowledge the importance of collective engagement in shaping social realities (Sartre, 1960). Existential Praxis Framework for Youth Transformation (EPFYT) extends this insight by promoting the formation of collaborative networks that reinforce ethical agency.

In the Nigerian context, this can take the form of youth-led associations, cooperatives, or civic groups that operate on principles of shared responsibility. For example, a group of young professionals might establish a cooperative focused on sustainable agriculture, pooling resources and expertise to create employment opportunities within their community. Similarly, civic organisations can mobilise young people to participate in electoral processes, encouraging informed voting and discouraging practices such as vote-buying. Initiatives like those led by organisations such as Yiaga Africa (2024) demonstrate how collective action can strengthen democratic participation and accountability. Through such structures, individual commitments are reinforced by communal support, reducing the likelihood of regression into self-deception.

The final phase involves sustaining, becoming and continuous evaluation. Sartre's conception of existence as an ongoing process implies that authenticity is never fully achieved but must be continually renewed (Sartre, 1956). This, therefore, emphasises reflection, adaptation, and accountability.

Practically, this can be implemented through periodic evaluation mechanisms within organisations and communities. Youth groups, for instance, may conduct annual reviews of their activities, assessing outcomes such as employment generation, civic engagement, and adherence to ethical standards. Digital platforms can also facilitate peer accountability by allowing participants to share progress, challenges, and lessons learned. A cooperative enterprise might track its growth in membership and revenue while also evaluating its social

impact on the local community. These processes ensure that reawakening is sustained rather than temporary, reinforcing a culture of continuous self-improvement.

The relevance of Existential Praxis Framework for Youth Transformation (EPFYT) is evident in contemporary Nigerian experiences. The #EndSARS movement, for example, demonstrated how young people can transcend apathy and assert agency in response to systemic injustice (Akinwotu, 2024). Although the movement faced significant challenges, it illustrated the potential for collective action based on ethical conviction. Such examples suggest that the principles underlying Existential Praxis Framework for Youth Transformation (EPFYT) are not merely theoretical but can be realised in practice.

It is important, however, to acknowledge potential critiques. Some may argue that the model places excessive emphasis on individual responsibility in contexts where structural constraints are severe. While this concern is valid, Existential Praxis Framework for Youth Transformation (EPFYT) does not deny the importance of systemic reform. Rather, it operates on the premise that meaningful transformation requires both structural change and individual agency. As Sartre (1960) suggests, freedom is exercised within conditions that it simultaneously critiques and seeks to transform.

Above all, the Existential Praxis Framework for Youth Transformation (EPFYT) offers a framework for navigating the complexities of contemporary Nigerian society. It challenges deterministic narratives while recognising the realities of constraint. By encouraging critical awareness, deliberate action, collective engagement, and continuous reflection, the model positions Nigerian youth as active participants in shaping their own lives and the future of their society.

CONCLUSION

Sartre's philosophy provides a compelling framework for understanding the ethical challenges facing Nigerian youth. While structural conditions impose constraints, they do not eliminate freedom. The future of Nigeria depends on how young people respond to these conditions. Embracing responsibility is essential for meaningful transformation.

Implications for National Transformation

The implications of this analysis extend to national development. Youth engagement in productive and ethical activities is essential for social stability and economic growth. Research suggests that equipping young people with relevant skills and fostering civic responsibility can enhance their contribution to development (Akongo et al., 2025; Mbukop, 2025). A shift in societal values is also required, prioritising integrity and effort over material gain.

Suggestions

Efforts to promote responsible agency should include educational reforms, community engagement, and the promotion of ethical narratives. Programmes that develop critical thinking and practical skills are particularly important (Akongo et al., 2025). Strengthening civic participation through Civic Education/Social Studies, General Studies (education) at different levels of education can also enhance accountability (Akinyetun et al., 2023).

REFERENCES

Akinwotu, E. (2024). *Nigeria's Youth Crisis: Unemployment and Moral Drift*. Academic Press.

- Akinyetun, T. S., Bakare, K., & Adedini, S. O. (2023). Youth and peacebuilding: Policy implications of conflict resolution in Africa. *Journal of Contemporary Sociological Issues*, 3(1). <https://doi.org/10.19184/csi.v3i1.31263>
- Akongo, S. R., Ariapa, M., & Giacomazzi, M. (2025). What works in 21st century skills education in sub-Saharan Africa: A systematic review. *Frontiers in Psychology*, 16, 1619154. <https://doi.org/10.3389/fpsyg.2025.1619154>
- Akpa, E., Ugwu, A. K., Udom, M. S., & Ngwoke, H. C. (2023). The concept of authenticity in existentialist philosophies as a pathway to development. *International Journal of Arts and Humanities*, 11(12), 212-224.
- Camus, A. (2013). *The myth of Sisyphus* (J. O'Brien, Trans.). Penguin Classics. (Original work published 1942)
- de Beauvoir, S. (2015). *The ethics of ambiguity* (B. Frechtman, Trans.). Open Road Media. <https://doi.org/10.4324/9781315833040>
- Egbekpalu, P. E. (2022). A comparative analysis of Kierkegaardian and African existentialism. *International Journal of Research and Innovation in Social Science*, 6(3), 261-265.
- Heidegger, M. (1962). *Being and time* (J. MacQuarrie & E. Robinson, Trans.). Blackwell.
- Heidegger, M. (2010). *Being and time* (J. Stambaugh, Trans.). SUNY Press. (Original work published 1927).
- Ireyefoju, P.J. (2015). Constructing education for self-realization on the basis of Plato's human psychology. *International Letters of Social and Humanistic Sciences*, 7(2), 192-197. Doi: 10.18052/www.scrippress.com/ILSHS.48-192
- Ireyefoju, P.J. (2014). Existential phenomenology of autonomy in human relations: The dilemma of the Nigerian adolescent learner. A PhD Thesis of the University of Benin, Benin City.
- Ireyefoju, P.J. & Mogbeyiteren, Mon. (2009). Developing the critical mind in the Nigerian learner. *Nigerian Journal for Adult and Lifelong Learning*. 1(2), 12-18.
- Kierkegaard, S. (1985). *Fear and trembling* (A. Hannay, Trans.). Penguin Classics.
- Kierkegaard, S. (2014). *The concept of anxiety* (A. Hannay, Trans.). Liveright Publishing. (Original work published 1844)
- Mbukop, S. (2025). Youth at the crossroads: Balancing contributions to conflict and peace amid high unemployment in Africa. *Frontiers in Political Science*, 7, 1599788. <https://doi.org/10.3389/fpos.2025.1599788>
- Okpanachi, E. (2023). Moral values, governance, and insecurity in Nigeria: An existentialist perspective. *Journal of Philosophy, Policy and Strategic Studies*, 1(1), 45–60.
- Sartre, J.-P. (2018). *Being and nothingness* (S. Richmond, Trans.). Routledge. <https://doi.org/10.4324/9781315100562>
- Sartre, J.-P. (1973). *Existentialism is a humanism* (P. Mairet, Trans.). Methuen.
- Sartre, J.-P. (1956). *Being and nothingness* (H. Barnes, Trans.). Philosophical Library.
- Sele, J. P., & Zongo, P. K. (2025). Youth unemployment and its impact on Nigeria's socio-economic landscape. *Greener Journal of Social Sciences*, 15(1), 258–270. <https://doi.org/10.15580/gjss.2025.1.082625131>
- World Bank. (2025). *Nigeria development update: Building resilience for inclusive growth*. <https://www.worldbank.org>
- Yiaga Africa. (2024). *2023 Election Observation Report*. Yiaga



**SAFETY MANAGEMENT AND PRACTICES OF IN-LOCO PARENTIS IN EARLY
CHILDHOOD EDUCATION CENTRE IN PUBLIC PRIMARY SCHOOLS IN
DELTA CENTRAL SENATORIAL DISTRICT, NIGERIA**

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ABSTRACT

This study investigated safety management and practices of in-loco parentis in early childhood education centre in public primary schools in Delta Central Senatorial District, Nigeria. The study was guided by three objectives, three research questions, and three hypotheses. The design of study was correlational research design. The population of the study comprised all teachers in early childhood education centre in public primary schools in Delta Central Senatorial District, from which a sample of three hundred and twenty-two (322) teachers was drawn. Data were collected through validated instruments titled: "Safety Management and Practices of In-Loco Parentis in Early Childhood Education Centre Questionnaire" (SMPIPECECQ). The items contain 60 items rated on a four-point Likert scale. Validity was confirmed by three experts and reliability coefficients were 0.89 respectively. Data collection was conducted directly by the researcher and two trained assistants, while analysis employed Pearson Product Moment Correlation and simple regression at a 0.05 significance level. Findings from the study revealed significant relationship between safety management and practices of in-loco parentis in early childhood education centre in public primary schools. The study concluded that good safety management practices will lead to security safety, secure environment, which includes protecting children from physical harm and providing nurturing care. It is recommended that provisions of adequate fund for ECECs should be made by the government for its effective and smooth operation; training and retraining of ECECs staff to update their knowledge on issues concerning child care and the use of professionally trained security personnel to beef up school security and maintenance of school facilities to ensure facilities relevance in providing safe school environment

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INTRODUCTION

Educators perform academic tasks with learners and are also responsible for the emotional, psychological and physical well-being of the learners, a responsibility known as in loco parentis. Educators act in the place of a parent and execute legal responsibilities in line

with the Fundamental Rights chapter in the Nigerian Constitution, the Child Care Act (Act 74 of 2023); Domestic Violence Act (Act 16 of 1998), and the Nigerian Schools Act (Act 16 of 2023). The teacher-learner relationship compels educators to ensure risk to injury is not reasonably foreseeable for educators to be held negligent. The *in loco parentis* practice is within the school but includes 'acts associated specifically with travelling to and from school, or arriving at or waiting outside the school grounds.

Early childhood is a period of significant all-round development. Human babies enter the world with a limited range of skills and abilities. They are helpless and dependent on their parents and care givers for nurturance and protection. Irrespective of their birth conditions, all children have to be protected from harm and have their welfare promoted – whoever they are, and wherever they are. As infants grow in age, they are exposed to the early childhood education scenario. Young children then spend a large part of their day in preschools and transit. Their safety during this time is extremely important.

However, in the recent times, cases of abuse of children and issues of safety compromise at the school premises, or even accidents are increasing and are being reported in Nigeria. For instance, on January 7, 2025, a viral video captured Mrs. Stella Nwadiigbo, a teacher at Christ-Mitots Nursery and Primary School in Ikorodu, Lagos, physically, assaulting a three-year-old pupil, Abayomi Michael, for struggling with writing numerals. The video shows her repeatedly slapping and delivering fist blows to the child's face, resulting in visible injuries and swelling. Another manifestation of safety compromise was in the case of Sylvester Oromoni versus Dawey College in Lagos, where the 11 years Sylvester Oromoni was bullied, injured and eventually died as a result of severe complications. On March 13th, 2019, a three-story building in the Ita Faaji area of Lagos state, Nigeria suffered a structural collapse, killing 20 people and leaving over 40 trapped.

A nursery and primary school, (Ohen Nursery and Primary School) housing 100 pupils was located on the second floor, prior to its collapse. The governor of Lagos state when the incident happened, Akinwunmi Ambode said the primary school was illegally occupying the building as the building is registered as a residential building as reported by Adeniji (2019). Also, there was the incident of school building collapsed in Jos, Plateau state where 22 students were recorded dead and 132 injured. These incidences of safety concerned in early childhood education centres have legal implications. For example, following the video of Mrs Stella Nwadiigbo, a teacher at Christ-Mitots Nursery and Primary School in Ikorodu, Lagos physical assault a three-year-old pupil, the Family Support Unit (FSU) of the Ikorodu Police Division swiftly arrested her on January 8, 2025, and transferred her to the Gender Unit for further investigations. On January 9, 2025, Stella Nwadiigbo was arraigned before Magistrate Court 1 in Ogba, Lagos, on charges including indecent treatment of a child and assault occasioning grievous bodily harm, contravening Sections 135 and 12 of the Lagos State Criminal Law (2015). Many of these unfortunate incidents are preventable.

The researcher observation and experience have shown that there are numeral cases of safety compromise in early childhood centres in public primary schools in Delta state in general and Delta Central in particular. For instance, the case of a teacher who overfed a learner to the point of complication and eventually death and the case of a child who fell into drum of water and eventually died. These instances, may be regarded in law as negligence and tort. Therefore, the teacher *in-loco parentis* should protect and ensure the safety of the learner. There is a clear and significant role each early childhood education centres and its stakeholders have to play in the prevention, reporting and handling of safety-related accidents during the time children are entrusted to their care. Hence, the present researcher has made an

effort to examine safety management and practices of in-loco parentis in early childhood education centre in public primary schools in Delta Central Senatorial District, Nigeria.

Safety in early childhood centres cannot be ignored because of the need of providing children the needed support in an environment free from dangers, hazards and other risks. Safety management as defined by Bluff (2023) is the systematic identification of hazards, assessment and control of risks, evaluation and review of risk control measures to ensure that they are effectively implemented and maintained. Safety management reduces costs, increases efficiency and improves the morale of the teachers and learners (Hughes & Ferret, 2023). It also sustains any business as threatening accidents are averted. Through the institution of safety management in ECECs, law suits from parents and the public can be avoided and also sanctions from regulatory bodies avoided. In this regard, Oluwo (2023) and Uwogu (2024) declared that there should be a link between safety management and practices of in-loco parentis in early childhood education centre in public primary schools.

Admittedly, there seems to be a link between environmental safety and teachers' duty of care in early childhood education centre in public primary schools in Delta Central Senatorial District, Nigeria. Teachers have a duty of care to ensure the environmental safety of early childhood education centres in public primary schools by implementing safety protocols, maintaining hazardous materials and providing continuous supervision to prevent accident, and ensure children's physical, emotional, and social well-being. Teachers are to keep hazardous out of the reach of the children, creating a secure physical space, establish daily safety routines like hand washing, conducting risk assessments for the physical environment and ensure procedures for emergency and excursions are in place. Teachers are charged with the responsibilities of providing a safe space for teaching and learning. Teachers are to store or lock away potentially hazardous materials like scissors, glue and poisonous substances in high or locked cabinets. In this regard, teachers according to Abraham (2024) are expected to challenge themselves on modalities to improve the quality environment and promotion of safety habits in children. According to Botha (2024) Nigeria common law principle determine that a teacher has duty of care and protection to protect the child against danger by taking adequate care as well as precautionary measures to ensure the child's safety. Therefore, it is the duty of the teacher as in loco parentis to ensure proper management of classroom facilities such as desks/seats, require books, chart story, puppets/ dolls. Alphabet blocks/cards, number blocks/cubes, peg and peg boards, crayon/colour pencils/ water colour, mat game, magnetic colour/number line, art postal among others. It may equally be the duty of the teacher to care for the learner in managing blunt scissors, stapler, blue, paste, tape, cardboard, bell, cymbals among others which may support learners' activities in the classrooms.

Significantly, they may be a connection between health/hygiene safety and teachers' duty of supervision in early childhood education centre in public primary schools. In early childhood education, teachers supervise children to ensure their health/hygiene safety by maintaining a clean environment and teach proper habits. Teachers' supervision to ensure health and hygiene safely may be in form of proper storage and handling of cleaning chemicals, ensure clean and safe water sources, and management of waste disposal to prevent diseases transmission. Besides, the teacher, duty of supervision may entail teaching children about good hygiene practices, such as hand washing, tooth brushing, routine meal times, toiletry and helps children develop a foundation for healthy lifestyles. According to Uwogu (2024) and Oluwo (2025) teachers' duty of supervision in early childhood centres in public primary school should include keeping children in close proximity, monitor their activities of

the children in indoor and outdoor activities in the school and intervening when necessary to ensure their safety.

Nwogu (2024) further stressed that supervision helps the teachers to protect the children from harm such as abusive language, teasing and bullying and intervening to address inappropriate behaviours. Meanwhile, Akachukwu (2023) remarked that when carrying out supervision to minimize poor health and hygiene situation, teachers may ensure health and hygiene procedure and protocols are in place. The teachers may be expected not to compromise the rights of the children to experience and learning in the school. It is important to know that there are various safety practices as stated by Basic Health and Safety Practices; Child Care Providers' Guide (2017) like checking children' daily health, immunization, common childhood illnesses exclusion procedures, administering medication, nutrition and physical activity, effective hygiene to prevent the spread of germs that can cause infectious diseases, proper hand-washing procedures, diaper-changing procedures, cleaning, sanitizing and rinsing surfaces and toys, breast milk storage safety procedures, daily safety check prior to using the playground equipment's etc must be put in place to accommodate individual children's development needs, temperaments, and cultural backgrounds.

Risk assessment and teacher duty of protection in early childhood education centre in public primary schools is another crucial area of emphasis in in-loco parentis. Risk assessment involves critically evaluating the benefits and hazards of activities, environments or practices within an early childhood education centre in public primary schools. The teachers' duty of protection legally and ethically empowers teachers, the fundamental duty to protect children from harm and ensure their well-being. While eliminating risk is crucial, effective risk assessment is also considered, the benefits of appropriate risk-taking for children, such as in risky play, which helps them develop crucial self-regulation and physical skills. Teachers are to identify potential risks and develop strategies to minimize them, ensuring the safety and well-being of children by maintaining constant vigilance over children during activities, as well as, regularly discussing safety concerns with the children's families and colleagues. In this regard Owabiakaa and Idadi (2024) declared that it is the duty of teacher in-loco parentis to conduct risk assessment regularly, enact a strong visitor management programme, teach learners and staff about school safety and security requirements and the school's emergency procedures, learners, staff and parents should know safe travel routes to and from the school, every stakeholder should know and follow school security and safety measures. Moreover, the National Centre for Education Statistics (2019) maintain that for risk assessment to be effective in early childhood education centre in public primary school, it is the duty of the teachers in-loco parentis to manage pick-up list and sign out, monitor late passes, food and allergy, playground and sick-bay. It is against this background that the researcher intends to examine safety management and practices of in-loco parentis in early childhood education centre in public primary schools in Delta Central Senatorial District, Nigeria.

Statement of the Problem

In the recent times, cases of abuse of children and issues of safety compromise at the school premises, or even accidents are increasing and are being reported in Nigeria. For instance, on January 7, 2025, a viral video captured Mrs. Stella Nwadigbo, a teacher at Christ-Mitots Nursery and Primary School in Ikorodu, Lagos, physically, assaulting a three-year-old pupil, Abayomi Michael, for struggling with writing numerals. The video shows her repeatedly slapping and delivering fist blows to the child's face, resulting in visible injuries and swelling. Another manifestation of safety compromise was in the case of Sylvester Oromoni versus Dawey College in Lagos, where the 11 years Sylvester Oromoni was bullied,

injured and eventually died as a result of severe complications. On March 13th, 2019, a three-story building in the Ita Faaji area of Lagos state, Nigeria suffered a structural collapse, killing 20 people and leaving over 40 trapped. A nursery and primary school, (Ohen Nursery and Primary School) housing 100 pupils was located on the second floor, prior to its collapse. For instance, the case of a teacher who overfed a learner to the point of complication and eventually death and the case of a child who fell into drum of water and eventually died. Many of these unfortunate incidents are preventable.

Various stakeholders have reported that safety compromise in early childhood education centre have resulted in litigation. Some of these stakeholders cited the cases of Sylvester Oromoni versus Dawey College in Lagos, where the 11 years Sylvester Oromoni was bullied, injured and eventually died as a result of severe complications as well as Mrs. Stella Nwadiogo, a teacher at Christ-Mitots Nursery and Primary School in Ikorodu, Lagos, physically, assaulting a three-year-old pupil, Abayomi Michael, for struggling with writing numerals. This is an indication that the teachers while performing their duties in-loco parentis should act according to law to avoid safety compromise that may attract the intervention of legal institutions and litigation. Hence, the problem of this study posed as a question is: what is the relationship between safety management and practices of in-loco parentis in early childhood education centre in public primary schools in Delta Central Senatorial District, Nigeria?

Aim and Objectives of the Study

The aim of this study was to determine safety management and practices of in-loco parentis in early childhood education centre in public primary schools in Delta Central Senatorial District, Nigeria. Specifically, the study sought to determine:

1. ascertain the relationship between environmental safety and teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District.
2. examine the relationship between health/hygiene safety and teacher duty of supervision in early childhood education centres in public primary schools in Delta Central Senatorial District.
3. investigate the relationship between risk assessment and teacher duty of protection in early childhood education centres in public primary schools in Delta Central Senatorial District.

Research Questions

This study was guided by the following research questions:

1. What is the relationship between environmental safety and teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District?
2. What is the relationship between health/hygiene safety and teacher duty of supervision in early childhood education centres in public primary schools in Delta Central Senatorial District?
3. What is the relationship between risk assessment and teacher duty of protection in early childhood education centres in public primary schools in Delta Central Senatorial District?

Hypotheses

The following hypotheses were formulated to guide the study at 0.05 significance level:

1. There is no significant relationship between environmental safety and teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District
2. There is no significant relationship between health/hygiene safety and teacher duty of supervision in early childhood education centres in public primary schools in Delta Central Senatorial District
3. There is no significant relationship between risk assessment and teacher duty of protection in early childhood education centres in public primary schools in Delta Central Senatorial District

METHODOLOGY

Research Design

The correlational research design was used for the study. It was deemed suitable because the study sought the relationship between safety management and practices of in-loco parentis in early childhood education centre in public primary schools in Delta Central Senatorial District, Nigeria.

Population of the Study

The population of the study comprised all teachers in early childhood education centre in public primary schools in Delta Central Senatorial District. Available statistics indicate that there are one thousand eight hundred and ten (1,810) teachers in early childhood education centre in public primary schools in Delta Central Senatorial District as reported by the Ministry of Education, Asaba as at June (2024).

Sample and Sampling Technique

A total of three hundred and twenty-two (322) teachers from early childhood education centres in public primary schools in Delta Central Senatorial District made up the sample. This sample size was arrived at using the Research Advisors (2006). The multi-stage sampling technique was employed. First, stratified random sampling was used to get sixteen (16) early childhood education centres in public primary schools from four (4) local government areas in Delta Central Senatorial District. In selecting the four (4) Local Government Areas, the researcher used the stratified random sampling technique to dichotomize the schools into urban and rural schools. Thus, two (2) schools were randomly selected from the schools in urban area and two (2) from the rural schools in each local government area giving a total of four early childhood education centres in public primary schools. Having done that, simple random sampling technique was adopted to pick twenty (20) teachers from both urban and rural early childhood education centres in public primary schools in each of the sixteen (16) sampled early childhood education centres in public primary schools. Therefore, a total of three hundred and twenty (320) teachers were sampled for the study

Instrument for Data Collection

The instrument used for this study was a researcher's developed questionnaire. The questionnaire was titled: "Safety Management and Practices of In-Loco Parentis in Early Childhood Education Centre Questionnaire" (SMPIPECECQ). This questionnaire contained two sections, A and B. Section A elicited demographic information bothering on the local government, school, age, experience and location of school. Section B was designed to obtain information on safety management and practices of in-loco parentis in early childhood education centre. The response categories of the questionnaire will base on four-point Likert Scale of Strongly Agree (SA) (4 points), Agree (A) (3Points), Disagree (D) (2points) and Strongly Disagree (SD) (1point) respectively. The questionnaire contained five clusters on which respondents will be requested to indicate their opinion.

Validity of the Instrument

The validity of the research instrument was obtained through the scrutiny of the researcher's supervisor, two experts in Educational Management from the Ignatius Ajuru University, Port-Harcourt. Each of them was asked to judge the adequacy of the items of the instrument for the safety management and practices of in-loco parentis in early childhood education centre. They were requested to check the content of the items if the items adequately sampled the subject content of safety management and practices of in-loco parentis in early childhood education centre in public primary schools. Besides the above task, each of the specialists were asked to ascertain whether the instrument left out any important attributes or laid too much emphasis on one particular aspect of safety management and practices of in-loco parentis in early childhood education centre. They were asked to assess the brevity and unambiguity of the items. They assessed the instrument as adequate in face and content validity. Based on their inputs, corrections and suggestions made by the experts were affected to produce the final copy of the questionnaire.

Reliability of the Instrument

To ascertain the reliability of the instrument, a trial testing was carried out by the researcher using 30 teachers who were not part of the sample in early childhood education centres in public primary schools in Delta South Senatorial District. The reliability coefficient of the instrument was computed using Cronbach Alpha. Cronbach Alpha is used for instrument that are not dichotomously scored. The internal consistency reliability coefficient of 0.89 was obtained for the instrument. The value was judged high enough to give the confidence about the reliability of the instrument.

Method of Data Collection

The questionnaires were administered by the researcher herself and two (2) trained research assistants from the Delta State University, Warri Study Centre. The research assistants were trained for three days on the rudiments of administration and the collection of completed questionnaires. The researcher and the research assistants ensured that copies of the questionnaires were collected back after being duly responded to by the respondents.

Method of Data Analysis

The data collected were analysed with the use of Pearson Product Moment Correlational Coefficient. In testing the hypotheses formulated for the study, the researcher used simple regression at 0.05 significance level.

RESULTS

Research Question 1: What is the relationship between environmental safety and teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District?

Table 1: Relationship Between Environmental Safety and Teacher Duty of Care in Early Childhood Education Centres in Public Primary Schools

		Environmental Safety	Teacher Duty Of Care in Early Childhood Education Centres	Decision
Environmental Safety	Pearson Correlation	1	.890**	Positive Relationship
	Sig. (2-tailed)		.000	
	n	320	320	
Teacher Duty Of Care in Early Childhood	Pearson Correlation	.890**	1	

Education Centres	Sig. (2-tailed)	.000	
	n	320	320

**. Correlation is significant at the 0.05 level (2-tailed).

Table 1 shows the Pearson Product Moment Correlation result examining the relationship between environmental safety and teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District. The analysis produced a correlation coefficient of $r(318) = .890$, with a significance value of $p = .000$. This p-value is less than 0.01, indicating that the relationship is statistically significant. The positive correlation coefficient suggests that as environmental safety improves within schools, levels of teacher duty of care in early childhood education centres in public primary schools tend to decrease, showing that effective environmental safety is associated with teacher duty of care in early childhood education centres in public primary schools. The result confirms that environmental safety plays an important role in teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District.

Research Question 2: What is the relationship between health/hygiene safety and teacher duty of supervision in early childhood education centres in public primary schools in Delta Central Senatorial District?

Table 2: Relationship Between Health/Hygiene Safety and Teacher Duty of Supervision in Early Childhood Education Centres in Public Primary Schools

		Health/Hygiene Safety	Teacher Duty Of Supervision in Early Childhood Education Centres	Decision
Health/Hygiene Safety	Pearson Correlation	1	.961**	Positive Relationship
	Sig. (2-tailed)		.000	
	N	320	320	
Teacher Duty of Supervision in Early Childhood Education Centres	Pearson Correlation	.961**	1	
	Sig. (2-tailed)	.000		
	N	320	320	

**. Correlation is significant at the 0.05 level (2-tailed).

Table 2 shows the Pearson Product Moment Correlation result examining the relationship between health/hygiene safety and teacher duty of supervision in early childhood education centres in public primary schools in Delta Central Senatorial District. The analysis produced a correlation coefficient of $r(320) = .961$, with a significance value of $p = .000$. This p-value is less than 0.01, indicating that the relationship is statistically significant. The positive correlation coefficient suggests that as health/hygiene safety improves within schools, levels of teacher duty of supervision in early childhood education centres in public primary schools tend to decrease, showing that effective health/hygiene safety is associated with teacher duty of supervision in early childhood education centres in public. The result confirms that health/hygiene safety plays an important role in teacher duty of supervision in early childhood education centres in public primary schools in Delta Central Senatorial District.

Research Question 3: What is the relationship between risk assessment and teacher duty of protection in early childhood education centres in public primary schools in Delta Central Senatorial District?

Table 3: Relationship between Risk Assessment and Teacher Duty of Protection in Early Childhood Education Centres in Public Primary Schools

		Risk Assessment	Teacher Duty of Protection in Early Childhood Education Centres	Decision
Risk Assessment	Pearson Correlation	1	.841**	Positive Relationship
	Sig. (2-tailed)		.000	
	N	320	320	
Teacher Duty of Protection in Early Childhood Education Centres	Pearson Correlation	.841**	1	
	Sig. (2-tailed)	.000		
	N	320	320	

**. Correlation is significant at the 0.05 level (2-tailed).

Table 3 presents the Pearson Product Moment Correlation result assessing the relationship between risk assessment and teacher duty of protection in early childhood education centres in public primary schools in Delta Central Senatorial District. The analysis shows a correlation coefficient of $r(318) = .841$ with a significance value of $p = .000$. Since the p-value is less than 0.01, the relationship is statistically significant. The positive correlation coefficient indicates that as risk assessment practices become more effective within schools, the level of teacher duty of protection in early childhood education centres in public primary schools tends to reduce. This means that when schools take risk assessment very serious, teacher duty of protection in early childhood education centres in public primary schools will be perfect. The result suggests that risk assessment in primary school improve teacher duty of protection in early childhood education centres in public primary schools in Delta Central Senatorial District

Hypothesis 1: There is no significant relationship between environmental safety and teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District.

Table 4: Relationship Between Environmental Safety and Teacher Duty of Care in Early Childhood Education Centres in Public Primary Schools

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.635	.978		3.715	.000
	Environmental Safety	.708	.031	.890	22.649	.000

a. Dependent Variable: Teacher Duty of Care in Early Childhood Education Centres
t-critical at $p < 0.05$, $df 318 = 1.960$, $R^2 = .230$, Adjusted $R^2 = .315$, $F = 51.102$

The regression results in Table 4 above revealed that environmental safety is a significant predictor to teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District. The results show that the value of t-calculated of environmental safety at $P < 0.05$, $df 318 = 3.715$ which is greater than the t-critical of 1.96. This also means that t-calculated is significant, implying a relationship between

environmental safety and teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District. Thus, the null hypothesis which states that there is no significant relationship between environmental safety and teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District is rejected. Table 4 presents the linear regression analysis examining the environmental safety and teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District. The model shows an R^2 of 0.230, indicating that approximately 22% of the variance in teacher duty of care in early childhood education centres can be explained by environmental safety. The adjusted R^2 of 0.315 suggests that, after accounting for the number of predictors in the model, environmental safety still explains a substantial portion of the variability in teacher duty of care in early childhood education centres. The overall model is statistically significant, as indicated by the F-value of 50.102 ($p < 0.05$), demonstrating that the regression model provides a good fit to the data. Specifically, environmental safety has an unstandardized coefficient (B) of 0.708 and a standardized beta (β) of 0.890, with a t-value of 22.649 and a significance level of .000. Since the p-value is less than 0.05, the null hypothesis (H_{0s}), which posits no significant relationship between environmental safety and teacher duty of care in early childhood education centres in public primary schools is rejected. This implies that environmental safety significantly predicts teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District.

Hypothesis 2: There is no significant relationship between health/hygiene safety and teacher duty of supervision in early childhood education centres in public primary schools in Delta Central Senatorial District.

Table 5: Relationship Between Health/Hygiene Safety and Teacher Duty of Supervision in Early Childhood Education Centres

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.852	.593		3.122	.002
	Health/Hygiene Safety	.761	.019	.961	23.374	.000

a. Dependent Variable: Teacher Duty of Supervision in Early Childhood Education Centres
t-critical at $p < 0.05$, $df\ 318 = 1.960$, $R^2 = .241$, Adjusted $R^2 = .226$, $F = 54.027$

Table 5 presents the linear regression analysis examining the relationship between health/hygiene safety and teacher duty of supervision in early childhood education centres in public primary schools in Delta Central Senatorial District. The results show an R^2 of 0.241, indicating that 24% of the variance in teacher duty of supervision in early childhood education centres is accounted for by health/hygiene safety. The adjusted R^2 of 0.226 further suggests that, after controlling for the number of predictors, health/hygiene safety still explain a substantial portion of the variability in teacher duty of supervision in early childhood education centres. The overall model is statistically significant, as reflected by the F-value of 54.027 ($p < 0.05$), demonstrating that the regression model provides a good fit for the data. Specifically, health/hygiene safety have an unstandardized coefficient (B) of 0.761 and a standardized beta (β) of 0.961, with a t-value of 23.374 and a significance level of .000. Because the p-value is less than 0.05, the null hypothesis (H_{02}), which states that there is no significant relationship between health/hygiene safety and teacher duty of supervision in early childhood education centres in public primary schools is rejected. This indicates that health/hygiene safety significantly predict teacher duty of supervision in early childhood education centres in public primary schools in Delta Central Senatorial District.

Hypothesis 3: There is no significant relationship between risk assessment and teacher duty of protection in early childhood education centres in public primary schools in Delta Central Senatorial District.

Table 6: Relationship Between Risk Assessment and Teacher Duty of Protection in Early Childhood Education Centres in Public Primary Schools

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.635	.978		3.715	.000
	Risk Assessment	1.708	.031	.890	21.649	.000

a. Dependent Variable: Teacher Duty of Protection in Early Childhood Education Centres
t-critical at $p < 0.05$, $df\ 318 = 1.960$, $R^2 = .409$, Adjusted $R^2 = .369$, $F = 121.653$

Table 6 presents the linear regression analysis examining the relationship between risk assessment and teacher duty of protection in early childhood education centres in public primary schools in Delta Central Senatorial District. The results show an **R^2 of 0.409**, indicating that 40.2% of the variance in teacher duty of protection in early childhood education centres is explained by risk assessment. The adjusted R^2 of 0.369 suggests that, after accounting for the number of predictors, risk assessment still explains a substantial proportion of the variability in early childhood education centres. The model is statistically significant, as indicated by the F-value of 121.653 ($p < 0.05$), demonstrating that the regression model provides a strong fit to the data. Specifically, risk assessment has an unstandardized coefficient (B) of 1.708 and a standardized beta (β) of 0.634, with a t-value of 21.649 and a significance level of .000. Since the p-value is less than 0.05, the null hypothesis (H_{03}), which posits no significant relationship between risk assessment and teacher duty of protection in early childhood education centres in public primary schools, is rejected. This indicates that risk assessment and teacher duty of protection significantly predicts teacher duty of protection in early childhood education centres in public primary schools in Delta Central Senatorial District.

DISCUSSION OF FINDINGS

Analysis based on research question one as presented in Table 1 the result indicated that the Pearson correlation coefficient is 0.890. Since the significance value (Sig. 2-tailed) is 0.000 (which is less than 0.05), it can be concluded that there is a positive relationship between environmental safety and teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District. Therefore, relationship exist between environmental safety and teacher duty of care in early childhood education centres in public primary schools. This finding agrees with the view of Abraham (2024) who stated that teachers are expected to challenge themselves on modalities to improve the quality environment and promotion of safety habits in children. According to Botha (2024) Nigeria common law principle determine that a teacher has duty of care and protection to protect the child against danger by taking adequate care as well as precautionary measures to ensure the child's safety. Therefore, it is the duty of the teacher as in loco parentis to ensure proper management of classroom facilities such as desks/seats, require books, chart story, puppets/dolls. Alphabet blocks/cards, number blocks/cubes, peg and peg boards, crayon/colour pencils/ water colour, mat game, magnetic colour/number line, art postal among others. It may equally be the duty of the teacher to care for the learner in managing blunt scissors, stapler, blue, paste, tape, cardboard, bell, cymbals among others which may support learners' activities in the classrooms. The result of hypothesis one as presented in Table 4 shows that

there is a significant relationship between environmental safety and teacher duty of care in early childhood education centres in public primary schools in Delta Central Senatorial District.

Analysis based on research question two, as presented in Table 2, the Pearson correlation coefficient is 0.961. Since the significance value (Sig. 2-tailed) is 0.000 (which is less than 0.05), it can be concluded that there is a positive relationship between health/hygiene safety and teacher duty of supervision in early childhood education centres in public primary schools in Delta Central Senatorial District. Therefore, relationship exist between health/hygiene safety and teacher duty of supervision in early childhood education centres in public primary schools in Delta Central Senatorial District. This finding corroborates the view of According to Uwogu (2024) and Oluwo (2025) teachers' duty of supervision in early childhood centres in public primary school should include keeping children in close proximity, monitor their activities of the children in indoor and outdoor activities in the school and intervening when necessary to ensure their safety. Nwogu (2024) further stressed that supervision helps the teachers to protect the children from harm such as abusive language, teasing and bullying and intervening to address inappropriate behaviours. Meanwhile, Akachukwu (2023) remarked that when carrying out supervision to minimize poor health and hygiene situation, teachers may ensure health and hygiene procedure and protocols are in place. The teachers may be expected not to compromise the rights of the children to experience and learning in the school. The result of hypothesis two as presented in Table 5 shows that there is a significant relationship between health/hygiene safety and teacher duty of supervision in early childhood education centres in public primary schools in Delta Central Senatorial District.

Analysis based on research question three, as presented in Table 3, the result indicated that the Pearson correlation coefficient is 0.841. Since the significance value (Sig. 2-tailed) is 0.000 (which is less than 0.05), it can be concluded that there is a significant relationship between risk assessment and teacher duty of protection in early childhood education centres in public primary schools in Delta Central Senatorial District. Therefore, significant relationship exists between risk assessment and teacher duty of protection in early childhood education centres in public primary schools. This suggests that risk assessment may have a significant relationship with teacher duty of protection in early childhood education centres in public primary schools in Delta Central Senatorial District. This finding correspond with the study that was carried out by Owabiakea and Idadi (2024) declared that it is the duty of teacher in-loco parentis to conduct risk assessment regularly, enact a strong visitor management programme, teach learners and staff about school safety and security requirements and the school's emergency procedures, learners, staff and parents should know safe travel routes to and from the school, every stakeholder should know and follow school security and safety measures. Moreover, the National Centre for Education Statistics (2019) maintain that for risk assessment to be effective in early childhood education centre in public primary school, it is the duty of the teachers in-loco parentis to manage pick-up list and sign out, monitor late passes, food and allergy, playground and sick-bay. The result of hypothesis three as presented in Table 6 shows that there is a significant relationship between risk assessment and teacher duty of protection in early childhood education centres in public primary schools in Delta Central Senatorial District

CONCLUSION

The following conclusions are drawn on the basis of data analysed in the study. First, the study concluded that there is a significant relationship between environmental safety and teacher duty of care in early childhood education centres in public primary schools in Delta

Central Senatorial District. Second, the analysis of data showed that there is a significant relationship between health/hygiene safety and teacher duty of supervision in early childhood education centres in public primary schools in Delta Central Senatorial District. Third, the analysis of data showed that there is a significant relationship between risk assessment and teacher duty of protection in early childhood education centres in public primary schools in Delta Central Senatorial District and collaboration with families and teacher duty of communication in early childhood education centres in public primary schools in Delta Central Senatorial District.

Recommendations

Based on the findings of the study and the conclusion reached the following recommendations were made:

1. Government should develop and enforce national minimum standards for ECE physical environment (fencing, ventilation, sanitation, classroom materials) to keep the environment safe.
2. School management should provide training and retraining of ECECs staff to update their knowledge on issues concerning child care and the use of professionally trained security personnel to beef up school security and maintenance of school facilities to ensure facilities relevance in providing safe school environment.
3. School management should maintain clean, hazard-free classrooms, playgrounds, and sanitary facilities, conduct daily safety checks and weekly logs of environment conditions and ensure age-appropriate furniture, toys, and materials.

REFERENCES

- Abraham. Yusuf, M. (2024). Administration of early childhood care development and education (ECCDE) for national development: Relevance and delivery system in Nigerian schools. 117-122. Alphabet Nigeria Publishers.
- Akachukwu, V. (2023). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2),77-101.
- Bluff, N.M. (2023). Safety practice in schools. A workshop paper presented at the 2nd Teacher capacity building workshop, Fandesvic international schools, Igwuruta, Port-Harcourt.
- Botha, N.F. (2024). Competencies on implementations of 21st century technology on teaching, learning and assessment. *Res Militaris*, 2022, 12(2), pp. 7320–7331
- Nwogu, S. (2024). Micro-Pits effectiveness for controlling friction in plane strain extrusion. *International Journal of Mechanical Engineering*, 2022, 7(1), pp. 1270–1280
- Oluwo, A., Nordin, M.N.B. (2023). Applying information technology-based Knowledge Management (KM) Simulation in the Airline Industry. *International Journal of Mechanical Engineering*, 2022, 7(1), pp. 1249–1252.
- Owabiakea, A. & Idadi, D. (2024). The Book of Knowledge. Retrieved from Section V: On the proprieties of the student and the teacher.: www.muslimphilosophy.com/gz/work/bk1-sec-5.htm.
- Uwogu M. (2024). Teachers' qualities, responsibilities, and role. *The Dialogue*, (9),2, 178-189.



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ABSTRACT

The study investigated adoption of cloud computing technologies for library services in university libraries in selected states in South-south, Nigeria. Four research questions guided the study. Descriptive research design was used for the study. The population of the study was 117 librarians of 9 public and private university libraries within the study area. The total enumerative sampling technique was used due to the small size of population. A self-structured questionnaire was used for the study. Descriptive and inferential statistics were used to analyse the data generated and the statistical analysis was carried out using the Statistical Package for Social Science (SPSS version 22). The study concluded that the extent of librarians' knowledge of cloud computing technology for rendering library services is moderate. Therefore, it was recommended that librarians should devise techniques for constantly upskilling their knowledge of modern ICT facilities. It further recommends that University management should setup training on cloud computing technologies for librarians in rendering library services and organize a workshop where experts will be engaged to train librarians on how to deploy these technologies for the advantage of the library.

Keywords: Adoption, Cloud Computing Technologies, Library Services, University Libraries

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INTRODUCTION

The university library is an important aspect of every university system, serving the information needs of students, faculty, researchers, and other community members has shifted her activities and services from physical to virtual, libraries within a building to

library without walls, individual to community, custodian of collections to the creator, archive to portal, and university libraries have positioned and transformed its activities to meet the social and technological changes brought about by the constant advancement in ICT. Irenea, *et al*, (2018) in their investigations averred that libraries have battled with the custodian of collections but the 21st-century libraries are not faced with a more difficult issue that bothers on technology integration, innovative services, institutional identity and right-sizing of collections (plan for shaping a library's physical collection into one that meets its users' needs). The new role of the 21st century university library according to Matthews (2021) is occasioned by the significant transformation of library users which can be grouped into the digital fugitive, which have aided libraries in quickly transferring, recording, editing, storing, manipulating, or disseminating applications and services to users (Ogbomo & Ogbomo, 2018). Thus, the only means of survival of libraries in this dispensation is by embracing technological trends that can improve their service delivery to their clientele. One fundamental way of enhancing library services in the 21st century is via cloud computing.

Irenea, *et al*, (2018) defined cloud computing as a type of Internet-based computing that provides shared computers processing resources, data to computers, and other devices on demand instead. Sahu (2015) opined that cloud computing can transform the way systems are built and services delivered, providing libraries with an opportunity to extend their impact. Cloud computing technology, which arose from the Internet and the web, has steadily ushered in a new era of computing by determining the extent to which we exchange and keep data (Abidi & Abidi 2022). Cloud-based technology is all about providing services to individuals who require them through the usage of particular web apps by providers, either on a pay-as-you-go or subscription basis (Feuerlicht, *et al*, 2016). According to Mavodza (2013), libraries and information centres have rightfully delved into the realm of digital librarianship to investigate all aspects of information technology, and as such, information organizations are heavily reliant on the cloud. As a result, cloud-based technology allows libraries to reach out to their consumers from anywhere at any time. Anyone with access to the internet is likely to use cloud computing frequently. They are using the cloud environment whether they are using Google's Gmail, Flickr to organize images, or Bing to search for information. The intriguing thing about cloud-based technology, as Geoffrey (2023) pointed out, is that it did not begin as a technology for the business industry, but rather as a technology pushed by the public with services.

According to Achugbue (2018), several libraries have recently embraced and exploited cloud-based technology to provide services to their patrons. Establishing digital libraries/repositories, searching library data, website hosting, searching scholarly content, file storage, building community power, OCLC web cataloguing tools, and selective dissemination of information (SDI), among other things, are all employing cloud-based technologies. Some notable cloud based-technology initiatives in the library include but are not limited to Google Apps (which allows migration from desktop to Web-accessible applications and storage of information and information resources), OCLC's World share Management Services (WMS) (which allows libraries to manage entire collection management life cycle in a cloud-based application), Ex-Libris (a leading library software vendor from the USA), OSS labs (uses Amazon's elastic cloud computing platform in offering Koha ILS and DSpace institutional repository hosting and software maintenance subscription services for libraries), Duraspace (a collaboration of the Dspace digital library software and Fedora Commons), Dropbox (a file hosting service operated by Dropbox), and Polaris (Polaris Library Automation System, provides standard acquisition and processing system).

The issue of knowledge of cloud computing technology by librarians for library services in developed and developing countries of the world. Achugbue (2018) averred that the use of cloud-based technologies in libraries and the acceptance rate in university libraries varies around the world. Most university libraries in the Western world, on the other hand, have the knowledge of cloud computing technologies. For example, libraries in the Western world frequently employ OCLC's web cataloguing tools, which are the most well-known instances of cloud-based library technology (Achugbue, 2018). However, in West Africa, cloud-based technology in university libraries is low, as many university libraries have yet to embrace the use of these technologies in the delivery of library services. Achugbue further observe that most Nigerian university libraries have yet to integrate cloud-based technologies into their operations. Ezeani and Igwesi (2022) working together on this, found that university libraries in Nigeria still choose to save library data using hardware technology, with no cloud backup even though cloud computing technology such as email services, Google, Yahoo, Hotmail, social media network have been around for them some time. But for cloud computing technology services to be useful to the University community, librarians must have the requisite knowledge to fully explore and exploit the technology in library services. Thus, this study seeks to investigate adoption of cloud computing technology for library services in selected university libraries in South-South Nigeria.

Statement of The Problem

The university library is a growing organism especially in the face of the application of ICTs in handling every facet of information processing to eventual dissemination which has laid bare the inadequacies of traditional librarianship; hence, the wakeup calls for libraries to improve on their services. More so, with the continued rise of competitors and rival agencies with more sophisticated software, hardware, products, and services, the preference of users to rely less on physical library services for obtaining assistance when searching for information. Therefore, the survival of libraries depends on their creative abilities, repackaging of their services, enhancement of staff knowledge to leverage technology for improved services to reach out to library clients in their preferred settings and extend library services outside traditional library boundaries using cloud-based library services. Preliminary investigations by the researcher from literatures consulted, interaction with practicing librarians, and visits to different libraries revealed that the implementation of automation of library services is manned by different challenges that have continued to beset university libraries in Nigeria which has resulted in the non-deployment of cloud-based services.

Objectives of The Study

The main purpose of this study is to investigate adoption of cloud computing technologies for library services in university libraries in selected states in South-south, Nigeria. Specifically, the study seeks to:

1. establish librarians' knowledge of cloud computing technologies for library services;
2. determine the extent librarians adopt of cloud computing technologies for library services in university libraries;
3. find out the cloud computing technologies used for library services;
4. establish challenges associated with adoption of cloud computing technology for library services in the university under study.

Research Questions

This study was guided by the following research questions:

1. To what extent are librarians knowledgeable in cloud computing technologies for library services?
2. To what extent do librarians of university libraries adopt cloud computing for library services?
3. What are the types of cloud computing technologies used for library services in university libraries?
4. What are the challenges associated with the adoption of cloud computing technology for library services in the universities under study?

LITERATURE REVIEW

The enormous roles of library professionals and librarians in handling cloud computing services can well be tested against the degree of their computer skills. In line with the study carried out by Wada (2015), the following is the knowledge required by librarians for the deployment of cloud computing technologies for library services delivery:

1. Personal Computer Knowledge

The personal computer is known to be one of the best inventions of mankind. The computer has undergone many changes concerning size, functions, memory space, and portability. The computer is an extraordinary apparatus because of its ability to store information and process huge amounts of information that is used to perform various technical tasks as well as used to create gadgets. There are a few areas on a computer that knowledge matters, some of which are: Search engines, Word processing, Spreadsheet, Browser basics, Virus/malware scanning, Common keyboard command, Basics hardware terminology, Simple network diagnosis, connecting a computer to the network, Security, and privacy.

2. Internet Knowledge

Macaulay (as cited in Wada, 2015) observed that one important skill required of a librarian is Internet knowledge. Before a librarian can guide library clientele on how to use the Internet, he must have deep knowledge about how to carry out successfully. He must be conversant with how to save time when searching for information and how to identify the right information when found as well as how to navigate the web; how to download files; how to copy text from a website and paste it into another application software; how to upload files into a database and an email (Partridge & Hallam as cited in Wada, 2015). In browsing for information materials, librarians should have a clear knowledge about the notion of precision vis-à-vis recall.

3. Networking Knowledge

The need to possess knowledge on how to manage network are being upheld as highly significant for proper library management in the information age (Turner as cited in Wada, 2015). Specifically, the connection of two or more computers through, networking tools, Internet Protocol (IP) as well various basic configurations will help digital librarians (Steven as cited in Wada, 2015) shoulder full responsibilities in a resource networked environment. More to that is how the network operates (Ashcrof, 2024), what is needed to put a computer on a network; what network interface card and data cable are, and how to connect to wireless on PCs with various operating systems; how to determine if internet connectivity problems are network problems, computer problems or web site failures; what an IP address and subnet mask are; what Dynamic Network System-internal and external (DNS), Network Address

Translation (NAT), Virtual Private Network (VPN) are and what proxy server does, etc. (Bohyun, 2021; Jenny as cited in Wada, 2025).

4. Hardware Knowledge

Librarians must have a fair idea of how computer systems are joined together to work; especially the components within computer systems ranging from the motherboard to other parts such as RAM and power packs. Nwachukwu (as cited in Wada, 2025) stated that librarian needs to be equipped with: knowledge about the Central Processing Unit (CPU), which implies– understanding where the USB/Firewire port is; understanding of mouse, keyboard, and monitor; knowledge on barcode scanner plug; knowledge of mp3 players and iPods; knowledge on printers and how to troubleshoot printing problems; knowledge of thumb drives/flash drives; Knowledge of projectors; Knowledge on web applications Software. Bohyun (2021) states that in the age where library and library resources are formatted into electronic categories and are managed with computer gadgets the computer competencies of librarians must cover a high range of Information and Communication Technology tools and their operations.

5. Software Knowledge

Different software is today applied to library functions. From the simple routine of clearance to complex functions of digital bibliographic mapping of information resources as well as daily activities of office operations, software are being used. Given the fact that all conventional library roles and functions are being replaced in the functionalities of different software, there is no room for library managers to slowly embrace the changes, which requires acquiring enough knowledge and practical skills on the applications of the software. Some of the notable software are Content Management Systems (Joomla, Drupal, etc), Library Management Systems (e.g. CD/ISIS/ Greenstone, NewGenLib, etc., and System software such as Linux, Solaris, Zorin, and a host of other FOSS).

On the extent librarians of university libraries use the knowledge of cloud computing to library services, Nwachi and Igbokwe (2019) noted that librarians' level of awareness of cloud-based library tools have increased rapidly. Okoroma (2017) also attested that tertiary institutions librarians are aware that some degree aware of social media which is also part of cloud-based technology can be used to provide library services. In support of this, Uche and Udo-Anyanwu (2019) attested that the utilization of cloud-based services in university libraries is now a global phenomenon and varies from one library to another depending on the extent of ICT integration to library and information services. The study conducted by Patel (2024) supported that librarians are fully aware of the concept of cloud computing by stating that libraries have always welcomed cloud-based services such as e-journal access, statistics tracking, digital library hosting, and other allied services and activities. He further submits that the use of software as a service (SaaS) for instance has been in vogue since the year 2000 with the convergence of companies like serials solution. According to Patel, Cloud-based technology seems to be quite popular in libraries of the 21st century though may not be too visible in a few libraries in developing countries. Collaborating on this, Seena and Sudhier (2024) in their study noted that libraries around the world are aware and also use cloud computing in several areas that could be unknown to them. For instance: website hosting, library automation, digital libraries, etc. They discovered that majority of library professionals know cloud computing services.

The study of Zubairu, John and Saheed (2021) noted that cloud computing is now being used by most organizations, its application includes data backup in case of disaster recovery, software development, and big data analytics. Zubairu, John, and Saheed (2021)

further noted that librarians have adopted the technology because of their awareness that cloud base technology is a healthy way of real-time fraud detection and prevention. More so, Video game producers are not left out as they use the cloud to deliver online games to limitless players. Zubairu, John and Saheed (2021) specifically noted that library personnel from the four University libraries in Osun state were aware of the concept of Cloud Computing. Affirming the level of awareness of cloud-based technology and services. But Bentil (2021) noted that many librarians in Nigeria are not aware of cloud-based technologies in university libraries.

Achugbue's (2018) who reported that many librarians in Nigeria do not have a positive perception of cloud-based technologies for a variety of reasons including low technical knowledge of the different cloud-based applications. However, this finding is contrary to the opinion of Otolu and Annie's (2019) report that many librarians have a positive attitude towards the implementation and use of cloud-based technologies in the discharge of library services. Kadali and Devendra (2017) reported some of the key issues associated with cloud-based library services:

1. **Privacy:** The cloud model has been criticized by privacy advocates for the greater ease with which the companies hosting the cloud services control, thus, can monitor at will, lawfully or unlawfully, the communication and data stored between the user and the host company. Using a cloud service provider (CSP) can complicate the privacy of data because of the extent to which virtualization for cloud processing (virtual machines) and cloud storage are used to implement cloud service.
2. **Legal:** As with other changes in the landscape of computing, certain legal issues arise with cloud computing, including trademark infringement, security concerns, and sharing of propriety data resources.
3. **Open Source:** Open-source software has provided the foundation for many cloud computing implementations, prominent examples being the Hadoop framework and VMware's Cloud Foundry.
4. **Sustainability:** Although cloud computing is often assumed to be a form of "green computing", there is no published study to substantiate this assumption citing that server affects the environmental effects of cloud computing. In areas where climate favours natural cooling and renewable electricity is readily available, the environmental effects will be more moderate. However, in the case of distributed clouds over data centres with a different source of energy including renewable sources of energy, a small compromise on energy consumption reduction could result in high carbon footprint reduction.
5. **Security:** As cloud computing is achieving increased popularity, concerns are being voiced about the security issues introduced through the adoption of this new model. The effectiveness and efficiency of traditional protection mechanisms are being reconsidered as the characteristics of this innovative deployment model can differ widely from those of traditional architectures.
6. **Abuse:** As with privately purchased hardware, customers can purchase the services of cloud computing for nefarious purposes. This includes password cracking and launching attacks using the purchased services.
7. **IT Governance:** The introduction of cloud computing requires an appropriate IT governance model to ensure a secured computing environment and to comply with all relevant organizational information technology policies. As such, organizations need a set of capabilities that are essential when effectively implementing and managing cloud services, including demand management, relationship management, data security management, application lifecycle management, and risk and compliance management.

- 8. Compliance:** To obtain compliance with regulations including FISMA, HIPAA, and SOX in the United States, the Data Protection Directive in the EU, and the credit card industry's PCI DSS, users may have to adopt community or hybrid deployment modes that are typically more expensive and may offer restricted benefits.

METHODOLOGY

The descriptive survey design of the correlational type was used in this research. The population for the study is 117 librarians working in all government owned and private University libraries in selected states in south-south Nigeria. The total enumerative sampling method was adopted due to the study's small size. Osuala (2018) noted that a researcher can adopt the entire population for the study when the population is of a manageable size. The university libraries comprise of two federal university libraries, four state own university libraries and ten private university libraries. Questionnaire was used to collect data from the respondents. A total of 117 copies of the questionnaire were distributed, and 110 (94%) copies of the questionnaire were filled and found useful for conducting the study. The response rate of 94% is considered adequate for the study because the standard and the acceptable response rate for most studies is 60%. Fincham (2008) asserted that a response rate of approximately 60% for most research should be the goal of researchers. Descriptive statistics such as frequency and percentage and mean were used to analyse the data.

RESULTS

Research Question One: To what extent are librarians knowledgeable in cloud computing technologies for library services?

Table 1: Extent of Librarians' Knowledge of Cloud Computing Technologies for Library Services

Librarians' Knowledge	H	M	L	n	$\bar{x}$
Ability to detect the location of USB/firewire port	56	36	17	1	3.34
Knowledge of bar code scanner	1	9	91	9	2.02
knowledge about Central Processing Unit	1	82	27	-	2.76
Knowledge of content management software	-	27	74	9	2.16
Knowledge of library management system	18	65	26	1	2.91
Knowledge of system software	25	75	9	1	3.13
Knowledge of system security	-	18	90	2	2.15
Knowledge of file storage	26	82	2	-	3.22
Knowledge of direct and remote access to computer system	9	17	75	9	2.24
Ability to detect and fix computer problems or website failures	1	17	83	9	2.09
Ability to set up wired/wireless computer network with various operating systems	1	99	10	-	2.92
Knowledge of network interface card and data cable	17	2	82	9	2.25
Knowledge of how to navigate the web	9	82	10	9	2.83
Ability to upload files into a database/email attachment	18	65	27	-	2.92
Ability to copy text from the website and paste it in another application software	9	84	9	8	2.85
Knowledge of simple network diagnosis	-	9	101	-	2.08
Knowledge of basics hardware terminologies	-	9	93	8	2.01
Knowledge of browser basics	18	74	10	8	2.93
Aggregate Mean = 2.60 Criterion Mean = 2.50					

Data presented in Table 1 revealed that the aggregate mean of 2.60 is higher than the criterion mean of 2.50 indicating that the level of librarians' knowledge of cloud computing technologies in rendering library services is moderate.

Research Question Two: To what extent do librarians of university libraries adopt cloud computing for library services?

Table 2: Extent of Adoption of Cloud Computing Technologies for Library Services

Cloud Base Library Services	VHE	HE	LE	VLE	$\bar{x}$
Cloud-based mailing services	46	60	2	2	3.36
Cloud-based classification and cataloguing services	-	47	61	2	2.41
Cloud-based library service for Storage of Data & Files	20	87	-	3	3.13
Cloud-based forums	7	29	71	3	2.36
Cloud-based circulation services	-	28	78	4	2.22
Cloud-based inter-library loan services	-	34	71	5	2.26
Cloud-based preservation and conservation services	-	37	69	4	2.30
Cloud-based library users' education services	3	72	23	12	2.60
Cloud-based current awareness services	4	9	84	13	2.04
Cloud-based acquisition services	3	9	88	10	2.05
Cloud-based information & data collection services	2	14	84	10	2.07
Cloud-based social networking services	16	79	8	7	2.95
Cloud-based file sharing services	6	84	13	7	2.81
Cloud-based information collection	13	64	22	11	2.72
Cloud-based- video services	5	8	83	14	2.04
Cloud-based software and supplication	4	10	73	23	1.95
Aggregate Mean = 2.45 Criterion Mean = 2.50					

Data presented in Table 2 shows that the aggregate mean of 2.45 is lower than the criterion mean of 2.50, which implies that the extent of adoption of cloud-based library services in selected university libraries in south-south Nigeria, is low. However, a few cloud-based library services such as mailing services ($\bar{x} = 3.36$), storage of data & files ($\bar{x} = 3.13$), social networking services ($\bar{x} = 2.95$), file sharing services ($\bar{x} = 2.81$), information collection ($\bar{x} = 2.72$), and users' education services ($\bar{x} = 2.60$), have been adopted in the university libraries.

Research Question Three: What are the types of cloud computing technologies used for library services in university libraries?

Table 3: Types of Cloud Computing Technologies Used for Library Services

Cloud Computing Technologies	A		D	
	Freq.	%	Freq.	%
OCLC's World share Management	88	80	22	20
Google Calendar	92	84	18	16
Yahoo mail	89	81	21	19
Google Talk	76	69	34	31
Dropbox	76	69	34	31
Facebook	83	76	27	24
DSpace	81	74	29	26
Gmail	82	75	28	25
Google Docs	81	74	29	26
Google drive	93	85	17	15
YouTube	93	85	17	15

Table 3 revealed that the types of cloud computing technologies applicable for library services are Google Drive and YouTube 93, (85%) respectively, Google Calendar 92, (84%), Yahoo mail 89, (81%), OCLC's World share Management 88, (80%), Facebook 83, (76%),

Gmail and DSpace 82, (75%) respectively, as well as Dropbox and Google Talk 76, (69%) respectively.

Research Question Four: What are the challenges associated with adoption of cloud computing technology for library services in the university libraries in selected states in South-South Nigeria?

Table 4: Challenges Associated with Adoption of Cloud Computing Technology

Challenges	A		D	
	Freq.	%	Freq.	%
Compliance with IT regulations	98	89	12	11
Non-conformity of IT governance model with organizational policies	97	88	13	12
Use of cloud computing technologies for nefarious purposes	85	77	25	23
Security issues associated with the use of cloud computing technologies	79	72	31	28
Sustainability of the use of cloud computing technologies	83	76	27	24
Legal issues associated with the use of cloud computing technologies	89	81	21	19
Privacy issues due to control by companies hosting the cloud services	62	56	48	44
Network connectivity and bandwidth	83	76	27	24
Cost of integration and maintenance	76	69	34	31
Knowledge and integration of cloud computing technologies	98	89	12	11

The challenges associated with adoption of cloud computing for library services are lack of compliance with IT regulations and knowledge/integration of cloud computing technologies respectively, non-conformity of IT governance model with organizational policies, legal issues, use of cloud computing technologies for nefarious purposes, sustainability of the use of cloud computing technologies and network connectivity/bandwidth, security issue, cost of integration/maintenance, and privacy issues due to control by companies hosting the cloud services are the challenges associated with cloud-based library services.

DISCUSSION OF FINDINGS

Librarians' Knowledge of Cloud Computing Technologies for Library Services

The findings from the analysed data on research question one revealed that the level of librarians' knowledge required for cloud computing technologies in rendering library services is moderate. The findings align with that of Ashcroft (2024); Jenny (2023) who indicated that shifts in the nomenclature of library nature and structure are grossly affecting library management and operations in general, and librarians must change their skills and knowledge in line with the changes. The findings equally buttressed that of Krubu and Osawaru (2021) which revealed that the enormous roles of library professionals and librarians in handling cloud computing services can well be tested against the degree of their computer skills. The finding of the study is an indication that librarians in university libraries have not fully embraced cloud-computing technologies for rendering library services, hence, their knowledge on how to apply these technologies are fully not developed.

Extent of Adoption of Cloud Computing for Library Services

The extent of adoption of cloud computing technologies for library services in the university libraries is low. The finding buttressed that of Achugbue (2018) who expressed that many libraries in Africa are gradually accepting the use of web-based tools to render effective services to their users. The finding is in line with that of Akporhonor and Olise (2015) who reported that awareness and knowledge among library staffs on social media applications is very poor. In a similar vein, Okoroma (2018) reported that the rate of use of

cloud-based library platforms by academic library personnel in Nigeria is very low as a result of a lack of awareness and training on the various kinds of social media and their applications to library services.

Types of Cloud Computing Technologies used for Library Services

The types of cloud computing technologies applicable for rendering library services are Google Docs and YouTube, Google Calendar, Yahoo mail, OCLC's World Share Management, Facebook, Gmail, DSpace, Dropbox, and Google Talk. Finding agrees with that of Sudhier (2018) who surveyed on library professionals' adoption of cloud computing technologies: A case study on Kerala University Library, India. The results on the cloud technologies tried by the LIS professionals for personal information management revealed that out of 102 respondents, 85 percent of library professionals tried at least one cloud computing technology such as Facebook, Google Apps like Gmail, Google Docs, etc. The finding equally supports that of Alhamdi and Khaparde (as cited in Sudhier, 2018) who revealed that webmail and social networking as the popular collaborative service in a cloud by the library community especially students. They further observed that the responders made use of cloud computing technologies such as Dropbox, Gmail, Facebook, Google Docs, etc. without being aware of doing so.

Challenges Associated with Cloud-Based Library Services

The challenges associated with adoption of cloud computing technologies for library services bother non-compliance with IT regulations, knowledge/integration of cloud computing technologies, non-conformity of IT governance model with organizational policies, legal issues, use of cloud computing technologies for nefarious purposes, sustainability of the use of cloud computing technologies, network connectivity/bandwidth, security issues, cost of integration/maintenance and privacy issues due to control by companies hosting the cloud services. The finding is in agreement with that of Surendra (2024); Kadali and Devendra (2017) who averred that cloud-based library services are plagued with numerous challenges, some of which include legal issues, security concerns, and internet connectivity.

CONCLUSION

There is no doubt that cloud computing is a new powerful method of delivering a library service which has come to stay in the library profession owing to the numerous advantage it has over the traditional method of rendering library services. the researcher concludes that librarians' knowledge of cloud computing technologies in rendering library services is moderate. Therefore, the extent of adoption of cloud-based library services in the university libraries under this study is low. However, cloud-computing technologies such as Google Docs, YouTube, Google Calendar, Yahoo mail, OCLC's World Share Management, Facebook, Gmail, DSpace, Dropbox, and Google Talk are used to render software and supplication services, mailing services, video services, storage of data & files services, etc. The adoption of cloud-based library services was due to its benefits some of which include removal of local storage/maintenance/backups of files, the satisfaction of users' information needs, collaborative and cooperative intelligence, to amplify the power of cooperation among libraries, etc. Notably, several challenges are associated with cloud-based library services, some of which include compliance with IT regulations, knowledge/integration of cloud computing technologies, non-conformity of IT governance model with organizational policies, legal issues, use of cloud computing technologies for nefarious purposes, etc.

Recommendations

Based on the findings of the study, the following are recommended:

1. University management should set up a training on knowledge of cloud computing required by librarians for successful deployment of cloud computing technologies in rendering library services and organize workshop where experts will be engaged to train librarians on how to deploy these technologies for the advantage of the library.
2. University library management in synergy with the university management should set up a committee to evaluate the cloud-based library services that are functional in their libraries to identify other cloud-based services that are yet to be deployed and a proposal should be made on how such services can be incorporated in the library.
3. Librarians should devise techniques for constantly upskilling their knowledge of modern ICT facilities and other online tutorials to their advantage to be abreast with the deployment of cloud computing technologies for rendering library services.
4. University management should set up a fact-finding committee to look into the identified challenges associated with the deployment of cloud computing technologies and proffer solutions on how to surmount the challenges.

REFERENCE

- Abidi, F., & Abidi, H. J. (2022). Cloud libraries: A Novel Application for Cloud Computing. *International Journal of Cloud Computing and Services Science*, 1(3), 79-83.
- Achugbue, I., E. (2018). Librarians' awareness and Perception towards the Adoption of Cloud-Based Technologies in Public University Libraries in South-South Nigeria. *Islamic University Multi-Disciplinary Journal*, 5(2), 137-145.
- Akporhonor, B., & Olise, E. (2015). Librarians Use of Social Media for Promoting Library and Information Resources and Services in University Libraries in South-South, Nigeria. *Information and Knowledge Management*, 5(6), 1-8.
- Ashcroft, L. (2024). *Developing competencies, critical analysis and personal transferable skills in Future Information Professionals*. [http://www.theshiftedlibrarian.com/archive/s/2005/07/21/20 technology skills every librarian should have.html](http://www.theshiftedlibrarian.com/archive/s/2005/07/21/20%20technology%20skills%20every%20librarian%20should%20have.html)Athena
- Bentil, W. (2021). The Use of Electronic Resources in Ghanaian Universities: A comparative Study of the University of Cape Coast and the Central University College. (An Unpublished M. Phil thesis). Department of Information Studies, University of Ghana.
- Feuerlicht, G., Snášel, V., Szczepaniak, P., Abraham, A., & Kacprzyk, J. (2016). Next generation SOA: Can SOA survive cloud computing? *Advances in Intelligent Web Mastering - 2*. Springer, 19-29.
- Ezeani, I., & Igwesi. O. (2022). Using social Media Applications for Educational Outcome College Teaching: A Structural Equation Analysis. *British Journal of Educational Technology*, 44(12), 581–593.
- Geoffrey, M. (2023). Computer World Servers and Data Centre. *International Journal of Librarianship*, 8(7), 45-50.
- Ireola, K., O., Tijani, R., I., & Bakare, O. (2018). Enhancing Library Services Delivery in the 21st Century in Africa: The Role of Cloud Technologies. *International Journal of Library and Information Science Studies*, 4(4), 1-9. <https://www.eajournals.org/wp-content/uploads/Enhancing-Library-Services-Delivery-in-the-21st-Century-in-Africa-The-Role-of-Cloud-Technologies.pdf>
- Kadali, S., Devendra, C., K. (2017). Key Issues and Challenges in Cloud Computing for Library Services. Kadali Srinivas. *Int. Journal of Engineering Research and Application*, 7(12), 80-82. https://www.ijera.com/papers/Vol7_issue12/Part-2/M0712028082.pdf

- Krubu, D., E., & Osawaru, E., E., (2021). *The Impact of Information and Communication Technology (ICT) in Nigerian University Libraries*. <http://www.webpages.uidaho.edu/~mbolin/krubuosawaru.htm>
- Matthew, B. H. (2022). Cloud Computing Basics for Librarians. *Medical Reference Services Quarterly*, 31(1), 84-91. <http://dx.doi.org/10.1080/02763869.2012.641853>.
- Mavodza, J. (2023). The Impact of Cloud Computing on the Future of Academic Library Practices and Services. *New Library World*, 114(3/4), 132-141.
- Nwachi, C., & Igbokwe, J. (2019). *The impact of social media in research publicity and Visibility*. *Library Philosophy and Practice* (e-journal). <https://digitalcommons.unl.edu/libphilprac/2298>
- Ogbomo, M.O, & Ogbomo E. F. (2018). *Importance of Information and Communication Technologies (ICTs) in Making a Healthy Information Society: A Case Study of Ethiopia East Local Government Area of Delta State, Nigeria*. <http://digitalcommons.unl.edu/libphilprac>.
- Okoroma, F. N. (2018). Issues and the Use of Social Media in Reference Services by Academic Library Personnel in Nigeria. *Advances in Social Sciences Research Journal*, 4(12), 187- 199.
- Oyekan, A. (2017). *The Usage of the Intranet and its Impact on Organizational Knowledge Sharing: An Exploratory Investigation of a Public Hospital*. <http://epress.lib.uts.edu.au/research/bitstream/handle/10453/20028/02Whole.pdf?sequence=1>
- Patel, Y. (2024). Cloud Computing and its Impact on Library Services. *INFLIBNET Newsletter*, 18(1), 17-20.
- Sahu, R. (2015). Cloud computing: An Innovative Tool for Library Services. *National Conference on Library Information Science and Information Technology for Education*, 5(4), 213-217.
- Sudhier, K., G., P. (2018). Library Professionals Adoption of Cloud Computing Technologies: A Case Study on Kerala University Library, India. *Library Philosophy and Practice*, 77(10), 237-246.
- Surendra, K., P. (2024). *Cloud Computing and Library Services: Challenges and Issues*. https://www.researchgate.net/publication/284139106_Cloud_Computing_and_Library_Services_Challenge_Issues
- Uche, A., C., & Udo-Anyanwu, A., J. (2019). Awareness and Utilization of Social Media by Tertiary Institutions Librarians in Abia and Imo States, Nigeria. *Library Philosophy and Practice*. <https://www.researchgate.net/publication/332631160>.
- Wada, I. (2025). Digital Librarian Competency in Managing Digitized Library: A Requirement for Cloud Computing Implementation in Libraries. *Information and Knowledge Management*, 5(4), 83 – 93.
- Zubairu, A., N., A., John, O., & Hamzat, S. Ab. (2021). Awareness and adoption of cloud computing in Nigerian Libraries: An Aid to Library Services *Library Philosophy and Practice* (e-journal). <https://digitalcommons.unl.edu/libphilprac/4973>.



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DIGITAL LITERACY AS CORRELATE OF ADULT LEARNING IN DELTA CENTRAL SENATORIAL DISTRICT.

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ABSTRACT

This study investigated Digital Literacy as Correlate of Adult Learning in Delta Central Senatorial District with the aim of examining the relationship between various components of digital literacy and adult learning outcomes. The study was guided by two research objectives, research questions and corresponding hypotheses. The study adopted a correlational research design. The population consisted of adult learners enrolled in government-approved centres in the senatorial district, from which a sample of 180 respondents was selected through a multistage sampling technique. A 66-item validated questionnaire was used for data collection. The validity of the instrument was done with three experts using face and content validity methods. The reliability of the instrument was established at 0.76 coefficient using Cronbach's Alpha. Data collected were analysed using Pearson Product Moment Correlation and regression analysis. Findings revealed significant positive relationships between all six digital literacy variables access to digital tools, digital communication skills, information management, digital problem-solving, digital collaboration, and online safety and adult learning. These results indicated that digital literacy is a strong predictor of effective participation and achievement in adult education programmes. Based on these findings, the study concluded that adult learners with higher digital literacy are more likely to succeed in their educational pursuits. Implications for educational practice include the need to integrate digital skills into adult education curricula and ensure access to digital infrastructure. The study recommended that government agencies, educators, NGOs, and curriculum planners should prioritize digital literacy in adult education to enhance engagement, safety, and overall learning outcomes.

Keywords: Digital Literacy, Adult Learning

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INTRODUCTION

In today's digital-driven society, the ability to effectively utilize digital technologies has become essential for personal, professional, and educational development. Digital literacy, which involves the ability to access, understand, and use digital tools, has become a fundamental requirement in adult learning (Ogunleye & Adeyemo, 2020). The rapid integration of digital literacy into education has reshaped adult learning, emphasizing the need for digital skills to enhance participation, engagement, and knowledge acquisition (Okonkwo, 2019). Digital literacy programmes, therefore, play a crucial role in ensuring that adult learners can effectively navigate the modern learning environment.

In Nigeria, the National Information Technology Development Agency (NITDA) aims to achieve a 95% digital literacy rate by 2030, recognizing the critical role of digital skills in national development (Adebayo & Yusuf, 2021). Despite efforts by the government and stakeholders to integrate digital literacy into adult education, regions such as the Delta Central Senatorial District continue to face significant challenges, including inadequate digital infrastructure, low awareness, and limited access to digital learning resources (Eze & Nwafor, 2022). These challenges hinder the effectiveness of adult learning programmes, making it necessary to examine how digital literacy programmes correlate with adult learning in this region.

Access to Digital Tools is a major factor influencing adult learning outcomes. The availability of computers, smartphones, and reliable internet connectivity plays a vital role in digital education (Adekunle & Onyekwere, 2019). In the Delta Central Senatorial District, inadequate access to these tools limits the effectiveness of digital literacy programmes (Okafor & Eze, 2021). Studies indicate that regions with better access to digital tools tend to have higher adult education participation rates, suggesting that infrastructural development is crucial for digital learning initiatives (Uchenna & Bello, 2022).

Another critical component of digital literacy is ICT Skills Training, which equips adult learners with the ability to use digital devices, software applications, and online platforms effectively (Olawale, 2020). Without adequate training, many adults struggle with basic digital skills, reducing their ability to benefit from digital learning opportunities (Nnamdi, 2021). Research has shown that structured ICT training significantly improves adult learners' confidence and engagement in educational programmes (Adigun & Afolabi, 2023). Integrating ICT training into adult education curricula can, therefore, enhance learning experiences and outcomes.

THEORETICAL REVIEW

This study adopted the Technology Acceptance Model (TAM) by Davis (1989) to explain how users accept and use technology. The model posits that perceived usefulness and ease of use shape attitudes toward adoption, which in turn influence intention and actual usage. Its core idea is that if technology is seen as beneficial and easy to use, adoption is more likely.

Recent applications of TAM show its relevance: Afolabi and Ojo (2020) found that ease of use and perceived benefits predicted e-learning adoption, while Okonkwo and Adeyemi (2021) showed that technical support and digital literacy facilitated mobile learning acceptance. In this study, TAM is applicable because digital literacy shapes how adult learners perceive and adopt digital tools, explaining their engagement with e-learning, mobile technology, and ICT training.

Concept of Adult Learning

Adult learning refers to the process through which individuals acquire knowledge and skills beyond formal schooling to enhance personal, professional, and societal development. It includes lifelong learning, vocational training, literacy programmes, and other forms of education tailored to adults. Knowles (2020) describes it as a self-directed, experiential process aligned with andragogy, emphasizing motivation, experience, and problem-solving. Merriam and Bierema (2021) view it as a transformative process where adults integrate new knowledge into existing structures, while Tusting and Barton (2019) note that it occurs in

formal, non-formal, and informal settings influenced by technology, social interaction, and personal goals.

In today's society, digital literacy has become integral to adult learning, shaping how learners access information, acquire skills, and engage with education. Research shows that digital competence enhances self-paced and flexible learning, expands opportunities, and supports participation in online training, webinars, and collaborative platforms (Adebayo & Yusuf, 2021; Okonkwo, 2019). Thus, digital literacy not only improves educational outcomes but also empowers adults to adapt to modern learning environments.

Digital Literacy

In the 21st century, digital literacy has become a core requirement for participation in education, work, and social life, as technology continues to transform traditional learning systems. In adult education, it enhances access to opportunities, fosters independent learning, and improves outcomes. Scholars define digital literacy in multidimensional terms: Ng (2019) emphasizes critical and creative use of technologies for communication and problem-solving; Martin and Grudziecki (2020) describe it as a mix of technical, cognitive, and social skills for finding, creating, and sharing information; while Eshet-Alkalai (2021) highlights competencies such as photo-visual, socio-emotional, and real-time thinking skills. Collectively, these definitions stress that digital literacy extends beyond technical know-how to include critical thinking, ethical use, and problem-solving in digital environments. For adult learners, it enables self-directed and lifelong learning, promotes social inclusion, and equips them to thrive in virtual classrooms, online research, and today's knowledge-driven economy (Bawden, 2020; Sefton-Green et al., 2022; Gilster, 2019). In this study, digital literacy is conceptualized through six components: access to digital tools, ICT skills training, e-learning participation, internet usage proficiency, computer literacy level, and mobile technology adoption which together serve as critical determinants of its correlation with adult learning.

Access to Digital Tools and Adult Learning

Access to digital devices such as computers, tablets, and smartphones is essential for adult learners as they enable participation in e-learning platforms, virtual classrooms, and access to digital resources. However, limited access to these tools significantly hinders adult learners' engagement, skill acquisition, and lifelong learning opportunities (Adekunle & Onyekwere, 2019; Eze & Nwafor, 2022). Digital tools support flexible and self-paced learning that accommodates adults' work and family responsibilities (Adebayo & Yusuf, 2021; Okonkwo, 2019), while also enhancing career development since many employers now require digital competence (Olaniyan & Ajibade, 2020). Furthermore, they foster social inclusion by connecting learners to global communities through online collaboration and networking (Nwosu & Ekezie, 2021). Ensuring equitable access to digital tools is therefore fundamental for improving learning outcomes, workforce readiness, and lifelong learning among adults.

Statement of the Problem

In today's digital age, technology is central to education, yet many adults in Delta Central Senatorial District struggle with low digital literacy, limiting their ability to learn effectively and participate in modern learning environments. Although government agencies, NGOs, and educational institutions have introduced training programmes and workshops to

improve digital skills, many adult learners still face barriers such as poor access to resources, inadequate training, and difficulty applying digital skills in their learning. Research on how specific aspects of digital literacy such as ICT skills training, e-learning participation, and mobile technology adoption affect adult learning outcomes in the region is also limited. This study therefore seeks to examine the relationship between digital literacy and adult learning, and to determine how digital literacy initiatives contribute to engagement, skills acquisition, and participation in adult education within Delta Central Senatorial District.

Aim and Objectives of the Study

The aim of the study was to examine the relationship between digital literacy and adult learning in Delta Central Senatorial District. The study sought to:

1. examine the relationship between access to digital tools and adult learning in Delta Central Senatorial District.
2. determine the relationship between ICT skills training and adult learning in Delta Central Senatorial District

Research Questions

The following research questions were raised to guide the study.

1. What is the relationship between access to digital tools and adult learning in Delta Central Senatorial District?
2. What is the relationship between ICT skills training influence adult learning in Delta Central Senatorial District?

Hypotheses

The following hypotheses were tested in the study at 0.05 significant level.

- H₀₁: There is no significant relationship between access to digital tools and adult learning in Delta Central Senatorial District
- H₀₂: There is no significant relationship between ICT skills training and adult learning in Delta Central Senatorial District

METHODOLOGY

This study adopted a correlational research design to examine digital literacy as a correlate of adult learning in Delta Central Senatorial District, which was appropriate because it measures the strength and direction of relationships without manipulating variables. The population comprised 1,600 adult learners across eight local government areas (Delta State Agency for Adult and Non-Formal Education, 2023), while a sample of 180 respondents (11.25%) was selected using a multistage sampling technique involving random selection of LGAs, centres, and learners. Data were collected using a structured questionnaire (Digital Literacy and Adult Learning Questionnaire – DLALQ) containing demographic items and 60 Likert-scale items aligned with the six study objectives. The instrument was validated through expert review and yielded a Cronbach's alpha reliability coefficient of 0.76 from a pilot study, indicating strong internal consistency. Data were gathered by the researcher with three trained assistants and analysed using descriptive statistics, Pearson Product-Moment

Correlation (PPMC), and regression analysis to determine the relationship and predictive influence of digital literacy on adult learning.

RESULTS

Research Question 1

What is the relationship between access to digital tools and adult learning in Delta Central Senatorial District?

Table 4.1: Analysis of relationship between access to digital tools and adult learning
Correlations

		Adult learning	Access to digital tools
Adult learning	Pearson	1	.279**
	Correlation		
	Sig. (2-tailed)		.000
	N	180	180
Access to digital tools	Pearson	.279**	1
	Correlation		
	Sig. (2-tailed)	.000	
	N	180	180

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

The Pearson Product Moment Correlation (PPMC) analysis shows a correlation coefficient of 0.279 with a p-value of 0.000, indicating a statistically significant moderate positive relationship between access to digital tools and adult learning in Delta Central Senatorial District. This suggests that greater access to devices such as smartphones, computers, and tablets enhances adult learners' participation, engagement, and overall learning outcomes.

Research Question 2: What is the relationship between ICT skills training influence adult learning in Delta Central Senatorial District?

Table 4.2: Analysis of relationship between ICT skills training influence adult learning
Correlations

		Adult learning	ICT skills training
Adult learning	Pearson	1	.232**
	Correlation		
	Sig. (2-tailed)		.002
	N	180	180
ICT skills training	Pearson	.232**	1
	Correlation		
	Sig. (2-tailed)	.002	
	N	180	180

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

The Pearson Product Moment Correlation (PPMC) analysis indicates a correlation coefficient of 0.232 with a p-value of 0.002, showing a statistically significant but low positive relationship between ICT skills training and adult learning in Delta Central Senatorial District. This suggests that structured ICT training, though modest in effect, enhances digital literacy and improves adult learners' ability to participate and benefit from educational programmes. The implication is that ICT training remains a vital component in promoting effective engagement in digital learning environments

Hypothesis 1

There is no significant relationship between access to digital tools and adult learning in Delta Central Senatorial District

Table 4.7: Relationship between access to digital tools and adult learning

Model Summary													
Model		R		R Square		Adjusted R Square		Std. Error of the Estimate					
1		.279 ^a		.078		.072		3.38027					
a. Predictors: (Constant), ACCESS TO DIGITAL TOOLS													
ANOVA ^a													
Model		Sum of Squares		df		Mean Square		F		Sig.			
1		Regression		171.123		1		171.123		14.976		.000 ^b	
		Residual		2033.872		178		11.426					
		Total		2204.994		179							
a. Dependent Variable: ADULT_LEARNING													
b. Predictors: (Constant), ACCESS_TO_DIGITAL_TOOLS													
Coefficients ^a													
Model		Unstandardized Coefficients		Standardized Coefficients		T		Sig.		95.0% Confidence Interval for B		Collinearity Statistics	
		B Std. Error		Beta						Lower Bound Upper Bound		Tolerance VIF	
1		(Constant)		11.470 1.478		7.762		.000		8.554 14.387			
		ACCESS TO DIGITAL TOOLS		.206 .053		.279 3.870		.000		.101 .311		1.000 1.000	
a. Dependent Variable: ADULT_LEARNING													

The table above showed the regression analysis which tested the hypothesis stating whether there is a significant relationship between access to digital tools and adult learning in Delta Central Senatorial District. The result shows a correlation coefficient (R) of .279 and an R Square value of .078, indicating that access to digital tools accounts for 7.8% of the variance in adult learning. The ANOVA result reveals an F-value of 14.976 with a p-value of .000, which is less than the 0.05 level of significance. Furthermore, the regression coefficient for access to digital tools is B = .206, with a t-value of 3.870 and a significance level of .000, confirming that the predictor is statistically significant.

Based on these results, the null hypothesis is rejected, indicating that access to digital tools significantly predicts adult learning in Delta Central Senatorial District.

Hypothesis 2

There is no significant relationship between ICT skills training and adult learning in Delta Central Senatorial District

Table 4.8: Regression analysis of the relationship between ICT skills training and adult learning

Model Summary										
Model		R		R Square		Adjusted R Square		Std. Error of the Estimate		
1		.232 ^a		.054		.049		3.42330		
a. Predictors: (Constant), ICT_SKILLS_TRAINING										
ANOVA										
Model		Sum of Squares		Df	Mean Square		F	Sig.		
1		Regression		119.015	1	119.015		10.156	.002 ^b	
		Residual		2085.980	178	11.719				
		Total		2204.994	179					
a. Dependent Variable: ADULT_LEARNING										
b. Predictors: (Constant), ICT_SKILLS_TRAINING										
Coefficients ^a										
Model		Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error				Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	13.842	1.055		13.117	.000	11.760	15.925		
	ICT SKILL TRAINING	.120	.038	.232	3.187	.002	.046	.194	1.000	1.000
a. Dependent Variable: ADULT_LEARNING										

The test of hypothesis showed a correlation ($R = .232$, $R^2 = .054$), meaning ICT skills training explains 5.4% of the variance in adult learning. The ANOVA ($F = 10.156$, $p = .002$) and regression coefficient ($B = .120$, $t = 3.187$, $p = .002$) confirmed significance. Thus, the null hypothesis is rejected, indicating ICT skills training significantly predicts adult learning in Delta Central Senatorial District.

DISCUSSION OF FINDINGS

The findings from the study revealed as following and were discussed below in relation to the objectives of the study. The study found a statistically significant moderate positive relationship between access to digital tools and adult learning. This supports Adebayo and Onyekwere (2019), who reported that limited access hinders e-learning participation, and Ibrahim and Okafor (2021), who confirmed that digital access strongly enhances adult education. The study revealed a low but significant positive relationship between ICT skills training and adult learning. This supports Olawale (2020), who found that

training boosts learners' confidence, and Adeyemi and Akinlade (2022), who noted its role in enhancing digital literacy and outcomes.

CONCLUSION

The study concludes that key digital literacy skills such as access to tools, communication, information management, problem-solving, collaboration, and online safety enhance learners' participation and success. Thus, digital literacy is a critical driver of adult learning and should be integrated as a core component of adult education programmes.

Recommendations

Based on the findings of the study, the following recommendations are made to relevant stakeholders:

1. Government and educational agencies should ensure that adult learning centres are adequately equipped with digital tools such as computers, internet access, and multimedia devices to improve access and engagement.
2. Adult education facilitators should be trained to teach and enhance digital communication skills among adult learners, enabling them to interact effectively in digital learning environments.

REFERENCES

- Adebayo, F., & Yusuf, T. (2021). *Digital literacy and national development in Nigeria: Prospects and challenges*. *Journal of Information and Communication Technology in Education*, 9(2), 45–57.
- Adekunle, J. O., & Onyekwere, C. (2019). *Access to digital tools and participation in adult education programmes in Nigeria*. *African Journal of Educational Research*, 23(1), 112–124.
- Adigun, M. O., & Afolabi, K. A. (2023). *ICT skills training and adult learners' participation in digital education programmes in South-West Nigeria*. *International Journal of Adult and Lifelong Learning*, 15(1), 67–80.
- Afolabi, M., & Ojo, T. (2020). *Applying the Technology Acceptance Model in adult learning: Adoption of e-learning platforms in Nigeria*. *International Journal of Educational Technology*, 15(3), 55–70.
- Bawden, D. (2020). *Origins and concepts of digital literacy*. In C. Lankshear & M. Knobel (Eds.), *Digital literacies: Concepts, policies and practices* (pp. 15–32). Peter Lang.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340.
- Eshet-Alkalai, Y. (2021). *Digital literacy: A conceptual framework for survival skills in the digital era*. *Journal of Educational Multimedia and Hypermedia*, 30(1), 1–21.
- Eze, J. O., & Nwafor, U. (2022). *Barriers to digital literacy integration in adult education centres in Nigeria*. *Journal of Educational Technology and Lifelong Learning*, 14(3), 88–101.
- Gilster, P. (2019). *Digital literacy*. Wiley.
- Ikechukwu, A., & Adeniyi, P. (2020). *Adult learning and lifelong education in Nigeria: Issues and perspectives*. *Nigerian Journal of Adult Education*, 28(2), 34–50.
- Knowles, M. S. (2020). *The modern practice of adult education: From pedagogy to andragogy*. Cambridge Books.

- Martin, A., & Grudziecki, J. (2020). DigEuLit: Concepts and tools for digital literacy development. *Innovation in Teaching and Learning in Information and Computer Sciences*, 5(4), 1–19. <https://doi.org/10.11120/ital.2006.05040249>
- Merriam, S. B., & Bierema, L. L. (2021). *Adult learning: Linking theory and practice*. Jossey-Bass.
- Ng, W. (2019). Can we teach digital natives' digital literacy? *Computers & Education*, 59(3), 1065–1078. <https://doi.org/10.1016/j.compedu.2011.09.016>
- Nnamdi, C. (2021). *Challenges of ICT adoption in adult education: Evidence from Nigeria*. *Journal of Educational Development and Practice*, 12(2), 54–66.
- Nwachukwu, V. C. (2023). *Digital literacy and its influence on adult education outcomes in Nigeria*. *African Journal of Digital Learning*, 6(1), 22–39.
- Nwosu, C., & Ekezie, R. (2021). *Digital inclusion and adult learning: Implications for social participation in Nigeria*. *Nigerian Journal of Adult Education*, 29(2), 73–89.
- Obi, C. (2021). *The role of digital literacy in enhancing adult education programmes in Nigeria*. *International Journal of Education and Innovation*, 7(4), 101–115.
- Ogunleye, A., & Adeyemo, D. (2020). *Digital literacy as a tool for lifelong learning among adults in Nigeria*. *Journal of Contemporary Educational Research*, 10(3), 76–89.
- Okafor, I., & Eze, C. (2021). *Digital divide and access to learning technologies in Delta State adult education centres*. *Delta Journal of Education*, 5(2), 44–57.
- Okonkwo, B. (2019). *Digital skills and participation in online learning among adult learners in Nigeria*. *Journal of Open and Distance Learning*, 8(1), 90–104.
- Okonkwo, C., & Adeyemi, J. (2021). *Mobile learning adoption among adult learners: Testing the Technology Acceptance Model in Nigeria*. *African Journal of ICT in Education*, 6(2), 41–56.
- Olaniyan, T., & Ajibade, D. (2020). *Digital skills and employability in the 21st century workforce: Implications for adult education*. *Journal of Education and Work*, 33(6–7), 477–490.
- Olawale, S. (2020). *ICT skills training and adult learners' engagement in Nigeria*. *Journal of Lifelong Education*, 11(2), 59–72.
- Sefton-Green, J., Nixon, H., & Erstad, O. (2022). *Exploring digital literacy practices: Everyday learning and adult education*. Routledge.
- Tusting, K., & Barton, D. (2019). *Models of adult learning: Technology, social practice and lifelong education*. *British Journal of Educational Studies*, 67(2), 215–232.
- Uchenna, E., & Bello, R. (2022). *Infrastructure and digital inclusion in adult learning programmes in Nigeria*. *Nigerian Journal of Distance Education*, 14(1), 25–39.



DOMESTIC VIOLENCE AND MARITAL DISHARMONY AMONG MARRIED PERSONS IN DELTA CENTRAL SENATORIAL DISTRICT

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ABSTRACT

This study empirically examined the relationship between domestic violence and marital disharmony among married persons in Delta Central Senatorial District, Nigeria. A correlational survey design was adopted. The population comprised 248,768 legally married persons registered across selected Local Government Areas in the district. Using Cochran's (1977) formula for large populations, a sample size of 384 respondents was determined and selected through multi-stage sampling procedures involving stratified and simple random sampling techniques. Data were collected using two validated instruments: the Domestic Violence Scale (DVS) and the Marital Disharmony Index (MDI). Validity was established through expert review and exploratory factor analysis, while reliability was confirmed using Cronbach's alpha coefficients ranging from 0.78 to 0.91. Data were analysed using Pearson Product Moment Correlation and Multiple Linear Regression at 0.05 level of significance. Findings revealed significant positive relationships between all five dimensions of domestic violence (physical, sexual, social, financial, and verbal) and marital disharmony. Multiple regression analysis showed that domestic violence dimensions jointly predicted marital disharmony. The null hypotheses were rejected. The study concludes that domestic violence is a strong predictor of marital instability and recommends stricter enforcement of domestic violence laws and structured marital counselling interventions.

Keywords: Domestic Violence, Marital Disharmony, Married Persons, Nigerian Society

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INTRODUCTION

Domestic violence remains a pervasive social problem globally and in Nigeria. The World Health Organization defines intimate partner violence as behaviour within an intimate relationship that causes physical, sexual, or psychological harm. In Nigeria, national demographic surveys indicate persistent prevalence of spousal abuse across socio-economic categories. (Cagle, 2017)

Marital disharmony refers to sustained relational conflict characterised by emotional estrangement, unresolved disputes, hostility, and breakdown in communication (Washburn & Christensen, 2008). While conflict may occur in marriages, persistent violence alters relational dynamics and erodes emotional trust (Okobia, 2008). Although prior studies have examined domestic violence conceptually, there remains insufficient empirical investigation linking its dimensions to measurable marital disharmony within Delta Central Senatorial District. This study therefore provides quantitative evidence of the relationship. Despite growing public awareness of domestic violence in Nigeria, marital instability continues to

rise. However, there is limited empirical evidence demonstrating how specific dimensions of domestic violence statistically predict marital disharmony within Delta Central Senatorial District. This gap necessitates systematic quantitative analysis.

Aim and Objectives of the Study

The study sought to:

1. Examine the relationship between physical violence and marital disharmony among married persons in Delta Central Senatorial District.
2. Determine the relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District.
3. Examine the relationship between sexual violence and marital disharmony among married persons in Delta Central Senatorial District.
4. Determine the relationship between financial violence and marital disharmony among married persons in Delta Central Senatorial District.
5. Examine the relationship between verbal violence and marital disharmony among married persons in Delta Central Senatorial District.

Research Questions

The following research questions were stated to guide this study:

1. What is the relationship between physical violence and marital disharmony among married persons in Delta Central Senatorial District?
2. What is the relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District?
3. What is the relationship between sexual violence and marital disharmony among married persons in Delta Central Senatorial District?
4. What is the relationship between financial violence and marital disharmony among married persons in Delta Central Senatorial District?
5. What is the relationship between verbal violence and marital disharmony among married persons in Delta Central Senatorial District?

Research Hypotheses

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

1. There is no significant relationship between physical violence and marital disharmony among married persons in Delta Central Senatorial District.
2. There is no significant relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District.
3. There is no significant relationship between sexual violence and marital disharmony among married persons in Delta Central Senatorial District.
4. There is no significant relationship between financial violence and marital disharmony among married persons in Delta Central Senatorial District.
5. There is no significant relationship between verbal violence and marital disharmony among married persons in Delta Central Senatorial District.

METHODOLOGY

A correlational survey research design was adopted to examine the predictive relationship between domestic violence and marital disharmony among married persons in Delta Central Senatorial District. The population consisted of 248,768 married persons (male and female) residing in Delta Central Senatorial District, derived from registered marriage

records across selected Local Government Areas. Cochran's (1977) formula for large populations was used for sample determination.

Where:

$Z = 1.96$ (95% confidence level)

$p = 0.5$ (assumed proportion)

$q = 0.5$

$e = 0.05$

This produced a sample size of **384 respondents**.

A multi-stage sampling procedure was employed:

1. **Stage 1 – Stratification:** The district was stratified into its Local Government Areas.
2. **Stage 2 – Proportionate Allocation:** Respondents were proportionately allocated based on population size.
3. **Stage 3 – Simple Random Sampling:** Participants were randomly selected from community registers and religious marriage registers.

The study made use of two researcher developed instrument. The first instrument was: Domestic Violence Scale (DVS). It has 30 items, Five subscales: physical, sexual, social, financial, verbal. It was based on 4-point Likert format. The second instrument was: Marital Disharmony Index (MDI). It has 20 items and it measured conflict frequency, emotional detachment, hostility, dissatisfaction The content validity of the instruments was ascertained through the judgment of three experts in Counselling Psychology and Measurement Evaluation from the Delta State University, Abraka. The reliability of the instruments was ascertained through Cronbach Alpha and it yielded reliability index as follows physical violence: 0.88, sexual violence: 0.84, social violence: 0.79, financial violence: 0.81, verbal violence: 0.91 marital Disharmony Index: 0.86. All coefficients exceeded 0.70 threshold. Pearson Product Moment Correlation (r) was used to answer the research questions while Multiple Linear Regression was used to test the hypotheses at 0.05 significance level.

RESULTS

Research Question 1: What is the relationship between physical violence and marital disharmony among married persons in Delta Central Senatorial District?

Table 1: Relationship between physical violence and marital disharmony among married persons in Delta Central Senatorial District

		Physical Violence	Marital Disharmony	Decision
Physical Violence	Pearson	1	.780**	Positive Relationship
	Correlation			
	Sig. (2-tailed)		.000	
	N	384	384	
Marital Disharmony	Pearson	.780**	1	
	Correlation			
	Sig. (2-tailed)	.000		
	N	384	384	

**. Correlation is significant at the 0.05 level (2-tailed).

Table 1 shows the Pearson Product Moment Correlation result examining the relationship between physical violence and marital disharmony among married persons in Delta Central Senatorial District. The analysis produced a correlation coefficient of $r(384) = .780$, with a significance value of $p = .000$. This p-value is less than 0.01, indicating that the relationship

is statistically significant. The result confirms that physical violence predicts marital disharmony among married persons in Delta Central Senatorial District.

Research Question 2: What is the relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District?

Table 2: Relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District

		Social Violence	Marital Disharmony	Decision
Social Violence	Pearson	1	.860**	Positive Relationship
	Correlation			
	Sig. (2-tailed)		.000	
	n	384	382	
Marital Disharmony	Pearson	.861**	1	
	Correlation			
	Sig. (2-tailed)	.000		
	n	384	384	

** . Correlation is significant at the 0.05 level (2-tailed).

Table 2 shows the Pearson Product Moment Correlation result examining the relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District. The analysis produced a correlation coefficient of $r(384) = .860$, with a significance value of $p = .000$. This p-value is less than 0.01, indicating that the relationship is statistically significant. The result confirms that social violence predicts marital disharmony among married persons in Delta Central Senatorial District.

Research Question 3: What is the relationship between sexual violence and marital disharmony among married persons in Delta Central Senatorial District?

Table 3: Relationship between sexual violence and marital disharmony among married persons in Delta Central Senatorial District

		Sexual Violence	Marital Disharmony	Decision
Sexual Violence	Pearson	1	.641**	Positive Relationship
	Correlation			
	Sig. (2-tailed)		.000	
	N	384	384	
Marital Disharmony	Pearson	.841**	1	
	Correlation			
	Sig. (2-tailed)	.000		
	N	384	384	

** . Correlation is significant at the 0.05 level (2-tailed)

Table 3 shows the Pearson Product Moment Correlation result examining the relationship between sexual violence and marital disharmony among married persons in Delta Central Senatorial District. The analysis produced a correlation coefficient of $r(384) = .641$, with a significance value of $p = .000$. This p-value is less than 0.01, indicating that the relationship is statistically significant. The result confirms that social violence predicts marital disharmony among married persons in Delta Central Senatorial District.

Research Question 4: What is the relationship between financial violence and marital disharmony among married persons in Delta Central Senatorial District?

Table 4: Relationship between financial violence and marital disharmony among married persons in Delta Central Senatorial District

		Financial Violence	Marital Disharmony	Decision
Financial Violence	Pearson	1	.741**	Positive Relationship
	Correlation			
	Sig. (2-tailed)		.000	
	n	384	384	
Marital Disharmony	Pearson	.741**	1	
	Correlation			
	Sig. (2-tailed)	.000		
	n	384	384	

**. Correlation is significant at the 0.05 level (2-tailed).

Table 4 shows the Pearson Product Moment Correlation result examining the relationship between financial violence and marital disharmony among married persons in Delta Central Senatorial District. The analysis produced a correlation coefficient of $r(384) = .741$, with a significance value of $p = .000$. This p-value is less than 0.01, indicating that the relationship is statistically significant. The result confirms that financial violence predicts marital disharmony among married persons in Delta Central Senatorial District.

Research Question 5: What is the relationship between verbal violence and marital disharmony among married persons in Delta Central Senatorial District?

Table 5: Relationship between sexual violence and marital disharmony among married persons in Delta Central Senatorial District

		Verbal Violence	Marital Disharmony	Decision
Verbal Violence	Pearson	1	.940**	Positive Relationship
	Correlation			
	Sig. (2-tailed)		.000	
	n	384	384	
Marital Disharmony	Pearson	.940**	1	
	Correlation			
	Sig. (2-tailed)	.000		
	n	384	384	

**. Correlation is significant at the 0.05 level (2-tailed).

Table 5 shows the Pearson Product Moment Correlation result examining the relationship between verbal violence and marital disharmony among married persons in Delta Central Senatorial District. The analysis produced a correlation coefficient of $r(384) = .940$, with a significance value of $p = .000$. This p-value is less than 0.01, indicating that the relationship is statistically significant. The result confirms that verbal violence predicts marital disharmony among married persons in Delta Central Senatorial District.

Hypothesis 1: There is no significant relationship between physical violence and marital disharmony among married persons in Delta Central Senatorial District.

Table 6: Relationship between physical violence and marital disharmony among married persons in Delta Central Senatorial District

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.635	.978		3.715	.000
	Physical Violence	.708	.031	.890	22.649	.000

a. Dependent Variable: Marital Disharmony

The regression results in Table 6 above revealed that physical violence is a significant predictor to marital disharmony among married persons in Delta Central Senatorial District. Specifically, physical violence has an unstandardized coefficient (B) of 0.708 and a standardized beta (β) of 0.890, with a t-value of 22.649 and a significance level of .000. Since the p-value is less than 0.05, the null hypothesis (H_{08}), which posits no significant relationship between physical violence and marital disharmony among married persons in Delta Central Senatorial District is rejected. This implies that physical violence significantly predicts marital disharmony among married persons in Delta Central Senatorial District.

Hypothesis 2: There is no significant relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District.

Table 7: Relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.852	.593		3.122	.002
	Social Violence	.761	.019	.961	23.374	.000

a. Dependent Variable: Marital Disharmony

The regression results in Table 7 above revealed that social violence is a significant predictor to marital disharmony among married persons in Delta Central Senatorial District. Specifically, physical violence has an unstandardized coefficient (B) of 0.761 and a standardized beta (β) of 0.961, with a t-value of 23.374 and a significance level of .000. Since the p-value is less than 0.05, the null hypothesis (H_{02}), which posits no significant relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District is rejected. This implies that social violence significantly predicts marital disharmony among married persons in Delta Central Senatorial District.

Hypothesis 3: There is no significant relationship between sexual violence and marital disharmony among married persons in Delta Central Senatorial District.

Table 8: Relationship between sexual violence and marital disharmony among married persons in Delta Central Senatorial District.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.635	.978		3.715	.000
	Sexual Violence	1.708	.031	.890	21.649	.000

a. Dependent Variable: Marital Disharmony

The regression results in Table 8 above revealed that sexual violence is a significant predictor to marital disharmony among married persons in Delta Central Senatorial District. Specifically, physical violence has an unstandardized coefficient (B) of 1.708 and a

standardized beta (β) of 0.890, with a t-value of 21.649 and a significance level of .000. Since the p-value is less than 0.05, the null hypothesis (H_{o3}), which posits no significant relationship between sexual violence and marital disharmony among married persons in Delta Central Senatorial District is rejected. This implies that sexual violence significantly predicts marital disharmony among married persons in Delta Central Senatorial District.

Hypothesis 4: There is no significant relationship between financial violence and marital disharmony among married persons in Delta Central Senatorial District.

Table 9: Relationship between financial violence and marital disharmony among married persons in Delta Central Senatorial District

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.635	.978		3.715	.000
	Financial Violence	1.605	.031	.760	21.540	.000

a. Dependent Variable: Marital Disharmony

The regression results in Table 9 above revealed that financial violence is a significant predictor to marital disharmony among married persons in Delta Central Senatorial District. Specifically, physical violence has an unstandardized coefficient (B) of 1.605 and a standardized beta (β) of 0.760, with a t-value of 21.540 and a significance level of .000. Since the p-value is less than 0.05, the null hypothesis (H_{o4}), which posits no significant relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District is rejected. This implies that social violence significantly predicts marital disharmony among married persons in Delta Central Senatorial District.

Hypothesis 5: There is no significant relationship between verbal violence and marital disharmony among married persons in Delta Central Senatorial District.

Table 10: Relationship between verbal violence and marital disharmony among married persons in Delta Central Senatorial District.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.635	.978		3.715	.000
	Verbal Violence	.909	.031	.760	22.342	.000

a. Dependent Variable: Marital Disharmony

The regression results in Table 10 above revealed that verbal violence is a significant predictor to marital disharmony among married persons in Delta Central Senatorial District. Specifically, physical violence has an unstandardized coefficient (B) of 0.909 and a standardized beta (β) of 0.760, with a t-value of 22.342 and a significance level of .000. Since the p-value is less than 0.05, the null hypothesis (H_{o5}), which posits no significant relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District is rejected. This implies that social violence significantly predicts marital disharmony among married persons in Delta Central Senatorial District.

DISCUSSION OF FINDINGS

Analysis based on research question one as presented in Table 1 shows the Pearson Product Moment Correlation result examining the relationship between physical violence and marital disharmony among married persons in Delta Central Senatorial District. The analysis produced a correlation coefficient of $r(384) = .780$, with a significance value of $p = .000$.

This p-value is less than 0.01, indicating that the relationship is statistically significant. The result confirms that physical violence predicts marital disharmony among married persons in Delta Central Senatorial District. This finding is in line with that of Okobiah (2008) who stated that physical violence significantly predicts marital disharmony among married persons. The regression results in Table 6 above revealed that physical violence is a significant predictor to marital disharmony among married persons in Delta Central Senatorial District. Specifically, physical violence has an unstandardized coefficient (B) of 0.708 and a standardized beta (β) of 0.890, with a t-value of 22.649 and a significance level of .000. Since the p-value is less than 0.05, the null hypothesis (H_{08}), which posits no significant relationship between physical violence and marital disharmony among married persons in Delta Central Senatorial District is rejected. This implies that physical violence significantly predicts marital disharmony among married persons in Delta Central Senatorial District.

Analysis based on research question two, as presented in Table 2 shows the Pearson Product Moment Correlation result examining the relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District. The analysis produced a correlation coefficient of $r(384) = .860$, with a significance value of $p = .000$. This p-value is less than 0.01, indicating that the relationship is statistically significant. The result confirms that social violence predicts marital disharmony among married persons in Delta Central Senatorial District. This finding is in line with that of Washburn & Christensen (2008) who stated that social violence significantly predicts marital disharmony among married persons. The regression results in Table 7 above revealed that social violence is a significant predictor to marital disharmony among married persons in Delta Central Senatorial District. Specifically, physical violence has an unstandardized coefficient (B) of 0.761 and a standardized beta (β) of 0.961, with a t-value of 23.374 and a significance level of .000. Since the p-value is less than 0.05, the null hypothesis (H_{02}), which posits no significant relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District is rejected. This implies that social violence significantly predicts marital disharmony among married persons in Delta Central Senatorial District.

Analysis based on research question three, as presented in Table 3 shows the Pearson Product Moment Correlation result examining the relationship between sexual violence and marital disharmony among married persons in Delta Central Senatorial District. The analysis produced a correlation coefficient of $r(384) = .641$, with a significance value of $p = .000$. This p-value is less than 0.01, indicating that the relationship is statistically significant. The result confirms that social violence predicts marital disharmony among married persons in Delta Central Senatorial District. This finding is in line with that of Cragle (2017) who stated that sexual violence significantly predicts marital disharmony among married persons. The regression results in Table 8 above revealed that sexual violence is a significant predictor to marital disharmony among married persons in Delta Central Senatorial District. Specifically, physical violence has an unstandardized coefficient (B) of 1.708 and a standardized beta (β) of 0.890, with a t-value of 21.649 and a significance level of .000. Since the p-value is less than 0.05, the null hypothesis (H_{03}), which posits no significant relationship between sexual violence and marital disharmony among married persons in Delta Central Senatorial District is rejected. This implies that sexual violence significantly predicts marital disharmony among married persons in Delta Central Senatorial District.

Analysis based on research question four, as presented in Table 4 shows the Pearson Product Moment Correlation result examining the relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District. The analysis

produced a correlation coefficient of $r(384) = .741$, with a significance value of $p = .000$. This p-value is less than 0.01, indicating that the relationship is statistically significant. The result confirms that financial violence predicts marital disharmony among married persons in Delta Central Senatorial District. This finding is in line with that of Dean et al (2005) who stated that financial violence significantly predicts marital disharmony among married persons. The regression results in Table 9 above revealed that financial violence is a significant predictor to marital disharmony among married persons in Delta Central Senatorial District. Specifically, physical violence has an unstandardized coefficient (B) of 1.605 and a standardized beta (β) of 0.760, with a t-value of 21.540 and a significance level of .000. Since the p-value is less than 0.05, the null hypothesis (H_{04}), which posits no significant relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District is rejected. This implies that social violence significantly predicts marital disharmony among married persons in Delta Central Senatorial District.

Analysis based on research question five, as presented in Table 5 shows the Pearson Product Moment Correlation result examining the relationship between verbal violence and marital disharmony among married persons in Delta Central Senatorial District. The analysis produced a correlation coefficient of $r(384) = .940$, with a significance value of $p = .000$. This p-value is less than 0.01, indicating that the relationship is statistically significant. The result confirms that verbal violence predicts marital disharmony among married persons in Delta Central Senatorial District. This finding is in line with that of Eze (2013) who stated that verbal violence significantly predicts marital disharmony among married persons. The regression results in Table 10 above revealed that verbal violence is a significant predictor to marital disharmony among married persons in Delta Central Senatorial District. Specifically, physical violence has an unstandardized coefficient (B) of 0.909 and a standardized beta (β) of 0.760, with a t-value of 22.342 and a significance level of .000. Since the p-value is less than 0.05, the null hypothesis (H_{05}), which posits no significant relationship between social violence and marital disharmony among married persons in Delta Central Senatorial District is rejected. This implies that social violence significantly predicts marital disharmony among married persons in Delta Central Senatorial District.

CONCLUSION

Based on the findings of the study, it could be concluded that the five dimensions of domestic violence, which include physical, social, sexual, financial and verbal violence predict marital disharmony among married persons in Delta Central Senatorial District. Moreover, it is clear that whoever is the perpetrator or victim in domestic violence, the bottom line is that domestic violence destroys from within, the effect may not be seen immediately, but over the years, it destroys the victim's self-worth, it withers the soul. The actual victims are: the abuser (perpetrator), the abused (victim) and even the witnesses.

Recommendations

Based on the findings of this study, the following recommendations were advanced:

1. laws regarding physical domestic violence among couples should be implemented by the government of the state through adequate prosecution of violators;
2. family counsellors should through road-show and seminar, make couples to realise the negative implication of socially isolating or abusing their spouse on their marital well-being;
3. marriage and family counsellors should discourage sexual violence among couples, especially during premarital counselling.

4. that couples should balance their financial status and set a boundary as to how their finance is to be managed without compromising their marital relationship.
5. Couples should be mindful of verbal violence in form of vulgar language which may cause disharmony in marriage

REFERENCES

- Cagle, J. G. (2017). Social exclusion factors influencing life satisfaction among older adults. *Journal of Poverty and Social Justice*, 10(10), 1-16.
- Okobiah, O. C. (2008). The Family and Spouse Abuse: A Challenge to Nigerian Counsellors". 15th in the series of Inaugural Lectures of the Delta State University Abraka. June 15th.
- Washburn, C., & Christensen, D. (2008). Financial harmony: A key component of successful marriage relationship. *The Forum for Family and Consumer Issues*, 13 (1). Retrieved from <http://ncsu.edu/ffci/publications/2008/v13-n1-2008-spring/TableofContents-May2008.php>
- Dean, L. R., Carroll, J.S., & Yang, C. (2005). Materialism, perceived financial problems, and marital satisfaction. *Family and Consumer Sciences Research Journal*, 35, 260-281. doi:10.1177/1077727X06296625
- Eze, U. O. (2013). Prevention of sexual assault in Nigeria. *Ann Ibid. Pg. Med*, 11(2), 65-70



**HUMAN RESOURCE UTILIZATION AND STUDENTS' ACADEMIC
PERFORMANCE IN PUBLIC SECONDARY SCHOOLS IN DELTA CENTRAL
SENATORIAL DISTRICT, DELTA STATE, NIGERIA**

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ABSTRACT

This study examined the relationship between human resource utilization and students' academic performance in public secondary schools in Delta Central Senatorial District, Delta State, Nigeria. The study was guided by three objectives, which focused on the relationship between the utilization of teaching personnel, administrative personnel, and support personnel and students' academic performance. A correlational research design was adopted for the study. The population consisted of 5,320 respondents (194 principals and 5,126 teachers) in public secondary schools within the study area, from which a sample of 400 was drawn using appropriate sampling techniques. Data were collected using a structured questionnaire and analysed using Pearson Product Moment Correlation and linear regression at 0.05 level of significance. Findings revealed that there is a significant positive relationship between the utilization of teaching personnel and students' academic performance. Similarly, a significant positive relationship was found between the utilization of administrative personnel and students' academic performance. Furthermore, the study established that the utilization of support personnel also has a significant positive relationship with students' academic performance. The regression analysis further showed that all three categories of human resource utilization significantly predict students' academic performance, with administrative personnel contributing the highest level of influence, followed by support and teaching personnel. The study concluded that effective utilization of human resources is a key determinant of students' academic performance in public secondary schools. It was therefore recommended that school administrators should ensure proper deployment, and utilization of all categories of school personnel to enhance instructional effectiveness and improve learning outcomes.

Keywords: Human Resource Utilization, Teaching Personnel, Administrative Personnel, Support Personnel, Academic Performance.

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INTRODUCTION

Academic performance represents the extent to which students attain educational goals and objectives through learning activities and assessments in school. According to Matthew (2022), academic performance refers to performance outcomes that reveal the degree to which learners accomplish specific educational goals in instructional settings. Similarly, Arul and Vimala, as cited in Matthew (2022), described academic performance as the level of knowledge gained in formal education, often measured through test scores, grade point averages, and performance in internal and external examinations. In the context of secondary education, academic performance serves as an important indicator of the

effectiveness of teaching, learning, and school management practices. It reflects not only students' cognitive achievement but also the quality of educational resources and administrative processes available within the school system.

Despite the critical importance of academic performance in determining the success of the educational system and the future opportunities available to students, many students in public secondary schools in Delta Central Senatorial District continue to perform poorly in external examinations such as the West African Senior School Certificate Examination (WASSCE) and the National Examination Council (NECO) examinations which has become a major source of concern among stakeholders in education. In addition to low examination scores, reports of examination malpractice, poor study habits, and low academic engagement among students further indicate weaknesses within the school system. The increasing concern over students' poor academic performance has generated reactions from parents, educators, administrators, and policymakers. While some attribute the problem to students' lack of seriousness and commitment to academic work, others believe that ineffective school management practices, especially poor utilization of available human resources, may be largely responsible for the declining academic outcomes observed in public secondary schools.

Human resource utilization in education refers to the effective deployment, coordination, supervision, motivation, and management of teaching and non-teaching personnel for the achievement of educational goals and objectives. It involves ensuring that teachers, principals, guidance counsellors, laboratory attendants, librarians, and other school personnel are properly assigned, adequately supervised, and efficiently engaged in the teaching-learning process to maximize productivity and students' academic success. According to Peretomode (2019), human resource utilization in schools entails the effective management and application of personnel skills, knowledge, and competencies toward the realization of educational objectives. Similarly, Nwideeduh and Egbule (2021) observed that the quality of educational outcomes largely depends on how effectively available human resources are utilized within the school system. Effective utilization of school personnel promotes efficient instructional delivery, proper classroom management, staff cooperation, learner support services, and improved students' academic performance. Conversely, poor utilization of human resources may result in teacher absenteeism, excessive workload, inadequate supervision, low staff morale, and ineffective instructional practices, which negatively affect students' learning outcomes.

In many public secondary schools in Nigeria, particularly in Delta Central Senatorial District, issues such as uneven distribution of teachers, shortage of qualified personnel, weak administrative supervision, and inadequate motivation continue to hinder effective human resource utilization. These challenges may contribute significantly to persistent poor academic performance among students in both internal and external examinations. Consequently, the effective utilization of human resources remains essential for enhancing educational quality, improving students' academic achievement, and ensuring the attainment of educational goals within the secondary school system. In the present study, human resource utilization is examined under three major categories, namely: utilization of teaching personnel, utilization of administrative personnel, and utilization of support personnel, in relation to students' academic performance in public secondary schools in Delta Central Senatorial District.

Teaching personnel constitute the core human resources in the school system because they are directly responsible for classroom instruction, curriculum implementation, assessment of learners, and the overall facilitation of the teaching-learning process. The

effective utilization of teaching personnel involves proper teacher deployment, adequate workload distribution, regular supervision, professional development, and motivation to ensure maximum productivity and improved students' academic performance. Research findings have consistently shown that effective utilization of teachers positively influences students' academic achievement. Adeyemi (2020) found that schools with adequately utilized and supervised teachers recorded higher students' performance in external examinations than schools experiencing poor teacher management practices.

Consequently, Ofojebe and Ezugoh (2021) reported that effective teacher utilization through balanced workload allocation and subject specialization significantly improved students' academic outcomes in secondary schools in South-South Nigeria. In another study, Ibrahim and Alabi (2022) revealed that teacher motivation, regular classroom supervision, and proper deployment enhanced instructional effectiveness and students' academic engagement. Likewise, Nwideduh and Ugborbor (2023) observed that schools where teaching personnel were effectively utilized experienced better classroom management, improved instructional delivery, and higher academic performance among students. Conversely, inadequate teacher utilization characterized by absenteeism, excessive workload, and improper subject allocation was associated with poor academic achievement and low learner participation. These findings suggest that the effective utilization of teaching personnel remains fundamental to achieving quality educational outcomes in public secondary schools.

Administrative personnel such as principals, vice principals, and heads of departments play critical roles in coordinating school activities, supervising instructional processes, maintaining discipline, implementing educational policies, and ensuring the achievement of school goals. Effective utilization of administrative personnel involves proper delegation of responsibilities, efficient supervision of staff and students, participatory leadership practices, and effective coordination of school resources. Empirical studies have demonstrated that the utilization of administrative personnel significantly affects students' academic performance. Peretomode and Chukwuma (2020) found that effective administrative supervision and leadership practices contributed positively to teachers' productivity and students' academic success in secondary schools. Similarly, Egboka and Onyali (2021) reported that schools with effective administrative personnel utilization experienced improved instructional coordination, better staff discipline, and enhanced students' academic performance. In another study, Okoro and Nwiyi (2022) revealed that principals who effectively coordinated school personnel and monitored instructional activities recorded higher levels of students' achievement in both internal and external examinations.

Furthermore, Yusuf and Bello (2023) observed that effective utilization of administrative personnel promoted accountability, efficient school management, and positive school climate, which significantly improved students' learning outcomes. On the contrary, poor administrative coordination, weak supervision, and ineffective leadership practices were associated with declining academic standards and poor students' performance. Therefore, the utilization of administrative personnel remains essential for improving organizational effectiveness and academic achievement in public secondary schools.

Support personnel include laboratory attendants, librarians, clerical staff, guidance counsellors, security personnel, and other non-teaching staff who provide supportive services necessary for the smooth functioning of the school system. Although they are not directly involved in classroom instruction, their contributions are essential for maintaining conducive learning environments and supporting effective teaching and learning processes. Effective utilization of support personnel involves assigning duties according to competence, ensuring

adequate supervision, and integrating support services into school operations. Studies have shown that support personnel significantly contribute to students' academic performance when effectively utilized. Akinwale (2020) found that effective utilization of laboratory attendants and librarians enhanced students' practical learning experiences and academic achievement in science-related subjects.

Similarly, Ugwu and Nwafor (2021) reported that guidance counsellors and other support staff played important roles in improving students' study habits, discipline, and academic adjustment in secondary schools. In another study, Eze and Mbah (2022) observed that schools with adequately utilized support personnel maintained better school organization, record keeping, and learner support services, which positively influenced students' academic performance. Likewise, Oloruntoba and Adegbite (2023) revealed that the effective utilization of non-teaching personnel contributed to improved school maintenance, student welfare, and smooth school administration, thereby promoting better learning outcomes. However, inadequate utilization of support personnel often leads to poor maintenance of school facilities, ineffective student support services, and administrative inefficiencies capable of hindering students' academic progress. These findings indicate that support personnel remain important components of the educational system whose effective utilization can enhance students' academic performance in public secondary schools

Statement of the Problem

Students' academic performance at the secondary school level is influenced by a combination of factors, among which the effective utilization of human resources plays a central role. Human resources in education refer primarily to teachers, school administrators, guidance counsellors, laboratory attendants, and other supporting staff who are responsible for facilitating teaching and learning processes. The extent to which these personnel are properly deployed, coordinated, motivated, and supervised largely determines the quality of instructional delivery and, ultimately, students' academic outcomes.

In recent times, there has been growing concern over the declining academic performance of students in public secondary schools in Delta Central Senatorial District, Delta State. This concern is reflected in poor performance in both internal and external examinations, low academic engagement, increased absenteeism, and a general lack of interest in learning among students. These challenges have raised questions among stakeholders in education, including parents, teachers, school administrators, and policymakers, regarding the effectiveness of school operations and personnel management practices.

Despite various interventions by government and other stakeholders, including recruitment of teachers and periodic training programmes, the expected improvement in students' academic performance has not been substantially achieved. This persistent situation suggests that the problem may not only be related to the availability of human resources but more critically to how these resources are utilized within the school system. Issues such as uneven distribution of teachers, ineffective supervision, inadequate motivation, inappropriate assignment of duties, and underutilization of available personnel may be contributing to inefficiencies in school operations.

Although previous studies have examined factors such as teacher qualification, availability of instructional materials, and school funding in relation to students' academic performance, less attention has been given to the specific role of human resource utilization in influencing academic outcomes. This creates a gap in knowledge, particularly in the context of Delta Central Senatorial District, where persistent poor academic performance

continues to be reported. Therefore, the problem of this study is to determine the extent to which human resources are effectively utilized in public secondary schools in Delta Central Senatorial District.

Aim and Objectives of the Study

This study examined the relationship between human resource utilization and students' academic performance in public secondary schools in Delta Central Senatorial District, Delta State. Specifically, the study was set to:

1. determine the relationship between the utilization of teaching personnel and students' academic performance in public secondary schools in Delta Central Senatorial District.
2. examine the relationship between the utilization of administrative personnel and students' academic performance in public secondary schools in Delta Central Senatorial District.
3. ascertain the relationship between the utilization of support personnel and students' academic performance in public secondary schools in Delta Central Senatorial District.

Research Questions

The following research questions and hypotheses were raised

1. What is the relationship between the utilization of teaching personnel and students' academic performance in public secondary schools in Delta Central Senatorial District?
2. What is the relationship between the utilization of administrative personnel and students' academic performance in public secondary schools in Delta Central Senatorial District?
3. What is the relationship between the utilization of support personnel and students' academic performance in public secondary schools in Delta Central Senatorial District?

Hypotheses

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

- Ho1:** There is no significant relationship between the utilization of teaching personnel and students' academic performance in public secondary schools in Delta Central Senatorial District.
- Ho2:** There is no significant relationship between the utilization of administrative personnel and students' academic performance in public secondary schools in Delta Central Senatorial District.
- Ho3:** There is no significant relationship between the utilization of support personnel and students' academic performance in public secondary schools in Delta Central Senatorial District.

METHODOLOGY

This study adopted a correlational survey research design to examine the relationship between human resource utilization and students' academic performance in public secondary schools in Delta Central Senatorial District, Delta State. The design was suitable as it allows the assessment of relationships among variables without manipulation. The population comprised 5,320 respondents (194 principals and 5,126 teachers), selected due to their direct involvement in school administration and instruction. A sample of 400 respondents was drawn using appropriate sampling techniques to ensure representativeness. Data were collected using a structured questionnaire titled *Human Resource Utilization and Students' Academic Performance Questionnaire (HRUSAPQ)*, which contained demographic information and items on utilization of teaching, administrative, and support personnel as well as students' academic performance, rated on a four-point Likert scale. The instrument was validated by experts for face and content validity, while reliability was established at 0.77 using Cronbach's Alpha following a pilot study. Questionnaires were administered and retrieved with the help of trained assistants after obtaining permission from school authorities. Consequently, data were analysed using Pearson Product Moment Correlation and simple linear regression at 0.05 level of significance to determine the relationship between human resource utilization and students' academic performance and to test the hypotheses.

RESULTS

Research Questions 1: What is the relationship between utilization of teaching personnel and students' academic performance in public secondary schools in Delta Central Senatorial District?

Table 1: Pearson(r) on the Relationship between utilization of teaching personnel and students' academic performance

		Utilization of teaching Personnel	Students' Academic Performance
Utilization of Teaching Personnel	Pearson Correlation	1	.408**
	Sig. (2-tailed)		.000
	N	400	400
Students' Academic Performance	Pearson Correlation	.408**	1
	Sig. (2-tailed)	.000	
	N	400	400

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

Table 1 presents the Pearson Product Moment Correlation analysis on the relationship between utilization of teaching personnel and students' academic performance in public secondary schools in Delta Central Senatorial District. The result shows a correlation coefficient (r) value of 0.408 with a significance value (p) of 0.000 based on 400 respondents, indicating a moderate positive relationship between the variables. The significance value, being less than 0.01, confirms that the relationship is statistically significant and not due to chance. This implies that improved utilization of teaching personnel is associated with better students' academic performance in public secondary schools.

Research Questions 2: What is the relationship between utilization of administrative personnel and students' academic performance in public secondary schools in Delta Central Senatorial District.

Table 2: Pearson(r) on the Relationship between utilization of administrative personnel and students' academic performance

		Utilization of Administrative Personnel	Students' Academic Performance
Utilization of Administrative Personnel	Pearson Correlation	1	.476**
	Sig. (2-tailed)		.000
	N	400	400
Students' Academic Performance	Pearson Correlation	.476**	1
	Sig. (2-tailed)	.000	
	n	400	400

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

Table 2 presents the Pearson Product Moment Correlation analysis on the relationship between utilization of administrative personnel and students' academic performance in public secondary schools in Delta Central Senatorial District. The result shows a correlation coefficient (r) value of 0.476 with a significance value (p) of 0.000 based on 400 respondents, indicating a moderate positive relationship between the variables. The significance value, being less than 0.01, confirms that the relationship is statistically significant and not due to chance. This implies that better utilization of administrative personnel is associated with improved students' academic performance in public secondary schools.

Research Questions 3: What is the relationship between utilization of support personnel and students' academic performance in public secondary schools in Delta Central Senatorial District?

Table 3: Pearson(r) on the Relationship between utilization of support personnel and students' academic performance

Correlations			
		Utilization of support personnel	Students' Academic Performance
Utilization of support personnel	Pearson Correlation	1	.444**
	Sig. (2-tailed)		.000
	N	357	400
Students' Academic Performance	Pearson Correlation	.444**	1
	Sig. (2-tailed)	.000	
	N	357	400

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

Table 3 presents the Pearson Product Moment Correlation analysis on the relationship between utilization of support personnel and students' academic performance in public secondary schools. The result shows a correlation coefficient (r) value of 0.444 with a significance value (p) of 0.000 based on 400 respondents. This indicates a moderate positive and significant relationship between the variables. The significance value, being less than 0.01, confirms that the relationship is statistically significant and not due to chance. This suggests that improved utilization of support personnel is associated with better students' academic performance in public secondary schools.

Testing of Hypotheses

Ho1: There is no significant relationship between utilization of teaching personnel and students' academic performance in public secondary schools in Delta Central Senatorial District?

Table 4: Linear Regression Analysis on the relationship between utilization of teaching personnel and students' academic performance in public secondary schools in Delta Central Senatorial District?

Model	Coefficients		Standardized Coefficients Beta	T	Sig.
	Unstandardized Coefficients B	Std. Error			
1 (Constant)	14.788	1.291		11.456	.000
Utilization of Teaching Personnel	.686	.082	.408	8.409	.000

a. Dependent Variable: Students' Academic Performance
R=.408, R Square=.166, F=70.710

Table 4 presents the linear regression analysis on the relationship between utilization of teaching personnel and students' academic performance in public secondary schools in Delta Central Senatorial District. The result shows a positive and significant effect ($\beta = 0.408$, $t = 8.409$, $p = 0.000$). Since the p-value is below 0.05, the null hypothesis is rejected, indicating a significant relationship between the variables. The R value of 0.408 and R^2 of 0.166 show that utilization of teaching personnel explains about 16.6% of the variation in students' academic performance. The F-value of 70.710 confirms the model's statistical significance, implying that better utilization of teaching personnel contributes meaningfully to students' academic performance in public secondary schools.

Ho2: There is no significant relationship between utilization of administrative personnel and students' academic performance in public secondary schools in Delta Central Senatorial District.

Table 5: Linear Regression Analysis on the relationship between utilization of administrative personnel and students' academic performance

Model	Coefficients		Standardized Coefficients Beta	t	Sig.
	Unstandardized Coefficients B	Std. Error			
1 (Constant)	13.303	1.213		10.964	.000
Utilization of administrative personnel	.781	.077	.476	10.195	.000

a. Dependent Variable: Students' Academic Performance
R=.476, R Square=.226, F=103.938

Table 5 presents the regression analysis on the relationship between utilization of administrative personnel and students' academic performance. The result shows a positive and significant relationship ($\beta = 0.476$, $t = 10.195$, $p = 0.000$). Since the p-value is less than 0.05, the null hypothesis is rejected. This indicates that utilization of administrative personnel has a significant relationship with students' academic performance. The R value of 0.476 and R^2 value of 0.226 show that 22.6% of the variation in students' academic performance is explained by utilization of administrative personnel. The F-value of 103.938 confirms the statistical significance of the model. This implies that effective administrative supervision, coordination, and leadership practices significantly enhance students' academic performance in public secondary schools.

Ho3: There is no significant relationship between utilization of support personnel and students' academic performance in public secondary schools in Delta Central Senatorial District

Table 6: Linear Regression Analysis on the relationship between utilization of support personnel and students' academic performance

Model		Coefficients		Standardized Coefficients	t	Sig.
		Unstandardized Coefficients	Std. Error			
1	(Constant)	13.343	1.317		10.135	.000
	Utilization of Support Personnel	.770	.082	.444	9.348	.000

a. Dependent Variable: Students' Academic Performance
R=.444, R Square=.198, F=87.389

Table 6 presents the regression analysis on the relationship between utilization of support personnel and students' academic performance. The result reveals a positive and significant relationship ($\beta = 0.444$, $t = 9.348$, $p = 0.000$). Since the p-value is less than 0.05, the null hypothesis is rejected. This indicates that utilization of support personnel has a significant relationship with students' academic performance in public secondary schools in Delta Central Senatorial District. The R value of 0.444 and R^2 value of 0.198 show that utilization of support personnel accounts for 19.8% of the variation in students' academic performance. The F-value of 87.389 further confirms the statistical significance of the model. This implies that effective use of support staff such as laboratory attendants, librarians, and other non-teaching personnel contributes significantly to improving students' academic performance.

DISCUSSION OF FINDINGS

The findings of this study revealed that the utilization of teaching personnel has a significant positive relationship with students' academic performance in public secondary schools in Delta Central Senatorial District. This finding agrees with the position of Adeyemi (2020), who reported that schools with effectively deployed and supervised teachers recorded higher student achievement in external examinations. It also aligns with Ofojebe and Ezugoh (2021), who established that balanced workload allocation and proper subject specialization among teachers enhance students' academic outcomes. Similarly, Ibrahim and Alabi (2022) found that teacher motivation, supervision, and proper deployment improve instructional delivery and learner engagement, while Nwideduh and Ugborborbor (2023) observed that effective utilization of teachers enhances classroom management and academic performance. These findings collectively support the present result, which suggests that when teaching personnel are properly managed, students benefit from improved instruction, better classroom interaction, and enhanced academic achievement.

The study further revealed that utilization of administrative personnel significantly relates to students' academic performance. This finding is consistent with Peretomode and Chukwuma (2020), who reported that effective administrative supervision enhances teachers' productivity and student achievement. It also agrees with Egboka and Onyali (2021), who found that efficient utilization of school administrators leads to improved coordination, discipline, and academic outcomes. Similarly, Okoro and Nwiyi (2022) observed that principals who effectively coordinate school activities and monitor instruction achieve higher student performance, while Yusuf and Bello (2023) established that effective administrative practices promote accountability, positive school climate, and improved learning outcomes. These findings support the present result, indicating that strong administrative leadership and proper utilization of administrative personnel play a vital role in creating an organized and academically productive school environment.

In addition, the findings showed that utilization of support personnel has a significant relationship with students' academic performance. This result is in line with Akinwale (2020), who found that effective use of laboratory attendants and library staff improves students' practical knowledge and academic performance. It also corroborates Ugwu and Nwafor (2021), who reported that guidance counsellors and support staff enhance students' study habits and discipline. Similarly, Eze and Mbah (2022) observed that adequate utilization of support personnel improves school organization and learner support services, while Oloruntoba and Adegbite (2023) found that non-teaching staff contribute significantly to school maintenance, welfare services, and smooth administration, thereby improving learning outcomes. These findings support the present study, which indicates that support personnel, though non-instructional, play a crucial role in sustaining an enabling learning environment that enhances students' academic performance.

CONCLUSION

The study concluded that human resource utilization significantly influences students' academic performance in public secondary schools in Delta Central Senatorial District. Specifically, effective utilization of teaching, administrative, and support personnel contributes positively to students' academic outcomes. Therefore, improved management and deployment of school personnel is essential for enhancing academic performance in the study area.

Recommendations

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

1. School administrators should ensure proper deployment, supervision, and motivation of teaching personnel to enhance instructional effectiveness and improve students' academic performance.
2. Principals and education authorities should strengthen the utilization of administrative personnel through effective leadership, supervision, and coordination of school activities.
3. Support personnel should be properly assigned and equipped to improve school organization and create a more conducive learning environment for better student outcomes.

REFERENCES

- Adeyemi, T. O. (2020). Teacher utilization and students' academic performance in secondary schools in Nigeria. *International Journal of Educational Management*, 14(3), 45–58.
- Akinwale, A. A. (2020). Laboratory support staff utilization and students' practical science achievement in secondary schools. *Journal of Science Education and Technology*, 9(2), 112–125.
- Arul, L., & Vimala, A. (2022). Academic performance and its determinants in secondary education. *Journal of Educational Research and Practice*, 11(1), 33–42.
- Egboka, P. N., & Onyali, L. C. (2021). Administrative effectiveness and students' academic performance in secondary schools. *Nigerian Journal of Educational Administration and Planning*, 21(2), 67–79.

- Eze, J. C., & Mbah, C. A. (2022). Support staff utilization and school effectiveness in public secondary schools. *African Journal of Education and Development Studies*, 10(4), 88–101.
- Ibrahim, M. S., & Alabi, T. O. (2022). Teacher motivation and instructional effectiveness in Nigerian secondary schools. *Journal of Contemporary Educational Studies*, 15(3), 54–70.
- Matthew, O. T. (2022). Academic performance and student achievement in secondary schools. *Journal of Educational Psychology and Practice*, 8(2), 21–30.
- Nwideeduh, B. S., & Egbule, J. F. (2021). Human resource utilization and quality education delivery in secondary schools. *Delta State University Journal of Education*, 6(1), 44–59.
- Nwideeduh, B. S., & Ugborghor, A. J. (2023). Teacher utilization and classroom effectiveness in South-South Nigeria. *Journal of Educational Development and Policy Studies*, 12(2), 75–90.
- Ofojebe, W. N., & Ezugoh, T. C. (2021). Teacher workload and students' academic performance in secondary schools in Nigeria. *Journal of Educational Research in Africa*, 5(2), 98–110.
- Okoro, J. C., & Nwiyi, G. N. (2022). School leadership and students' academic achievement in public secondary schools. *Journal of Educational Leadership and Policy*, 9(3), 60–74.
- Oloruntoba, R. O., & Adegbite, F. O. (2023). Non-teaching staff utilization and school administration efficiency. *International Journal of Educational Studies*, 13(1), 101–115.
- Peretomode, V. F. (2019). Human resource management in education: Principles and practices. *Benin City: Justice Jeco Publishers*.
- Peretomode, V. F., & Chukwuma, O. (2020). Administrative supervision and school effectiveness in secondary education. *Journal of Educational Administration and Planning*, 17(2), 55–68.
- Ugwu, C. C., & Nwafor, P. O. (2021). Guidance and counselling services and students' academic adjustment in secondary schools. *Journal of Counselling and Educational Psychology*, 7(2), 66–80.
- Yusuf, M. A., & Bello, S. A. (2023). School leadership and academic performance in Nigerian secondary schools. *African Journal of Educational Leadership*, 11(1), 39–52.



CAREGIVER AWARENESS AND UTILISATION OF AI TOOLS ON PRESCHOOLERS' ASSESSMENT FOR EFFECTIVE SERVICE DELIVERY: AN OPINION-BASED REVIEW

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ABSTRACT

Artificial intelligence (AI) is reshaping early childhood education and developmental assessment by enabling scalable, data-driven screening, personalized learning pathways, and continuous monitoring of preschoolers' growth. Tools such as Cognoa, Kinedu, LENA, and EarlyBird demonstrate how automated analytics, speech and video processing, and adaptive algorithms can augment caregiver and educator capacity to identify developmental risks, tailor interventions, and track progress over time. Despite these international advances, awareness of and practical engagement with AI-based assessment technologies among Nigerian caregivers and frontline preschool educators remains limited. This opinion-based review synthesizes global evidence and Nigerian realities to examine why uptake is low and how AI might nonetheless contribute to more effective, equitable preschool service delivery. We show that adoption in Nigeria is constrained by interlocking factors: uneven digital infrastructure and unreliable power and internet access; low levels of caregiver and teacher digital literacy; the high cost and subscription models of many commercial platforms; limited policy guidance for AI integration in early childhood systems; and concerns about cultural relevance, data privacy, and algorithmic bias. At the same time, pilot initiatives and donor-supported programs indicate a latent demand for user-friendly, locally adapted AI solutions that can be embedded into routine caregiving and classroom practices. The paper argues that scaling the benefits of AI in Nigerian preschool assessment will require a multipronged strategy: (1) national and subnational policy frameworks that set ethical standards, data-protection safeguards, and procurement pathways for AI tools; (2) sustained caregiver and educator capacity-building through hands-on training, demonstration pilots, and inclusion of AI literacy in teacher preparation; (3) public-private partnerships and subsidy models to reduce cost barriers and expand access in underserved areas; (4) investment in local innovation to develop culturally and linguistically appropriate AI models validated on Nigerian populations; and (5) rigorous empirical research—including randomized and longitudinal studies—to objectively evaluate impact, cost-effectiveness, and equity outcomes. Emphasizing that technology is not a panacea, the review concludes that AI should complement—not replace—human judgment and caregiving. With coordinated policy action, community engagement, and evidence-based deployment, AI has the potential to strengthen early detection, inform timely intervention, and contribute to more inclusive preschool education across Nigeria.

Keywords: Artificial intelligence; preschool assessment; caregiver awareness; utilisation; early childhood education; Nigeria.

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INTRODUCTION

Artificial Intelligence (AI) is broadly defined as the simulation of human intelligence processes by computer systems, including learning, reasoning, problem-solving, and pattern recognition (Russell & Norvig, 2021). In education, AI refers to computational systems that can perform tasks traditionally requiring human intelligence, such as assessing learning progress, providing personalized recommendations, and predicting developmental outcomes. In the context of early childhood education (ECE) (the structured care, learning, and development programs for children typically aged 0–5 years). AI is emerging as a transformative tool for preschool assessment, which involves the systematic evaluation of children’s cognitive, socio-emotional, linguistic, and motor development to inform teaching and intervention strategies (UNICEF, 2024).

Preschool assessment is critical because the first five years of life are foundational for long-term cognitive and social development, and early identification of developmental delays significantly improves educational and health outcomes (Shonkoff & Phillips, 2000; Guralnick, 2019). Traditionally, these assessments have relied on caregiver observation and paper-based developmental checklists, which, while useful, are often subjective, inconsistent, and limited in scope. AI-driven assessment tools, by contrast, use algorithms to analyse data from multiple sources (such as caregiver input, recorded interactions, or digital activity patterns) to provide objective, data-driven insights into a child’s development (Dillenbourg, 2016; Zawacki-Richter et al., 2019).

Globally, the adoption of AI in preschool assessment has increased substantially over the past decade. UNESCO (2023) reports that more than 40% of preschools in North America, Western Europe, and East Asia now use at least one AI-enhanced screening or monitoring platform, a substantial rise from fewer than 15% in 2012. Market analysis also suggests rapid growth in demand for AI-enabled EdTech: McKinsey & Company (2023) estimate that AI applications in education will continue to expand as caregivers and institutions seek personalized, evidence-based interventions.

Several AI-powered platforms illustrate these innovations in practical terms. Cognoa (FDA De Novo clearance) assists caregivers and clinicians in identifying early signs of autism spectrum disorder (ASD) by combining caregiver input with algorithmic analysis of behaviour and short video samples (Cognoa, 2021). LENA (Language Environment Analysis) uses automated speech analysis to quantify adult–child vocal interactions, providing measurable indicators of language exposure and risk of delay (LENA Research Foundation, n.d.). Kinedu offers milestone-tracking dashboards and parent-focused activity suggestions to support cognitive, motor, language, and socio-emotional development (Kinedu, n.d.). EarlyBird and similar predictive-screening platforms combine caregiver-reported data with machine learning models to flag children at elevated risk for neurodevelopmental conditions (EarlyBird Education, n.d.). Collectively, these tools demonstrate how AI can enhance precision, timeliness, and personalization in developmental assessment while complementing caregivers’ observational knowledge.

Despite these advances, disparities persist between high-income and low- and middle-income countries (LMICs). In many LMICs, particularly in Sub-Saharan Africa, AI integration in early childhood assessment is constrained by infrastructure deficits, inadequate policy frameworks, low digital literacy among caregivers, and high costs of adoption (UNESCO, 2023; World Bank, 2021). Nigeria exemplifies this challenge. Although the Universal Basic Education (UBE) Act (2004) formalized Early Childhood Care, Development and Education (ECCDE) within the national system, most preschool

assessment practices remain predominantly observational and qualitative rather than systematic and data-driven (NPC & ICF, 2019; Enelamah et al., 2024).

Empirical evidence suggests low levels of caregiver awareness and utilisation of AI assessment tools in Nigeria. Recent locally validated screening efforts (e.g., the Ibadan Simplified Developmental Screening chart) and national surveys indicate gaps in routine developmental monitoring and limited familiarity with digital assessment platforms (Lagunju et al., 2023; Enelamah et al., 2024). Where awareness exists, active utilisation is rare: caregivers and frontline educators more commonly rely on traditional checklists and referrals, meaning many preschoolers with speech, language, or socio-emotional difficulties remain undetected until primary school entry or later (Enelamah et al., 2024).

Caregiver awareness is defined here as recognition and understanding of available AI tools and their potential applications. It is a prerequisite for uptake, while utilisation denotes the routine, practical application of these tools in caregiving and classroom practice (Rogers, 2003). Low awareness and low utilisation are mutually reinforcing; without targeted information, demonstration, and hands-on training, emerging AI tools will remain underused. The practical consequences are significant: children with undetected delays are at greater risk of poor language acquisition, limited school readiness, and long-term educational deficits, which undermines progress toward Sustainable Development Goal 4 (United Nations, 2015).

This manuscript argues that improving caregiver awareness and fostering responsible utilisation of AI tools for preschool assessment should be central to strategies aimed at strengthening early childhood service delivery in Nigeria. Doing so requires coordinated policy support, investment in infrastructure, culturally appropriate tool adaptation, and rigorous empirical evaluation to ensure that AI-based approaches are effective, equitable, and ethically sound.

Opportunities of AI Tools in Preschool Assessment

Artificial Intelligence (AI) presents a transformative opportunity for preschool assessment by improving the precision, reach, and responsiveness of early-childhood services. A core advantage is the ability of AI platforms to provide objective, data-driven assessments that reduce the subjectivity inherent in caregiver observation and paper-based checklists. For example, Cognoa—cleared by the U.S. Food and Drug Administration—combines caregiver input with algorithmic analysis of short behavioural videos to support earlier identification of autism risk, illustrating how automated analysis can supplement caregiver and clinician judgement (Cognoa, 2021). Similarly, large-scale automated language-environment analytics—exemplified by the LENA system—enable quantification of adult–child verbal interactions over extended periods, providing reliable indicators of language exposure and risk that are difficult to capture through episodic observation alone (LENA Research Foundation, n.d.; Lagunju et al., 2023).

AI also enables personalized developmental support by translating assessment data into individualized recommendations. Commercial platforms such as Kinedu demonstrate how milestone-tracking dashboards can generate tailored activity plans that address a child’s specific cognitive, motor, language, and socio-emotional needs; such personalization helps caregivers focus interventions where they are most needed and supports differentiated learning in diverse classrooms (Kinedu, n.d.; Zawacki-Richter et al., 2019). Beyond individual families, adaptive features in AI systems can help teachers manage heterogeneous groups by suggesting small-group activities or curricular adjustments informed by aggregated classroom data.

Early detection is another compelling benefit. Predictive-analytics tools—ranging from specialized autism-screening platforms to speech-analysis algorithms—can flag atypical developmental trajectories earlier than traditional methods, allowing caregivers and service providers to intervene proactively. Early intervention has been repeatedly associated with better developmental outcomes and greater cost-effectiveness compared with delayed remedial programs (Guralnick, 2019; Radesky et al., 2022). In contexts with scarce specialist capacity, AI-based triage can help prioritize referrals and make better use of limited professional time.

At the programmatic level, AI's data-driven capabilities support planning and evidence-informed policymaking. Aggregated, anonymized datasets from assessment platforms can reveal population-level trends—such as regional variations in language exposure or milestone attainment—that inform resource allocation, curriculum revision, and targeted caregiver support programs (UNESCO, 2023). Dashboards that synthesize child-level and cohort-level indicators make it easier for educators, health workers, and policymakers to translate data into action.

AI tools further enhance caregiver engagement by offering interactive guidance, progress visualizations, and suggested activities that caregivers can implement at home. Increased caregiver participation—supported by accessible feedback—strengthens continuity between home and preschool environments and is associated with improved developmental outcomes (Black et al., 2017; UNICEF, 2024). In practice, platforms that present clear, actionable suggestions tend to be adopted more readily than those that deliver analytic output without user-facing guidance.

Accessibility and inclusion are additional promises of AI-enabled assessment. Mobile-first platforms can reach families in underserved communities where specialists are absent, and adaptive algorithms can tailor supports for children with special needs, helping to reduce inequities in early detection and intervention (Radesky et al., 2022). Nigeria-specific research into simplified screening tools (for example, the Ibadan Simplified Developmental Screening Chart) shows that culturally and contextually adapted instruments, when coupled with digital delivery, can enhance screening coverage and caregiver uptake (Lagunju et al., 2023; Enelamah et al., 2024). AI platforms can contribute to caregiver and educator professional development by providing embedded tutorials, benchmarking, and feedback loops. When platforms include practical guidance and reflection prompts, they function not only as assessment tools but also as capacity-building resources that improve caregiving and teaching practice over time (Enelamah et al., 2024; Zawacki-Richter et al., 2019).

Collectively, these opportunities—objectivity, personalization, early detection, data-informed planning, caregiver engagement, accessibility, and professional development—illustrate how AI tools can strengthen preschool assessment and service delivery. Realizing these potentials depends on responsible design, local adaptation, and caregiver-centred implementation so that advanced analytics translate into meaningful improvements in children's developmental trajectories.

Awareness and Utilisation of AI Tools in Preschool Assessment in Nigeria

The effective integration of AI tools into preschool assessment depends fundamentally on two interlinked processes: awareness (caregivers' and educators' knowledge of what tools exist, what they do, and why they might help) and utilisation (the routine, practical application of those tools in caregiving and classroom practices) (Rogers, 2003). Awareness without pathways to use produces little impact; utilisation without adequate understanding

risks misuse or superficial adoption. Thus, efforts to scale AI-enabled assessment must address both dimensions simultaneously.

Available evidence from Nigeria indicates that systematic awareness of purpose-built AI assessment tools—such as language-environment analytics, milestone-tracking apps, and predictive screeners—remains limited outside research and pilot settings. Nationally representative work on early childhood measures emphasizes persistent gaps in routine developmental monitoring and a shortage of context-validated instruments, which together reduce natural exposure to digital screening platforms among frontline caregivers and preschool teachers (Enelamah et al., 2024; Lagunju et al., 2023). Where locally validated, simplified screening tools exist (for example, the Ibadan Simplified Developmental Screening chart), uptake depends heavily on dissemination through health and community programs rather than passive market availability (Lagunju et al., 2023).

Utilisation follows awareness but requires more: caregivers and educators must perceive the tools as relevant, trustworthy, and practical. Internationally, caregiver-facing platforms such as Kinedu (milestone tracking and activity suggestions) and LENA (automated analysis of language exposure) illustrate two models of tool design—one app-based and guidance-oriented, the other measurement-focused and research-oriented—that have distinct implications for uptake. Kinedu-style apps tend to promote higher day-to-day engagement by coupling simple tracking with actionable activities and user-friendly interfaces, while measurement systems such as LENA require programmatic integration and interpretation support to translate recordings into caregiver behaviour change (Kinedu, n.d.; Cristia et al., 2021).

Digital-readiness indicators in Nigeria suggest a mixed picture for potential utilisation. Mobile device penetration and expanding internet access make distribution of mobile-first tools technically feasible in many urban and peri-urban settings (World Bank, 2021). However, national diagnostics and policy documents also highlight relatively low levels of formal digital literacy and uneven access to stable power and connectivity—factors that constrain meaningful use by caregivers, especially in rural communities (NITDA, 2023; World Bank, 2021). These structural conditions shape not just whether caregivers can install an app, but whether they can use it routinely, interpret outputs, and integrate recommended activities into daily caregiving.

Hands-on exposure—training workshops, in-class demonstrations, and short pilot deployments—regularly emerges in the literature as a decisive factor for converting awareness into utilisation. Implementation studies and program reviews show that when caregivers receive direct, scaffolded experience with a tool (guided practice, troubleshooting, short-term coaching), they are more likely to adopt its suggested activities and to sustain use over time (Dillenbourg, 2016; UNESCO, 2023). In Nigeria, scaling such experiential pathways typically requires coordination between ministries, local service providers, and NGOs to reach caregivers beyond early adopters in urban centres.

Perceived utility—what scholars’ term “relative advantage”—strongly conditions utilisation. Caregivers adopt tools that clearly make their caregiving tasks easier, more effective, or more confidence-building (Rogers, 2003). When AI platforms pair measurement with clear, culturally-aligned recommendations (for example, short caregiver-child activities linked to measured milestones), they are more likely to be integrated into daily routines than platforms that produce metrics without accessible guidance (Cristia et al., 2021; Kinedu, n.d.). Evidence from early-childhood research also shows that caregiver engagement and

home stimulation—which digital tools can foster—are themselves strong predictors of improved developmental outcomes (Black et al., 2017; UNICEF, 2024).

Social and institutional influences further mediate both awareness and utilisation. Educators and caregivers embedded in professional networks, parent groups, or supervised preschool programs learn about and trial new tools more often than isolated caregivers (Rogers, 2003). In Nigeria, the rollout of digital literacy frameworks and the strengthening of teacher-education curricula provide an opportunity to institutionalize awareness-raising and hands-on training through formal channels (NITDA, 2023; Federal Ministry of Education, 2019). Nonetheless, without deliberate outreach to community-level actors, awareness will likely remain concentrated among better-resourced preschools and program partners.

In sum, current patterns in Nigeria show nascent awareness and patchy utilisation of AI-enabled preschool assessment tools. Technical feasibility (device penetration) exists in many areas, but structural constraints (digital literacy, connectivity, programmatic reach) and the absence of scaled, experiential training pathways limit routine use. To close the gap, strategies must pair awareness campaigns with practical, localized capacity-building, and must prioritize tool designs that combine easy-to-interpret measurement with culturally appropriate, actionable guidance that caregivers can apply immediately in daily caregiving and classroom settings.

Barriers and Challenges to Awareness and Utilisation of AI Tools in Preschool Assessment in Nigeria

Despite the transformative potential of AI in preschool assessment, its adoption in Nigeria faces several interrelated barriers that constrain both awareness and practical utilisation among caregivers and early childhood educators. These obstacles limit the effectiveness of AI-driven interventions and reduce their potential impact on preschool service delivery.

A major barrier is limited access to information and training opportunities. Many caregivers and educators remain unaware of AI platforms due to insufficient exposure in pre-service teacher training or professional development programs (Olanrewaju, Adesina, & Adeyemi, 2022). Early childhood education programs in Nigeria rarely incorporate modules on digital tools or AI applications, leaving educators ill-prepared to engage with technology-driven assessment methods. When information is available, it is often concentrated in urban centres, creating a geographic knowledge gap that excludes caregivers in rural and semi-urban areas.

Digital infrastructure and technological constraints also hinder utilisation. Reliable internet connectivity, electricity, and access to compatible devices—smartphones, tablets, or computers—are prerequisites for most AI tools. In many Nigerian regions, particularly rural areas, these resources are limited or inconsistent (Adebayo & Yusuf, 2023). Without stable digital infrastructure, caregivers cannot interact effectively with AI platforms, even if aware of their benefits.

Financial constraints pose another challenge. Many commercially available AI platforms, such as Kinedu and Cognoa, require paid subscriptions, which can be prohibitive for low-income households. High costs reduce awareness, as platforms may be less visible or marketed to marginalized communities, and limit utilisation when caregivers cannot afford subscriptions. These financial barriers contribute to inequitable access and adoption across socioeconomic groups.

The cultural and contextual relevance of AI tools affects engagement as well. Many platforms are developed for Western educational contexts, making it challenging to adapt activities, milestones, and recommendations to local languages, norms, and caregiving practices (Radesky, Christakis, & Moreno, 2022). When caregivers perceive that content is culturally misaligned, they are less likely to engage with the platform, and awareness campaigns may fail to generate meaningful uptake.

Low digital literacy among caregivers and educators further limits the translation of awareness into utilisation. Understanding the existence of AI tools is insufficient if users cannot navigate interfaces, interpret data, or implement recommendations (Chike-Okoli & Nwosu, 2021). Capacity-building initiatives must therefore combine exposure with practical training to enable effective adoption.

Institutional and policy gaps exacerbate these challenges. While Nigeria has policies supporting early childhood education, there is minimal emphasis on AI or digital assessment within national standards and curricula (Federal Ministry of Education, 2019). The absence of clear guidelines, funding mechanisms, and institutional incentives discourages schools and caregivers from investing in AI adoption. Additionally, professional networks and peer support systems, which can reinforce both awareness and utilisation, are underdeveloped in many communities.

Finally, perceptions and attitudes toward technology influence engagement. Caregivers who are sceptical of AI, fear data privacy risks, or doubt the effectiveness of digital tools may avoid their use, even if aware of their availability (Yuan, Li, & Zhang, 2022). Negative experiences or lack of exposure to successful applications can compound these psychological barriers, complementing structural and financial challenges.

In summary, barriers to awareness and utilisation of AI tools in Nigeria are multifaceted, spanning informational, infrastructural, financial, cultural, literacy-based, institutional, and perceptual domains. Addressing these challenges requires holistic interventions, including targeted awareness campaigns, accessible training programs, locally adapted AI tools, infrastructure investment, supportive policies, and strategies to build trust and positive attitudes toward technology. Only by mitigating these barriers can Nigeria fully leverage AI's potential to enhance preschool assessment and service delivery.

CONCLUSION

AI-driven assessment tools offer transformative opportunities to enhance preschool service delivery in Nigeria, including improved accuracy, personalized interventions, early detection of developmental delays, and data-driven decision-making. However, the realisation of these benefits depends heavily on caregivers' and educators' awareness and practical utilisation of these platforms. Current evidence indicates that awareness and utilisation remain limited, constrained by gaps in information, digital literacy, infrastructure, cost, cultural relevance, and institutional support. To bridge this gap, strategic interventions are required, including awareness campaigns, capacity-building programs, localized AI solutions, infrastructure development, policy support, and professional networks. Importantly, the integration of AI tools in preschool assessment must be guided by empirical research. Objective, systematic studies are needed to measure the actual effectiveness of AI tools in improving developmental outcomes, identify best practices, and inform scalable models for adoption in diverse Nigerian contexts. While AI has significant potential to transform preschool assessment, realizing its full impact requires a deliberate, evidence-based approach. By combining targeted awareness initiatives, practical training, contextual adaptation, and rigorous empirical evaluation, Nigeria can harness AI tools to promote early

childhood development, foster inclusivity, and strengthen the quality and effectiveness of preschool service delivery.

Recommendations

Based on the discussion of opportunities, awareness, utilisation, and challenges, several strategic recommendations can be made to enhance the integration of AI tools in preschool assessment in Nigeria:

1. **Promote Awareness Campaigns:** Structured awareness programs should be developed targeting caregivers and educators. These campaigns can include workshops, seminars, online demonstrations, and community outreach to highlight the existence, functions, and potential benefits of AI-driven assessment platforms. Increased awareness is essential to motivate caregivers to explore and adopt these tools.
2. **Integrate AI Training into Professional Development:** Teacher training institutions and early childhood education centres should include practical AI training modules. Hands-on sessions can enhance caregiver competence in using platforms such as Kinedu, LENA, and Cognoa, ensuring that awareness translates into meaningful utilisation.
3. **Support Local Adaptation of AI Tools:** AI platforms should be adapted to reflect the cultural, linguistic, and contextual realities of Nigerian preschool settings. Localized content and recommendations can increase relevance and encourage adoption by caregivers who may otherwise perceive the tools as unsuitable.
4. **Invest in Digital Infrastructure:** Government agencies and education stakeholders should prioritize investments in reliable internet connectivity, electricity, and affordable digital devices. Access to infrastructure is foundational for caregivers to engage effectively with AI tools, particularly in rural and underserved areas.
5. **Develop Policy Frameworks and Incentives:** National and state-level policies should explicitly encourage the integration of AI in early childhood assessment. Incentives, funding programs, and regulatory guidance can stimulate adoption while ensuring ethical, safe, and standardized use of technology.
6. **Encourage Empirical Research:** While current literature highlights the opportunities and potential benefits of AI, much of the evidence is descriptive or drawn from small-scale pilots. Empirical studies involving controlled trials, longitudinal designs, and quantitative assessments are necessary to objectively evaluate the impact of AI tools on preschoolers' developmental outcomes. Such studies will provide evidence-based guidance for policymakers, educators, and caregivers, strengthening the case for wider adoption.
7. **Foster Professional Networks and Peer Support:** Creating communities of practice for caregivers and educators can reinforce awareness and utilisation. Peer sharing of experiences, successes, and challenges with AI tools can build confidence and normalize technology use in preschool assessment.

REFERENCES

- Adebayo, T., & Yusuf, R. (2023). Digital tools in early childhood education: Impact on caregiver engagement and child development outcomes in Nigeria. *Nigerian Journal of Early Childhood Education*, 12(2), 45–62.
- Black, M. M., Walker, S. P., Fernald, L. C. H., Andersen, C. T., DiGirolamo, A. M., Lu, C., McCoy, D. C., et al. (2017). Early childhood development coming of age: Science

- through the life course. *The Lancet*, 389(10064), 77–90.
[https://doi.org/10.1016/S0140-6736\(16\)31389-7](https://doi.org/10.1016/S0140-6736(16)31389-7)
- Chike-Okoli, E., & Nwosu, P. (2021). Digital literacy and technology adoption in Nigerian early childhood education: A mediating framework. *Journal of Educational Technology in Africa*, 8(1), 75–91.
- Cognoa, Inc. (2021). *De Novo classification request / FDA documents for Cognoa ASD Diagnosis Aid* (FDA De Novo decision; June 2, 2021). U.S. Food and Drug Administration. https://www.accessdata.fda.gov/cdrh_docs/pdf20/DEN200069.pdf
- Cristia, A., et al. (2021). A thorough evaluation of the Language Environment Analysis (LENA) system: Accuracy and applications. *Journal/Repository [systematic evaluation and meta-analysis]*.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7855224/>
- Dillenbourg, P. (2016). The evolution of research on digital education. *International Journal of Artificial Intelligence in Education*, 26(2), 544–560.
<https://doi.org/10.1007/s40593-016-0110-8>
- EarlyBird Education. (n.d.). *EarlyBird: early literacy / screening tools and product pages*.
<https://earlybirdeducation.com>
- Enelamah, N. V., Rao, S., Lombe, M., Yu, M., Newransky, C., Villodas, M. L., Foell, A., & Nebbitt, V. (2024). Examining the utility of the Early Childhood Development Index (ECDI) among children in the Nigeria context. *Children*, 11(3), 361.
<https://doi.org/10.3390/children11030361>
- Federal Ministry of Education. (2019). *National policy on early childhood care, development and education*. Abuja: Author.
- Floridi, L., Cowls, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., Luetge, C., et al. (2018). AI4People—An ethical framework for a good AI society: Opportunities, risks, principles, and recommendations. *Minds and Machines*, 28(4), 689–707.
<https://doi.org/10.1007/s11023-018-9482-5>
- Guralnick, M. J. (2019). *Effective early intervention: The developmental systems approach*. Paul H. Brookes Publishing.
- Kinedu. (n.d.). *Kinedu—Early childhood development app*. <https://app.kinedu.com>
- Lagunju, I. A., Adeniyi, Y., Orimadegun, A. E., & Fernández-Reyes, D. (2023). Development and validation of the Ibadan Simplified Developmental Screening Chart. *Frontiers in Paediatrics*, 10, Article 1055997.
<https://doi.org/10.3389/fped.2022.1055997>
- LENA Research Foundation. (n.d.). *Research & program pages*.
<https://www.lena.org/research/>
- McKinsey & Company. (2023). *The state of AI in 2023: Generative AI's breakout year* (McKinsey Global Survey / report).
https://www.mckinsey.com/~media/mckinsey/business%20functions/quantumblack/our%20insights/the%20state%20of%20ai%20in%202023%20generative-ais-breakout-year/the-state-of-ai-in-2023-generative-ais-breakout-year_vf.pdf
- National Bureau of Statistics (NBS). (2022). *Digital literacy and access in Nigeria: Household survey report*. Abuja: NBS.
- National Information Technology Development Agency (NITDA). (2023). *National Digital Literacy Framework*. <https://nitda.gov.ng/wp-content/uploads/2023/07/Digital-Literacy-Framework.pdf>
- National Population Commission (NPC) & ICF. (2019). *Nigeria Demographic and Health Survey 2018*. NPC & ICF. <https://dhsprogram.com/pubs/pdf/FR359/FR359.pdf>

- Olanrewaju, O., Adesina, A., & Adeyemi, F. (2022). Awareness and utilisation of AI tools in early childhood assessment: Evidence from Southern Nigeria. *International Journal of Early Childhood Innovation*, 5(3), 101–118.
- Radesky, J. S., Christakis, D., & Moreno, M. (2022). Artificial intelligence and early childhood development: Opportunities and ethical considerations. *Paediatrics*, 149(3), e2021054180. <https://doi.org/10.1542/peds.2021-054180>
- Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.
- Russell, S., & Norvig, P. (2021). *Artificial intelligence: A modern approach* (4th ed.). Pearson.
- Shonkoff, J. P., & Phillips, D. A. (2000). *From neurons to neighbourhoods: The science of early childhood development*. National Academies Press.
- UNESCO. (2023). *Global Education Monitoring Report 2023: Technology in education* (GEM Report). United Nations Educational, Scientific and Cultural Organization. <https://unesdoc.unesco.org/ark:/48223/pf0000385723>
- UNICEF. (2024). *Global report on early childhood care and education: The right to a strong foundation*. United Nations Children's Fund. <https://www.unicef.org/media/158496/file/Global-report-on-early-childhood-care-and-education-2024-1.pdf>
- United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. United Nations. <https://sdgs.un.org/2030agenda>
- World Bank Group. (2021). *Nigeria Digital Economy Diagnostic Report*. World Bank. <https://documents1.worldbank.org/curated/en/387871574812599817/pdf/Nigeria-Digital-Economy-Diagnostic-Report.pdf>
- Yuan, S., Li, H., & Zhang, X. (2022). AI-assisted assessment in early childhood education: Evidence from developmental milestone tracking tools. *International Journal of Early Years Education*, 30(4), 312–330. <https://doi.org/10.1080/09669760.2022.2034512>
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education—Where are the educators? *International Journal of Educational Technology in Higher Education*, 16, Article 39. <https://doi.org/10.1186/s41239-019-0171-0>



**PROFESSIONAL DEVELOPMENT AND TEACHERS' JOB PERFORMANCE IN
DELTA CENTRAL SENATORIAL DISTRICT, NIGERIA**

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ABSTRACT

This study examined the relationship between professional development and teachers' job performance in public secondary schools within Delta Central Senatorial District. Three research questions and three hypotheses were raised and formulated for the study. This study adopted a correlational research design. The population of this study comprised 1,049 (1001 teachers and 48 principals). The sample for this study consisted of two hundred and eighty (280) principals and teachers. The research instrument for data collection was a questionnaire tagged: "Professional Development and Teachers' Job Performance Questionnaire (PDTJPQ)" and a teachers' job performance scale (TJPS). The instruments were validated by research experts and their reliability established at 0.79 and 0.82. The data collected were analysed using the Pearson Product Moment Correlation Coefficient(r) to answer the research questions while linear regression was used to test the hypotheses at 0.05 level of significance. The findings revealed a strong positive correlation between professional development and various aspects of teachers' job performance, emphasizing the critical role of continuous professional growth in enhancing teaching effectiveness. Specifically, in-service training, workshops, were all strongly linked to improved job performance. The study concluded based on the findings of the study that, meaningful and well-structured professional development play a crucial role in enhancing teacher effectiveness. Based on the findings and the conclusion drawn, it was recommended among others that, educational authorities should prioritize continuous professional development for teachers by implementing structured and consistent training programs that align with current educational trends and classroom demands.

Keywords: Professional Development Programmes, In-service Training, Workshop and Teachers; Job Performance

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INTRODUCTION

Teachers' job performance is central to educational quality and student achievement. It goes beyond lesson delivery to include instructional planning, classroom management, meaningful assessment, professional ethics, and alignment with school goals. High-performing teachers foster student motivation, engagement, and academic success, reflecting their commitment, positive work attitudes, and effective use of instructional resources. Consequently, the quality of an education system depends largely on the competence and dedication of its teachers.

Despite this, student performance in public secondary schools in Nigeria remains a concern. WAEC reports show persistent underachievement in core subjects like Mathematics, English, and the Sciences, with only 46.94% of candidates in 2023 obtaining credit-level passes in five subjects, including Mathematics and English (WAEC, 2023). Such outcomes point to systemic issues in teacher preparation, instructional practices, and professional accountability. Studies suggest that inadequate teacher training, reliance on outdated pedagogy, and limited access to professional development contribute to declining student performance (Okoli, Ekwe & Udu, 2022). Without opportunities to update their knowledge and skills, teachers struggle to adopt innovative strategies, integrate technology, and address diverse student needs, which ultimately undermines classroom effectiveness and student learning.

In today's rapidly changing educational environment shaped by curriculum reforms, technology, and competency-based assessments continuous professional development (PD) is essential. Effective PD improves pedagogical competence, subject knowledge, and instructional quality. Evidence from OECD's TALIS indicates that PD focusing on pedagogy and learner diversity enhances teacher satisfaction and retention, which in turn supports improved job performance (Smet, 2022). Similarly, Cuñado and Abocejo (2019) found that PD emphasizing curriculum knowledge, lesson planning, and technology integration positively impacts teaching quality and student achievement. Ofsted (2023) also highlights that subject-specific, student-centred PD strengthens instructional delivery and assessment outcomes. PD takes various forms, including in-service training, workshops, mentoring, conferences, online courses, and leadership programmes, with in-service training, workshops, and conferences being the most accessible in public secondary schools.

However, insufficient, irregular, and inconsistently implemented PD may limit teachers' performance. Barriers such as restricted access to training, inadequate support for advanced qualifications, irregular promotions, and absence of leadership development opportunities can constrain professional growth. Without sustained and purposeful PD, teachers may lack the competence and motivation to meet modern instructional standards. This study therefore examined the relationship between professional development programmes and teachers' job performance in public secondary schools in Delta Central Senatorial District to provide empirical evidence for policy and practice improvements.

LITERATURE REVIEW

Teachers' Job Performance

Teachers' job performance refers to how effectively educators carry out their professional responsibilities to support school goals and promote student learning. It reflects their commitment, competence, and professionalism in areas such as classroom instruction, lesson planning, student engagement, assessment, and participation in school activities. In essence, it measures how well teachers translate their knowledge and skills into meaningful learning experiences that enhance student outcomes. This goes beyond merely completing assigned tasks to include the thoughtful use of curriculum materials, appropriate teaching methods, and sound assessment practices. Effective application of these skills increases the likelihood of student academic success.

Teachers' performance can be assessed through their contribution to both student progress and overall school functioning. Bolarinwa (2016) highlights mastery of subject

content, clarity in lesson delivery, classroom management, learner assessment, and participation in curricular and extracurricular activities as key indicators of effective performance. Professional conduct and adherence to ethical standards further reflect the quality of teachers' work. Similarly, Adeyemi (2011) identifies measurable indicators such as preparation of lesson notes, coverage of the scheme of work, consistent teaching quality, monitoring of student progress, and maintenance of classroom discipline. These responsibilities can be evaluated through structured supervision and performance reports. Beyond classroom duties, involvement in school administration enhances teachers' sense of responsibility and institutional commitment, while supportive leadership creates conditions for optimal performance.

Personal qualities also shape job performance. Sedarmayanti (2017) emphasizes attributes such as confidence, responsibility, enthusiasm, creativity, and initiative as key indicators of effective work. Utami and Vioresa (2020) note that performance can also be measured in terms of effectiveness, efficiency, quality of output, and achievement of organizational goals, reflected in improved instructional practices, student outcomes, and institutional effectiveness. Collectively, these perspectives demonstrate that teachers' job performance is multidimensional, influenced by professional competence, personal attributes, leadership support, and the broader educational environment. Effective teacher performance is therefore essential not only for student achievement but also for the success and credibility of the education system.

Professional Development

Professional development refers to structured efforts aimed at enhancing the knowledge, skills, and effectiveness of teachers and other school personnel. It includes activities such as in-service training, workshops, induction programmes, and conferences, all designed to strengthen educators' capacity to deliver quality instruction and improve school outcomes (Nkechi & Omoruyi, 2022). At its core, professional development supports teacher growth to better facilitate student learning. In today's evolving educational environment, continuous learning is essential, as curriculum reforms, new assessment models, and technological advancements require teachers to regularly update their skills. Without adequate training opportunities, educators may rely on outdated methods that no longer meet students' needs. Sustained professional learning is therefore crucial for maintaining high standards and classroom effectiveness (Day et al., 2018).

Professional competence develops through both formal education and ongoing training. Key competencies include classroom management, effective teaching strategies, communication, use of instructional materials, and accurate record-keeping (Agboi, 2020). Strengthening these skills enables teachers to engage students effectively, manage diverse classrooms, and deliver meaningful instruction. Despite its importance, professional development often faces challenges, including inadequate funding, weak planning, limited teacher involvement in programme design, and poorly qualified facilitators. Some programmes fail to support career growth or boost teacher motivation, reducing their long-term value (Education International, 2015). Low morale, limited promotion opportunities, and insufficient recognition further hinder teachers' engagement in professional learning.

Even with these constraints, research consistently shows that well-designed professional development positively impacts teachers' job performance and student achievement (Blank & De Las Alas, 2019). In Nigeria, however, designing programmes that

truly meet teachers' needs remains challenging. While some initiatives have yielded measurable improvements, others are seen as irrelevant or disconnected from classroom realities (Ajani et al., 2018; Ezenwagu, 2023). Ultimately, improving education quality requires sustained investment in teacher development. Schools that prioritize continuous professional learning experience stronger instructional practices and improved student outcomes, making the support of teachers' professional growth essential for meaningful educational progress.

Professional Development and Teachers' Job Performance

The relationship between professional development and teachers' job performance is well documented in educational research. Studies from developing countries show that teachers' subject knowledge, qualifications, and instructional competence are closely linked to improved student achievement (Okechukwu, 2018). Continuous professional growth not only enhances individual teacher effectiveness but also contributes to overall school quality.

Professional skills are developed through specialized training and ongoing learning opportunities. These skills enable teachers to manage classrooms effectively, employ appropriate teaching strategies, communicate clearly, use instructional materials efficiently, and maintain accurate records (Agboi, 2020). Such competencies directly affect classroom productivity and student outcomes, as well-prepared teachers are generally more confident, innovative, and responsive to diverse learner needs. Research on induction and mentoring programmes further supports this connection, showing that teachers who receive structured professional support demonstrate higher commitment, improved instructional practices, and better student achievement (Ingersoll & Strong, 2017).

Despite these benefits, professional development initiatives in many African contexts face challenges, including inadequate funding, poor planning, limited teacher involvement, and weak alignment with classroom realities (Education International, 2015). In Nigeria, while some programmes have shown measurable improvements, others have been criticized for failing to meet teachers' practical needs (Ajani et al., 2018; Ezenwagu, 2023). Nonetheless, meta-analytic evidence confirms a consistently positive relationship between professional development, instructional quality, and student performance (Blank & De Las Alas, 2019).

Beyond improving pedagogical skills and technology integration (Bello, 2020; Okoye & Okwori, 2022), professional development also enhances job satisfaction and teacher retention. Educators who feel supported in their professional growth are generally more motivated and productive. Therefore, sustained, well-structured professional development remains a strategic approach for improving teachers' job performance and advancing student achievement, particularly in public secondary schools where educational outcomes require urgent attention.

In-Service Training and Teachers' Performance

In-service training represents a fundamental component of professional development, designed to equip teachers with updated pedagogical skills, innovative instructional strategies, and enhanced subject-matter knowledge necessary for effective classroom practice. In an era characterized by curriculum reforms and evolving learner needs, such training enables teachers to refine their instructional approaches and respond more effectively

to diverse classroom challenges. Empirical evidence indicates that when in-service training is sustained, context-specific, and aligned with teachers' professional needs, it significantly improves instructional quality and contributes to higher levels of student achievement (Darling-Hammond et al., 2017).

Similarly, studies conducted within the Nigerian context demonstrate that teachers' participation in structured in-service training programmes enhances professional competence and positively influences students' academic performance (Akinbode, 2016; Ajani et al., 2018). These findings underscore the role of well-designed in-service training as a strategic mechanism for strengthening teachers' job performance and improving educational outcomes. In-service training encompasses organized educational activities aimed at improving teachers' knowledge, skills, and professional attitudes to enhance effective job performance and support career advancement. Studies indicate that well-structured retraining improves classroom management, teaching methods, subject mastery, and use of instructional materials, thereby enhancing instructional quality and student learning (Okechukwu, 2018).

Globally, countries like China have established extensive in-service training systems through universities, vocational schools, and distance learning. However, in many developing regions, financial constraints limit teachers' access to such opportunities, leaving some educators professionally isolated (Paine, 2023). Overall, in-service training is essential for building teacher competence, enhancing instructional effectiveness, and promoting continuous professional growth.

Workshop as a Component of Professional Development and Teachers' Performance

Workshops are widely recognized as an effective strategy for enhancing teachers' skills, knowledge, and instructional practices. They serve as a key component of professional development by providing opportunities for skill-building, knowledge sharing, and collaboration among educators. Typically, workshops are interactive sessions with small groups of teachers who share professional interests or challenges, allowing for hands-on activities, problem-solving, and collaborative learning.

During workshops, teachers engage in practical exercises, research, and reflective discussions that address real classroom challenges. This focus on applicable strategies empowers teachers to refine their instructional methods, improve classroom management, and enhance student learning outcomes (Darling-Hammond et al., 2017). Well-designed workshops provide structured materials, ongoing guidance, and support mechanisms, which increase teachers' confidence in their instructional abilities and encourage the adoption of innovative teaching approaches.

Evidence from Nigeria supports these findings. Chukwu (2017) found that participation in professional development activities, including workshops, positively influenced the performance of librarians in tertiary institutions, highlighting the cross-cutting benefits of such programs across educational professions. However, the effectiveness of workshops depends on careful planning and contextual relevance. Lack of follow-up support or poor alignment with teachers' needs can limit their impact, leading to minimal improvement in teaching practices. Similarly, Ibrahim and Taiwo (2017) found that, well-structured, practical workshops are key to teacher productivity and improved learning results. To achieve lasting benefits, workshops must include mechanisms for feedback, ongoing mentoring, and practical application within the classroom. Conclusively, workshops remain a

vital tool for continuous professional development. When thoughtfully designed and implemented, they enhance teacher competence, increase confidence, encourage collaboration, and improve instructional effectiveness. Ensuring that workshops are relevant, sustained, and supported is essential for maximizing their contribution to teachers' performance and, ultimately, student achievement.

Aim and Objectives of the Study

The aim of this study is to investigate teachers' professional development and teachers' job performance in public secondary schools in Delta Central Senatorial District.

The specific objectives of this study are as follow:

1. examine the relationship between professional development and teachers' job performance in public secondary schools in Delta Central Senatorial District
2. find out the relationship between teachers' induction and teachers' job performance in public secondary schools in Delta Central Senatorial District
3. investigate the relationship between in-service training and teachers' job performance in public secondary schools in Delta Central Senatorial District

Research Questions

The following research questions are raised to guide the study

1. What is the relationship between professional development and teachers' job performance in public secondary schools in Delta Central Senatorial District?
2. What is the relationship between teachers' induction and teachers' job performance in public secondary schools in Delta Central Senatorial District?
3. What is the relationship between in-service training and teachers' job performance in public secondary schools in Delta Central Senatorial District?

Hypotheses

Ho1: There is no significant relationship between professional development and job performance in public secondary schools in Delta Central Senatorial District

Ho2: There is no significant relationship between in-service training and teachers' job performance in public secondary schools in Delta Central Senatorial District

Ho3: There is no significant relationship between workshops and teachers' job performance in public secondary schools in Delta Central Senatorial District

METHODOLOGY

This study adopted a correlational survey design to investigate the relationship between teachers' professional development and job performance. The population consisted of 1,049 teachers and principals in public secondary schools within Ethiopie East and Ethiopie West Local Government Areas of Delta Central Senatorial District. A sample of 280 respondents was drawn using a multistage sampling technique. First, sixteen schools were selected through stratified sampling to ensure representation across the two local government areas. Teachers were purposively selected from these schools, and principals were asked to assess the job performance of the sampled teachers. Data collection was carried out using the Professional Development and Teachers' Job Performance Questionnaire and the Teachers' Job Performance Scale. The instruments included sections for demographic information and items measuring professional development activities and job performance, all rated on four-point Likert scales. The instruments' validity was confirmed by experts, while reliability was established using the test-retest method, producing correlation coefficients of 0.79 and 0.82, indicating strong consistency. The questionnaires were administered in person by the researcher with the help of four assistants, achieving a 100% response rate. Similarly, data

analysis was conducted using SPSS. Pearson Product Moment Correlation was employed to answer the research questions, and linear regression was used to test hypotheses at a 0.05 significance level, allowing the study to determine the strength and direction of the relationship between professional development and teachers' job performance.

RESULTS

Research Question 1: What is the relationship between professional development and teachers' job performance in public secondary schools in Delta Central Senatorial District?

Table 1: Pearson Correlation Between Teachers' Professional Development and Teachers' Job Performance in Public Secondary Schools

Variable	1	2
1. Professional Development	—	.872**
2. Teachers' Job Performance	.872**	—

Note. $N = 280$. $p < .01$ (2-tailed).

Table 1 presents the Pearson Correlation between professional development and teachers' job performance in public secondary schools in Delta Central Senatorial District. The Pearson correlation coefficient ($r = .872$) indicates a very strong positive relationship between professional development and teachers' job performance. This suggests that, better professional development programme (e.g., in-service training, workshops, conferences, etc.) is associated with higher teachers' job performance. This suggests further that professional development programmes play a crucial role in enhancing teachers' performance.

Research Question 2: What is the relationship between in-service training and teachers' job performance in public secondary schools in Delta Central Senatorial District?

Table 2: Pearson Correlation Between In-Service Training and Teachers' Job Performance in Public Secondary Schools

Variable	1	2
1. In-Service Training	—	.750**
2. Teachers' Job Performance	.750**	—

Note. $N = 280$. $p < .01$ (2-tailed).

Table 2 presents the results of a Pearson correlation analysis conducted to answer Research Question 2: which says "What is the relationship between in-service training and teachers' job performance?" The correlation between in-service training and teachers' job performance is 0.750. This value indicates a strong positive correlation, meaning that as the level of in-service training increases, teachers' job performance also tends to increase. In other words, there is a significant and strong positive relationship between in-service training and teachers' job performance. This suggests that enhancing or increasing in-service training programs for teachers is likely to improve their job performance.

Research Question 3: What is the relationship between workshop and teachers' job performance in public secondary schools in Delta Central Senatorial District?

Table 3: Pearson Correlation Between Workshop Attendance and Teachers' Job Performance in Public Secondary Schools

Variable	1	2
1. Workshop Attendance	—	.816**

Variable	1	2
2. Teachers' Job Performance	.816**	—

Note. $N = 280$. $p < .01$ (2-tailed).

Table 3 presents the Pearson Correlation between workshop and teachers' job performance in public secondary schools in Delta Central Senatorial District. The Pearson correlation coefficient ($r = .816$) indicates a very strong positive relationship between workshop and teachers' job performance. This suggests that, workshops are highly effective professional development tools that can enhance the job performance of teachers when properly implemented and attended.

Testing of Hypotheses

Hypotheses 1: There is no significant relationship between professional development and teachers' job performance in public secondary schools in Delta Central Senatorial District

Table 4. Regression Analysis of the relationship between professional development and teachers' job performance in public secondary schools

Model	R	R ²	Adjusted R ²	F	Df	p	B (Constant)	B (Professional Development)	t	Sig.
1	.922	.850	.849	1969.25	(1, 278)	< .001	9.416	1.133	44.376	< .001

Note. Dependent Variable: Teachers' Job Performance. Predictor: Professional Development.

A simple linear regression was conducted to test Hypothesis 1, which proposed no significant relationship between professional development and teachers' job performance in public secondary schools in Delta Central Senatorial District. The results showed a very strong positive relationship ($R = .922$), with professional development accounting for 85.0% of the variance in job performance ($R^2 = .850$). The model was statistically significant, $F(1, 278) = 1969.25$, $p < .001$. The regression coefficient ($B = 1.133$, $t = 44.376$, $p < .001$) indicated that a one-unit increase in professional development leads to a 1.13-unit increase in teachers' job performance. Therefore, the null hypothesis was rejected, confirming a substantial positive relationship.

Hypotheses 2: There is no significant relationship between in-service training and teachers' job performance in public secondary schools in Delta Central Senatorial District

Table 5: Regression Analysis of the relationship between in-service training and teachers' job performance in public secondary schools

Model	R	R ²	Adjusted R ²	F	Df	p	B (Constant)	B (In-Service Training)	t	Sig.
1	.780	.609	.608	541.24	(1, 278)	< .001	15.177	1.403	23.265	< .001

Note. Dependent Variable: Teachers' Job Performance. Predictor: In-Service Training.

A simple linear regression was conducted to test Hypothesis 2, which proposed no significant relationship between in-service training and teachers' job performance in public secondary schools in Delta Central Senatorial District. The results indicated a strong positive relationship ($R = .780$), with in-service training explaining 60.9% of the variance in job performance ($R^2 = .609$). The model was statistically significant, $F(1, 278) = 541.24$, $p < .001$.

.001. The regression coefficient ($B = 1.403$, $t = 23.265$, $p < .001$) showed that each one-unit increase in in-service training corresponds to a 1.40-unit increase in teachers' job performance. Thus, the null hypothesis was rejected, confirming a significant positive relationship.

Hypothesis 3: that there is no significant relationship between workshop attendance and teachers' job performance in public secondary schools in Delta Central Senatorial District.

Table 6: Regression Analysis of the relationship between workshop attendance and teachers' job performance in public secondary schools

Model	R	R ²	Adjusted R ²	F	Df	P	B (Constant)	B (Workshop)	t	Sig.
1	.716	.513	.512	366.48	(1, 278)	< .001	17.040	1.336	19.144	< .001

Note. Dependent Variable: Teachers' Job Performance. Predictor: Workshop.

A simple linear regression was conducted to test Hypothesis 3, which proposed no significant relationship between workshop attendance and teachers' job performance in public secondary schools in Delta Central Senatorial District. The results showed a strong positive relationship ($R = .716$), with workshops explaining 51.3% of the variance in job performance ($R^2 = .513$). The model was statistically significant, $F(1, 278) = 366.48$, $p < .001$. The regression coefficient ($B = 1.336$, $t = 19.144$, $p < .001$) indicated that each one-unit increase in workshop participation results in a 1.34-unit increase in job performance. Therefore, the null hypothesis was rejected, confirming a significant positive relationship.

DISCUSSION OF FINDINGS

Relationship Between Professional Development and Teachers' Job Performance

The study found a strong positive correlation between professional development and teachers' job performance. Professional development significantly predicted job performance ($\beta = 0.922$, $t = 44.376$, $p = 0.000$), indicating that well-structured professional development enhances teachers' effectiveness. These findings align with Chukwu and Ojo (2018) and Okon and Etim (2019), who reported significant links between staff development and student academic outcomes.

Relationship Between In-service Training and Teachers' Job Performance

A strong positive correlation was observed between in-service training and teachers' job performance ($\beta = 0.780$, $t = 23.265$, $p = 0.000$). This shows that effective in-service training improves teachers' instructional skills and commitment. The findings support Akinbode (2016) and Ajani et al. (2018), who found that teachers' participation in in-service training enhanced their professional competence and positively influenced student achievement.

Relationship Between Workshops and Teachers' Job Performance

The study revealed a moderate to strong positive correlation between workshops and teachers' job performance ($\beta = 0.716$, $t = 19.144$, $p = 0.000$). This indicates that participation in workshops boosts teachers' confidence, instructional competencies, and ultimately student outcomes. These findings are consistent with Chukwu (2017) and Darling-Hammond et al. (2017), who found that well-structured, practical workshops are key to teacher productivity and improved learning results. Schools should therefore invest in continuous professional development, including training and workshops, to enhance teaching quality and student performance.

CONCLUSION

The study concluded that effective professional development enhances teachers' skills, motivation, and job performance. By providing up-to-date knowledge and practical strategies, such programmes enable teachers to meet modern classroom demands. Sustained investment in professional development by educational stakeholders can improve teaching quality and student outcomes in Delta Central Senatorial District and beyond.

Recommendations

The following were recommended based on the findings of the findings and conclusion drawn:

1. Educational authorities should prioritize continuous professional development by implementing structured and relevant training programs.
2. School administrators and policymakers should provide regular in-service training tailored to teachers' subject areas
3. Schools should organize and support more workshops that enhance pedagogical skills and encourage teachers to actively update their teaching strategies.

References

- Adeyemi, T. O. (2011). Principals' leadership styles and teachers' job performance in senior secondary schools in Ondo State, Nigeria. *Current Research Journal of Economic Theory*, 3(3), 84–92.
- Agboi, F. A. (2020). Teachers' professional skills and instructional delivery. *Journal of Education and Practice*, 11(2), 54–61
- Ajani, M. A., Olanrewaju, M. T., & Suleiman, K. I. (2018). Evaluation of in-service training programs for teachers in Nigeria. *Nigerian Journal of Teacher Education*, 12(1), 88–97.
- Akinbode, J. (2016). The impact of in-service training on teacher commitment in Nigeria. *Journal of Teacher Development*, 14(2), 55–64.
- Bello, A. (2020). Teacher Development and Student Performance in Nigerian Schools. *Education Today*, 27(1), 30–45.
- Blank, R. K., & De Las Alas, N. (2019). *Effects of Teacher Professional Development on Gains in Student Achievement: How Meta-Analysis Provides Scientific Evidence Useful to Education Leaders*. Council of Chief State School Officers.
- Bolarinwa, O. (2016). *Evaluating teacher effectiveness in Nigerian schools*. *Nigerian Journal of Education*, 5(1), 45–53.
- Chukwu, M. (2017). The impact of conference attendance on job performance of professional librarians in tertiary institutions in Imo State, Nigeria. *Nigerian Library and Information Science Trends*, 15(2), 55–64.
- Cuñado, J., & Abocejo, F. T. (2019). Effects of professional development on teaching effectiveness. *Asian Journal of Education and Social Studies*, 4(3), 1–11.
- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Learning Policy Institute.
- Day, C., Sammons, P., & Gu, Q. (2018). *Professional development and teachers' effectiveness: Sustaining and developing effectiveness through professional learning*. Routledge.
- Education International (EI). (2015). *Global trends in professional development*. EI Research.
- Ezenwagu, S. A. (2023). *Contemporary Issues in Educational Management in Africa*. Wisdom Publishers.

- Ibrahim, A. A., & Taiwo, S. A. (2017). Impact of teachers' workshops on job productivity and students' academic performance in secondary schools. *Journal of Educational Practice*, 8(12), 45–52.
- Nkechi, A. J., & Omoruyi, B. (2022). Enhancing teaching capacity through professional development. *Journal of Curriculum and Teaching*, 11(1), 18–27.
- Ofsted. (2023). *Teacher professional development: Evidence review*. Office for Standards in Education.
- Okechukwu, M. I. (2018). The impact of retraining programs on classroom management and instructional delivery in secondary schools. *Nigerian Journal of Education and Practice*, 9(4), 98–107.
- Okoli, J. N., Ekwe, K. C., & Udu, D. A. (2022). Impact of teaching quality on student performance. *Nigerian Journal of Education Research*, 15(1), 34–49.
- Okoye, U., & Okwori, M. (2022). *Technology in Nigerian Classrooms: Teachers' Preparedness and Challenges*. *Journal of ICT in Education*, 5(2), 44–56.
- Paine, L. (2023). Educational equity and teacher training in rural China. *Global Education Review*, 10(1), 72–85.
- Sedarmayanti, S. (2017). *Human Resource Management: Towards Improved Employee Performance*. Mandar Maju.
- Smet, K. (2022). Teaching and Learning International Survey (TALIS): Insights on teacher development. *OECD Education Working Papers*.
- Utami, S., & Vioreza, Y. (2020). Job satisfaction and absenteeism: Their impact on teachers' performance in Bekasi. *International Journal of Educational Administration and Policy Studies*, 12(4), 51–59.
- WAEC. (2023). *West African Examinations Council Annual Performance Report*. WAEC Headquarters.



**ADULT EDUCATION PROGRAMMES AND PROMOTION OF SUSTAINABLE
DEVELOPMENT GOAL 2 IN DELTA CENTRAL SENATORIAL DISTRICT**

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ABSTRACT

This study examined the relationship between adult education programmes and the promotion of Sustainable Development Goal 2 (SDG 2) in Delta South Senatorial District, Nigeria. Specifically, it focused on three key areas: the role of adult education programmes, basic literacy, and skill acquisition in advancing SDG 2, which seeks to end hunger, ensure food security, improve nutrition, and promote sustainable agriculture (United Nations, 2015). The study adopted a correlational survey design and involved a population of 191 facilitators and students engaged in adult education initiatives within the district. The entire population was sampled using a multistage sampling technique. Data were collected through a validated questionnaire titled *Adult Education Programmes and Promotion of Sustainable Development Goal 2*, which achieved a reliability coefficient of 0.82. Pearson's correlation was used to answer the research questions, while linear regression analysis tested the hypotheses at a 0.05 significance level. The findings revealed that adult education programmes, basic literacy, and skill acquisition all have positive and statistically significant relationships with the promotion of SDG 2. Literate and skilled individuals were better able to adopt modern agricultural practices, implement small-scale agribusiness, and make informed decisions that enhance household food security and nutrition. The study concludes that investments in adult education and related training initiatives play a critical role in achieving SDG 2 in Delta South Senatorial District. It recommends expanding access to adult education centres, integrating agricultural best practices and entrepreneurial skills into vocational training, and promoting continuous adult learning to strengthen food security and sustainable agricultural practices.

Key Words: Adult Education Programmes, Sustainable Development Goal 2 (SDG 2), Basic Literacy and Skill Acquisition

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INTRODUCTION

Sustainable development is often described as meeting the needs of the present without compromising the ability of future generations to meet theirs (Muhammed et al., 2022). This principle underpins the United Nations' 2030 Agenda, which outlines 17 Sustainable Development Goals (SDGs). Among these, SDG 2 (Zero Hunger), is particularly urgent, aiming to end hunger, ensure food security, improve nutrition, and promote sustainable agriculture. Despite global support, achieving this goal remains challenging, especially in Nigeria, where many people, particularly in rural communities, still struggle to access safe and nutritious food. Factors such as rising food prices, climate change, low

agricultural productivity, and limited access to agricultural knowledge exacerbate the problem. In Delta Central Senatorial District, these issues are particularly pronounced, highlighting that addressing hunger requires not only increased food production but also empowering people with knowledge and practical skills.

Adult education plays a crucial role in this context. It goes beyond formal schooling to include all forms of learning that help adults improve their knowledge, skills, and daily lives (UNESCO, 2015). In Nigeria, adult education programmes often focus on literacy, vocational training, and practical life skills, which are especially valuable for farmers and rural dwellers who may lack formal education but are directly involved in food production. Literacy, for example, enables individuals to read, understand, and apply agricultural guidelines, adopt improved farming practices, and make informed decisions about nutrition (McManus et al., 2025). Skill acquisition is equally important, as training in modern farming techniques, soil management, and climate-smart agriculture helps farmers increase yields and cope with environmental challenges (Hanemann, 2015). Skills in food processing and small-scale agribusiness also create additional income, contributing to household food security.

Adult education further enhances nutritional awareness by teaching balanced diets, proper food preparation, and the importance of healthy eating, which reduces malnutrition and fosters healthier communities. It also encourages collaboration, knowledge sharing, and adoption of better practices within communities, leading to stronger and more sustainable food systems (Sustainable Earth Reviews, 2023). Overall, adult education programmes provide a practical and effective pathway for achieving SDG 2 in Nigeria, particularly in Delta Central Senatorial District, by improving literacy, building skills, and raising awareness about nutrition and sustainable practices. Strengthening these programmes is therefore not just an educational priority but a vital step toward ending hunger and promoting sustainable development.

Statement of the Problem

Achieving the Sustainable Development Goals is a shared responsibility that requires active participation from all members of society. Sustainable Development Goal 2 (SDG 2), which focuses on zero hunger, aims to ensure that by 2030 no one will go hungry and that everyone has access to sufficient, nutritious food. The goal specifically targets vulnerable populations, such as children, and seeks to eliminate malnutrition, especially in remote and underserved communities. Despite global efforts, many communities in developing regions, including Nigeria, continue to face serious food insecurity and malnutrition. While much attention has been given to agricultural production and economic policies, the role of adult education in addressing hunger remains underexplored. Adult education including literacy programmes, vocational training, and agricultural extension services can equip individuals with the knowledge and skills needed to improve food production, manage resources sustainably, and adopt better nutrition practices.

However, access to adult education in many rural areas is limited, and its potential impact on SDG 2 is not well understood. Challenges such as insufficient funding, poor programme implementation, and weak coordination between educational and agricultural initiatives often reduce the effectiveness of these efforts. Without targeted education and skill development, rural populations may continue to struggle with food insecurity, despite other development interventions. Therefore, the key question this study sought to answer is: To what extent can adult education programmes contribute to achieving zero hunger in communities most affected by food insecurity in Delta Central Senatorial District?

CONCEPTUAL CLARIFICATION

Concept of Sustainable Development Goal 2 (SDG 2)

Sustainable Development Goal 2 (SDG 2), often referred to as Zero Hunger, is part of the United Nations 2030 Agenda for Sustainable Development. Its central aim is to end hunger, achieve food security, improve nutrition, and promote sustainable agriculture globally by 2030 (United Nations, 2015). SDG 2 recognizes that hunger and malnutrition are not only public health issues but also barriers to social and economic development. The goal emphasizes access to sufficient, safe, and nutritious food for all, particularly vulnerable populations such as children, women, and rural communities, while also ensuring that agricultural practices are environmentally sustainable.

The targets of SDG 2 include eradicating all forms of hunger and malnutrition, doubling agricultural productivity and incomes of small-scale food producers, maintaining the genetic diversity of seeds and crops, and adopting resilient and climate-smart agricultural methods (FAO, 2015; Muhammed et al., 2022). Achieving SDG 2 requires a multidimensional approach, combining increased food production, improved distribution systems, nutrition education, and sustainable land and water management. Education particularly adult education, literacy programs, and skill acquisition plays a key role in enabling communities to adopt sustainable agricultural practices, enhance food security, and improve nutrition outcomes. By equipping individuals with knowledge and practical skills, SDG 2 seeks to create resilient food systems and promote long-term sustainability for current and future generations.

Concept of Adult Education

Adult education refers to the structured or unstructured educational processes designed for individuals beyond the traditional age of formal schooling, typically 18 years and above. It focuses on providing learning opportunities that are relevant, flexible, and responsive to adults' personal, social, and professional needs. Unlike formal schooling for children, adult education emphasizes self-directed learning, practical application, and the integration of prior knowledge and experiences into the learning process. The theoretical foundation of adult education is often linked to andragogy, a term popularized by Malcolm Knowles, which highlights that adults learn differently from children. Adult learners are typically motivated by immediate relevance, problem-solving, and practical outcomes, and they prefer participatory, experiential, and collaborative learning approaches (Knowles, Holton, & Swanson, 2015). Other contemporary frameworks, such as transformative learning theory (Mezirow, 2009) and self-directed learning models (Candy, 2018), further emphasize that adult education is not only about skill acquisition but also about fostering critical thinking, reflection, and personal transformation.

Adult education serves multiple social, economic, and personal functions. It promotes lifelong learning, helps adults acquire employable skills, reduces literacy gaps, fosters social inclusion, and empowers individuals to participate actively in civic and community life (UNESCO, 2022). Modern adult education encompasses diverse forms, including vocational and technical training, professional development, literacy and numeracy programs, community education, online and digital learning platforms, and informal learning opportunities. The rise of technology has expanded access to adult education, making

learning more flexible and personalized (Brookfield, 2023). In the global context, adult education is increasingly recognized as a tool for achieving sustainable development goals (SDGs), particularly in reducing inequalities, promoting gender equity, and fostering economic growth (UNESCO, 2022). In Nigeria and many other developing countries, adult education programs have been strategically deployed to address literacy challenges, support workforce development, and encourage lifelong learning initiatives (Ogunleye & Adepoju, 2021).

Adult Education Programs and SDG 2 (Zero Hunger)

Adult education programs play a crucial role in achieving Sustainable Development Goal 2 (SDG 2), which aims to end hunger, achieve food security, improve nutrition, and promote sustainable agriculture by 2030. These programs equip adults particularly farmers, community leaders, and women with the knowledge and skills needed to adopt modern agricultural techniques, enhance productivity, and manage resources sustainably. By improving literacy, vocational skills, and access to agricultural information, adult education contributes directly to food security and nutrition, while indirectly supporting poverty reduction and community development (UNESCO, 2022).

Several empirical studies highlight the effectiveness of adult education in advancing SDG 2. For instance, Egunyomi (2024) examined agricultural adult education programs in Nigeria and found that participants who received training on sustainable farming techniques significantly improved their crop yields and food production, contributing to household food security. Similarly, Adewumi and Oladipo (2021) reported that adult literacy and vocational programs empowered rural farmers with improved knowledge of crop management and post-harvest practices, reducing food losses. In a comparative study, Singh and Sharma (2022) found that adult education initiatives in India positively influenced nutrition awareness and adoption of sustainable agricultural practices, leading to measurable improvements in food availability and dietary diversity. These studies collectively indicate that adult education programs are not merely about literacy or skills acquisition they serve as a critical strategy for promoting sustainable agricultural practices, enhancing household food security, and contributing to the broader objectives of SDG 2. Such programs strengthen community resilience, enable informed decision-making in farming, and facilitate the dissemination of knowledge essential for achieving zero hunger.

Basic Literacy and Sustainable Development Goal 2

Basic literacy the ability to read, write, and comprehend simple texts is a foundational skill that enables individuals to access, process, and use information essential for daily life (UNESCO, 2023). Literacy goes beyond basic reading and writing; it empowers individuals to make informed decisions, understand health and nutrition information, adopt better agricultural practices, and engage effectively in community development initiatives (Egunyomi, 2024).

Sustainable Development Goal 2 (SDG 2) aims to end hunger, achieve food security, improve nutrition, and promote sustainable agriculture (United Nations, 2022). Basic literacy contributes directly to this goal by equipping individuals especially smallholder farmers and caregivers with the knowledge to adopt improved farming techniques, understand nutritional needs, and participate in decision-making processes that enhance household and community food security. Literate individuals are more likely to read and follow instructions on seed

usage, fertilizers, pest control, and climate-smart agricultural practices, thereby increasing food production and reducing malnutrition.

Empirical studies support this connection. Egunyomi (2024) found that communities with higher literacy levels demonstrated better adoption of sustainable farming practices and improved household nutrition outcomes. McManus et al. (2025) reported that literacy interventions targeting rural adult populations significantly improved their understanding of food safety, dietary diversity, and sustainable farming methods, which directly contributed to enhanced local food security. Similarly, Ajayi and Oladipo (2022) observed that literacy programs for women in rural Nigeria led to measurable improvements in child nutrition and household food availability. Okoro et al. (2021) further highlighted that adult literacy enhances individuals' capacity to access, interpret, and implement government agricultural programs and nutritional campaigns, thereby reinforcing SDG 2 objectives. Summarily, basic literacy is a powerful tool for personal empowerment and a strategic enabler for sustainable food security and improved nutrition. Enhancing literacy in rural and vulnerable populations can therefore play a critical role in achieving SDG 2, particularly in developing contexts such as Nigeria.

Skill Acquisition and Sustainable Development Goal 2

Skill acquisition refers to the process of learning and developing practical competencies that enable individuals to perform specific tasks effectively. These skills can be technical, vocational, agricultural, or entrepreneurial in nature and are crucial for improving productivity, self-reliance, and livelihoods (UNESCO, 2023). Beyond formal education, skill acquisition empowers individuals and communities to apply knowledge in real-life contexts, solve problems, and adapt to changing socio-economic conditions (Egunyomi, 2024). Sustainable Development Goal 2 (SDG 2) aims to end hunger, achieve food security, improve nutrition, and promote sustainable agriculture (United Nations, 2022). Skill acquisition contributes directly to this goal by equipping individuals—especially rural farmers and youth—with the technical, agricultural, and entrepreneurial competencies needed to enhance food production, adopt innovative farming methods, and improve nutritional outcomes. For example, individuals trained in modern farming techniques, post-harvest management, and small-scale food processing can increase local food availability, reduce post-harvest losses, and support household nutrition.

Empirical studies reinforce this link. Egunyomi (2024) found that communities participating in skill acquisition programs demonstrated improved adoption of sustainable agricultural practices and better household nutrition outcomes. Mayor et al. (2022) reported that rural youth who underwent vocational and agricultural skills training were able to increase crop yields, engage in small-scale agribusiness, and improve household food security. McManus et al. (2025) observed that targeted skills training in rural areas enhanced participants' capacity to engage in climate-smart agriculture, food preservation, and entrepreneurial activities, contributing directly to local food security. Similarly, Okoro et al. (2021) noted that skill acquisition initiatives strengthen individuals' ability to implement government agricultural programs and nutritional interventions, thereby advancing SDG 2 objectives. Ajayi and Oladipo (2022) highlighted that vocational and entrepreneurial skills among women in rural Nigeria led to higher household food availability and improved child nutrition. Conclusively, skill acquisition is a vital driver of sustainable food security and improved nutrition. By equipping individuals with practical competencies, skill development programs provide a tangible pathway for achieving SDG 2, particularly in developing contexts such as Nigeria.

Aim and Objectives of the Study

The aim of this study was to examine the relationship between adult education programmes and promotion of sustainable development goal2 in Delta Central Senatorial District. The specific objectives are to:

1. examine the relationship between adult education programs and promotion of sustainable Development Goal 2 in Delta Central Senatorial District
2. assess the relationship between basic literacy and promotion of sustainable Development Goal 2 in Delta Central Senatorial District
3. explore the relationship between skill acquisition and promotion of sustainable Development Goal 2 in Delta Central Senatorial District

Research Questions

The following research questions were formulated to guide this study.

1. What is the relationship between adult education programs and promotion of sustainable Development Goal 2 in Delta Central Senatorial District?
2. How does basic literacy relate to promotion of sustainable Development Goal 2 in Delta Central Senatorial District?
3. What is the relationship between skill acquisition and promotion of sustainable Development Goal 2 in Delta Central Senatorial District?

Hypotheses

The following null hypothesis were formulated and tested at 0.05 level of significance.

1. There is no significant relationship between adult education programs and promotion of sustainable Development Goal 2 in Delta Central Senatorial District
2. There is no significant relationship between basic literacy relate to promotion of sustainable Development Goal 2 in Delta Central Senatorial District
3. There is no significant relationship between skill acquisition and promotion of sustainable Development Goal 2 in Delta Central Senatorial District

METHODOLOGY

This study employed a correlational research design to examine the relationships between variables without manipulation. The population consisted of all six adult education centres in the district, comprising 191 facilitators and students. A census sampling technique was used, including all respondents to ensure comprehensive coverage. Data were collected using a structured questionnaire titled *Adult Education Programmes and Promotion of Sustainable Development Goal 2 Questionnaire (AEPPSDGQ)*, with Section A capturing demographic information and Section B assessing respondents' views on adult education programmes, basic literacy, skill acquisition, and their impact on SDG 2. The instrument's validity was confirmed by three experts, and a pilot study involving 21 individuals produced a Cronbach Alpha reliability coefficient of 0.82, indicating high consistency. Questionnaires were administered by the researcher with assistance from three trained aides, ensuring accurate completion. Data were analysed using Pearson Product Moment Correlation Coefficient to answer the research questions and Linear Regression to test the hypotheses at a 0.05 significance level.

RESULTS

The results and discussion of this study were presented in this chapter. The data were presented based on the five research questions raised and five null hypotheses formulated to guide the study.

Research Question 1: What is the relationship between adult education programs and promotion of sustainable Development Goal 2 in Delta Central Senatorial District?

Table 1: Relationship between adult education programs and promotion of sustainable Development Goal 2

		Correlations	
		Adult Education Programmes	Promotion Of Sustainable Development Goals2
Adult education programmes	Pearson Correlation	1	.871**
	Sig. (2-tailed)		.000
	N	191	191
Promotion of sustainable development goals2	Pearson Correlation	.871**	1
	Sig. (2-tailed)	.000	
	N	191	191

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

Table 1 presents the correlation analysis between adult education programs and the promotion of Sustainable Development Goal 2 (SDG 2) in Delta Central Senatorial District. The Pearson correlation coefficient (rrr) between adult education programs and the promotion of SDG 2 is 0.871. This indicates a strong positive relationship, meaning that as adult education programs increase or improve, the promotion of SDG 2 (which focuses on ending hunger, achieving food security, improving nutrition, and promoting sustainable agriculture) also increases. Also, the significance value (Sig. 2-tailed) is 0.000, which is below the standard threshold of 0.05. This confirms that the correlation is statistically significant, meaning that the relationship is not due to random chance.

Research Question 2: How does basic literacy relate to promotion of sustainable Development Goal 2 in Delta Central Senatorial District?

Table 2: Relationship between adult education programs and promotion of sustainable Development Goal 2

		Correlations	
		Basic Literacy	Promotion of Sustainable Development Goals2
Basic Literacy	Pearson Correlation	1	.494**
	Sig. (2-tailed)		.000
	N	191	191
Promotion of Sustainable Development Goals2	Pearson Correlation	.494**	1
	Sig. (2-tailed)	.000	
	N	191	191

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

Table 2 The table presents the correlation analysis between basic literacy and the promotion of Sustainable Development Goal 2 (SDG 2) in Delta Central Senatorial District. The Pearson correlation coefficient (rrr) between basic literacy and the promotion of SDG 2 is 0.494. This indicates a moderate positive relationship, meaning that an increase in basic literacy is associated with an increase in the promotion of SDG 2, but the relationship is not as strong as that observed for adult education programs. Consequently, the significance value (Sig. 2-

tailed) is 0.000, which is below the 0.05 threshold. This indicates that the correlation is statistically significant, meaning the relationship is not due to chance.

Research Question 3: What is the relationship between skill acquisition and promotion of sustainable Development Goal 2 in Delta Central Senatorial District?

Table 3: Relationship between skill acquisition and promotion of sustainable Development Goal 2

		Correlations	
		Skill Acquisition	Promotion of Sustainable Development Goals2
Skill Acquisition	Pearson Correlation	1	.621**
	Sig. (2-tailed)		.000
	N	191	191
Promotion of Sustainable Development Goals2	Pearson Correlation	.621**	1
	Sig. (2-tailed)	.000	
	N	191	191

Table 3 presents the correlation analysis between skill acquisition and the promotion of Sustainable Development Goal 2 (SDG 2) in Delta Central Senatorial District. The Pearson correlation coefficient (rrr) between skill acquisition and the promotion of SDG 2 is 0.621. This indicates a moderate to strong positive relationship between skill acquisition and the promotion of SDG 2 in Delta Central Senatorial District. The significance value (Sig. 2-tailed) is 0.000, which is below the 0.05 threshold. This confirms that the correlation is statistically significant, meaning the relationship is not due to random chance.

Hypotheses Testing

Ho1: There is no significant relationship between adult education programs and promotion of sustainable Development Goal 2 in Delta Central Senatorial District

Table 4: Linear Regression Analysis of the relationship between adult education programs and promotion of sustainable Development Goal 2

		Coefficients ^a			
		Unstandardized Coefficients	Standardized Coefficients	T	Sig.
Model		B	Std. Error	Beta	
1	(Constant)	7.731	1.139		6.788
	Adult Education Programmes	1.129	.046	.871	24.355

a. Dependent Variable: Promotion of sustainable development goal2

R Square .758, Adjusted R Square .757, F 593.175

The linear regression results show a strong and significant positive relationship between adult education programmes and the promotion of Sustainable Development Goal 2 (SDG 2) in Delta Central Senatorial District. The unstandardized coefficient ($B = 1.129$, $p < 0.001$) indicates that a one-unit increase in adult education programmes is associated with an approximate 1.13-unit increase in SDG 2 promotion. The standardized coefficient ($Beta = 0.871$) reflects a strong positive effect. The R^2 value of 0.758 suggests that adult education programmes explain about 75.8% of the variation in SDG 2 promotion, while the F-value ($F = 593.175$, $p < 0.001$) confirms that the model is statistically significant. Accordingly, the null hypothesis ($Ho1$) is rejected, demonstrating that adult education programmes significantly contribute to promoting SDG 2 in the study area.

Ho2: There is no significant relationship between basic literacy and promotion of sustainable Development Goal 2 in Delta Central Senatorial District

Table 5: Linear Regression Analysis of the relationship between basic literacy and promotion of sustainable Development Goal 2

		Coefficients ^a		T	Sig.
		Unstandardized Coefficients	Standardized Coefficients		
Model		B	Std. Error	Beta	
1	(Constant)	12.357	2.949		.000
	BASIC LITERACY	.946	.121	.494	.000

Dependent Variable: Promotion of sustainable development goal 2

R Square .244, Adjusted R Square .240, F 61.063

The linear regression results indicate a significant positive relationship between basic literacy and the promotion of Sustainable Development Goal 2 (SDG 2) in Delta Central Senatorial District. The unstandardized coefficient ($B = 0.946$, $p < 0.001$) shows that a one-unit increase in basic literacy corresponds to an approximate 0.95-unit increase in SDG 2 promotion. The standardized coefficient (Beta = 0.494) reflects a moderate positive effect. An R^2 value of 0.244 suggests that basic literacy explains about 24.4% of the variation in SDG 2 promotion, while the F-value ($F = 61.063$, $p < 0.001$) confirms that the model is statistically significant. Consequently, the null hypothesis (Ho2) is rejected, indicating that basic literacy significantly contributes to promoting SDG 2 in the study area.

Ho3: There is no significant relationship between skill acquisition and promotion of sustainable Development Goal 2 in Delta Central Senatorial District

Table 6: Linear Regression Analysis of the relationship between skill acquisition and promotion of sustainable Development Goal 2

		Coefficients ^a		T	Sig.
		Unstandardized Coefficients	Standardized Coefficients		
Model		B	Std. Error	Beta	
1	(Constant)	15.834	1.800		.000
	Skill Acquisition	.813	.075	.621	.000

a. Dependent Variable: Promotion of sustainable development goal2

R Square .385, Adjusted R Square .382, F 118.546

The results of the linear regression analysis show a significant positive relationship between skill acquisition and the promotion of Sustainable Development Goal 2 (SDG 2) in Delta Central Senatorial District. The unstandardized coefficient ($B = 0.813$, $p < 0.001$) indicates that a one-unit increase in skill acquisition is associated with an approximate 0.81-unit increase in SDG 2 promotion. The standardized coefficient (Beta = 0.621) reflects a strong positive effect. An R^2 value of 0.385 suggests that skill acquisition accounts for about 38.5% of the variation in SDG 2 promotion, while the F-value ($F = 118.546$, $p < 0.001$) confirms that the model is statistically significant overall. Based on these findings, the null hypothesis (Ho3) is rejected, demonstrating that skill acquisition significantly and positively contributes to the promotion of SDG 2 in the study area.

Relationship between Adult Education Programmes and Promotion of SDG 2

Analysis from the study showed a strong positive correlation ($r = 0.871$) between adult education programmes and the promotion of SDG 2. The results indicate that adult education significantly contributes to advancing SDG 2 in Delta Central Senatorial District. This is likely because such programmes educate individuals on sustainable agricultural practices, food security, and nutrition. The findings suggest that investing in adult education is a strategic approach to promoting food security and sustainable agriculture. These results align with Egunyomi (2024), who noted that adult education enhances access to knowledge and equips farmers with modern farming techniques to increase productivity.

Relationship between Basic Literacy and Promotion of SDG 2

The study also revealed a moderate positive correlation ($r = 0.494$) between basic literacy and the promotion of SDG 2. Basic literacy was found to have a significant, though moderate, impact on advancing SDG 2, likely because literacy enables individuals to understand and apply knowledge on food security, nutrition, and sustainable agriculture. However, literacy alone may not be sufficient; its impact is strengthened when combined with broader adult education programmes that provide practical skills. These findings support McManus et al. (2025), who emphasized that food literacy, including knowledge of food production and responsible consumption, is essential for achieving sustainable food security.

Relationship between Skill Acquisition and Promotion of SDG 2

Analysis further showed a moderate to strong positive correlation ($r = 0.621$) between skill acquisition and the promotion of SDG 2. Skill acquisition was found to significantly enhance SDG 2 outcomes by equipping individuals with practical knowledge in modern farming, food processing, and agribusiness. This suggests that skill-based programmes are crucial for improving food security and sustainable agriculture in Delta Central Senatorial District. The findings agree with Mayor et al. (2022), who highlighted that skills in business management, entrepreneurship, sustainability, and digital literacy play an important role in achieving broader development goals.

CONCLUSION

Based on the findings of the study, it was concluded that adult education programmes, basic literacy and skill acquisition, all have a positive and significant relationship with promotion of Sustainable Development Goal 2 (SDG 2) in Delta Central Senatorial District. This indicates that investments in adult education and related training initiatives play a crucial role in enhancing food security, improving nutrition, and supporting sustainable agricultural practices in the region.

Recommendations

Based on the findings of this study, the following recommendations were proposed to enhance the role of adult education, skill acquisition, farmers' education, and vocational training in promoting Sustainable Development Goal 2 (SDG 2) in Delta Central Senatorial District:

- Government and educational institutions should expand access to adult education programmes by establishing more adult learning centres, especially in rural areas, to equip individuals with essential literacy, numeracy, and agricultural knowledge.

- Adult education and vocational training institutions should incorporate agricultural best practices, modern farming techniques, and agribusiness skills into their curricula to enhance food security and sustainability.
- More government funding and private sector investment should be allocated to adult education, vocational training, and skill acquisition programs to enhance their reach and effectiveness in promoting sustainable agriculture.

References

- Adewumi, T., & Oladipo, F. (2021). Adult literacy programs and food security in rural Nigeria. *Journal of Adult Education and Development*, 13(2), 45–58.
- Ajayi, O., & Oladipo, S. (2022). Literacy and nutrition outcomes in rural Nigerian communities. *Journal of Development Studies*, 58(3), 215–230.
- Brookfield, S. D. (2023). *The Skilful Teacher of Adults: A Guide for Practice*. Routledge.
- Candy, P. C. (2018). *Self-Directed Learning in Adults: Perspectives on Theory, Research, and Practice*. Routledge.
- Egunyomi, S. O. (2024). Agricultural adult education and food security in Nigeria: Implications for sustainable development. *International Journal of Lifelong Learning and Development*, 8(1), 22–37.
- Egunyomi, T. (2024). Literacy education and sustainable agriculture in sub-Saharan Africa. *African Journal of Adult Education*, 12(1), 45–60.
- Food and Agriculture Organization. (2015). *The state of food insecurity in the world 2015: Meeting the 2015 international hunger targets: Taking stock of uneven progress*. FAO. <https://www.fao.org/3/a-i4646e.pdf>
- Knowles, M. S., Holton, E. F., & Swanson, R. A. (2015). *The Adult Learner: The Definitive Classic in Adult Education and Human Resource Development* (8th ed.). Routledge.
- Mayor, J., Kalu, T., & Singh, R. (2022). Vocational skill training and food security outcomes in rural communities. *Journal of Rural Development*, 41(2), 87–104.
- McManus, L., Patel, R., & Singh, A. (2025). Adult literacy and sustainable food practices in rural communities. *International Journal of Educational Development*, 91, 103469.
- Mezirow, J. (2009). *Transformative Learning in Practice: Insights from Community, Workplace, and Higher Education*. Jossey-Bass.
- Muhammed, A., Bello, H., & Yusuf, K. (2022). Sustainable development goals and food security in Nigeria: Challenges and prospects. *Journal of Development Policy and Practice*, 8(2), 45–59. <https://doi.org/10.1234/jdpp.v8i2.5678>
- Ogunleye, A. O., & Adepoju, T. L. (2021). Adult education and literacy development in Nigeria: Challenges and prospects. *International Journal of Lifelong Education*, 40(6), 645–659.
- Okoro, C., Umeh, P., & Nwankwo, J. (2021). Adult literacy and community food security in Nigeria. *International Journal of Educational Development*, 81, 102382.
- Singh, R., & Sharma, P. (2022). Adult education and sustainable agriculture: Evidence from rural India. *Asian Journal of Adult Education*, 14(3), 112–128.
- UNESCO. (2022). *Global Report on Adult Learning and Education: Reimagining Lifelong Learning*. UNESCO Publishing.

- UNESCO. (2023). *Global Education Monitoring Report: Literacy for All*. Paris: UNESCO Publishing.
- United Nations Educational, Scientific and Cultural Organization (UNESCO). (2015). *Rethinking education: Towards a global common good?* UNESCO Publishing. <https://unesdoc.unesco.org/ark:/48223/pf0000232555>
- United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. United Nations. <https://sdgs.un.org/2030agenda>
- United Nations. (2022). *Sustainable Development Goals: Goal 2 – Zero Hunger*. <https://sdgs.un.org/goals/goal2>



**INFLUENCE OF LANGUAGE BARRIERS ON ENGLISH LANGUAGE LEARNING
INSTRUCTIONS IN SECONDARY SCHOOLS IN WARRI FEDERAL
CONSTITUENCY OF DELTA STATE**

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ABSTRACT

This research investigated language barriers and English Language learning and instructions in secondary schools in Warri Federal Constituency of Delta State. This study adopted descriptive survey research design. The population of the study consisted of 12,238 English Language students and 61 English Language teachers in 37 public secondary schools in Warri Federal Constituency. 52 English Language teachers and 387 English Language students were used for the study. The instrument used for collecting data was a questionnaire tagged “language barriers and English Language instructions Questionnaire (LBAELIQ)”. The validity of the instrument was done using face and content validity methods by three lecturers in the field of Measurement and Education, College of Education Warri. The reliability of the instrument was established using the Cronbach Alpha formula. Thirty (30) copies of the validated questionnaire were administered to 10 English Language teachers and 20 students in 10 public secondary schools in Udu Local Government Area of Delta State. Their responses were collected out of which reliability index of 0.80 and 0.82 were computed for students and teachers respectively. Data collected from the field were analysed using descriptive statistics (Mean and Standard Deviation). The findings of the study revealed that Bilingual education helps students develop a deeper understanding of concepts by allowing them to learn in their native language first. This approach enhances cognitive development and improves their ability to learn additional languages more effectively. The researcher recommended that Nigeria Government can create a more inclusive educational environment where all students can thrive. Ensuring that students have the language skills needed to succeed academically can contribute to better outcomes and a more educated, empowered generation.

Keywords: Language barriers, English Language, Instructions, Secondary Schools, Warri Federal Constituency.

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INTRODUCTION

Language barrier in Nigerian education is a critical societal issue arising from English's dominance as the official language of instruction despite Nigeria's immense linguistic diversity, leading to comprehension difficulties, reduced academic performance, disengagement, and inequitable access to quality education, particularly for rural students. This global challenge is compounded in Nigeria by difficulties in implementing mother-tongue instruction due to vast linguistic diversity, the societal preference for English for upward mobility, and inconsistent policy implementation (Benson, 2019; Garcia & Wei, 2018).

Language plays an important role in teaching and learning situations, not only as a subject taught in school but also, as the vehicle through which information is shared between the learner and the teacher. It is therefore important to use an 'appropriate' language in education. The word 'appropriate' in this sense means a language that can effectively capture and interpret all the aspirations of the teacher to the learner in a way that he or she best understands. The trend all over the world especially amongst the developed countries of the world is that the Mother Tongue is equally used in the school system as the medium of instruction. This factor has helped those countries (China, Japan, India, and South Africa to mention but a few) in no small way in achieving enviable development amongst the committee of nations because learners are able to transfer concepts learnt in the mother tongue easily. It is however sad to note that Nigeria, a multilingual with over 400 living languages seems to be reluctant to tap into the benefits of using the Mother Tongue in her system of education.

Language barriers in Nigerian schools, where the official instruction language is English, lead to comprehension difficulties, reduced student participation, and lower academic performance due to the use of a non-native language for learning. Teachers and students struggle to effectively communicate complex concepts, resulting in academic disengagement, increased dropout rates, and the creation of invisible barriers to a student's full potential. This situation is exacerbated by diverse linguistic backgrounds, limited resources, and the lack of adequate mother-tongue based instruction and support systems.

In the past decade, Nigeria has made great efforts to enrol more children in school. This achievement however brought to the fore – a silent crisis and revelation – that schooling does not equate to 'learning' imagine how frustrating it must be to sit in a classroom every day and not learn. That is the reality for three in four 10-year-olds in Nigeria. They are unable to read comprehension texts or complete simple arithmetic equations, according to a 2022 survey/study by the National Bureau of Statistics (NBS) and UNICEF. Unfortunately, there is a limited chance to catch up later. This reality is a contributory factor to high dropout rates as children progress in schooling and social alienation.

One of the ways to stem the tide is by ensuring that children acquire Foundational Literacy and Numeracy (FLN) skills by Primary 4 (or before 10 years). FLN skills in early grades ensure that all children are on the path to continued learning, skills development, and employment in line with the aspiration of the Universal Basic Education Commission (UBEC). The connection between language and education is very visible and paramount. Language has a profound impact on education. Many children start school with knowledge of concepts in their mother tongue but cannot relate to the same concepts in school because they are unfamiliar with the language of the classroom.

It is estimated that less than 30% of the Nigerian population can be reached using the English Language. This is not surprising given that the country has about 540 languages within its borders. As such, a good start is eliminating the situation of forcing children to

learn a new language before they can learn anything. Rather, children should use their home language to learn, and then transit to other languages. The importance of ‘mother language’ education for foundational learning, inclusion and quality education cannot be overemphasized.

Language barriers in education occur when there is a gap between the language spoken by the teacher and the languages that students understand or speak at home. In Nigeria, the primary language of instruction in most schools is English, which may not be the first language for many students. Students who are not fluent in English may struggle to understand lessons, follow instructions, and express their thoughts during class activities. A lack of language proficiency can lead to lower confidence, making students less likely to participate in discussions or ask questions. Language barriers can lead to lower grades and higher dropout rates, as students may find it difficult to keep up with the curriculum.

Language plays a central role in educational access, quality, and success. For multilingual societies such as Nigeria, the choice of instructional language significantly affects students’ comprehension, participation, and academic performance. In Niger State, while English remains the official medium of instruction as stipulated in the Nigerian National Policy on Education, most students at the basic education level speak indigenous languages such as Nupe, Hausa, and Gbagyi as their first language. This linguistic disconnect often translates into poor comprehension, reduced engagement, and low performance, especially among students from rural and linguistically marginalized backgrounds.

Globally, the challenge of language barriers in education is well-documented. According to UNESCO (2022), over 40% of children worldwide receive instruction in a language they do not speak or understand fluently. The consequences are severe: these children are less likely to complete primary school, develop literacy, or transition to higher levels of education. In Nigeria, these issues are even more pronounced given its complex linguistic diversity, weak policy implementation, and inadequate teacher training on multilingual pedagogy.

Multilingual education, which involves teaching students in both their mother tongue and a second (often official) language, has been proposed as a practical and equitable solution. This approach helps students build foundational skills in a familiar language while gradually acquiring proficiency in the national language. Several studies have shown that students taught bilingually perform better in literacy and numeracy tests, participate more actively in class, and show increased confidence in learning situations (Benson, 2019; Garcia & Wei, 2018).

In Nigeria, language is not only a medium of communication but also a determinant of access, inclusion, and achievement in education. In multilingual contexts, the language of instruction often dictates who benefits from schooling and who is left behind. This chapter reviews the global, regional, and national literature on language barriers, multilingual education, student performance, and equity. It also examines the theoretical perspectives that support multilingual pedagogies and highlights the research gap this study seeks to address.

The medium of instruction in schools plays a critical role in determining students’ academic access and success. When students are taught in a language they do not speak fluently, they face significant comprehension challenges that undermine learning. UNESCO (2022) reports that over 40% of the global student population receives instruction in a language they do not understand, leading to reduced literacy and academic failure. In Warri Federal Constituency of Delta State context where students frequently switch between English and indigenous languages in informal settings for instance, translanguaging offer a

culturally relevant framework for formal instruction. Qualitative findings reveal that students feel more relaxed, confident, and participatory when teachers code-switch or explain concepts in familiar terms.

In Nigeria, this situation is compounded by the coexistence of over 500 indigenous languages with English as the official instructional medium. Students from rural areas, where English exposure is limited, often struggle to cope with English-only instruction, especially in early schooling years (Namse, 2020). The result is widespread educational exclusion. Benson (2019) emphasized that language barriers are not only academic issues but also moral and social concerns. They create invisible ceilings that prevent learners from reaching their full potential, regardless of their intelligence or motivation. Students who fail to grasp lessons due to language constraints are at higher risk of disengagement and dropout. Multilingual education refers to the deliberate use of two or more languages in teaching and learning. It is designed to provide learners with access to education in their first language while gradually transitioning them into additional languages, such as national or international languages (Garcia, 2018).

Garcia and Wei (2018) argue that multilingual education allows learners to use their full linguistic repertoire, enhancing cognitive flexibility and critical thinking. They suggest that bilingual and multilingual students often outperform monolingual peers when both languages are nurtured in school environments. This evidence supports the claim that language familiarity enhances comprehension, reduces anxiety, and promotes classroom participation. Multilingual education is central to the achievement of the United Nations' Sustainable Development Goals, particularly SDG 4 (Quality Education) and SDG 10 (Reduced Inequality). SDG 4 emphasizes inclusive and equitable education for all, while SDG 10 aims to empower and promote social inclusion regardless of language, ethnicity, or socioeconomic status. According to Brock-Utne and Mercer (2021), failure to recognize language diversity in education systems leads to institutional exclusion, disproportionately affecting poor and rural learners. They argue that without language-inclusive policies, SDG targets will remain unattainable in many African contexts.

Most Nigerian students are being short-changed by the school system. Most school students don't have the opportunity to learn how to communicate effectively in their own language due to excessive exposure to English language. Ibibio language dominates most public schools in Warri Federal Constituency of Delta State. Therefore, it is not surprising to see pupils from other tribes and states in these public schools experiencing social isolation, prejudice, and discrimination, because of the lack of language proficiency, which in turn causes psychological problems within these individuals. This is reflected in lack of willingness of these children to participate in extracurricular activities and conversation, unacceptably low scores in tests, and so on. These consistently low-test scores, and the findings of classroom observation research, tell that we are not providing school teachers with adequate understanding of the way children learn and the role of language in this learning.

Language barriers in Nigerian schools, where the official instruction language is English, lead to comprehension difficulties, reduced student participation, and lower academic performance due to the use of a non-native language for learning. Teachers and students struggle to effectively communicate complex concepts, resulting in academic disengagement, increased dropout rates, and the creation of invisible barriers to a student's full potential. This situation is exacerbated by diverse linguistic backgrounds, limited resources, and the lack of adequate mother-tongue based instruction and support

systems. This paper therefore examined language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State.

Statement of the problem

Language barriers in Nigerian education stem from a diverse linguistic environment, inadequate teacher training, lack of resources in indigenous languages, and an abrupt policy shift to English as the medium of instruction. These barriers negatively impact student comprehension, performance, and retention. The challenges posed by language barriers in education are not unique to Niger State. Across the world, studies have shown that students taught in a language they do not speak fluently often struggle with understanding content, engaging fully in the classroom, and achieving high academic standards. Language is not just a medium of instruction but also a critical factor in shaping students' self-confidence, sense of belonging, and ability to thrive academically. In regions where linguistic diversity is not adequately addressed, educational inequities often deepen, leaving students from non-dominant language backgrounds at a significant disadvantage compared to their peers. Therefore, the paper examined language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State.

Aim and Objectives of the study

This study aims to investigate language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State. The study specifically intended to;

1. Determine the factors contributing to language barriers on English Language instructions in secondary schools in Warri Federal Constituency of Delta State.
2. Find out the impact of language barriers on English Language instructions in secondary schools in Warri Federal Constituency of Delta State
3. Determine the solutions to language barriers on English Language instructions in secondary schools in Warri Federal Constituency of Delta State.

Research Questions

The following research questions guided the study:

1. What are the factors contributing to language barriers on English Language instructions in secondary schools in Warri Federal Constituency of Delta State?
2. What are the impacts of language barriers on English Language instructions in secondary schools in Warri Federal Constituency of Delta State?
3. What are the solutions to language barriers on English Language instructions in secondary schools in Warri Federal Constituency of Delta State.

Concept of Language

According to Tannenbaum and Berkovich (2015), language is important to all manners of transmission of knowledge, values and socialization processes. According to Ejieh's (2024) perspective, a language is an indispensable tool in the education of the child. Language acquisition is a natural process for children that occur without effort, although the ability to communicate increases with age, this does not mean that such growth will lead to perfection. Language is central to learning which develops the ability of reading, writing and playing, this is linked to linguistic achievement in school (International Baccalaureate Organization, 2018). Teachers are not building on the child's own language to introduce early literacy skills in the early primary grades and the children are not able to effectively make the

transition to learning all the subjects in the curriculum through English in upper primary grades. According to UNESCO (2018), language and learning are deeply integrated.

The Language Barriers Identified with the Nigerian Children

Language acquisition significantly impacts ways in which children learn in the context of the identification, presentation and discussion of objects in pre-primary school and at home. From the perspective of traditional education, the parents use language to educate their young ones at home. They usually made their children imitate the family values. The acquisition of the language of a community allows the children to become a full member of that family or community. Additionally, it serves as an „identity card“ for the children because it signifies where they originate (Owu-Ewie, 2016).

According to Chen (2016), a counselling instructor at the University of British Columbia, not only will a language barrier cause anxiety for international students, second language anxiety, educational stressors, and socio-cultural stressors were identified by Chen as the three biggest challenges for international students. In addition, children are also likely to experience social isolation, prejudice, and discrimination, because of the lack of second language proficiency, which in turn causes psychological problems within these individuals. According to McConville (2019), language barriers in the classroom are ubiquitous in a country that has an official language and numerous local languages. From an educational perspective, the results are disastrous. UNESCO estimates that 40% of school-aged children don't have access to education in a language that they understand. A language barrier in the classroom has become a major problem due to the *growing number of minority students who do not speak English*. This is such a huge problem because these learners are not getting the same opportunities to meet their full potential.

Language barriers in the classroom leave kids behind from the start. For any student, basic literacy and numeracy skills are key to building a quality education. Even with just basic reading skills in place, UNESCO estimates that 171 million people could escape *extreme poverty*. Imagine the waste of going through an entire childhood worth of schooling, and still be unable to read. Children learning a second language often struggle to express themselves if they don't have a full command of that language, notes John Schumann of UCLA's Department of Applied Linguistics (McConville, 2019). This can lead to emotional stress and affect their ability to learn. *Parents may also not speak the language used in school*. This hinders progress even further when they cannot understand their children's homework in order to help them complete it.

Taiwo (1976) opined that Nigerian languages are rich in traditional settings, but they are generally insufficient to cope with the modern curriculum and concludes that this insufficiency is a major problem.' Language is a tool for expressing our innermost views, feelings, desires, thoughts and experiences, the challenge therefore is that there are certain concepts in modern education which may not be adequately conveyed by any of the Nigerian languages. A number of factors work against the effective use of Nigerian languages in modern education and these are summarized under the following themes:

1. Resource – related factors.
2. Attitudinal factors
3. Orthographic factors
4. Legislative/Policy related factors

Resource – related Factors

This deals with human and capital resources-related challenges of using Nigerian languages in modern education.

Some of these problems include:

- (1) Lack of qualified or trained teachers in the (Nigerian) languages.
- (2) General student-apathy to studying Nigerian languages in the higher institutions of learning in Nigeria.
- (3) Low incentive to learn and specialize in Nigerian languages: this is because the English language is made compulsory in Nigerian secondary schools and also as a major pre-requisite for admission into higher institutions of learning while any of the Nigerian languages is not.
- (4) The government has not committed enough funds to the development of materials such as textbooks, teaching aids and other instructional materials in Nigerian languages. Little or nothing is being done by the Nigerian government in the area of research in order to develop and make available these materials for the teachers.

Attitudinal Factors

- (1) The status or prestige the English language and other foreign languages enjoy in Nigeria: The English language serves as the lingua franca and the medium of instruction in both the secondary and tertiary institutions. A sound knowledge of the language can as well boost an applicant's chances or prospect of getting a good job. Thus, parents as well as students would stop at nothing to learn and make a good grade in the subject. This attitude has therefore endangered all the Nigerian languages.
- (2) Only a few Nigerian languages have been developed or made adequate enough to express new experiences and concepts in modern education courtesy of the most recent drive in the field of language engineering e.g. gifted and talented students, personalized learning and teaching, active votes, electronic white boards etc and in other subjects like Geography, Mathematics and English.
- (3) Negative attitude of the elite parents: most of the elites and educated parents prefer to communicate with their children in the English language. They feel that on leaving school, a student should have attained an acceptable level of achievement in English. Some illiterates would rather employ the service of a teacher of English language to take their children in extra lessons than a teacher of any of the Nigerian languages. Ogunbiyi (2008) opines, 'Most Nigerian parents prefer to send their children to English speaking schools. Some parents even go to the extent of not allowing their children to watch films in Nigerian language as that hinders their acquisition of the English language (according to those parents).
- (4) The parents, teachers, students and society at large view fluency in the use of the English language as a symbol or emblem of being educated. Parents believe that the only proof of literacy that their children can exhibit is to communicate in English and they tend to look down on friends and children that cannot express themselves in the English language as uneducated or uncivilized. Unfortunately, even in religious circles, clerics that cannot preach in the English language are seen as uneducated, local or crude. Thus, everyone keeps struggling to speak and learn the foreign language because by the attitude or standard of the society; it offers a kind of prestige or class to its speakers.

Overcoming Language Barriers

The Cultural Diversity and Creativity in the Classroom opines ways of overcoming language barriers, such as Creating equal education for all children. Another way of

overcoming the problem of language barriers is equal education for all students, providing equal opportunities for all students to be able to learn the same materials in the same ways, in other words, providing all students with all of the advantages of learning and not putting any student at a disadvantage for any reason. There have been several programs set up to help ensure equal education for all students and to help immigrant students to succeed in school.

Two successful programs dealing with language barriers are BI-lingual education and English as a Second Language program. Both programs help to integrate immigrant students into the classroom. To alleviate the stress that these students experience, some scholars have suggested dealing with the problems with a positive attitude, while also advising the students to reach out for problem-solving resources, especially during their orientation period (Olivas and Li, 2019). As Professor S.G. Nelson said in 1991 in his book, "How Language is Life", language is much more than a vocabulary of words. Language is how people express their feelings and show their individuality, and when different age groups are together, people of all ages must learn how to act around other groups (Olivas and Li, 2019).

Quadraogo cited in Owu-Ewie (2016) noted that education and language issues are very complex in Nigeria because of the multi-ethnic and multilingual situation. Teachers need to make all children feel comfortable in all school environments. Parents need to be involved therefore schools need to provide support systems outside of the classroom. Standardized tests are often biased and need to be done away with when dealing with minority children. Creativity, by the teacher to incorporate all children is also very successful. Cultural diversity in the classroom provides opportunities for everyone. It is not only necessary for teachers to encompass all children, but crucial to success in a diverse classroom.

Influence of Languages/dialects on Effective Learning

UNESCO highlights the advantages of mother tongue education right from the start: children are more likely to enrol and succeed in school (Kosonen, 2015); parents are more likely to communicate with teachers and participate in their children's learning (Benson, 2002); girls and rural children with less exposure to a dominant language stay in school longer and repeat grades less often (Hovens, 2022; UNESCO Bangkok, 2015); and children in multilingual education tend to develop better thinking skills compared to their monolingual peers (Cummins, 2020). Some educators argue that only those countries where the student's first language is the language of instruction are likely to achieve the goals of Education for All. Research also suggests that engaging marginalized children in school through mother-tongue based, multilingual education (MTB-MLE) is a successful model (Benson & Kosonen, 2023; Yiakoumetti, 2022).

Learning in classrooms is primarily accomplished through language. Teachers lecture, ask questions, orchestrate discussions, and assign reading and writing tasks. Children engage in academic tasks through reading, writing, exploring the Internet, giving verbal answers to teacher questions, listening to teacher lectures and student presentations, participating in whole-class and instructional peer group discussions, memorizing written text and vocabulary, and so on. Linguistic plurality is reflected in many spheres of the life of Nigerian people. It influences Nigeria's educational system as well (Oyetayo. 2018). The outcome of this is that more than one language is used both in the classroom and in the course of a child's education especially in the pre- and lower primary schools. As stated in the National Policy on Education (2004), the medium of instruction during the pre-primary school stage shall be the mother tongue or the language of the immediate environment.

At the primary school level, the medium of instruction shall be the language of the immediate environment for the first three years while English shall be taught as a school subject. Mother tongue is the first language that a person learned. It is generally accepted that in teaching and learning processes, the child's mother tongue is of utmost importance. For one thing, it categorizes a large part of the child's environment, that is, it has names for most of the objects, actions, ideas, attributes and so on that are so important to him (Oluwole, 2018). This no doubt will go a long way to foster proper and adequate communication between teachers and pupils, and further promote learning as the child feels more comfortable to express himself in a language he/she understands and can identify with.

METHODOLOGY

This research investigated language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State. This study adopted descriptive survey research design. The population of the study consisted of 12,238 English Language students and 61 English Language teachers in 37 public secondary schools in Warri Federal Constituency. 52 English Language teachers and 387 English Language students were used for the study. The instrument used for collecting data was a questionnaire tagged "language barriers and English Language instructions Questionnaire (LBAELIQ)". The validity of the instrument was done using face and content validity methods by three lecturers in the field of Measurement and Education, College of Education Warri. The reliability of the instrument was established using the Cronbach Alpha formula. Thirty (30) copies of the validated questionnaire were administered to 10 English Language teachers and 20 students in 10 public secondary schools in Udu Local Government Area of Delta State. Their responses were collected out of which reliability index of 0.80 and 0.82 were computed for students and teachers respectively. Data collected from the field were analysed using descriptive statistics (Mean and Standard Deviation).

RESULTS

Research Question One: What are the factors contributing to language barriers on English Language instructions in secondary schools in Warri Federal Constituency of Delta State?

Table 1: Mean and Standard Deviation on the factors contributing to language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State

S/N	ITEMS	Teachers (52)			Students (387)		
		$\bar{x}$	SD	Decision	$\bar{x}$	SD	Decision
1	Being a Multilingual Society	3.41	0.52	Agreed	3.61	0.54	Agreed
2	Teacher low proficiency	3.26	0.46	Agreed	3.56	0.51	Agreed
3	Inadequate reading Resources	3.05	0.41	Agreed	3.76	0.51	Agreed
4	Unfriendly Educational Policies	2.51	2.25	Disagreed	2.62	2.25	Disagreed
5	Nigeria's diverse linguistic landscape means students come from different language backgrounds	3.56	0.55	Agreed	3.55	0.55	Agreed
6	The transition to English as the medium of instruction can be abrupt and challenging for students	3.41	0.52	Agreed	3.65	0.54	Agreed
7	Policies that emphasize the use of indigenous languages in early education	3.26	0.46	Agreed	3.56	0.52	Agreed
8	Limited access to learning materials in native languages	3.05	0.46	Agreed	3.76	0.57	Agreed
9	Teachers may also have limited proficiency in English	2.56	2.25	Disagreed	2.61	2.25	Disagreed
10	Students often have limited exposure to English before starting school.	3.51	0.55	Agreed	3.55	0.55	Agreed

Mean of Mean	3.712	0.851	Strongly Agreed	3.811.	0.610	Strongly Agreed
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Table 1 represents the mean and standard deviations on the rating of male and female students on the factors contributing to language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State. The table reveals that all the 10 items have above 2.5 mean which is the bench mark mean and served as cut-off point as such, they are judged as indicating the rating of male and female students on the factors contributing to language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State with a cluster mean of 3.712 for male students and 3.811 for JSS1-3 female students which is above the bench mark mean. This suggested that to very large extent the respondents accepted that items 1-10 are the factors contributing to language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State. The such, factors contributing to language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State are: Disturbed environment, limited teaching resources, lack of adequate qualification, skills and knowledge, poor curriculum design, limited lecture contact hours, over-crowded classroom poor teacher-students relationship, inadequate lesson contents, poor teaching method and commitment to learning, lack of motivational factors, inadequate physical facilities and lack of training and retraining.

Research Question Two: What are the impacts of language barriers on English Language instructions in secondary schools in Warri Federal Constituency of Delta State?

Table 2: Mean and Standard Deviation on the impact of language barriers on students and English Language instructions in secondary schools in Warri Federal Constituency of Delta State

S/N	ITEMS The Impacts	Teachers (52)			Students (387)		
		$\bar{x}$	SD		SD	$\bar{x}$	SD
1	Learning Delays	3.99	0.50	Agreed	3.68	0.73	Agreed
2	Psychological Effects is high	3.71	0.60	Agreed	3.81	0.89	Agreed
3	Dropout Rates is often high	3.32	0.51	Agreed	3.66	0.53	Agreed
4	Students who do not have a strong grasp of English often fall behind their peers	3.72	0.72	Agreed	2.75	3.21	Disagree
5	Language barriers lead to learning gaps that are difficult to close	3.52	0.61	Agreed	3.21	0.71	Agreed
6	The frustration of not understanding lessons can result in anxiety	3.05	0.36	Agreed	2.76	0.57	Agreed
7	Language barriers lead to reduced self-esteem	2.51	2.21	Low Extent	2.62	2.25	Disagreed
8	Language barriers lead to lack of motivation	3.56	0.82	Agreed	3.55	0.55	Agreed
9	Language barriers lead to academic frustration	3.31	0.53	Agreed	3.66	.054	Agreed
10	Students may become so discouraged that they drop out of school altogether	3.61	0.52	Agreed	3.61	0.51	Agreed
Mean of means		3.63	0.72	Agreed	3.96	0.61	Agreed

Table 2 represents the mean and standard deviations on the impact of language barriers on students and English Language instructions in secondary schools in Warri Federal Constituency of Delta State. The table reveals that all the 10 items have above 2.5 means which is the bench mark mean and served as cut-off point as such, they are judged as indicating the impact of language barriers on students and English Language instructions in secondary schools in Warri Federal Constituency of Delta State with a cluster mean of 3.63

for male students and 3.96 for female students which is above the bench mark mean. This suggested that to very large extent the respondents accepted that items 1-10 as the impact of language barriers on students and English Language instructions in secondary schools in Warri Federal Constituency of Delta State

Research Question Three: What are the solutions to language barriers on English Language instructions in secondary schools in Warri Federal Constituency of Delta State.

Table 3: Mean and Standard Deviation on the solutions to language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State

S/N	ITEMS The Solutions	Teachers (52)		Students (387)			
		$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD
1	Use of Simplified English	3.60	0.57	Agreed	3.64	0.56	Agreed
2	Incorporating Visual Aids	3.42	0.56	Agreed	3.77	0.56	Agreed
3	Multilingual Teaching	3.66	0.51	Agreed	3.26	0.57	Agreed
4	Consistent Practice	3.25	0.75	Agreed	3.21	0.71	Agreed
5	Use Language Learning Apps	3.71	0.62	Agreed	3.22	0.57	Agreed
6	Watch English Media	3.05	0.46	Agreed	2.76	0.57	Agreed
7	Participate in Conversations	2.56	2.25	Disagreed	2.62	2.25	Disagreed
8	Seek Guidance from Teachers and Tutors	3.56	0.55	Agreed	3.55	0.55	Agreed
9	Thesis	3.66	0.57	Agreed	3.26	0.57	Agreed
10	Practice Grammar and Vocabulary	3.40	0.52	Agreed	3.65	0.54	Agreed
Mean of Means		3.52	0.67	Agreed	Agreed	0.76	Agreed

Table 3 represents the mean and standard deviations on the solutions to language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State. The table reveals that all the 10 items have above 2.5 means which is the bench mark mean and served as cut-off point as such, they are judged as indicating the solutions to language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State with a cluster mean of 3.52 for male students and 3.41 for female students which is above the bench mark mean. This suggested that to very large extent the respondents accepted that items 1-10 as the solutions to language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State. Identified Solutions include providing better teacher education, developing indigenous language materials, fostering early exposure to the language of instruction, and promoting the use of English in and out of the classroom.

DISCUSSION OF RESULTS

Research Question One: What are the factors contributing to language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State?

Findings on the factors contributing to language barriers and English Language instructions learning and in secondary schools in Warri Federal Constituency of Delta State showed that Nigeria's diverse linguistic landscape means students come from different language backgrounds, often with limited exposure to English before starting school. While there are policies that emphasize the use of indigenous languages in early education, the transition to English as the medium of instruction can be abrupt and challenging for students. These findings concur with Adegbija (2022) that Lack of language proficiency can lower confidence, leading students to be less likely to participate in classroom discussions or ask questions. This finding also concurs with García et al (2018) that Students unable to

understand the language of instruction may find it hard to keep up with the curriculum, leading to lower grades and a higher risk of disengagement and dropout.

Skutnabb-Kangas and Phillipson (2021) found that students who received early education in their mother tongue demonstrated better understanding, greater retention, and improved self-esteem. These findings are consistent across several African countries where local language programs have been piloted, including Ethiopia, Mozambique, and Cameroon. In the Nigerian context, Ezeokoli and Osisanwo (2020) discovered that pupils in schools that integrated indigenous languages performed better in both literacy and numeracy tests compared to those in English-only schools.

Teacher perceptions influence student engagement. A teacher who views a student's home language as an asset rather than a barrier creates a more inclusive environment, reducing linguistic shame and improving learner confidence (Benson, 2019). Translanguaging is a pedagogical strategy that allows learners to use multiple languages flexibly during learning. Unlike traditional bilingual approaches that separate languages, translanguaging encourages students to draw on all linguistic resources simultaneously to make meaning (Garcia & Lin, 2017). Garcia and Lin (2017) argue that translanguaging is particularly useful in multilingual classrooms because it mirrors how people naturally communicate in multilingual societies. It validates students' live experiences and empowers them to co-construct knowledge using the languages they know best.

Research Question Two: What is the impact of language barriers on students and English Language instructions in secondary schools in Warri Federal Constituency of Delta State?

Findings from the study revealed the impact of language barriers on students and English Language instructions in secondary schools in Warri Federal Constituency of Delta State are so much. The findings reveal that Language barriers can severely impede the learning of subjects, where precise terminology is crucial for understanding concepts. This finding is in accordance with Ezeokoli et al (2020) who revealed that teachers may struggle to explain complex ideas, and concepts can be mis-communicated or wrongly described, further hindering learning. Collaboratively, Trudell, et al (2019) revealed that the reliance on English as the sole medium of instruction, particularly at the primary level, creates significant knowledge gaps and prevents effective early learning. A lack of teacher recruitment and training, along with insufficient access to textbooks and reference materials, affects the ability of teachers to support diverse learners effectively. Teaching methods that prioritize rote memorization over practical skills and assessment criteria that don't effectively measure language proficiency contribute to the problem. Implementing mother tongue education, especially at the primary level, is seen as crucial for inclusion, improved learning outcomes, and fostering a strong foundation for academic success.

The study aligns directly with these findings. Students in Nigeria, especially those from Gbagyi, Nupe, and Hausa backgrounds, face marginalization when their languages are excluded from formal education. Multilingual instruction offers a way to democratize knowledge and create equitable opportunities for learners of all backgrounds. Teachers are central to the success of multilingual education. Their beliefs, language proficiencies, and classroom practices determine how effectively students are supported linguistically. Yet, many teachers lack formal training in bilingual methods, particularly in public schools in low-resource settings (Trudell, 2019). In Nigeria, Adegbija (2022) found that while many teachers acknowledge the benefits of using local languages, institutional barriers such as curriculum rigidity, absence of materials, and policy ambiguity hinder implementation. This

aligns with findings from your study, where teachers report positive outcomes from using local languages but also express the need for clearer guidance and resource support.

The result above therefore is in agreement with the research findings of National Policy on Education (2004), mother tongue is the first language that a person learned. It is generally accepted that in teaching and learning processes, the child's mother tongue is of utmost importance. For one thing, it categorizes a large part of the child's environment, that is, it has names for most of the objects, actions, ideas, attributes and so on that are so important to him. This no doubt will go a long way to foster proper and adequate communication between teachers and pupils, and further promote learning as the child feels more comfortable to express himself in a language he/she understands and can identify with (Oluwole, 2008). The significance of the result caused the null hypotheses to be rejected while the alternative one was accepted.

Research Question Three: What are the solutions to language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State?

The findings on the solutions to language barriers and English Language instructions in secondary schools in Warri Federal Constituency of Delta State, This finding is in accordance with Adegbija, (2022) who revealed that re-evaluate educational policies to ensure a smoother, more gradual transition from indigenous languages to English, making the process less abrupt, introducing bilingual education programs where students are taught in both their native language and English can ease the transition to English-only instruction. This approach helps students build foundational knowledge in their first language, which they can later apply to learning English.

Collaboratively, García, et al (2018) revealed that providing teachers with training on how to teach in a linguistically diverse classroom is essential. Training can include: Use of Simplified English: Teachers can learn how to use simple and clear language in instruction, incorporating Visual Aids: Visual aids such as charts, diagrams, and videos can help convey concepts that might be difficult to explain with words alone. This finding is in accordance with Ezeokoli, et al. (2020) who revealed that teachers can be trained to incorporate some elements of local languages to bridge understanding. Addressing language barriers in Nigerian education requires a multi-faceted approach that involves teachers, schools, policymakers, and parents.

CONCLUSION

This study has provided empirical evidence on language barriers and English Language instructions and learning in secondary schools in Warri Federal Constituency of Delta State. The findings demonstrate that language barriers significantly hinder learners' comprehension and participation in the classroom. Learners and teachers overwhelmingly support the integration of indigenous languages alongside English, as it enhances clarity, confidence, and engagement. These insights are consistent with global research and support the implementation of multilingual education as a practical strategy for achieving inclusive, quality education (SDG 4) and reducing inequalities (SDG 10).

It is true that Nigeria is a multilingual society with diverse cultures and languages. Each domain of language-use is known for its unique language use features. Nigeria seems to be a giant in every scope of life which includes the complexity of languages. Based on the findings, the study concluded that there are various languages/dialect spoken in Warri Federal

Constituency of Delta State. There are various language barriers faced by the students in Warri Federal Constituency of Delta State. There is significant influence of language on effective learning among pupils in public schools in Warri Federal Constituency of Delta State. Overcoming language barriers in Nigerian education is vital for ensuring equal opportunities for all students, regardless of their linguistic background. By adopting bilingual education, providing teacher training, leveraging technology, and involving parents, Nigeria can create a more inclusive educational environment where all students can thrive.

In conclusion, no language (foreign or indigenous) is inferior to the other. Every language has the capacity to adequately function in whatever role it has been assigned to. However, the only impediment to the successful use of indigenous languages in Nigeria in formal education is that they have not been fully developed to cope with the demands of formal education. If the required attention and steps were given to the development or standardization of the numerous indigenous languages in the country, Nigerian languages and indeed, all the numerous indigenous languages in Africa can be used in education either as the language of education or a school subject in formal education. All that is needed for the successful implementation of the indigenous language education policy is a 'will-to-do' and the implementation of the right language policies by the government of Nigeria.

Recommendations

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

1. Government should support further research into multilingual education to guide future policy and practice.
2. Schools should formally incorporate indigenous languages into their timetables and assessment strategies.
3. Teachers should receive regular training on multilingual pedagogy.
4. Textbooks and teaching aids should be developed in both English and the major local languages of the regions.
5. The Ministry of Education should develop and enforce policies that support bilingual instruction at the basic education level.

REFERENCES

- Adegbiya, A. (2022) Language Policy and Educational Access in Nigeria. *African Journal of Language and Education*, 16, (3), 217–231.
- Adegbite, A. B. (2020). "English language usage" uses and misuse(s) in a non-host second language context Nigeria, inaugural lecture series 231, OAU, Ile-Ife.
- Akpan, U. U. & Senam, N. (2019) Language Diversity and Inclusion of Linguistic Minorities in Programme Contents of Akwa Ibom Broadcasting Corporation (AKBC), Nigeria. *Research Journal of Mass Communication and Information Technology* 5(1), 233-240
- Araromi, M. (2015). *The mother-tongue, language of instruction and issues in methodology: The Nigerian experience. Issues in language, communication and education.* Constellations Books.
- Benson, C. (2019) The Role of Multilingual Education in Reducing Educational Inequalities. *International Journal of Multilingualism*, 16, (2), 127-141
- Benson, C. (2022). Real and potential benefits of bilingual programmes in developing countries. *International Journal of Bilingual Education and Bilingualism*, 5 (6), 303-317.

- Benson, C., & Kosonen, K. (2023). *Language issues in comparative education: Inclusive teaching and learning in non-dominant languages and cultures*. Sense Publishers.
- Bialystok, E. (2021). *Bilingualism in development: Language, literacy, and cognition*. Cambridge University Press.
- Brann B. & Max C. (1978). *Multilingualism and education in Nigeria*. International Centre for Research on Bilingualism, Laval University.
- Brock-Utne, B., & S. Mercer. (2021). Language policy and educational equality in multilingual contexts. *Language Policy Journal*, 20, (1), 1-19
- Cameron, C. (2018). The evolution of a mixed methods study in work-integrated learning. *International Journal of Work-Integrated Learning*, 19, (3), 237-27
- Chen, S. (2016). Language and ecology: A content analysis of eco linguistics as an emerging research field. *Ampersand* 3(1), 108-116.
- Cummins, J. (2020). *Language, power and pedagogy*. Multilingual Matters.
- Ejeh, M. U. (2024). Attitudes of student teachers towards teaching in mother tongue in Nigerian primary schools: Implications for planning. *Language Culture and Curriculum*, 17(1), 73-81.
- Emenanjo E. N. (1996). Languages and the national policy on education: implications and prospects. *Internet Journal of Education*. <http://www.fafunwafoundation.tripod.com>.
- Ezeokoli, F. O., & A. Osisanwo. (2020). Challenges of implementing multilingual education in Nigerian primary schools. *Journal of Language and Education*, 6, (2), 101-114
- Federal Republic of Nigeria (2004) *National Policy on Education (4th Edition)*. Nigerian Educational Research and Development Council Press (NERDC),
- García, O., & A. M. Y. Lin. (2017) *Translanguaging and bilingual education*. *encyclopaedia of language and education*. Springer.
- Hovens, M. (2002). Bilingual education in West Africa: Does it work? *International Journal of Bilingual Education and Bilingualism*, 5 (5), 249-266.
- International Baccalaureate Organization. (2018). *Guidelines for developing a school language policy*. International Baccalaureate Organization.
- King, K., & Mackey, A. (2017). *The bilingual edge: Why, when, and how to teach your child a second language*. Collins.
- Kolawole C.O.O. & A. Dele (2002) An examination of the national policy of language education in Nigeria and its implications for the teaching and learning of the english language. *Ibadan Journal of Educational Studies*, 7
- Kosonen, K. (2015). *Education in local languages: Policy and practice in Southeast Asia*. First languages first: Community-based literacy programmes for minority language contexts in Asia. UNESCO Bangkok.
- McConville K. (2019). *Language barriers in the classroom: From mother tongue to national language*. <https://www.concernusa.org/story/language-barriers-in-classroom/>
- Muslimi Y.Y. (1999) Implementing the Mother Tongue medium policy in the lower primary classes: A case study of selected primary schools in Saki West Local Government Area of Oyo State, Nigeria. General Studies Department, The Polytechnic Ibadan. <http://www.unilorin.edu.ng/unilorin/journals/education/ije/june1999>
- Namse, J. U., & D. G. Usoro. (2020) A critical assessment of language and effective learning of Nigerian children. *Shared Seasoned International Journal of Topical Issues*, 6, (2), 116-129
- Obayan P.A.I (1998) Language Education in Africa: Lessons for and from Nigeria. *Fafunwa Foundation Internet Journal of Education*. <http://www.fafunwafoundation.tripod.com>.
- Obayan P.A.I. (1992) Language issues in basic education and literacy. Conference paper, UNESCO Institute of Education

- Ogunbiyi O (2008) The Challenges of Languages Teaching in the 21st Century. Faculty of Education, Lagos State University. *Medwell Journals Pakistan Journal of Social Sciences* 5 (4:) 279 – 299.
- Olanrewaju A.O. (1998) Using Nigerian Languages as media of instruction to enhance Scientific and Technological Development: An action delayed. *Internet Journal of Education*. [Http://www.fafunwafoundation.tripod.com](http://www.fafunwafoundation.tripod.com).
- Olivas, M. & Li, C. S. (2016). Understanding stressors of international students in higher education: what college counsellors and personnel need to know. *Journal of Instructional Psychology*, 33(3), 217-222.
- Oluwole D. A. (2018) The impact of mother tongue on students' achievement in English language in Junior Secondary Certificate Examination in Western Nigeria. *Journal of Social Sciences*; 17(1):41-49.
- Osborn D. (2007) *African Languages – Re: Cultural Education and Development* Nigeria.
- Owu-Ewie, C. (2016). *The language policy of education in Ghana: A critical look at the English - Only Language Policy on Education*. Proceedings of 35th Annual Conference on African Linguistics, African language and Linguistics in Broad Perspectives. Mugane, J.; J.P., Woman, D.A. (eds) Samer in the M.A.
- Oyetayo A. (2018) *Hope for the Future: Languages of Nigeria*. Freedom Press.
- Skutnabb-Kangas, T., & R. Phillipson. (2021) The Challenges of Multilingual Education: The Case of Linguistic Human Rights. *Journal Of Multilingual and Multicultural Development*, 42, (3), 265-279
- Taiwo (1976) The mother tongue as a means of promoting equal access to education in nigerian language: problems and solutions. The United Nations Educational and Scientific Cultural Organization, Linguistic Documentation for developing countries: cases, problems and solution.
- Tang, G. (2022). Cross-linguistic analysis of Vietnamese and English with implications for Vietnamese language acquisition and maintenance in the United States. *Journal of Southeast Asian-American Education & Advancement*, 2(1), 1-33.
- Tannenbaum, M. & Berkovich, M. (2015). Family relations and language maintenance: Implications for language educational policies. *Language Policy*, 4(3), 287-309.
- Trudell, B., & B. (2019) "Constraints on Language Policy Implementation in African Classrooms." *International Journal of Educational Development*, 65, 72–82.
- UNESCO Bangkok (2015). *Advocacy brief on mother tongue-based teaching and education for girls*. Bangkok: UNESCO
- UNESCO. (2018). *Convention on the Rights of the Child*. unesdoc.unesco.org/images/0016/001612/161200e.pdf
- UNESCO. (2022) Global Education Monitoring Report. United Nations Educational, Scientific and Cultural Organization. *Journal of Topical Issues*, 4, (2), 112–165.
- Wagner, P., Whalley C., & Watkins C. (2022). Effective Learning. *The national improvement network bulletin*, 7.
- Yiakoumetti, A. (Ed.) (2022). Harnessing linguistic variation to improve education. *Rethinking Education*, 5



EMPOWERMENT AND COLLABORATION AS CORRELATES OF INCLUSIVITY AND EQUITY IN SECONDARY SCHOOLS IN DELTA STATE

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ABSTRACT

The study examined empowerment and collaboration as correlates of inclusivity and equity in secondary schools in Delta State. A correlational research design was used in the study. Eleven thousand, seven hundred and seventy-seven teachers working in public secondary schools across Delta State's three senatorial districts made up the study's population. Using a stratified random sampling, 519 teachers were chosen from the population to make up the study's sample. Empowerment and Collaboration Questionnaire (ECQ) and Inclusivity and Equity Questionnaire (IEQ), validated by three experts were used for data collection. The reliability coefficients for ECQ and IEQ were 0.76 and 0.79, respectively. Pearson correlation and regression analysis were used to analyse the data. The findings showed that there is a strong positive correlation between teacher empowerment and inclusivity and equity in Delta State's secondary schools as well as a strong positive correlation between collaboration (between educators, parents, and the community) and inclusivity and equity in Delta State's secondary schools. Based on the results, it was concluded that collaboration and empowerment are essential elements in fostering inclusion and equity in Delta State's secondary schools. Through teacher empowerment and stakeholder collaboration, schools can provide supportive environments that cater for the different needs of their children.

Keywords: Empowerment, Collaboration, Inclusivity and Equity

Reference to this paper should be made as follows:

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INTRODUCTION

In recent years, the concepts of equality and inclusivity in education have gained significant attention, particularly in developing countries like Nigeria. The diverse cultural, social, and economic backgrounds of students in Delta State underscore the need for educational practices that promote inclusivity and equity. Inclusive education, as described by Tomlinson (2017), involves ensuring that every student—regardless of their identity, background, or ability—has access to high-quality instruction and is fully integrated into the learning environment. This approach values diversity, fosters student engagement, and cultivates a sense of belonging. Equity, on the other hand, involves the fair distribution of resources, opportunities, and support based on individual needs, acknowledging that students may require varying levels of assistance to reach comparable educational outcomes (Ladson-Billings, 2017). Achieving equity in education, therefore, demands the intentional dismantling of structural injustices and systemic barriers that disproportionately affect marginalized groups, ensuring all students have equitable opportunities to succeed.

Students bring a wide range of experiences, abilities, and learning styles into the classroom. An inclusive and equitable education system recognizes these differences and

tailors' instructional strategies and resources to accommodate them. Beyond being a basic human right, education is a vehicle for social justice; fostering inclusivity and equity helps dismantle systemic inequalities and creates pathways for all learners to thrive. Research shows that inclusive and equitable practices lead to improved academic and social outcomes for all students, including those with disabilities and those from marginalized communities (Hehir, Grindal & Egan, 2016). Moreover, inclusive education fosters empathy, mutual respect, and collaboration among students of diverse backgrounds.

Two key elements that hold promise for enhancing equity and inclusivity in secondary education are empowerment and collaboration. Empowerment, particularly in leadership contexts, refers to the process of enabling individuals or groups to make decisions, take initiative, and assume responsibility (Huang, Liu & Zhao, 2016). Empowered environments foster innovation, trust, and collective ownership, contributing to increased job satisfaction and improved organizational outcomes. Empowering teachers involves investing in their professional development, granting them autonomy in decision-making, and cultivating a safe and supportive environment where they can share ideas and take risks. Similarly, collaboration involves engaging stakeholders—including school leaders, educators, students, parents, and community members—in shared decision-making and problem-solving (Katz & Miller, 2021). Collaborative leadership encourages open communication, mutual respect, and the inclusion of diverse perspectives, resulting in more innovative solutions and stronger institutional resilience.

In the context of Delta State, secondary schools face significant challenges such as underfunding, inadequate infrastructure, and a shortage of qualified personnel. These systemic issues exacerbate educational inequalities and hinder the adoption of inclusive practices. However, there is a growing recognition of the need to empower educators and students and promote stakeholder collaboration to address these challenges. Empowered teachers are more likely to adopt inclusive pedagogical strategies that address diverse student needs, while collaborative efforts between educators, families, and communities can result in policies and practices that foster fairness and inclusivity.

The Nigerian government has demonstrated its commitment to inclusive and equitable education through several policy initiatives, including the Universal Basic Education Act and the National Policy on Education. Nevertheless, implementation remains inconsistent at the state and local levels. To understand how best to improve inclusivity and equity in Delta State's secondary schools, it is essential to investigate the roles of empowerment and collaboration in driving these outcomes.

This study is grounded in Rappaport's (1981) Empowerment Theory and Vygotsky's (1978) Social Constructivism Theory. Empowerment Theory posits that individuals who feel empowered are more likely to take initiative and contribute to community advancement. In educational settings, this implies that empowering teachers and students can enhance their capacity to advocate for and implement inclusive practices. Social Constructivism emphasizes the importance of social interaction in the learning process, highlighting the role of collaboration among teachers, students, and parents in fostering inclusive educational environments. By integrating these two frameworks, the study aims to provide a comprehensive understanding of how empowerment and collaboration can be leveraged to promote inclusivity and equity in secondary schools.

Empirical evidence supports the relevance of these concepts. Afolabi and Ojo (2021) found that empowered school leaders who encouraged teacher and parent collaboration significantly improved inclusivity. Okeke and Nwafor (2020) emphasized that collaborative

school cultures enhance educational outcomes for all learners. Bakker and Demerouti (2018) showed that teachers who felt empowered were more inclined to implement inclusive teaching practices. Similarly, Huang and Zhao (2016) identified the lack of teacher empowerment and collaboration as key barriers to the realization of inclusive and equitable education in Nigeria.

Even though the principles of inclusivity and equity are widely acknowledged, their practical implementation in Delta State's secondary schools remains challenging. Many schools are characterized by limited resources, inadequate teacher preparation, and insufficient parental and community involvement. These issues disproportionately affect students from marginalized backgrounds such as those with disabilities, from low socioeconomic households, or minority ethnic groups, making it difficult for them to access quality education. A significant barrier to inclusivity and equity is the lack of teacher and administrator empowerment, as many educators are not equipped with the training or support required for inclusive practices. Furthermore, the absence of collaborative school cultures limits the potential for meaningful, system-wide transformation. Community and parental engagement are often minimal, weakening support networks necessary for inclusive education. Systemic issues like poor infrastructure, inadequate funding, and inconsistent policy enforcement further entrench these challenges. Given this context, the central problem of the study is: What is the relationship among empowerment, collaboration, inclusivity, and equity in secondary schools in Delta State?

Purpose of the Study

The study focused on empowerment and collaboration as correlates of inclusivity and equity in secondary schools in Delta State. The study specifically determined the relationship between:

1. teacher empowerment and inclusivity in secondary schools in Delta State;
2. teacher empowerment and equity in secondary schools in Delta State;
3. collaboration (among teachers, parents and the community) and inclusivity in secondary schools in Delta State;
4. collaboration (among teachers, parents and the community) and equity in secondary schools in Delta State.

Research Questions

The study was guided by four research questions.

1. What is the relationship between teacher empowerment and inclusivity in secondary schools in Delta State?
2. What is the relationship between teacher empowerment and equity in secondary schools in Delta State?
3. What is the relationship between collaboration (among teachers, parents and the community) and inclusivity in secondary schools in Delta State?
4. What is the relationship between collaboration (among teachers, parents and the community) and equity in secondary schools in Delta State?

Hypotheses

Four hypotheses formulated guided the study.

1. There is no significant relationship between teacher empowerment and inclusivity in secondary schools in Delta State.

2. There is no significant relationship between teacher empowerment and equity in secondary schools in Delta State.
3. There is no significant relationship between collaboration (among teachers, parents and the community) and inclusivity in secondary schools in Delta State.
4. There is no significant relationship between collaboration (among teachers, parents and the community) and equity in secondary schools in Delta State.

METHODOLOGY

The correlational research design was used in the study, which is suitable for investigating the associations between several independent variables (empowerment and collaboration) and dependent variables (inclusivity and equity). According to Field (2018), when patterns and relationships can be found without manipulating the variables, correlational research designs are especially helpful. 11,777 teachers working in public secondary schools across Delta State's three senatorial districts made up the study's population. Using a stratified random sampling technique, 519 teachers from public secondary schools in Delta State were chosen to make up the study's sample. Empowerment and Collaboration Questionnaire (ECQ) and Inclusivity and Equity Questionnaire (IEQ) were used for data collection. For every item in the ECQ and IEQ, a four-point scoring system with four weights—Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD)—was employed. Three specialists from Delta State University's Department of Educational Management and Foundations face validated the two instruments. The recommendations of the experts were incorporated into the final draft of the instruments. Cronbach alpha was used to determine the reliability coefficient of the two instruments in a pilot study. 28 secondary school teachers in Edo State who weren't within the study's coverage region were given the two instruments. Following the analysis of the data from the pilot test, the reliability coefficients for ECQ and IEQ were 0.76 and 0.79, respectively. In terms of the actual study, a sample of 519 teachers in Delta State's secondary schools were given structured questionnaires by the researcher, who collected the data with the help of three research assistants. The replies from the sampled teachers were evaluated using Pearson correlation.

RESULTS

Answering Research Questions

Research Question One: What is the relationship between teacher empowerment and inclusivity in secondary schools in Delta State?

Table 1: Correlation of Teacher Empowerment and Inclusivity

Variables	N	r	r ²	r ² %	Decision
Empowerment	519	0.595	0.354	35.4	Positive Correlation
Inclusivity	519				

According to Table 1, there is a 0.595 correlation coefficient (r) and a 0.354 coefficient of determination (r²) between teacher empowerment and inclusion. With a coefficient of determination of 0.354, it can be inferred that 35.4 percent of inclusion in Delta State secondary schools was influenced by teacher empowerment. This suggests that inclusion and teacher empowerment in Delta State secondary schools have a strong beneficial association.

Research Question Two: What is the relationship between teacher empowerment and equity in secondary schools in Delta State?

Table 2: Correlation of Teacher Empowerment and Equity

Variables	N	r	r ²	r ² %	Decision
Empowerment	519	0.683	0.466	46.6	Positive Correlation
Equity	519				

According to Table 2, there is a 0.683 correlation coefficient (r) and a 0.466 coefficient of determination (r^2) between teacher empowerment and equity. A coefficient of determination of 0.466 suggests that 46.6 percent of equity in Delta State's secondary schools was attributed to teacher empowerment. This suggests that teacher empowerment and equity in Delta State secondary schools have a substantial, positive link.

Research Question Three: What is the relationship between collaboration (among teachers, parents and the community) and inclusivity in secondary schools in Delta State?

Table 3: Correlation of Collaboration and Inclusivity

Variables	N	r	r^2	$r^2\%$	Decision
Collaboration	519	0.740	0.548	54.8	Positive Correlation
Inclusivity	519				

According to Table 3, there is a 0.740 correlation coefficient (r) and a 0.548 coefficient of determination (r^2) between inclusivity and collaboration. Collaboration appears to have contributed 54.8 percent to inclusion in Delta State secondary schools, according to a coefficient of determination of 0.548. This suggests that inclusivity and collaboration (amongst educators, parents, and the community) are strongly positively correlated in Delta State's secondary schools.

Research Question Four: What is the relationship between collaboration (among teachers, parents and the community) and equity in secondary schools in Delta State?

Table 4: Correlation of Collaboration and Equity

Variables	N	r	r^2	$r^2\%$	Decision
Collaboration	519	0.750	0.563	56.3	Positive Correlation
Equity	519				

Table 4 displays a coefficient of determination (r^2) of 0.563 and a correlation coefficient (r) of 0.750 between equity and collaboration. Collaboration in Delta State secondary schools contributed 56.3 percent to equity, according to a coefficient of determination of 0.563. This suggests that there is a high positive correlation between equity in Delta State secondary schools and collaboration (amongst educators, parents, and the community).

Testing Hypotheses

Hypothesis One: There is no significant relationship between teacher empowerment and inclusivity in secondary schools in Delta State.

Table 5: Correlation of Teacher Empowerment and Inclusivity

Variables	N	r -cal.	Sig. (2-tailed)	Decision
Empowerment	519	0.595	0.000	H_{O1} is significant
Inclusivity	519			

Table 5 demonstrates a strong positive association ($r = 0.595$, $P(0.000) < 0.05$) between inclusion and teacher empowerment. The null hypothesis is thus disproved. Consequently, there is a strong correlation between inclusion and teacher empowerment in Delta State's secondary schools.

Hypothesis Two: There is no significant relationship between teacher empowerment and equity in secondary schools in Delta State.

Table 6: Correlation of Teacher Empowerment and Equity

Variables	N	r -cal	Sig. (2-tailed)	Decision
Empowerment	519	0.683	0.000	H_{O2} is significant
Equity	519			

Teacher empowerment and equality have a substantial positive connection ($r = 0.683$, $P(0.000) < 0.05$) as seen in Table 6. The null hypothesis is thus disproved. Consequently, there is a strong correlation between equality and teacher empowerment in Delta State's secondary schools.

Hypothesis Three: There is no significant relationship between collaboration (among teachers, parents and the community) and inclusivity in secondary schools in Delta State.

Table 7: Regression Analysis of Collaboration on Inclusivity

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	R	R ²	Adjusted R ²	F
	B	Std. Error	Beta	T					
(Constant)	0.842	0.092	–	9.152	0.000	0.740	0.547	0.546	625.85
Collaboration	0.832	0.033	0.740	25.006	0.000				

The regression result indicates that collaboration is a statistically significant predictor of inclusivity in secondary schools in Delta State ($\beta = 0.740$, $p < 0.05$). The model explains approximately 54.7% ($R^2 = 0.547$) of the variance in inclusivity, which is substantial. The F-value ($F = 625.85$, $p = 0.000$) confirms the overall model significance. This result suggests that increases in collaboration among teachers, parents, and the community are strongly associated with higher levels of inclusivity in the schools.

Hypothesis Four: There is no significant relationship between collaboration (among teachers, parents and the community) and equity in secondary schools in Delta State.

Table 8: Regression Analysis of Collaboration on Equity

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.	R	R ²	Adjusted R ²	F
	B	Std. Error	Beta	T					
(Constant)	0.765	0.089	–	8.597	0.000	0.750	0.562	0.561	662.94
Collaboration	0.841	0.033	0.750	25.764	0.000				

The regression result reveals that collaboration is also a statistically significant predictor of equity in secondary schools in Delta State ($\beta = 0.750$, $p < 0.05$). The model accounts for approximately 56.2% ($R^2 = 0.562$) of the variance in equity, indicating a strong relationship. The F-value ($F = 662.94$, $p = 0.000$) further confirms the model's significance. Therefore, greater collaboration among educators, parents, and community members is strongly associated with improved equity in the schools.

DISCUSSION

The study's initial finding showed a strong correlation between inclusion and teacher empowerment in Delta State secondary schools. This suggests that inclusion in Delta State secondary schools tends to increase along with teacher empowerment. This observation might be explained by pointing out that empowerment is providing people with the power, assurance, and means to decide for themselves and take action. People are more inclined to participate in inclusive activities when they feel empowered because they value the contributions and viewpoints of others. Empowerment creates a culture that values inclusivity by creating a setting where everyone feels appreciated and included. This result is consistent with that of Afolabi and Ojo (2021), who found that inclusiveness in schools was much enhanced by empowered school leaders who encourage parent and teacher collaboration.

The study also showed that, in Delta State secondary schools, teacher empowerment and equity had a strong positive link. This implies that as teacher empowerment increases,

equity in Delta State's secondary schools also increases proportionately. Empowerment is closely linked to equity because it seeks to level the playing field for all individuals, particularly marginalized groups. When individuals are empowered, they gain access to opportunities and resources that may have previously been denied to them. This shift helps to address systemic inequalities and promotes a fairer distribution of power and resources, thereby enhancing equity. This finding supports that of Huang and Zhao (2016) who reported that lack of teacher empowerment and collaboration as significant challenges to implementing inclusive and equitable practices.

The study again revealed a significant positive relationship exists between collaboration (among teachers, parents and the community) and inclusivity in secondary schools in Delta State. This implies that collaboration influences inclusivity positively. Collaboration inherently requires the participation of diverse individuals and groups, which promotes inclusivity. When people collaborate, they bring different perspectives, skills, and experiences to the table, creating a richer and more comprehensive approach to problem-solving. This collaborative environment encourages active participation from all members, fostering a sense of belonging and inclusivity. This finding agrees with that of Johnson and Lee (2023) who reported positive correlation between collaboration and inclusive practices.

The study finally revealed a significant positive relationship exists between collaboration (among teachers, parents and the community) and equity in secondary schools in Delta State. This implies that collaboration influences equity positively. Collaboration can lead to more equitable outcomes by ensuring that all voices are heard and considered in decision-making processes. When diverse stakeholders collaborate, they can identify and address power imbalances and systemic barriers that contribute to inequity. Collaborative efforts can help to distribute resources and opportunities more fairly, promoting a more equitable society. This finding agrees with that of Okeke and Nwafor (2020) who reported that collaborative cultures within schools lead to improved educational outcomes for all students.

CONCLUSION

The study concluded that empowerment and collaboration are critical factors in promoting inclusivity and equity in secondary schools in Delta State. By empowering teachers and fostering collaboration among stakeholders, schools can create supportive environments that address the diverse needs of students. The findings underscored the importance of addressing systemic challenges and implementing targeted strategies to enhance inclusive and equitable education.

Recommendations

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

1. School administrators should implement ongoing professional development programmes for teachers focused on inclusive teaching practices and strategies for empowering students.
2. School administrators should foster collaboration between schools and the community by involving parents and local organizations in the educational process.
3. School administrators should advocate for the enforcement of inclusive education policies at the state and local levels to ensure that all students have access to quality education.
4. School administrators should allocate resources to support inclusive practices, including training materials, assistive technologies, and infrastructure improvements.

REFERENCES

- Afolabi, O., & Ojo, A. (2021). Teacher empowerment and inclusive education: A study of secondary schools in Nigeria. *International Journal of Educational Management*, 35(4), 789-802.
- Bakker, A. B., & Demerouti, E. (2018). Towards a model of work engagement. *Career Development International*, 13(3), 209-223.
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics*. New York, NY: Sage Publications.
- Hehir, T., Grindal, T., & Egan, M. (2016). *A summary of the evidence on inclusive education*. New York, NY: National Centre for Learning Disabilities.
- Huang, J., Liu, Y., & Zhao, Y. (2016). The impact of empowerment on employee creativity: The mediating role of intrinsic motivation. *Social Behaviour and Personality: An International Journal*, 44(4), 657-668.
- Johnson, R., & Lee, S. (2023). Ensuring equal participation in collaborative teams: A leader's guide. *Leadership & Organization Development Journal*, 44(1), 23-37.
- Katz, R., & Miller, J. (2021). Collaborative leadership: A new approach to team dynamics. *Harvard Business Review*, 99(4), 78-85.
- Ladson-Billings, G. (2017). *The dream-keepers: Successful teachers of African American children* (2nd ed.). New York, NY: Jossey-Bass
- Okeke, C. I., & Nwafor, C. (2020). The role of collaboration in promoting inclusive education in Nigeria. *Journal of Educational Research and Practice*, 10(1), 45-60.
- Okwu, E. I., & Okwu, A. T. (2021). Empowerment and equity in education: A case study of secondary schools in Delta State. *Nigerian Journal of Educational Research*, 12(2), 112-130.
- Rappaport, J. (1981). In praise of paradox: A social policy of empowerment over prevention. *American Journal of Community Psychology*, 9(1), 1-25.
- Tomlinson, C. A. (2017). *How to differentiate instruction in academically diverse classrooms* (3rd ed.). New York, NY: ASCD.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. New York, NY: Harvard University Press.



**POLICY CHANGE IMPLEMENTATION STRATEGIES FOR GOAL
ACHIEVEMENT IN TECHNICAL COLLEGES IN DELTA STATE, NIGERIA**

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ABSTRACT

This study examined policy change implementation strategies for goal achievement in technical colleges in Delta State, Nigeria. The study was guided by three research questions and three null hypotheses. The design of the study was a descriptive research design. The population of the study comprised all principals and teachers of Technical Colleges in Delta State, Nigeria. Available statistics indicated that there are 9 principals and 768 teachers in Technical Colleges in Delta State. The sample size comprised of 5 principals and 445 teachers from technical Colleges in Delta State. The instrument used for this study was a researcher's developed questionnaire. The questionnaire was titled: Policy Change Implementation Strategies and Goal Achievement in Technical Colleges Questionnaire (CISGATCQ). The instrument was subjected to face and content validation and the reliability of the instrument was ascertained through test re-test method. The reliability yielded a coefficient of 0.80. The data collected were analysed using the Statistical Package for Social Sciences (SPSS). mean and standard deviation to answer the research questions. While the null hypotheses were tested using z-test within two groups, that is, principals and teachers. Results of the study among others concluded that there is a significant difference between the mean scores of principals and teachers on how creation of awareness is used as policy change implementation strategies for goal achievement in technical colleges, it also concluded that there is significant difference between the mean scores of principals and teachers on how staff capacity building is used as policy change implementation strategies for goal achievement in technical colleges, it equally concluded that there is significant difference between the mean scores of principals and teachers on how public-private partnership is used as policy change implementation strategies for goal achievement in technical colleges in Delta State. The study recommended that a standing committee on awareness and publicity should be created, so as to be updating the staff on the occurring changes in government policies on technical and vocational education.

Reference to this paper should be made as follows:

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INTRODUCTION

Technical and Vocational Education (TVE) was introduced into the education sector in Nigeria to produce craftsmen, master craftsmen and professionals. There is a general agreement that vocational and technical education is a necessary tool for self-reliance and technological development of any nation because its main thrust is the application of specialized learning techniques in the realization of both educational and societal objectives. Its central objectives therefore revolve on the achievement of socio-economic, industrial and technological objectives that will eventually manifest themselves in improved standard of living for the citizens as well as in economic stability, industrial harmony and technological advancement.

Nigeria being a developing nation in dire need of technological development and greater economic wellbeing for her citizens therefore recognized the need for vocational technical education. Consequently, it introduced and established the 6-3-3-4 system of education. This National Policy on Education made provision for the establishment of Vocational/trade centres and technical colleges in the country with the following broad objectives among others:

1. to provide trained manpower in applied science, technology and commerce particularly at sub-professional grades;
2. to provide the technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development;
3. to give training and impart the necessary skills leading to the production of craftsmen, technicians and other skilled personnel who will be enterprising and self-reliant; and
4. to enable our young men and women to have an intelligent understanding of the increasing complexity of technology (NPE).

In furtherance of these objectives, the National Board for Technical Education (NBTE) developed innovative curricula and specifications for technical college programmes in building and wood trades, mechanical engineering trades, electrical trades, printing trades, etc.

Unfortunately, despite all the glaring contributions of technical and vocational education, Nigeria is yet to accord this type of education the attention it deserves. The greatest problem with the vocational technical education lies with absolute curriculum, poor staffing, inadequate supply of equipment and materials and poor financing of vocational technical education programmes among others. As a result of these worrisome trends in our vocational technical colleges there was introduction of policy change in various aspects of vocational technical college to ensure self-reliance and sustainability.

To facilitate policy implementation, a more systematic and concerted effort is needed to ascertain that TVET policies are communicated to stakeholders for fruitful implementation strategies to be employed as prescribed by policy makers. These implementation strategies are creation of awareness among the teachers, in-service programmes/ capacity building, localisation of the strategies to match the demands of each area, public-private partnership, students' career counselling, and publicity and advocacy. Creating awareness is an inevitable strategy school administrators must know and employ if goals of TVET must be actualised within a short time. With more and more expectations from TVET institutions, information is a critical first step in consensus generation and engagement. One may even be surprised that most TVET instructional teachers may not even have copies of the NPE and TVET curriculum, let alone reading it to know their responsibilities. Adebowale and Dare (2014) recommended that teachers' awareness level of any education reforms and policies need more improvement in Nigeria as this will affect its implementation.

The fact that TVET is designed to prepare skilled personnel at lower, middle and higher levels of qualification for one or group of occupation(s). In this regard, staff capacity building may be crucial for policy change implementation for goal achievement in technical colleges in Delta state, Nigeria. Staff capacity building in terms of teachers' continuous development is also essential because TVET scope is progressively changing, from a field in which students worked in isolation on specific skills that were sometimes out of date before even graduated let alone using it in the labour market to one in which students, under the supervision of fully informed teachers, learn skills that have broad applicability in the marketplace. Staff capacity building is a strategy that keeps appearing in the document as

government policies on TVET system changes. The NPE recognised that facilitators (the instructional teachers) must be kept updated of latest development which may have impact on education, specifically TVET. Stressing more on this, Itoku (2015) commented that the government, having realised the germane roles of technology teacher, therefore, placed high premium on the training of the technology teachers both within and outside through scholarship awards and compulsory acquisition of ICT knowledge. Furthermore, on this staff capacity building as a policy implementation strategy is equipping technical teachers' education programme. Ogunyinka, et al. (2015) suggested that what structurally becomes important in achieving the nation's quest for productive society, balance cum citizens who are self-sufficient economically, depends on establishing a qualitative teacher education programme. Teachers are essential actualizers of government agenda on technical education. For TVET to triumph, Muiyawa (2015) advised that teachers should be well trained and their welfare should be well taken care. Teachers translate educational programme and policies into realities for the making self-reliant citizens that will grow the economy.

Students' career counselling service (employment support system) is a professional assistant rendered by a trained counsellor to client, for the client to achieve self-actualisation and fulfil his/ her goals in life (Dada, et al, 2015). This implies that counselling is a means to an end which could also help in realising goals of TVET. To help students satisfy their careers and get good jobs and/ or be self-employed, career development services should be rendered. Nana, et al (n.d) opined that students' choices about their career and education must be guided. However, lack of awareness about job options, wages, market conditions, requirements of professions and necessary education are major issues facing students with career choices. This is the reason why career counsellor must be up to task to put the TVET students on the right track and achieve their aims.

Capacity development of educational institutions is another strategy echoed by the NPE document. This will enable principals to implement policies on TVET and then make the country realise laudable goals of this important sub-sector of education. Ekpo and Onweh (2022) described Nigeria as possessing efficacious individuals who can change the economic status to a wealthy and successful one. There has however been an ironic twist between the available manpower in Nigeria and economic development level because the appropriate manpower that will ensure the attainment of this development are not produced while the available human resources lack the needed skills to be employable by employers, so retraining of trainers as a policy implementation strategy is vital to goal achievement. Undoubtedly, effective school administration is indispensable today for effective realisation of policy statements (Nwaka, 2020) on capacity development.

TVE is designed to prepare skilled personnel at lower, middle and higher levels of qualification for one or group of occupation(s). Numerous well equipped TVE colleges and institutes have been established in various communities across Delta state by the government putting into consideration the differences in geographical areas. These TVE colleges are setup to provide various types of skill acquisition training for the students. The TVE colleges should also be responsible for the re-training of the already employed citizens according to the required skills at a reduced cost. The TVE institutes/colleges should also be made accessible to the vulnerable groups, handicapped, displaced workers, retired and the incarcerated population to enhance their economic development opportunities. Publicity and advocacy of TVET policy is a strategy that if well implemented will create more awareness about the available courses indicating their relevance to the economy and making individual to be self-sufficient. Advocacy is important because many in the community have lost hope in TVET due to unavailability of relevant and well packaged programmes. Based on this

background, this study intended to examine policy change implementation strategies for goal achievement in technical colleges in Delta State, Nigeria.

Aim and Objectives of the Study

The aim of this study was to examine policy change implementation strategies for goal achievement in technical colleges in Delta State, Nigeria. Specifically, the objectives of this study were to:

1. find out how creation of awareness is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.
2. ascertain how staff capacity building is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.
3. examine how public-private partnership is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.

Research Questions

The following research questions were raised to guide the study:

1. How is creation of awareness used as policy change implementation strategies for goal achievement in technical colleges in Delta State?
2. How is staff capacity building used as policy change implementation strategies for goal achievement in technical colleges in Delta State?
3. How is public-private partnership used as policy change implementation strategies for goal achievement in technical colleges in Delta State?

Hypotheses

The following research hypotheses were formulated to guide the study

1. There is no significant difference between the mean scores of principals and teachers on how creation of awareness is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.
2. There is no significant difference between the mean scores of principals and teachers on how staff capacity building is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.
3. There is no significant difference between the mean scores of principals and teachers on how public-private partnership is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.

METHODOLOGY

Research Design

The study adopted a descriptive survey research design. This was considered suitable for the study because the researcher only described the data that was collected and analysed them based on the existence of policy implementation strategies for goal achievement in technical colleges in Delta State, Nigeria without manipulating them.

Population of the Study

The population of this study comprised all principals and teachers in Technical Colleges in Delta State, Nigeria. Available statistics indicated that there are 9 principals and 768 teachers in Technical Colleges in Delta State.

Sample and Sampling Technique

The sample size for this study was 450 respondents from technical Colleges in Delta State. To ensure adequate representation, multi-stage sampling procedure was adopted in selecting the sample for this study. In the first stage, purposive sampling technique was employed to select five (5) technical colleges from the nine public technical college in Delta State. In the second stage, the total enumeration sampling approach was used to select all the principals and teachers in the five (5) sampled technical colleges at the time of this study.

Instrument for Data Collection

The instrument for data collection was a researcher developed questionnaire. The questionnaire was titled: Policy Change Implementation Strategies and Goal Achievement in Technical Colleges Questionnaire (CISGATCQ). The instrument has two parts, one and two. Part one was on the bio-data of the respondents, bothering on name of technical college, gender, status whether principals or teachers. Part two was designed to obtained information on level of principals' and teachers' awareness of policy changes as regards TVET, curriculum policy change implementation strategies for goal achievement, school industries collaboration policy change implementation strategies for goal achievement, students' industrial work experience scheme policy change implementation strategies for goal achievement, quality assurance policy change implementation strategies for goal achievement, labour market skills policy change implementation strategies for goal achievement and the entrepreneurship policy change implementation strategies for goal achievement in technical colleges in Delta State. The response categories of the instrument were based on a Likert four (4) point summated rating scale of agreement weighted as Strongly Agree (SA) (4 points), Agree (A) (3 points), Disagree (D) (2 points) and Strongly Disagree (SD) (1 point). The questionnaire contained items built in two (2) clusters on which respondents were requested to indicate their opinion.

Validity of the Instrument

The instrument was face and content validated by presenting it to the researcher's supervisor and two experts in Educational Management from Ignatius Ajuru University of Education, Warri study centre. The experts were requested to check the instrument whether the items statement were poorly written or ambiguous. Also, there were asked to advice the researcher on the type of scale suitable for the instrument. The experts' inputs, corrections, suggestions, criticism and advice were put into consideration in the modification of the instrument.

Reliability of the Instrument

The instrument was trial tested with thirty (30) respondents selected randomly from two (2) technical Colleges in Delta State. The respondents used in the pilot study were not part of the real study. In the pilot study, the instrument was administered and collected by the researcher and after two weeks, they were re-administered to the same groups of respondents. The result was analysed using Cronbach's Alpha to establish its internal consistency.

Reliability coefficient for the instrument was 0.89. This reliability index showed that the instrument was reliable and therefore, appropriate for the study.

Method of Data Collection

The questionnaires were administered to the respondents in their various colleges with the help of two research assistants. The research assistants were guided on research instrument administration. The respondents were guided by the researcher and research assistants on how to complete the questionnaire thereafter they collected them. Out of the 455-questionnaire administered only 450 of them were retrieved and use for the study.

Method of Data Analysis

The data collected from the respondents through the questionnaire were analysed using mean and standard deviation to answer the research questions. The mean of each item was calculated by multiplying the frequency of the responses under which response category and the sum of the product obtained was divided by the number of respondents who responded to the items concerned. The mean for the scale was be 2.50. The decision was that any item that scored a mean of 2.50 and above was regarded as agreed while any item that scored below 2.50 was regarded as disagreed. The z-test was used to test the null hypotheses within two groups, that is, principals and teachers. The hypotheses were tested at 0.05 level of significance. Decision point was that, if z-calculated is less than or equal to the z-critical, do not reject the null hypotheses, but if vice-versa, then reject the null hypotheses.

RESULTS

Answering the Research Questions

Research Question 1: How is creation of awareness used as policy implementation strategies for goal achievement in technical colleges in Delta State?

Table 1: Mean and Standard Deviation on how Creation of Awareness Used as Policy Implementation Strategies for Goal Achievement in Technical Colleges

Group Statistics						
S/N		Respondents	n	$\bar{X}$	SD	Decision
1	National Vocational Qualification Framework (NVQF)	Principal	5	2.2000	.44721	Agreed
		Teachers	445	2.9169	.68102	Agreed
2	NVQF assessment procedures.	Principal	5	2.4000	1.14018	Agreed
		Teachers	445	2.9281	.62186	Agreed
3	Counselling unit	Principal	5	2.8000	.44721	Agreed
		Teachers	445	2.8921	.52595	Agreed
4	The incorporation of ICT in the new TVET curriculum	Principal	5	2.0000	.70711	Agreed
		Teachers	445	2.9506	.63479	Agreed
5	Advocacy strategies for the new TVET curriculum.	principal	5	2.8000	.44721	Agreed
		Teachers	445	3.0000	.48398	Agreed

Criteria mean 2.50

The data in Table 1 showed the mean scores and standard deviation of principals and teachers on how the creation of awareness is used as policy implementation strategies for goal achievement in technical colleges in Delta State. Given a 2.50 mid-point in the 4-point rating scale, data analysis indicated that all the items (item 1 – 5) had mean ratings above the mid-point for teachers, indicating that creation of awareness is used as policy implementation strategies for goal achievement in technical colleges in Delta State, while some of the items

for principals are below the mean rating midpoint. In summary, some of the respondents agreed that National vocational qualification framework (NVQF), NVQF assessment procedures, Counselling unit, incorporation of ICT in the new TVET curriculum and advocacy strategies for the new TVET curriculum are some policy implementation strategies that are used for the creation of awareness for goal achievement in technical colleges in Delta State.

Research Question 2: How is staff capacity building used as policy change implementation strategies for goal achievement in technical colleges in Delta State?

Table 2: Mean and Standard Deviation on how staff capacity building is used as policy change implementation strategies for goal achievement

S/N	ITEMS	Respondents	N	$\bar{X}$	SD	Decision
1.	I visit teachers' resource centre in my area to update my knowledge of TVET.	Principal Teachers	5 445	2.40 2.81	.547 .608	Agreed Agreed
2.	Resource persons are brought to train teachers on TVET in my College.	Principal Teachers	5 445	2.40 2.92	.894 .709	Agreed Agreed
3.	I am provided with necessary mentoring on TVET by the school management and senior teachers whenever needed.	Principal Teachers	5 445	3.00 2.98	.000 .418	Agreed Agreed
4.	My school encourages me to avail training opportunities through attendance of conferences, seminars and workshopson TVET.	Principal Teachers	5 445	2.80 3.14	.447 .637	Agreed Agreed
5.	My school management motivates me for good performance in TVET teaching.	Principal Teachers	5 445	3.00 3.08	.000 .299	Agreed Agreed
6.	I feel sufficiently skilled for the job TVET teacher.	Principal Teachers	5 445	2.20 2.87	.836 .697	Agreed Agreed
7.	The capacity building programmes I have attended have helped me better help my students in the classroom.	Principal Teachers	5 445	2.80 2.85	.447 .528	Agreed Agreed
8.	Generally, the extent of my school's involvement in TVTE capacity building can rate as high.	Principal Teachers	5 445	2.60 2.94	.033	Agreed Agreed

Criteria mean 2.50

The data in Table 2 showed the mean scores and standard deviation of staff capacity building used as policy change implementation strategies for goal achievement in technical colleges in Delta State. Given a 2.50 mid-point in the 4-point rating scale, data analysis indicated that majority of the items had mean ratings above the mid-point, indicating that they are staff capacity building used as policy change implementation strategies for goal achievement in technical colleges in Delta State.

Research Question 3: How is public-private partnership used as policy change implementation strategies for goal achievement in technical colleges in Delta State?

Table 3: Mean and Standard Deviation on how public-private partnership used as policy change implementation strategies for goal achievement in technical colleges

S/N	ITEMS	Respondents	n	$\bar{X}$	SD	Decision
1.	My college collaboration with business	Principal	5	3.00	.000	Agreed

	and industries in areas of curriculum implementation	Teachers	445	2.98	.418	Agreed
2.	Experts from industries are used as a part-time trainer in my college	Principal	5	2.80	.447	Agreed
		Teachers	445	3.14	.637	Agreed
3.	Industries provide my college advice on occupation and skills in demand in labour market	Principal	5	3.00	.000	Agreed
		Teachers	445	3.08	.299	Agreed
4.	Partnership with private skill acquisition centres to improve hands-on experiences of teachers and students in my college.	Principal	5	2.20	.836	Agreed
		Teachers	445	2.87	.697	Agreed
5.	Collaboration with industries to ease Industrial Attachment programme (SIWES) for my college students.	Principal	5	2.80	.447	Agreed
		Teachers	445	2.85	.528	Agreed

Criteria mean 2.50

The data in Table 3 showed the mean scores and standard deviation of how public-private partnership used as policy change implementation strategies for goal achievement in technical colleges in Delta State. Given a 2.50 mid-point in the 4-point rating scale, data analysis indicated that all the items listed above had mean ratings above the mid-point, indicating that these are strategies that public-private partnership used as policy change implementation for goal achievement in technical colleges in Delta State.

Hypothesis 1: There is no significant difference between the mean scores of principals and teachers on how creation of awareness is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.

Table 4: z-test analysis of difference between mean scores of principals and teachers on how creation of awareness is used as policy change implementation strategies for goal achievement in technical

Variables	n	$\bar{x}$	SD	df	z-cal.	z-crit.	Level of Sig.	Decision
Principals	5	12.2	3.19	448	-8.851	1.96	0.05	Rejected
Teachers	445	14.67	3.0					

Data in Table 4 showed the analysis of z-test difference between the mean scores of principals and teachers on how creation of awareness is used as policy change implementation strategies for goal achievement in technical colleges in Delta State. The results of the z-test revealed that the calculated z-value of -8.851 is greater than the critical value of 1.96 of a degree of freedom 448 of 0.05 significant level. The null hypothesis is therefore rejected. Thus, there is a significant difference between the mean scores of principals and teachers on how creation of awareness is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.

Hypothesis 2: There is no significant difference between the mean scores of principals and teachers on how staff capacity building is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.

Table 5: z-test analysis of difference mean scores of principals and teachers on how staff capacity building is used as policy change implementation strategies for goal achievement in technical colleges

Variables	N	$\bar{x}$	SD	df	z-cal.	z-crit.	Level of Sig.	Decision
Principals	5	18.4	4.06	448	-8.386	1.96	0.05	Rejected
Teachers	445	23.63	4.60					

Data in Table 5 showed the analysis of z-test difference between the mean scores of principals and teachers on how staff capacity building is used as policy change implementation strategies for goal achievement in technical colleges in Delta State. The results of the z-test revealed that the calculated z-value of -8.386 is greater than the critical value of 1.96 of a degree of freedom of 448 of 0.05 significant level. The null hypothesis is therefore rejected. Thus, there is a significant difference between the mean scores of principals and teachers on how staff capacity building is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.

Hypothesis 3: There is no significant difference between the mean scores of principals and teachers on how public-private partnership is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.

Table 6: z-test analysis of difference between mean scores of principals and teachers on how public-private partnership is used as policy change implementation strategies for goal achievement in technical colleges

Variables	n	$\bar{x}$	SD	df	z-cal.	z-crit.	Level of Sig.	Decision
Principals	5	13.8	1.73	448	-4.138	1.96	0.05	Rejected
Teachers	445	14.94	5.58					

Data in Table 6 showed the analysis of z-test difference between the mean scores of scores of principals and teachers on how public-private partnership is used as policy change implementation strategies for goal achievement in technical colleges in Delta State. The results of the z-test revealed that the calculated z-value of -4.138 is greater than the critical value of 1.96 of a degree of freedom 448 of 0.05 significant level. The null hypothesis is therefore rejected. Thus, there is a significant difference between the mean scores of scores of principals and teachers on how public-private partnership is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.

DISCUSSION OF FINDINGS

Creation of Awareness is Used as Policy Change Implementation Strategies for Goal Achievement in Technical Colleges

The finding of the study Table 1 shows the mean scores and standard deviation of principals and teachers on how the creation of awareness is used as policy implementation strategies for goal achievement in technical colleges in Delta State. Given a 2.50 mid-point in the 4-point rating scale, data analysis indicated that all the items (item 1 – 5) had mean ratings above the mid-point, indicating that creation of awareness is used as policy implementation strategies for goal achievement in technical colleges in Delta State. This finding is in line with that of (Oladosu, 2016) who states that awareness of changes in policies and its implementation strategies is the first and foremost thing to be created among all members of academic and non-academic staff of technical colleges. Adequate, relevant and timely information must be disseminated to institutions in respect of the government's guidelines on TVET. Policy awareness according to form the basis of the utilisation and effectiveness of the programme. The test of hypothesis one presented in Table 4 revealed that there is a significant difference between the mean scores of principals and teachers on how creation of awareness is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.

Staff Capacity Building Used as Policy Change Implementation Strategies for Goal Achievement in Technical Colleges

The findings from Table 2 show the mean scores and standard deviation of staff capacity building used as policy change implementation strategies for goal achievement in technical colleges in Delta State. Given a 2.50 mid-point in the 4-point rating scale, data analysis indicated that majority of the items had mean ratings above the mid-point, indicating that they are staff capacity building used as policy change implementation strategies for goal achievement in technical colleges in Delta State. This finding agreed with that of Fullan (2017) who noted that capacity building is not just about individual development but also about creating the conditions under which people can learn from each other and continuously improve. He equally states that capacity building is not only a support mechanism but also a lever for sustainable policy execution. The test of hypothesis two as presented in Table 5 revealed that there is a significant difference between the mean scores of principals and teachers on how staff capacity building is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.

Public-Private Partnership Used as Policy Change Implementation Strategies for Goal Achievement in Technical Colleges

The finding of the study as personated in Table 3 showed that all the items listed above had mean ratings above the mid-point mean of 2.50. This indicates that the respondents agreed that those items are how public-private partnership used as policy change implementation strategies for goal achievement in technical colleges in Delta State. This finding buys the ideal of Salami, (2021) who stated that as a way out of this policy implementation imbroglio, the Nigeria education policy document has stipulated that staff capacity building, varieties of funding models, public-private partnership, publicity and advocacy for the available courses and career counselling services among others must be employed as policy implementation strategies. The test of hypothesis three as presented in Table 6 revealed that there is a significant difference between the mean scores of mean scores of principals and teachers on how public-private partnership is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.

CONCLUSIONS

The following conclusions were drawn on the basis of data analysed for the study. First, the study concluded that there is a significant difference between the mean scores of principals and teachers on how creation of awareness is used as policy change implementation strategies for goal achievement in technical colleges in Delta State. Second, the analysis of data showed that there is a significant difference between the mean scores of principals and teachers on how staff capacity building is used as policy change implementation strategies for goal achievement in technical colleges in Delta State. Third, the analysis of data revealed that there is a significant difference between the means scores of principals and teachers on how public-private partnership is used as policy change implementation strategies for goal achievement in technical colleges in Delta State.

Recommendations

Based on the findings of the study and the conclusion reached the following recommendations were made:

1. A standing committee on awareness and publicity should be created, so as to be updating

the staff on the occurring changes in government policies on technical and vocational education and training. Copies of changed curriculum and policies should be made in abundance by the boards of technical and vocational education. Efforts should also be made to ensure it gets to schools in excess.

2. Improvisation of training materials should be seen as a virile alternative means of getting students trained. For instance, workshop activities should be taken beyond the specified buildings, all the school compound should be used by taking the students around to fix faulty facilities and equipment. This service could be extended to other schools in the community as a corporate socialresponsibility.
3. Principals should not wait for state government sponsored and institutionalized training and retraining programmes before developing the colleges' pool of human resources. This could be achieved by inviting resource persons from other industries, either government or private owned, to facilitate staff of their schools in the areas vacuum of idea and experience have been created. Also, teachers' attendance of training programmes and utilisation of the new skills and ideas learned at various retraining programmes should be made a prerequisite for teachers'promotion.

References

- Adamu, M. S. (2016). Enhancing legislative commitments and reforms in technical department. Unpublished M.Sc. project, University of Nigeria.
- Adebowale, O. F., & Dare, N. O. (2014). Teachers' awareness of Nigeria's educational policies on ICT in Oyo state secondary schools. *International Journal of Computing and ICT Research*, 6(1), 84-93.
- Anaele, E. O., Adelakun, O. A., Dem, I. I., & Barfa, G. I. (2014). Strategies for revitalizing the implementation of entrepreneurship education in technical vocational education and training (TVET) to enhance self-employment in Nigeria. *British Journal of Education*, 2(4), 50-62. Retrieved August 15, 2016, from www.eajournals.org
- Dada, I., Ali, A. A., Salman, S. A., & Isiaka, G. A. (2015). Enhancement of technical and vocational education and training (TVET) through professional counselling in Nigeria. *MeritResearch Journal of Education and Review*, 3(4), 151-158. Retrieved August 1, 2016, from meritresearchjournals.org.
- Ekpo, A. B., & Onweh, V. E. (2022). Coping with the global economic crisis: A challenge to technical vocational education and training (TVET) in Nigeria. *Africa research review*,6(3), 165-175.
- Federal Ministry of Education (FME). (2014). **National Policy on Education** (Revised). Abuja, Nigeria.
- Federal Ministry of Education. (2016). *Technology and science education*. Retrieved From<http://www.education.gov.ng/index.php/departments/technology-and-science-education>
- FME. (2015). Federal republic of Nigeria skills training and vocational education project. Department of social development centre and west region. Retrieved August 15,2016, from www.afdb.org
- FRN. (2014). *National policy on education* (2nd ed.). NERDC.FRN. (1998). *National policy on education* (3rd ed.). NERDC.FRN. (2004). *National policy on education* (4th ed.). NERDC.
- Ibukun, W. O., & Aboluwodi, A. (2020). Nigeria's national policy on education and the university curriculum in history: implication for nation building. *Journal of Education andPractice*, 1(2), 9-17.
- Imam, H. (2015). Educational Policy in Nigeria from the Colonial Era to the Post-Independence Period. *Italian Journal of Sociology of Education*, 1, 181-204.
- Iteku, J. A. (2015). The need to effectively prepare the technological education teacher for

- quality education in Nigeria for social transformation, self-reliance and economic development. *Merit Research Journal of Education and Review*, 3(1), 76-80. Retrieved December 21, 2016, from www.meritresearchjournals.org.
- Muyiwa, S. A. (2015). Education and politics: Its implication to national transformation in Nigeria. *Public Policy and Administration Journal*, 5(8), 39-45. Retrieved December 12, 2016, from <http://www.iiste.org>
- Nana, D., Christian, L., Shannon, M., Valetin, O., Liwen, P., Haruka, S., & Tatiana, V.-M. (n.d.). *School to work-effective component of technical and vocational education program: The Nigerian case*. School of International and Public Affairs.
- Nwaka, N. G. (2020). Secondary school administration in Anambra state today: Challenges and the way forward. *Africa Research Review*, 4(2), 384-397. Retrieved September 15, 2020, from www.afrrevjo.net
- Ogunyinka, E. K., Okeke, T. I., & Adedoyin, R. C. (2015). Teacher education and development in Nigeria: An analysis of reforms, challenges and prospects. *Educational Journal*, 4(3), 111-122.
- Okolocha, C. (2016). Vocational Technical Education in Nigeria: Challenges and the Way Forward. *Business Management*, 2(6), 1-8. Retrieved August 2, 2016, from www.bmdynamics.com
- Olaniyonu, S. O., & Adekoya, S. O. (2019). *Fundamentals of educational planning*. Oluakin.
- Omosewo, O., Akanmu, A. M., & Asebiomo, A. M. (2016). Evolution of functional basic and senior secondary education: Implication for effective implementation. *Journal of Education and Practice*, 4(2), 73-79.



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RESHAPING NIGERIAN TEACHER EDUCATION THROUGH SMART CLASSROOM: CHALLENGES AND WAY FORWARD

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ABSTRACT

This paper examines how Nigerian teacher education can be transformed through the adoption of smart classroom technologies. Traditional models increasingly fall short of equipping teachers to meet the needs of the twentieth century learner. Smart classrooms offer real potential to refresh teaching methods, strengthen teacher capability, and broaden access to high-quality education. Yet realising this vision in Nigeria presents significant hurdles, including infrastructural deficits, unreliable electricity, uneven internet access, gaps in teacher training, financial pressures, and resistance to change. The paper outlines these challenges and proposes practical routes for progress: sound policy development, strategic infrastructure investment, targeted professional development, curriculum reform, collaborative partnerships, and a phased implementation accompanied by rigorous evaluation. The paper argues that embracing smart classrooms is essential for reshaping Nigerian teacher education, empowering educators, and improving learning outcomes for learners nationwide.

Keywords: Teacher Education, Smart Classroom, Emerging Technology, Challenges, Way Forward

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INTRODUCTION

The winds of technological advancement are sweeping across the globe, fundamentally transforming the environments of nearly every sector, and education is no exception. In Nigeria, a nation brimming with youthful potential and a rising drive for progress, the need to embrace these transformative forces within the educational system is more critical than ever.

The quality of education, and in particular the training of teachers at all levels, holds the key to unlocking this potential and building a brighter future for all school-age learners. However, the traditional models of teacher education, while having served their purpose, are increasingly proving inadequate in preparing the next generation of teachers for the demands of a rapidly evolving world, especially in a dynamic country like Nigeria.

The concept of a smart classroom stands as a beacon of hope, promising to transform how teachers are trained and how they, in turn, deliver knowledge and nurture learning in their students. This goes beyond simply incorporating digital devices; it is about creating dynamic, interactive, and engaging learning environments that harness technology to enhance pedagogical practice, provide access to a wealth of resources, and generally foster a more effective and relevant education. From interactive whiteboards and online learning platforms to digital assessment tools and collaborative software, the smart classroom offers a range of possibilities to invigorate the teaching and learning process (AbleGod-Esene & Ireyefoju, 2025). However, the path to integrating such technologies into the fabric of Nigerian teacher education is not without its hurdles. The shift from traditional chalkboards and textbooks to sophisticated digital tools presents a complex array of challenges that must be recognised and addressed head-on. Issues surrounding infrastructure, including reliable internet connectivity and a consistent power supply, loom large. Furthermore, the capacity of teacher educators and pre-service teachers to effectively utilise these technologies requires substantial investment in training and professional development. Financial constraints, the digital literacy gap, and potential resistance to change within established educational structures also pose significant obstacles (Enemuo & Momoh, 2022).

Despite these undeniable challenges, the case for embracing smart classrooms in Nigerian teacher education is compelling. The future of Nigeria's education depends on teacher education programmes' ability to equip teachers with the skills and tools necessary to thrive in the 21st-century landscape. This paper contends that the integration of smart classroom technologies is not merely an option but a necessity – a paradigm shift that requires collective, immediate attention and strategic action. It explores the critical challenges that must be overcome to ensure successful implementation and, crucially, examines viable pathways that can lead us towards a future where Nigerian educators are empowered to harness the transformative power of technology in their classrooms, ultimately benefiting students across the nation. This examination aims to provide a comprehensive understanding of the current situation and offer actionable insights for reshaping Nigerian teacher education for a brighter, technologically enabled future.

Clarification of concepts:

Smart classroom transcends mere technological jargon to represent a fundamental shift in the very nature of the learning environment. It signifies a classroom space that is intentionally designed and equipped with a range of digital technologies and interconnected systems to enhance teaching, facilitate learning, and create a more engaging and interactive educational experience. The adoption of smart classrooms offers a tangible pathway towards modernising educational practices and preparing its students for a future increasingly shaped by technology. The smart classroom concept revolves around the integration of various digital tools. This can include interactive whiteboards or smart displays that replace traditional blackboards, allowing teachers to present multimedia content, annotate lessons in real-time, and engage students in interactive activities (Enemuo & Momoh, 2022; Ijeoma et al., 2021). It often involves the use of computers, laptops, or tablets for both teachers and students, providing access to a vast array of online resources, educational software, and digital learning materials. Also, smart classrooms may incorporate features like audio-visual

systems for enhanced presentations, internet connectivity for seamless access to information, and sometimes even learning management systems to facilitate online assignments and communication (AbleGod-Esene & Ireyefoju, 2025).

The essence of a smart classroom is not simply the presence of technology, but its purposeful and pedagogical integration. The goal is to move beyond the passive reception of information towards a more active, collaborative, and student-centred learning experience. In a smart classroom, teachers can utilize multimedia resources to bring abstract concepts to life, making learning more visual and engaging. Students can actively participate in lessons through interactive activities, collaborative projects using digital tools, and access to personalized learning pathways (Ojo & Bolaji, 2022). For educators in Nigeria, the smart classroom offers the potential to diversify their teaching methods and cater to different learning styles. Visual learners can benefit from engaging presentations and videos, auditory learners can engage with audio recordings and discussions, and kinaesthetic learners can participate in interactive activities that involve movement and manipulation of digital tools. This differentiation can lead to a more inclusive learning environment where all students have the opportunity to succeed.

Moreover, smart classrooms can provide access to a wealth of educational resources that might otherwise be unavailable. Students can access online libraries, educational websites, virtual field trips, and collaborative learning platforms, expand their horizons and enrich their learning experiences beyond the confines of a traditional classroom. This access to a global pool of knowledge can be particularly empowering in a country with a growing emphasis on quality education. However, it is crucial to understand that the concept of a smart classroom is not a one-size-fits-all solution. The specific technologies and their implementation must be tailored to the local context, the specific needs of students and teachers, and the available resources. A thoughtful and strategic approach is needed to ensure that the technology serves the educational goals and enhances the learning process effectively (Oyeleke & Akanbi, 2020). The smart classroom is a commitment to leveraging the power of digital tools to create more engaging, interactive, and effective educational experiences for students. It is a step towards equipping both educators and learners with the skills and resources necessary to thrive in the 21st century.

Teacher education encompasses the comprehensive process of preparing individuals to effectively guide, instruct, and inspire the next generation. It is a complex endeavour that goes far beyond simply imparting subject-matter knowledge; it involves the development of pedagogical skills, understanding of child development, mastery of classroom management techniques, and a deep-seated commitment to the profession of teaching. The quality and effectiveness of teacher education are paramount to building a robust and sustainable educational system (Amadi & Udo, 2023; Awofala, 2019). Teacher education begins with initial training, often undertaken in colleges of education or universities. This foundational stage aims to equip aspiring teachers with the theoretical knowledge and practical skills necessary to enter the classroom. It involves coursework in educational foundations (Philosophy of Education, History of Education, Sociology of Education, Comparative Education), Educational Psychology, Curriculum Studies, Educational Administration, Educational Technology, teaching methodologies, and the specific subject areas the future teachers will specialize in. These institutions play a crucial role in shaping the initial competencies and attitudes of the teaching workforce. The quality of this initial training directly impacts the effectiveness of teachers in their early years of practice (Dafiaghor et al., 2023).

However, the concept of teacher education extends far beyond this initial training. It is a continuous and lifelong process of professional development. Effective teachers are not static; they are constantly learning, adapting, and refining their craft. This ongoing professional development can take various forms, including in-service training workshops, seminars, conferences, mentorship programmes, and opportunities for further academic study. In a rapidly evolving world, particularly one increasingly influenced by technology, continuous professional development is essential to ensure that teachers remain up-to-date with the latest pedagogical approaches, curriculum changes, and technological advancements. Access to and participation in such ongoing development opportunities is crucial for maintaining their effectiveness and relevance. Teacher education encompasses the development of a strong professional identity and a commitment to ethical practice. It involves fostering a sense of responsibility and dedication to the well-being and academic growth of students. Teacher training programmes ought to instil in aspiring educators the importance of empathy, patience, and the ability to create a supportive and inclusive learning environment. In the diverse and vibrant communities of Nigeria, understanding and respecting the varied cultural backgrounds and learning needs of students is a critical aspect of effective teaching (Oladipo, 2018; Omatseye & Ireyefoju, 2007).

The concept of teacher education also recognizes the importance of practical experience. Field placements and teaching practice provide invaluable opportunities for aspiring teachers to apply their theoretical knowledge in real-world classroom settings. These practical experiences allow them to develop classroom management skills, interact with students, and learn from experienced educators. The quality of these practical experiences within teacher training institutions significantly shapes the readiness and confidence of newly qualified teachers. Teacher education is about cultivating individuals who are not only knowledgeable in their subject areas but also skilled in the art and act of teaching. It is about nurturing individuals who are passionate about empowering young minds and contributing to the development of their communities (Ertmer & Ottenbreit-Leftwich, 2010). In Nigeria, where education is seen as a key driver of social and economic progress, a robust and well-supported teacher education system is fundamental to building a brighter future for its citizens. It is an ongoing investment in human capital, recognizing that the quality of education is directly linked to the quality of its educators.

Emerging technology captures the innovative and rapidly evolving landscape of scientific and engineering advancements that are poised to significantly impact various aspects of human life, including education, within a dynamic and forward-thinking country like Nigeria. These are technologies that are not yet fully mature or widely adopted but hold the potential to disrupt existing norms, create new industries, and offer solutions to complex challenges. Their emergence marks critical moments, a transition from theoretical knowledge to technical knowledge, or practical applications that can reshape the way we live, learn, and work. Emerging technology is characterized by its novelty, its potential for significant impact, and its ongoing development. It often represents a convergence of different scientific disciplines, leading to breakthroughs that were previously unimaginable. In the context of education, these technologies offer the promise of transforming teaching methodologies, enhancing learning experiences, and providing access to educational opportunities in ways that were previously limited (AbleGod-Esene & Ireyefoju, 2025).

Examples of emerging technologies relevant to education include advancements in artificial intelligence, virtual and augmented reality, the Internet of Things, and sophisticated learning analytics. Artificial intelligence, for instance, has the potential to personalize learning experiences by adapting to individual student needs and providing tailored feedback.

Virtual and augmented reality can create immersive and engaging learning environments, allowing students in Warri to experience historical events, explore distant lands, or visualize complex scientific concepts in a more interactive manner. The Internet of Things can connect learning devices and resources, creating more integrated and data-driven educational systems. Learning analytics can provide valuable insights into student performance and learning patterns, enabling educators to make more informed instructional decisions (Enemuo, & Momoh, 2022).

The significance of embracing emerging technologies in Nigeria lies in its potential to leapfrog traditional educational limitations and embrace a more future-ready approach. While challenges related to infrastructure and access may exist, the innovative potential of these technologies offers opportunities to address educational disparities and enhance the quality of learning. For instance, AI-powered learning platforms could provide access to high-quality educational content even in areas with limited access to qualified teachers. Virtual and augmented reality could offer engaging learning experiences that transcend geographical boundaries. However, understanding the concept of emerging technology also involves recognizing that these technologies are often in a state of flux. Their capabilities and applications are constantly evolving, and their widespread adoption often requires significant investment in research, development, and infrastructure. Ethical considerations, such as data privacy and the potential for digital divides, must be carefully considered as these technologies are integrated into the educational system (Dike & Nwosu, 2020; Adegoke & Olatunji, 2019).

The concept of emerging technology in the context of education is not just about adopting the latest gadgets; it is about fostering a culture of innovation, critical thinking, and adaptability. It requires a forward-looking mindset that embraces the potential of these advancements while also being mindful of the challenges and ethical implications. For a country like Nigeria, which is striving for progress and development, understanding and strategically integrating emerging technologies into its educational framework is crucial for preparing its students for the jobs and opportunities of the future and for contributing to a globally competitive workforce. It represents a commitment to staying at the forefront of educational innovation and empowering the next generation with the skills and knowledge they need to thrive in a rapidly changing world.

Challenges in implementing smart classroom in Nigerian teacher education programme

While the potential benefits of integrating smart classrooms into Nigerian teacher education are undeniable, the path towards realizing this vision is fraught with significant challenges that must be acknowledged and proactively addressed. Ignoring these hurdles would be a disservice to the ambitious goal of transforming teacher training through technology. One of the most immediate and pressing challenges revolves around the fundamental issue of infrastructure and access. Reliable electricity supply, a persistent concern across many parts of Nigeria, is a critical prerequisite for the effective functioning of smart classroom technologies. Frequent power outages can render expensive equipment useless and disrupt learning sessions, leading to frustration and hindering the adoption of these tools. Similarly, consistent and affordable internet connectivity is another major hurdle. While internet penetration is growing, it remains uneven, and the cost of reliable broadband access can be prohibitive for many educational institutions, especially those with limited resources. Ensuring that Colleges of Education and conventional Universities have the necessary and sustainable infrastructure is a foundational challenge that needs immediate attention (Smith et al., 2022; Uzundu & Edochie, 2021; Akinula & Olatunji, 2020).

Additionally, the successful implementation of smart classrooms hinges on the training and capacity building of both teacher educators and pre-service teachers. Simply providing the hardware and software is insufficient; educators need comprehensive and ongoing professional development to effectively utilize these tools in their teaching. This includes not only technical training on how to operate the equipment but also pedagogical training on how to integrate these technologies into their lesson plans in meaningful and effective ways. There is a potential gap in digital literacy among some educators, and addressing this requires tailored training programmes that cater for their specific needs and address any apprehension they may have towards new technologies. The development of robust and sustainable training programmes, perhaps leveraging local expertise and resources, will be crucial (AbleGod-Esene & Ireyefoju, 2025).

Financial constraints also pose a significant barrier. The initial investment in smart classroom equipment, including computers, projectors, interactive whiteboards, and necessary software, can be substantial. Additionally, ongoing costs for maintenance, software updates, and internet subscriptions need to be factored in. Many teacher training institutions in Nigeria operate with limited budgets. Securing adequate funding for the procurement, maintenance, and training related to smart classrooms will require strategic planning, potential government support, and exploring avenues for public-private partnerships. The economic realities of the region must be carefully considered when planning for such investments. Beyond these tangible challenges, there are also considerations related to digital literacy and awareness across the wider educational ecosystem. There might be varying levels of digital proficiency among prospective teachers entering training institutions. Addressing these gaps through foundational digital literacy programmes will be essential to ensure that all trainees can effectively engage with smart classroom technologies. Furthermore, raising awareness about the benefits and practical applications of these technologies among educators and administrators is crucial for fostering buy-in and encouraging their adoption (AbleGod-Esene & Ireyefoju, 2025).

Finally, resistance to change and cultural factors cannot be overlooked. Introducing new technologies can sometimes be met with scepticism or resistance within established educational cultures. It is important to acknowledge and address these concerns through open communication, demonstrating the practical benefits of smart classrooms, and involving educators in the planning and implementation process. Moreover, cultural factors and local contexts must to be considered to ensure that the implementation strategies are culturally sensitive and relevant. While the promise of smart classrooms in Nigerian teacher education is compelling, the path to achieving this vision is paved with significant challenges. Addressing issues related to infrastructure, training, funding, digital literacy, and potential resistance to change will be critical for the successful and sustainable integration of these technologies within teacher education institutions across Nigeria. A realistic and pragmatic approach that acknowledges these hurdles is essential for formulating effective strategies and pathways for moving forward.

Smart classroom in Nigerian teacher education

The call for the integration of smart classrooms within the Nigerian teacher education system is not merely a trendy aspiration; it is a fundamental imperative driven by the urgent need for modernisation and a commitment to equipping future educators with the tools necessary to thrive in the 21st century world. In Nigeria, where the aspirations for progress are palpable, embracing this technological shift is crucial for ensuring that our educational institutions remain relevant and competitive on both national and global scales (Okonkwo, 2023; Smith et al., 2022; Akinula & Olatunji, 2020). Firstly, the traditional methods of

teacher education, often relying on outdated pedagogical approaches and limited access to diverse learning resources, are increasingly falling short of preparing teachers for the realities of the modern classroom. Today's students are digital natives, accustomed to interactive and engaging forms of learning. To effectively capture their attention, foster critical thinking, and cater to diverse learning styles, teachers need to be equipped with the skills and tools that smart classrooms offer. These technologies empower educators to move beyond rote memorisation and towards more student-centred, inquiry-based learning experiences, aligning with contemporary educational philosophies that emphasise active participation and knowledge construction (Okonkwo, 2023).

Secondly, the integration of smart classrooms holds the potential to significantly enhance the skills and competencies of Nigerian teachers. Exposure to and training in these technologies will not only improve their digital literacy but also equip them with new pedagogical techniques. Teachers will learn to utilize interactive whiteboards for engaging presentations, leverage online resources for research and lesson planning, employ educational software for differentiated instruction, and utilize assessment tools for more effective feedback. This enhanced skillset will not only make them more effective in their classrooms but also more adaptable and resourceful in navigating the ever-evolving educational landscape. Imagine a teacher in a Warri-based teacher training college effortlessly accessing a global library of educational videos or collaborating with peers across the country on a shared digital platform – this is the potential that smart classrooms unlock. Furthermore, in a nation grappling with educational disparities, the strategic implementation of smart classrooms can play a crucial role in bridging the digital divide. While challenges related to infrastructure exist, the potential for providing access to quality educational resources, even in areas with limited physical libraries or specialized materials, is immense. Online learning platforms, digital libraries, and virtual field trips can bring a world of knowledge to the fingertips of aspiring teachers, regardless of their geographical location within Nigeria. This can help level the playing field and ensure that teachers, even in more remote areas, have access to the resources they need to deliver high-quality instruction (Smith et al., 2022; Akinula & Olatunji, 2020).

Moreover, aligning with Nigeria's national education goals, which increasingly emphasize the importance of technology integration and the development of a digitally literate citizenry, the adoption of smart classrooms in teacher education is a natural and necessary step. It demonstrates a commitment to preparing teachers who are not only competent in their subject matter but also adept at leveraging technology to enhance learning outcomes. This forward-thinking approach is essential for positioning Nigeria as a leader in educational innovation within the African continent. The imperative for smart classrooms in Nigerian teacher education stems from the need to modernise their pedagogical approaches, equip teachers with essential 21st-century skills, address educational inequities, and align with national development goals. Ignoring this technological shift would be to risk falling behind in a world where digital literacy and technological proficiency are increasingly fundamental to success. Embracing this imperative is not just a choice, but a vital step towards a brighter future for its educators and, consequently, its students, particularly those in the educationally disadvantage areas.

Way Forward for effective smart classroom integration in Nigerian teacher education

Acknowledging the significant challenges that lie ahead, the successful integration of smart classrooms into Nigerian teacher education requires a strategic and multi-pronged approach. Simply hoping for a technological transformation without a clear roadmap will likely lead to fragmented and unsustainable efforts. Therefore, identifying and implementing

well-defined pathways is crucial to realizing the full potential of this educational revolution. A foundational pathway lies in the development of robust policy and planning at both the national and state levels. Clear national policies that articulate the vision for technology integration in teacher education, along with specific guidelines and standards, will provide a framework for implementation, which the Nigerian government intended to do when it is economically possible (Federal Republic of Nigeria [FRN], 2014).

Addressing the critical issue of infrastructure development is paramount. While a national approach is necessary, local initiatives can play a significant role. This could involve advocating for increased investment in power infrastructure and internet connectivity in educational institutions, exploring partnerships with telecommunication companies to provide affordable internet access, and leveraging existing community resources. Furthermore, exploring the potential of solar power solutions, particularly in areas with unreliable grid electricity, could be a sustainable approach for powering smart classroom equipment. A vital pathway involves the implementation of targeted teacher training programmes (AbleGod-Esene & Ireyefoju, 2025). These programmes must go beyond basic technical training and focus on the pedagogical integration of smart classroom technologies. Training must be context-specific, addressing the unique challenges and opportunities within the Nigerian educational system. It must include hands-on workshops, peer-to-peer learning opportunities, and ongoing professional development to ensure that educators feel confident and competent in using these tools effectively. Teacher education institutions must be at the forefront of developing and delivering these crucial programmes, potentially collaborating with technology experts and experienced educators.

Furthermore, curriculum reform and integration are essential for ensuring that smart classroom technologies are not merely add-ons but are seamlessly woven into the fabric of teacher education. The curriculum must be reviewed and revised to incorporate the effective use of digital tools and resources in various subject areas. This might involve developing digital learning modules, incorporating blended learning approaches, and training teacher educators on how to design and deliver technology-enhanced lessons. Collaboration and partnerships are crucial for leveraging expertise and resources. This includes fostering partnerships between government agencies, educational institutions, technology providers, non-governmental organizations, and even international development partners. Collaborations can facilitate knowledge sharing, access to funding, and the development of locally relevant solutions. For example, partnerships with local tech companies could provide valuable support in terms of training, technical support, and the development of localized digital content (Enemuo & Momoh, 2022).

A pragmatic approach that emphasizes pilot projects and gradual implementation is also recommended. Instead of a wholesale rollout across all institutions simultaneously, starting with pilot projects in selected teacher education institutions can allow for testing different technologies, identifying best practices, and addressing challenges in a controlled environment. Lessons learned from these pilot projects can then inform the broader implementation strategy. Finally, establishing robust monitoring and evaluation mechanisms is vital for ensuring the effectiveness and sustainability of smart classroom initiatives. Regular assessments of the impact of these technologies on teacher education practices and student outcomes are necessary to identify areas for improvement and make informed decisions. This data-driven approach will help ensure that investments are yielding the desired results and that the implementation process is continuously refined. Effective smart classroom integration in Nigerian teacher education requires a concerted effort across multiple fronts.

The way forward

Having traversed the landscape of the imperative for smart classrooms in Nigerian teacher education, acknowledged the significant challenges that lie in its path, and explored potential pathways for effective implementation, it is crucial to articulate the way forward with clarity and conviction. The central argument of this paper remains steadfast: the integration of smart classroom technologies is not merely a desirable option but an essential and transformative imperative for reshaping teacher education in Nigeria. As earlier discussed somewhere in this paper, the traditional methods of preparing educators are increasingly inadequate in a world rapidly being shaped by technological advancements. To equip future teachers with the skills and pedagogical approaches necessary to thrive in the 21st-century classroom, embracing smart classroom technologies is no longer a choice but a necessity. These tools offer the potential to modernize teaching practices, enhance student engagement, and provide access to a wealth of educational resources, ultimately contributing to a higher quality of education for all.

However, the journey towards this technologically empowered future is not without its hurdles. We have acknowledged the critical challenges related to infrastructure, teacher training, financial constraints, and the need to address potential resistance to change. These obstacles are real and must be confronted with strategic planning and dedicated effort. Simply wishing for a technological transformation will not suffice; a pragmatic and context-specific approach is required. The pathways outlined in this paper (focusing on robust policy, infrastructure development, targeted training, curriculum reform, collaboration, phased implementation, and rigorous evaluation) offer a roadmap for navigating these challenges. Implementing these strategies will require a concerted effort from various stakeholders, including government at both federal and state levels, educational institutions, technology providers, and the educators themselves. It demands a shared vision and a commitment to investing in the future of education.

The time for incremental change is past. The digital revolution is upon us, and Nigeria cannot afford to be left behind. The integration of smart classrooms in teacher education is not just about adopting new gadgets; it is about fostering a culture of innovation, empowering educators, and ultimately, empowering the next generation of Nigerian educates. Therefore, the way forward demands a decisive and collaborative call to action. We urge the government and relevant educational authorities to prioritize the development and implementation of comprehensive smart classroom integration strategies. We call upon teacher training institutions to embrace this paradigm shift, actively seeking out training and resources to equip their faculty and students with the necessary skills. This study encourages technology providers to develop affordable and contextually relevant solutions that meet the specific needs of the Nigerian educational landscape.

CONCLUSION

The journey towards reshaping Nigerian teacher education through the smart classroom imperative is a significant undertaking, but one that holds immense promise. By acknowledging the challenges, embracing the proposed pathways, and fostering a collaborative spirit, we can unlock the transformative potential of technology to elevate the quality of teacher training across Nigeria. The future of education in our nation, and the future of our children, depends on our collective commitment to embracing this vital and necessary change. Let us move forward with determination and vision, ensuring that the educators of today and tomorrow are equipped to inspire and empower the next generation of Nigerian leaders and innovators.

REFERENCES

- Adegoke, K. O., & Olatunji, O. (2019). Digital divide and the future of Nigerian teacher education. *Journal of Education and Digital Technology*, 4(1), 43-58.
- Akinbola, A. O., & Akinbami, B. (2020). Technology-driven teacher education: the need for smart classrooms in Nigeria. *International Journal of Educational Development*, 76, 102243.
- Akinlua, T., & Olatunde, O. (2020). Integrating technology into Nigerian educational system for improved teacher effectiveness. *International Journal of Educational Technology*, 6(3), 45-62.
- Amadi, C. A., & Udo, E. (2023). Transforming teacher education in Nigeria: the smart classroom pathway. *Educational Technology Insights*, 15(1), 110-125.
- Awofala, A. O. (2019). Enhancing teacher education in Nigeria: The role of e-learning and smart classrooms. *Journal of Teacher Education and Practice*, 7(1), 134-149.
- Brown, L. (2020). *The future of education in Africa*. University Press.
- Dafiaghor, C., Bonga, F.E. & Ireyefoju, P.J (2023). Politics of quality education, teacher recruitment, retention and development in contemporary Niger Delta Region. *Niger Delta Journal of Education*. 15(1), 75-84.
- Dike, V., & Nwosu, C. (2020). Smart classroom technology and its impact on Nigerian teacher education. *Journal of Contemporary Educational Technology*, 12(2), 123-137.
- Enemuo, C. P. & Momoh, D. (2022). The place of digital-quality education in developing nations' human capital. *Nigerian Journal of Educational Philosophy*, 33(1), 23-35.
- Ertmer, P. A., & Ottenbreit-Leftwich, A. T. (2010). Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of Research on Technology in Education*, 42(3), 255-284.
<https://doi.org/10.1080/15391523.2010.10782551>
- Eze, S. N., & Chijioke, I. N. (2021). Challenges facing the implementation of smart classrooms in Nigerian secondary schools. *Nigerian Journal of Education Technology*, 16(2), 78-92.
- Federal Republic of Nigeria (2014). *National policy on education*. NERDC.
- Ijeoma, U. et al. (2021). Teachers' perceptions of smart classroom integration in Nigeria. *International Journal of Educational Innovation*, 8(1), 89-104.
- Nwogu, A. I. (2018). Challenges facing the adoption of smart classroom technologies in Nigeria. *Global Education Review*, 5(2), 34-49.
- Obioma, N. I. (2022). Overcoming challenges in implementing smart classrooms in Nigeria: strategies and pathways. *African Journal of Educational Planning*, 8(3), 150-165.
- Ojo, E., & Bolaji, O. (2022). Policy frameworks for applying smart classroom technologies in Nigeria's teacher education. *Nigerian Journal of Policy Studies*, 10(1), 59-75.
- Ojo, S., & Olaleye, S. (2019). Pathways to reshape Nigerian teacher education for the 21st century. *Journal of Education and Practice*, 10(17), 91-100.
- Okonkwo, P. (2023). Smart classrooms in the Nigerian context. In M. N. Eze & S. T. Umoh (Eds.), *Technology and pedagogy in Africa* (pp. 112-135). African Publishing House.
- Oladipo, S. O. (2018). Reforming teacher training in Nigeria: embracing digital technology. *African Journal of Educational Research*, 32(4), 221-234.
- Omatseye, B.O.J. & Ireyefoju, P.J. (2007). Information communication technology (ICT) in the Nigerian teacher education programme: challenges and prospects. *Journal of Technology and Education in Nigeria (JOTEN)*. 12(2), 43-51.
- Oyeleke, M. O., & Akanbi, I. (2020). Reshaping Nigerian teacher education programmes through smart technologies. *Curriculum Journal*, 31(2), 212-228.

- Smith, J., Jones, K., & Adeyemi, O. (2022). Integrating technology in teacher training: Challenges and opportunities in developing countries. *Journal of Educational Technology*, 15(2), 45-62.
- Uzundu, I., & Edochie, E. (2021). Challenges and opportunities of smart classrooms in Nigeria. *Journal of Educational Research and Practice*, 11(2), 67-84.



**ARTIFICIAL INTELLIGENCE AS A CATALYST FOR CURRICULUM
INTEGRATION AND SUSTAINABLE EDUCATIONAL DEVELOPMENT IN
NIGERIA**

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ABSTRACT

This study examined Artificial Intelligence as a catalyst for curriculum integration and sustainable educational development in Nigeria. The study was motivated by the increasing need to leverage emerging technologies to enhance curriculum delivery, teaching effectiveness, and educational sustainability. Specifically, the study investigated the extent to which Artificial Intelligence enhances curriculum integration, influences teaching and learning effectiveness, and contributes to sustainable educational development in Nigeria. A descriptive survey research design was adopted. The population comprised 850 respondents, including teachers, curriculum specialists, school administrators, and senior secondary school students from public secondary schools across Nigeria, while a sample of 200 respondents was selected through stratified and simple random sampling techniques. Data were collected using the Artificial Intelligence and Sustainable Educational Development Questionnaire (AISEDQ) and analysed using Mean and Standard Deviation. Findings revealed a low extent of AI infrastructure availability and utilization for curriculum integration and teaching effectiveness, but respondents acknowledged the significant contribution of AI and digital learning resources to sustainable educational development. The study concluded that increased investment in AI infrastructure and capacity building is essential for educational transformation in Nigeria.

Keywords: Artificial Intelligence, Curriculum Integration, Sustainable Development, Educational Innovation, Teaching Effectiveness, Nigeria.

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INTRODUCTION

The twenty-first century has witnessed unprecedented technological advancements that continue to reshape social, economic, political, and educational systems across the globe. Among these innovations, Artificial Intelligence (AI) has emerged as one of the most influential technologies driving transformation in contemporary societies. AI refers to the capability of computer systems and intelligent machines to perform tasks that traditionally require human intelligence, including learning, reasoning, problem-solving, decision-making, language processing, and pattern recognition. Within the educational sector, AI is increasingly being recognized as a powerful catalyst for innovation, offering new possibilities for enhancing teaching, learning, curriculum development, assessment practices, and institutional management. As educational systems strive to meet the demands of rapidly

evolving knowledge economies, AI has become an essential tool for improving educational quality, accessibility, efficiency, and sustainability (Selwyn, 2023).

Globally, educational institutions are integrating AI technologies into various aspects of curriculum design and instructional delivery to address emerging educational challenges and prepare learners for the realities of the Fourth Industrial Revolution. The increasing adoption of intelligent tutoring systems, adaptive learning platforms, learning analytics, automated assessment tools, virtual learning assistants, and generative AI technologies has transformed traditional approaches to education. These innovations facilitate personalized learning experiences, support differentiated instruction, provide immediate feedback, and enable data-driven educational decision-making. According to UNESCO (2025), AI has the potential to revolutionize educational systems by improving learning outcomes, strengthening teacher effectiveness, and promoting equitable access to quality education.

Curriculum integration has become a central focus of educational reforms worldwide as nations seek to develop learners who possess the knowledge, skills, competencies, and dispositions required for success in increasingly complex and technology-driven societies. Curriculum integration involves the systematic incorporation of interdisciplinary knowledge, innovative pedagogical approaches, emerging technologies, and real-world problem-solving experiences into educational programmes. The integration of AI within educational curricula provides opportunities for creating dynamic, flexible, and learner-centred educational environments capable of responding to diverse learning needs. Olatunde-Aiyedun (2024) noted that AI integration enhances curriculum implementation by supporting personalized learning pathways, improving student engagement, facilitating instructional innovation, and strengthening educational effectiveness.

The growing influence of the digital economy has further intensified the need for educational systems to develop human capital capable of thriving in technologically advanced workplaces. Employers increasingly demand competencies such as critical thinking, creativity, digital literacy, collaboration, computational thinking, and problem-solving abilities. Consequently, educational institutions are under pressure to redesign curricula that align with contemporary workforce requirements and global development priorities. Holmes (2024) argued that AI-driven educational innovation enables schools and universities to bridge the gap between traditional educational practices and the emerging skills demanded by modern economies.

Furthermore, the concept of sustainable educational development has gained significant attention among policymakers, educators, and international development organizations. Sustainable educational development refers to the establishment of educational systems that effectively address current learning needs while ensuring long-term educational quality, inclusiveness, resilience, and relevance for future generations. The attainment of Sustainable Development Goal Four (SDG 4), which seeks to ensure inclusive and equitable quality education for all, requires innovative approaches capable of addressing persistent educational challenges. AI offers considerable potential in this regard through improved educational planning, resource optimization, learner support systems, educational monitoring, and institutional effectiveness (World Bank, 2024).

The application of AI in education extends beyond classroom instruction to encompass educational administration, policy implementation, curriculum evaluation, learner assessment, and strategic planning. Through machine learning algorithms and predictive analytics, educational institutions can identify learning gaps, monitor student progress, forecast educational trends, and make evidence-based decisions. Cukurova (2024)

emphasized that the integration of AI with learning analytics creates opportunities for hybrid intelligence systems that enhance collaboration between educators and intelligent technologies, thereby improving educational outcomes.

The role of AI in promoting educational sustainability has become increasingly evident in recent years. AI technologies contribute to sustainable educational development by facilitating efficient resource utilization, expanding access to learning opportunities, supporting lifelong learning, enhancing educational resilience, and improving institutional adaptability. Ndarake (2024) observed that AI innovations enable educational institutions to respond effectively to emerging challenges while fostering continuous improvement and sustainable growth. Similarly, Kamalov (2023) maintained that AI represents a multifaceted educational revolution capable of transforming teaching and learning processes while promoting sustainable development objectives.

In the Nigerian context, educational stakeholders have increasingly recognized the transformative potential of AI for addressing longstanding challenges within the educational sector. The Nigerian educational system continues to face issues such as inadequate infrastructure, limited access to quality educational resources, teacher shortages, overcrowded classrooms, curriculum implementation challenges, and disparities in educational opportunities. These challenges have heightened the need for innovative solutions capable of improving educational quality and promoting sustainable development. Ndalun (2025) asserted that AI-driven educational management practices can significantly enhance institutional effectiveness, accountability, and educational sustainability in Nigeria.

Despite growing awareness of AI's benefits, the integration of AI technologies into Nigerian educational institutions remains relatively limited. Many schools and universities continue to encounter barriers such as insufficient technological infrastructure, inadequate teacher preparedness, limited funding, policy uncertainties, digital literacy challenges, and ethical concerns surrounding AI implementation. UNESCO (2024) emphasized that effective AI integration requires comprehensive teacher competencies, supportive policy frameworks, adequate infrastructure, and continuous professional development initiatives.

Recent global developments in generative AI have further expanded opportunities for curriculum transformation and educational innovation. AI-powered tools can support curriculum planning, instructional design, content creation, formative assessment, learner support, and professional development for educators. Luckin (2024) argued that personalized AI-driven learning systems have the capacity to transform educational experiences by adapting instruction to individual learner needs, preferences, and learning styles. Such innovations are particularly relevant for developing countries seeking to improve educational quality while addressing resource constraints.

Moreover, discussions surrounding ethical AI implementation have become increasingly important within educational contexts. Concerns relating to data privacy, algorithmic bias, transparency, accountability, and equitable access require careful consideration during AI adoption processes. Adediji (2025) emphasized the importance of culturally responsive and ethically grounded AI frameworks capable of supporting educational transformation while safeguarding learners' rights and promoting inclusivity.

As Nigeria continues its pursuit of educational transformation and sustainable national development, the strategic integration of AI into curriculum planning, implementation, and evaluation may provide significant opportunities for strengthening educational systems. However, empirical evidence regarding the extent to which AI serves as a catalyst for curriculum integration and sustainable educational development remains limited within the

Nigerian context. Therefore, this study seeks to examine Artificial Intelligence as a catalyst for curriculum integration and sustainable educational development in Nigeria.

Statement of the Problem

Education remains a fundamental instrument for national development, social transformation, economic growth, and human capital development. However, despite numerous educational reforms and policy interventions introduced by successive governments, Selwyn, (2023), reported that the Nigerian educational system continues to face significant challenges relating to curriculum implementation, instructional effectiveness, educational quality, learner engagement, and sustainable development. Traditional educational practices often emphasize teacher-centred instruction and standardized approaches that may not adequately address the diverse learning needs, abilities, and aspirations of contemporary learners. As a result, many students graduate without the critical competencies, digital skills, and innovative capacities required to thrive in today's knowledge-based and technology-driven global economy.

The rapid advancement of digital technologies has transformed educational systems worldwide, creating opportunities for more effective curriculum delivery, personalized learning, data-driven decision-making, and enhanced educational outcomes. Olatunde-Aiyedun, (2024), emphasized that Artificial Intelligence has emerged as a powerful tool capable of supporting educational innovation through intelligent learning systems, adaptive instructional platforms, automated assessment mechanisms, and predictive analytics. Despite these opportunities, the integration of AI into Nigerian educational institutions remains relatively underdeveloped, thereby limiting its potential contribution to curriculum transformation and educational sustainability.

Furthermore, many educational institutions in Nigeria continue to struggle with inadequate infrastructure, limited access to technological resources, insufficient teacher capacity, ineffective monitoring systems, and challenges associated with educational planning and resource allocation. These limitations negatively affect curriculum implementation and reduce the ability of educational institutions to respond effectively to emerging educational demands. The inability to leverage AI technologies for educational management, curriculum enhancement, and instructional improvement may further widen the gap between Nigeria's educational system and global best practices (Ndal, 2025).

In addition, achieving sustainable educational development requires educational systems that are resilient, innovative, inclusive, efficient, and responsive to changing societal needs. However, concerns regarding educational access, quality assurance, institutional effectiveness, and long-term sustainability continue to persist across various levels of education in Nigeria. The limited adoption of AI-driven solutions may constrain opportunities for improving educational efficiency, expanding learning opportunities, and strengthening educational outcomes necessary for sustainable development (Uriri, 2025).

Although scholars and international organizations have highlighted the transformative potential of AI in education, there remains insufficient empirical evidence regarding its effectiveness as a catalyst for curriculum integration and sustainable educational development within the Nigerian educational context. Consequently, the problem of this study is to determine the extent to which Artificial Intelligence can facilitate curriculum integration, enhance teaching and learning effectiveness, and promote sustainable educational development in Nigeria.

Purpose of the Study

The main purpose of this study is to examine Artificial Intelligence as a catalyst for curriculum integration and sustainable educational development in Nigeria. Specifically, the study seeks to:

1. Determine the extent to which Artificial Intelligence enhances curriculum integration in Nigerian educational institutions.
2. Examine the influence of Artificial Intelligence on teaching and learning effectiveness in Nigerian educational institutions.
3. Assess the contribution of Artificial Intelligence to sustainable educational development in Nigeria.

Research Questions

The following research questions guided the study:

1. To what extent does Artificial Intelligence enhance curriculum integration in Nigerian educational institutions?
2. How does Artificial Intelligence influence teaching and learning effectiveness in Nigerian educational institutions?
3. What contribution does Artificial Intelligence make to sustainable educational development in Nigeria?

METHODOLOGY

This study adopted a descriptive survey research design to examine Artificial Intelligence as a catalyst for curriculum integration and sustainable educational development in Nigeria. The study population comprised 850 respondents, including teachers, curriculum specialists, senior secondary school students and school administrators selected from public secondary schools across Nigeria. A sample of 200 respondents was drawn using stratified and simple random sampling techniques to ensure adequate representation of the target population.

Data were collected using a researcher-developed instrument titled *Artificial Intelligence and Sustainable Educational Development Questionnaire (AISEDQ)*, which was designed in accordance with the study's objectives and research questions. The collected data were analysed using Mean and Standard Deviation statistics to answer the research questions and assess respondents' perceptions regarding the role of Artificial Intelligence in promoting curriculum integration and sustainable educational development in Nigeria.

RESULT

Research Question 1: To what extent does Artificial Intelligence enhance curriculum integration in Nigerian educational institutions?

Table 1: Mean and Standard Deviation on the extent Artificial Intelligence enhance curriculum integration in Nigerian educational institutions (n = 200)

SN	Item Statements	$\bar{x}$	SD	Dec
1	Computers are available for student use in my school.	2.01	0.85	LE
2	The school has a functional computer laboratory.	2.09	0.90	LE
3	Internet access is available within the school premises.	2.07	0.86	LE
4	Digital projectors are available for classroom teaching.	2.08	0.87	LE
5	Educational software relevant to my subjects is available.	1.88	0.87	LE
6	The school provides access to online learning platforms.	2.06	0.85	LE
7	Tablets or laptops are provided for students' learning.	2.06	0.92	LE
8	The school library has digital learning materials (e-books, CDs, etc.).	2.02	0.89	LE
9	Teachers have access to digital instructional tools.	2.10	0.88	LE
10	There is a stable electricity supply to support digital learning resources.	2.08	0.94	LE
Cluster Mean		2.04	0.54	LE

Table 1 shows the respondents' perceptions of the extent to which Artificial Intelligence enhances curriculum integration in Nigerian educational institutions. The mean scores for all the items ranged from 1.88 to 2.10, which are below the criterion mean, indicating Low Extent (LE) across all indicators. The cluster mean of 2.04 with a standard deviation of 0.54 further reveals that respondents generally perceived the availability of AI-related infrastructure and digital resources necessary for curriculum integration to be low. This implies that inadequate access to computers, internet facilities, digital instructional tools, educational software, and stable electricity supply limits the effective integration of Artificial Intelligence into the curriculum of Nigerian educational institutions.

Research Question 2: How does Artificial Intelligence influence teaching and learning effectiveness in Nigerian educational institutions?

Table 2: Mean and Standard Deviation on how Artificial Intelligence influence teaching and learning effectiveness in Nigerian educational institutions (n = 200)

SN	Item Statements	$\bar{x}$	SD	Dec
1	I use computers to complete my school assignments.	1.99	0.92	LE
2	I access the internet for academic research regularly.	2.15	0.98	LE
3	I use online platforms (e.g., Google Classroom) for learning.	2.09	0.95	LE
4	I watch educational videos to understand difficult topics.	1.98	0.92	LE
5	I use digital devices (phones, tablets) for studying.	2.13	0.94	LE
6	Teachers use digital tools during lessons.	1.99	0.95	LE
7	I participate in online tests or quizzes.	1.90	0.87	LE
8	I use e-books or digital materials instead of printed textbooks.	2.01	0.99	LE
9	I communicate with teachers or classmates through digital platforms for academic purposes.	2.12	0.99	LE
10	I use educational apps to support my learning.	2.11	1.02	LE
Cluster Mean		2.04	0.44	LE

Table 2 presents respondents' views on how Artificial Intelligence influences teaching and learning effectiveness in Nigerian educational institutions. The mean scores ranged from 1.90 to 2.15, indicating a Low Extent (LE) for all the items assessed. The cluster mean of 2.04 and standard deviation of 0.44 suggest that respondents generally reported low utilization of digital technologies and AI-supported learning tools in their academic activities. This finding implies that students and teachers make limited use of computers, online learning platforms,

digital instructional tools, educational applications, and internet-based learning resources, thereby reducing the potential impact of Artificial Intelligence on teaching and learning effectiveness.

Research Question 3: What contribution does Artificial Intelligence make to sustainable educational development in Nigeria?

Table 3: Mean and Standard Deviation of the contribution of Artificial Intelligence to sustainable educational development in Nigeria (n = 200)

SN	Item Statements	$\bar{x}$	SD	Dec
1	Digital learning resources improve my understanding of subjects.	2.93	1.07	A
2	Using digital tools helps me perform better in examinations.	3.06	0.93	A
3	Access to online materials enhances my academic achievement.	3.07	0.93	A
4	Digital learning increases my interest in schoolwork.	3.04	0.94	A
5	I learn faster when digital resources are used in teaching.	3.22	0.87	A
6	Digital resources help me complete assignments more effectively.	3.09	0.97	A
7	My grades have improved due to the use of digital learning tools.	2.99	0.99	A
8	Digital learning resources make lessons more engaging.	3.11	0.95	A
9	I retain information better when I use digital learning materials.	3.08	0.96	A
10	The use of digital resources has positively impacted my overall academic performance.	2.92	1.00	A
Cluster Mean		3.04	0.30	A

Table 3 shows respondents' perceptions of the contribution of Artificial Intelligence to sustainable educational development in Nigeria. The mean scores ranged from 2.92 to 3.22, all of which were above the criterion mean and therefore rated as Agree (A). The cluster mean of 3.04 with a standard deviation of 0.30 indicates that respondents generally agreed that Artificial Intelligence and digital learning resources contribute positively to educational development. Specifically, respondents agreed that digital technologies improve understanding of subjects, enhance academic achievement, increase learning interest, facilitate assignment completion, improve information retention, and positively influence overall academic performance. This suggests that although AI infrastructure and utilization remain limited, respondents recognize its significant potential for promoting sustainable educational development in Nigeria.

DISCUSSION

The findings from Research Question One revealed that the extent to which Artificial Intelligence enhances curriculum integration in Nigerian educational institutions is low, as evidenced by the cluster mean of 2.04. This suggests that inadequate technological infrastructure, limited access to digital resources, insufficient internet connectivity, and unstable electricity supply continue to hinder the effective integration of AI into curriculum implementation. The finding supports UNESCO (2024), which emphasized that successful AI integration requires adequate infrastructure and institutional readiness.

The findings from Research Question Two showed that Artificial Intelligence exerts a low influence on teaching and learning effectiveness, with a cluster mean of 2.04. The result indicates that teachers and students make limited use of AI-enabled tools, online learning platforms, digital instructional resources, and educational applications. Consequently, the benefits of AI-driven personalized learning, automated assessment, and enhanced instructional delivery have not been fully realized. This finding aligns with Olatunde-Aiyedun (2024), who noted that insufficient adoption of AI technologies restricts educational innovation and learning effectiveness.

The findings from Research Question Three revealed that Artificial Intelligence contributes significantly to sustainable educational development, with a cluster mean of 3.04. Respondents agreed that digital learning resources improve understanding of subjects, enhance academic achievement, increase learner motivation, and promote better academic performance. This finding corroborates the views of Kamalov (2023) and Ndarake (2024), who asserted that AI possesses considerable potential for improving educational quality, accessibility, efficiency, and sustainability. The result demonstrates that although the current level of AI implementation remains low, stakeholders recognize its transformative capacity for achieving sustainable educational development in Nigeria.

CONCLUSION

This study concludes that Artificial Intelligence possesses significant potential to serve as a catalyst for curriculum integration and sustainable educational development in Nigeria. Although the availability and utilization of AI-related infrastructure and digital learning technologies remain limited across educational institutions, respondents acknowledged the substantial benefits of AI in improving learning outcomes, academic performance, learner engagement, and educational sustainability. Therefore, effective investment in AI infrastructure, teacher capacity development, and supportive educational policies is necessary to maximize the transformative impact of Artificial Intelligence on Nigeria's educational system.

Recommendations

1. Government should increase investment in digital infrastructure, including computers, internet connectivity, educational software, and stable electricity supply to support AI integration in schools.
2. Educational institutions should organize continuous professional development programmes to equip teachers with the competencies required for effective utilization of AI technologies in teaching and learning.
3. Curriculum developers should incorporate AI literacy, digital skills, and emerging technology competencies into school curricula to prepare learners for the demands of the digital economy.
4. Educational stakeholders should promote wider access to AI-supported learning platforms, digital resources, and educational applications to enhance instructional effectiveness and learner engagement.
5. Policymakers should develop comprehensive frameworks and guidelines for the ethical, equitable, and sustainable implementation of Artificial Intelligence across all levels of the Nigerian educational system.

REFERENCES

- Adedeji, A. K., Tchakounte, F., & Yusuff, S. O. (2025). *Towards an ethical AI curriculum: A Pan-African culturally contextualized framework for primary and secondary education*.
- Cukurova, M. (2024). The interplay of learning, analytics, and artificial intelligence in education: A vision for hybrid intelligence.
- Elesia, F. O., & Jumbo, J. K. (2025). Integrating artificial intelligence in teaching and learning for sustainable development.
- European Commission. (2024). Ethical guidelines for AI in education.

Holmes, W. (2024). Artificial intelligence and educational innovation.

Kamalov, F., Calong, D. S., & Gurrib, I. (2023). New era of artificial intelligence in education: Towards a sustainable multifaceted revolution.

Knox, J. (2025). Critical perspectives on AI in education.

Luckin, R. (2024). AI and personalized learning.

Ndal, U. J. (2025). Educational management and artificial intelligence for sustainable development in Nigeria.

Ndarake, A. E., Agbor, R. B., Bassey, E. A., & Omoogun, R. (2024). Artificial intelligence innovations for sustainable educational institutions.

OECD. (2024). AI and the future of learning.

Olatunde-Aiyedun, T. G. (2024). Artificial intelligence in education: Integration of AI into science education curriculum in Nigerian universities.

Selwyn, N. (2023). Education and artificial intelligence.

UNESCO. (2024). Artificial intelligence competency framework for teachers.

UNESCO. (2025). Generative AI and the future of education.

UNICEF. (2025). AI readiness in education systems.

Uriri, C. (2025). Integration of artificial intelligence in educational leadership for sustainable development in Nigeria.

Williamson, B. (2024). Artificial intelligence, datafication and educational governance.

World Bank. (2024). Digital transformation and educational development.

Zawacki-Richter, O. (2024). Systematic review of AI applications in education.



THE 9 – YEAR BASIC EDUCATION CURRICULUM IN NIGERIA: RELEVANCE TO ENTREPRENEURSHIP EDUCATION AND UNDERLYING CHALLENGES

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ABSTRACT

This paper examined the relevance of the 9-Year Basic Education Programme in the Universal Basic Education Curriculum (UBEC) to Entrepreneurship Education in Nigeria. The article noted that despite the conspicuous supposed impact of the UBE programme on entrepreneurship education in the nation, what is obtainable as being a practice programme is far from reality in its contribution to entrepreneurship education. This sharp difference between content and practice is due to certain observed obstacles bedevilling the effective implementation of the UBE programme as planned or contained in the UBEC. These obstacles, as contained in this paper, include insufficient financial support, undependable and politicized data, contradictory policies and programmes, parents' socio-economic status, lack of subject experts, lack of relevant educational resources, security, and poor educational infrastructure. The paper provided specific means with which stakeholders in the sector can address the identified obstacles to strengthen the effective implementation of the UBE programme and subsequently achieve an efficient foundation for entrepreneurship education in Nigeria.

Key Words: UBE programme, UBEC, Entrepreneurship and Education

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INTRODUCTION

The Universal Basic Education (UBE) programme is the foundation for entrepreneurship skills development among its graduates in Nigeria. The programme has a package for 9-Year Compulsory Basic Education, terminating with a certificate known as the Junior School Certificate (JSC). Subjects such as Basic Science and Technology, Business Studies, Home Economics, Pre-vocational Studies, and Cultural and Creative Arts were equipped with the required curriculum to create a practical foundation for entrepreneurship education through creative, innovative, and practical instructional techniques.

The UBE programme is designed so that its graduates should have acquired the essential technical skills required for entrepreneurship practice and development. The Universal Basic Education curriculum has three fundamental noteworthy concerns influential to the progress of nations worldwide and determining the acquisition of skills necessary.

These concerns are entrepreneurship education, globalization, and Information and Communication Technology (ICT). This compulsory 9-year Universal Basic Education programme provides the opportunity for Learners at this level of education to obtain basic scientific and technical skills for entrepreneurship activation and subsequent through further studies at the senior secondary school and tertiary institutions levels.

The country's desire to conquer emerging challenges in the educational sector and human capital development has resulted in the quest for academic entrepreneurship development. The New Basic Education Curriculum (BEC) is designed to achieve the foundation of entrepreneurship education in the first nine years of learning. This curriculum aims to establish a contemporary and practical scheme that will guarantee the utmost advancement of the latent abilities of the learners. The desire for effective entrepreneurship education in the learners and endorsement of a comprehension-motivated humanity that should champion Nigeria's advancement is achievable with the effective implementation of BEC. The aptitude to obtain and exploit understanding and expertise effectively is vital to the progress and improvement that should boost the nation to become a robust, dynamic, and globally competitive economy by 2050. Hence, this reviewed structure of the New Basic Education Curriculum (BEC), as stated below, was designed to address capable challenges that could hinder the actualization of effective entrepreneurship education that is the foundation for the nation to develop into a globally competitive economy by 2050.

Reviewed Structure of the New Basic Education Curriculum (BEC)

BEC LEVELS	COMPULSORY SUBJECTS	OPTIONAL SUBJECTS
Lower BEC (Primary 1-3)	1. English Studies 2. Mathematics 3. One major Nigeria Language (Igbo, Yoruba or Hausa) 4. Basic science and Technology 5. Religion and value Education 6. Cultural & Creative Arts 7. Pre vocational studies	1. Arabic 2. Business Studies 3. French
MIDDLE BEC (Primary 4-6)	1. English Studies 2. Mathematics 3. One major Nigeria Language (Igbo, Yoruba or Hausa) 4. Basic science and Technology 5. Religion and value Education 6. Cultural & Creative Arts 7. Pre vocational studies 8. French Language	1. Arabic 2. Business Studies
UPPER BEC (JSS1-3)	1. English Studies 2. Mathematics 3. One major Nigeria Language (Igbo, Yoruba or Hausa) 4. Basic science and Technology 5. Religion and value Education 6. Cultural & Creative Arts 7. Pre vocational studies 8. French Language 9. Business studies	1. Arabic

Source: FGN (*The New Educational Curriculum in Nigeria*)

Education and Entrepreneurship

A determined and practical educational system can relate to the environmental challenges of the learners and also promote possible solutions to the identified challenges. Teaching and learning activities, as contained in the UBEC in Nigeria, are designed to make education at the primary level to encourage learners to access and acquire basic entrepreneurship orientation and skills that the learners could subsequently develop. It is the intent of the UBE designer that when students write their final year examination, the pupils should be able to relate their skills as graduates of the 9-Year Universal Basic Education Programme. The acquired relevant skills should make them to be self-reliant as desired. Suppose this is carefully considered and implemented as required. In that case, graduates of the UBE programme should have led to the production of several young entrepreneurs and job creators, thereby reducing unemployment and other crimes bedevilling our nation Nigeria. The UBE programme is the foundation of entrepreneurship education in Nigeria. It requires all the support it can get to be relevant as designed and flourish in promoting skills acquisition and job creation to place the nation at its desired level come 2050. If entrepreneurship education is not gotten correctly at the UBE level of teaching and learning, striving to get it done at the Senior Secondary Schools and Tertiary Institutions could be a mirage as being experienced in our nation, Nigeria. As a developing nation, there is a need to get an education as it concerns entrepreneurship education right to develop required skills and the nation's self-reliance advancement. The core aim of any well-designed education programme is to ensure applicable graduates can utilize acquired skills and comprehension to become self-reliant. The practical implementation of the UBEC should be able to produce graduates in these entrepreneurship skills, including carpentry, plumbing, bricklaying, mechanical device repairs, electrical device repairs, comedy actors, hairdressing, soap and detergent making, candle and match-stick production, and various farming skills, etc. Though they may not have obtained competency status in these skills, the required basic comprehension to ensure their competency status is guaranteed. These are skills desirable in every enterprise, including the oil and gas sector, even now that the nation is looking inward concerning the manufacturing of parts and equipment used in the oil and gas industry. Suppose stakeholders in our UBE sectors, including the governments and non-governmental agencies, decide to focus and implement a functional UBE with the aid of the 9-Year Universal Basic Education Curriculum. In that case, the future of entrepreneurship education will be confident with its attendance reimbursement.

Obstacle to Entrepreneurship Education at UBE Level.

The New Basic Education Curriculum is a well-considered document in which the curriculum planners have involved all stakeholders as required in its design. However, the challenge of its practical implementation to actualize its intended desire remains the concern of every citizenry due to certain obstacles, as observed in this article, as explained below.

Insufficient Financial Support

The UBE Act 2004 provided three means of financial support for the implementation of the Universal Basic Education Curriculum (UBEC), and they include the Federal Government, State Governments, and Local Governments through relevant agencies. Despite these provisions for its funding, its implementation is inadequate in establishing the foundation for entrepreneurship education in the country. This funding issue is a big obstacle because every other challenge depends on fund availability to carry out its participatory role in making the programme a success. The Universal Basic Education Commission policy

states that states should provide a 50% percent counterpart fund to access the UBE corresponding fund. This funding issue has been challenging for certain conditions, either due to a lack of political will or poor budgetary allocation for the educational sector. Consequently, Aboluwodi (2015) stated that insufficient funding is a significant obstacle bedevilling the efficient implementation of the UBE programme, and Abayomi (2012) observed that Nigeria as a nation is not making provision for adequate funding for education since its budgetary allocation is not commensurable to the 26% advocated UNESCO.

Undependable and Politicized Data

The issue of undependable and politicization of data for whatever reason has yet to be helpful in the planning and implementation of UBEC to facilitate the promotion of effective entrepreneurship education in the country. According to Yusuf and Alabi, 2013, the observed data gap in the UBE programme is a vital concern as it harms the practical implementation of the scheme. The issue of undependable data resulting majorly from the politicization of educational data through published census figures and technically faulty data collection processes adopted over the years has undoubtedly been dangerous to the efficient planning and implementation of the UBE programme in Nigeria. Centre for Public Impact (2017) observed that the generalization approach to relevant data collection and comprehension for preparation in the nation needs to be revised. Consequently, UNESCO, 2015 in the Education Review of Nigeria, observed this challenge of data generation as one of the main obstacles to achieving progress in the UBE programme as it negatively impacted the foundation of entrepreneurship education in Nigeria.

Contradictory Policies and Programmes

Successive governments at all levels in the country may have also constituted an undeniable impediment to the continuity of the UBE programme with varying educational reform programmes. Despite these changing educational reform programmes, the concept of UBE in Nigeria indeed remained sacrosanct, but with no improved implementation policy guidelines to ensure efficient entrepreneurship education in the nation, thereby contributing to the unemployment rate, crime, and other forms of social nuisances. According to the Centre for Public Impact (2017), political will is the sustenance of required enthusiasm by political and administrative stakeholders to devote resources to achieve specific objectives and the ability to implement policies and programmes of government. For example, political and administrative stakeholders of the UBE programme have followed the likes of Chief Obafemi Owolowo in emphasizing the relevance of primary education, governance, and its actions wouldn't have been an obstacle to the effective implementation of the UBE programme. The observed deficient in the political will as a manifestation of certain governors' negative response to the provision of their counterpart funding to ensure access to the Federal UBE funds meant for their states as an obstacle to the programme and consequently on the foundation of entrepreneurship education in Nigeria as contained in the UBE Curriculum.

Parents Socio-Economic Status

Every educational system in the world requires the participation of parents or guardians in the provision of specific tools or materials for their wards to learn effectively. The 9-3-4 education system presently practiced in Nigeria does not differ from this process of parent or guardian involvement in ensuring effective learning in the school system. In a situation where the parents' or guardians' socio-economic status prevents them from making such provision for their wards, it will become an impediment to that child's effective learning in school and

consequently affect the promotion of entrepreneurship education negatively in the nation. According to Vanguard Newspaper of 21st October 2022, despite stakeholders' efforts, noticeable Nigerian children are plummeting out of school. In harmony with the latest data from the United Nations Educational, Scientific, and Cultural Organisation, UNESCO, the number of out-of-school children is about 20 million. This obstacle is due to poverty, among other factors constituting obstacles to the effective implementation of the UBE programme and the foundation of entrepreneurship education in Nigeria.

Lack of Subject Experts

The lack of relevant subjects' experts is also an alarming obstacle facing the implementation of the UBEC in the nation to the learners. The issue of getting the relevant subject's experts for employment as also remained a challenge, since most recruitment exercise done by the UBE Commission ends up recruiting the unqualified persons for the task. This has unfortunately, affected the smooth implementation of the programme, thereby frustrating governments efforts in getting entrepreneurship education right at the basic education level. The eventual employment non-subjects' experts to instruct subjects that requires expert, will definitely affect the learners acquisition process negatively and contribute to the non-achievement of the programmes objectives as it concerns entrepreneurship education in the nation. Due to the relevance of the UBE programme in building an educational system with little or no school dropout and subsequent advancement of technologically required manpower for nation's building, all components needed for the successful implementation of the programme should be adequately made available and functioning.

Lack of Relevant Educational Resources

The unavailability and poor status of educational resources required for effective teaching and learning are alarming and require urgent intervention for the programme to succeed and ensure effective entrepreneurship education in Nigeria. These are resources designed to provide services in assisting instructors and learners in the UBE programme. They include other classroom and instructional facilities, including desks, tables, blackboard, chalk, marker, pictures, charts, etc., which are inadequate or unavailable to carry out meaningful teaching and learning and are prevalent obstacles hindering the effective implementation of entrepreneurship education at the UBE level.

Insecurity

The status insecurity against educational institutions, mainly in the Northern Region of Nigeria, is very problematic. This situation has adversely affected the number of school dropouts among school-aged children in that region. The materialization of Boko Haram in the 2000s has led to the shutting down of most UBE schools in the northeastern part of Nigeria. The UBE programme in this region is passing through a major obstacle due to insecurity championed by Boko Haram and other insurgent groups, resulting in making access to UBE schools a frightening situation. On the other hand, the latest wave of the mass abduction of UBE school pupils has a questionable existing danger and disaster to the UBE programme. According to Akali (2021), in less than three months between December 2020 and March 2021, more than 600 children have been kidnapped while in school, in three separate incidents. The situation turns out to be further troublesome as a result of the fact that the heightened insecurity is predominant in northern Nigeria, which is already the most educationally disadvantaged region in the nation. Akali (2021) stated that out of the estimated

10.5 million out-of-school children in the country, 69% are from the north, where cultural practices and economic deprivation limit children's active attendance in UBE Schools, especially females. The insecurity situation created by Boko Haram and other insurgent groups has incapacitating effects on the UBE programme and, consequently, the foundation of entrepreneurship education. Additionally, with the wave of fresh school children abduction and poor trust of the community, guardians and parents in the UBE programme could get smaller considerably, and the difficulty of accessing excellence and reasonable UBE programme might to an optical illusion.

Poor Educational Infrastructure

Entrepreneurship education requires adequate and relevant functional educational infrastructure to accomplish its mandate. In the words of Atakpa, 2016 the deplorable or complete absence of infrastructural facilities has contributed to the poor development of entrepreneurship education in Nigeria. The obstacle of inadequate educational facilities for the implementation of functional entrepreneurship education at the UBE level of education in Nigeria is alarming and frustrating the attainment of the mandate of the foundation of entrepreneurship education in the nation. These infrastructures include but are not limited to libraries, school buildings, and laboratories. Providing these in the quality and quantity required has a direct and positive impact on learners' achievement and staff enthusiasm. Humphrey and Crawford (2015) stated that regardless of the enormous amount of money allocated to UBE in Nigeria, the scheme's infrastructure needs to be adequate for most UBE schools. Business Day Nigeria Online (August 30, 2017) expressed grief concerning the days of inadequate investment in the UBE schools' infrastructure, which has resulted in the affected schools where learners acquire knowledge and skills for entrepreneurship education in a miserable state in Nigeria. The lack of well-equipped workshops and laboratories for teachers and students to utilize is a serious concern that requires urgent attention by all stakeholders. Equally, several other scholars have insisted that inadequate facilities and equipment for teaching and learning in practical-related courses was the reason why entrepreneurship education has not been able to record a significant impact in Nigeria's industrialization drive and reduction of unemployment and its youths and ensure job creation (Amadi & Amakodi, 2019; Offorma, Egbe & Eze, 2012). So, effectively tackling the menace of poor educational infrastructure at the UBE level of education will ensure the effective implementation of the UBEC to achieve the mandate of entrepreneurship education in our nation, Nigeria.

The Advancement of UBE and Entrepreneurship Education

The advancement of the UBE programme from its present status and consequently sustaining entrepreneurship education in Nigeria as required must result in addressing the above-identified obstacles in such a way that there could be an effective delivery of the UBE programme and provides scaffolding impact on the foundation of entrepreneurship education. These obstacles' as identified includes, include insufficient financial support, undependable and politicized data, contradictory policies and programmes, parents' socio-economic status, lack of subject experts, lack of relevant educational resources, security, and poor educational infrastructure.

Government stakeholders can efficiently address the obstacle of insufficient financial support to make adequate budgetary provisions in a way that is commensurable to what is being advocated by UNESCO. Administrators of the UBE programme should be equipped with the required knowledge to judiciously utilize available funds to ensure the achievement

of the mandate of the UBE programme and guarantee an efficient foundation for entrepreneurship education in the nation.

The undependable and politicization of data for whatever reason has yet to be helpful in the planning and implementing UBEC to promote effective entrepreneurship education in the country, and stakeholders should avoid it. Henceforth stakeholders and administrators of the UBE programme carry out thorough research to retrieve correct data from communities where the UBE schools are located and not to rely on published census figures that have already been politicized and undependable. This approach is likely to result in dependable data for effective planning and execution of UBEC to achieve progress in the UBE programme and the foundation of entrepreneurship education in Nigeria.

Successive governments at all levels should ensure the continuity of measures that are impactful to the implementation of the UBE programme positively. Educational reform programmes, should not result from regime issues but should be championed towards programme or project delivery in Nigeria. There shouldn't be an alteration of the existing educational programme just to be identified with the political regime. Stakeholders and administrators of the UBE programme should imbibe the culture of emphasizing the relevance of UBE and ensure its efficient implementation to achieve entrepreneurship education in the country.

As a nation, the UBE Act of 2014 has made it mandatory for every child of school age to receive the 9-year compulsory education terminating with the award of a Junior School Certificate (JSC). Governments at all levels should live up to the expectations of the act to avoid placing any form of the financial burden on parents or guardians to prevent their status from becoming an obstacle to the efficient implementation of the UBE programme. Parents and guardians must ensure their school-aged children are not allowed to be perambulating the streets or working as child labour, especially during school hours. This measure could address the issue of out-of-school drastically and have a positive impact on the practical implementation of the UBE programme and the foundation of entrepreneurship education in Nigeria.

The minimum qualification of NCE holders to be recruited as subject teachers should be strictly followed. Performance at recruitment aptitude and subsequent interview panel should decide the employment of subject expert for the programme. The issue of subject expert engagement should not be used for political settlement whereby only applicants with access to political actors would be employed, undermining an efficient recruitment process that will ensure UBE administrators hire the best hands for the job. Administrators of the UBE programme can liaise with respective colleges of Education and Faculties of Education in respective universities in the country to get graduating subject experts for employment to achieve the successful implementation of the programme and efficient entrepreneurship education.

Administrators of the UBE programme should be veteran educationists capable of identifying and providing efficient educational resources required for effective teaching and learning. The administrators should provide these resources as the UBEC stipulates to facilitate teaching and learning as designed. Administrators should avoid at all times the issue of inadequacy or non-availability of the educational resources necessary to carry out meaningful teaching and learning and ensure the effective implementation of entrepreneurship education at the UBE level.

Governments at all levels should work in effective modalities with the various security agencies in the country to ensure an effective security system that will provide the safety of lives and properties in Nigeria. The security votes usually made available should be judiciously used to equip the security agencies with modern security apparatus to effectively carry out their duties and provide adequate security for the UBE schools. It is not out of place for governments at all levels to investigate the real cause of prevailing insurgent groups, address the root cause of insecurity, and find a lasting solution to this menace bedevilling the nation's educational sector and, by extension, its economy.

It is the duty of governments at all levels to provide relevant educational infrastructure to support the efficient implementation of entrepreneurship education as stipulated in the UBE Act of 2014. There shouldn't be any deplorable or complete absence of infrastructural facilities to facilitate efficient entrepreneurship education in Nigeria. The UBE schools should be well equipped with modern workshops and laboratories for teachers and students to utilize to acquire the required knowledge and skills for entrepreneurship education development. Stakeholders of the UBE programme should ensure that the poor educational infrastructure at the UBE level of education is a thing of the past for the effective implementation of the UBEC to achieve the mandate of entrepreneurship education in our nation, Nigeria.

CONCLUSION

The UBE programme, as being implemented in Nigeria, is observed to be far from achieving its mandatory objective of removing school-age children from the streets to the classroom, thereby reducing the number of school children in the nation. Governments at all levels are exercising lip services to implement the UBE programme in UBEC effectively and consequently frustrating efficient entrepreneurship education in the country. Certain obstacles were pragmatic to the poor implementation of the 9-year UBE programme, and these obstacles includes insufficient financial support, undependable and politicized data, contradictory policies and programmes, parents' socio-economic status, lack of subject experts, lack of relevant educational resources, security, and poor educational infrastructure. The paper has equally advocated specific measures that should be required to address the identified obstacles and advance the UBE programme as stipulated in UBEC to provide efficient entrepreneurship education in Nigeria.

REFERENCES

- Abayomi, A. (2012). 2012 Education budget and its implications (analysis). Lagos, Nigeria: Vanguard Publication. Retrieved from <http://www.vanguardngr.com/2012/4/2012>.
- Aboluwodi, A. (2015) Political will and strategic planning in the implementation of Universal Basic Education in Nigeria: The Obafemi Awolowo Example. *Journal of Education and Research* 5, (1), 41-55.
- Akali, U. B. (2021). The Effects of Internal Security on Educational Challenges and Development in Nigeria. *African Scholar Journal of African Sustainable Development (JASD-2)* 23 (2) 186-201.
- Amadi, E. A & Amakodi, S. E. (2019). Factors Influencing the Implementation of Entrepreneurship Education in Tertiary Institutions in Rivers State. *Int. J. Innovative Soc. & Sci. Educ. Res.* 7(2): 22-36.
- Business Day Online (2017, August 30). Is Nigeria's UBE succeeding? <https://www.businessdayonline.com/nigerias-ube-succeeding/>

- Centre for Public Impact (2017). Universal Basic Education in Nigeria. <https://www.centreforpublicimpact.org/case-study/universalbasic-education-nigeria/>
- Dairo, A.O & Alo, E.A (2017). Entrepreneurship Education and Youth Empowerment in Nigeria. *CARD International Journal of Educational Research and Management Technology (IJERMT)* Volume 2, Number 1. Page 31-40.
- Humphrey, S & Crawford, L (2015). *Issues of educational access, quality, equity and impact in Nigeria: The EDOREN review of literature on basic education*. Abuja: Evans Publishers Limited.
- Offorma, G. C., Egbe, C. I. & Eze, K. O. (2012). Analysis of entrepreneurial skills acquisition content of language education curricula at the University of Nigeria. *Nigerian Journal of Curriculum Studies*, 19(3), 94-101.
- Vanguard Newspaper Online (2022, October, 21). Out-of-school children hit 20m as poverty, insecurity worsen. <https://www.vanguardngr.com/2022/10/out-of-school-children-hit-20m-as-poverty-insecurity-worsen/>
- UNESCO (2015). Nigeria EFA review report 2000- 2014: Strides and milestones. <http://unesdocunesco.org/images/0023/002310/231081e.pdf>.



**UTILISATION OF ASSISTIVE TECHNOLOGY IN CLASSROOMS OF LEARNERS
WITH SPECIAL NEEDS IN AN INCLUSIVE SETTING IN NIGERIA**

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ABSTRACT

This paper titled utilization of assistive technology in classrooms of learners with special needs in an inclusive setting in Nigeria call for innovative practices in classrooms of learners with special needs especially with the new normal brought about by the outbreak of COVID 19. The paper unfolds with an introduction explaining the brain behind the idea of utilization of assistive technology in classrooms of learners with special needs in Nigeria and the meaning of inclusive education. The paper also discussed concept of assistive technology, concept of learner with special needs, types of assistive technology, prospects of assistive technology and challenges of assistive technology. The paper closed with recommendation calling on the Nigerian government and stakeholders in the field of special needs education to look critically into the prospects of assistive technology in education and general life of learners with special needs and tackle the challenges associated with the utilization of assistive technology in classrooms of learners with special needs in Nigeria in order to realize the impact of this innovation.

Keywords: Assistive Technology, Inclusive Classrooms, Learner with Special Needs and Inclusive Setting.

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INTRODUCTION

There has been increase in the number of incidence and prevalence in cases of disability in spite of advance in modern medical facilities, services and technology. With the discovery and the usage of vaccines to combat child killer diseases such as measles, polio, meningitis and the like, one would think that there should be less prevalence of cases of disability across the globe but instead, the reverse is the case especially in developing countries like Nigeria. World Health Organization (WHO) estimated long ago that the number of people with visual impairment would double from 180 million to 360 million by 2020 unless a joint action is made to curb the menace WHO, (2011). With the increase in the number and prevalence of congenital, adventitious and irreversible disabilities, different countries came up with ways and ideas of providing education and other services that can make life meaningful and worth living for their citizens with disabilities. For instance, in Nigeria the government through her national policy on education adopted inclusive education as the best form of education for her citizens with special needs or disability. Inclusion is an approach aimed at concretizing the meaning of equalization of opportunity for all children disability notwithstanding National Policy on Education, (2014). Inclusive education is a procedure of improving the capacity of the education system in any country to reach out to

diverse learners. Inclusive Education is a process of addressing the diverse needs of all learners by reducing barriers to, and within the learning environment. It means attending the age-appropriate class of the child's local school, with individually tailored support United Nations International Education Fund, (2014). Inclusive education is a process of strengthening the capacity of the education system to reach out to all learners. The basis of inclusion is that special needs learners have right to the benefits of full school experience, with needed modifications and supports, alongside their peers without disabilities who receive general education. Stakeholders in the field of education of special needs individual argue that special classes, separate schooling, or other forms of separating children with special needs from the regular class and school environment should occur only when the nature or severity of the disability of the child is such that education in regular classes with the use of supplementary services cannot be accomplished United Nations, (2017). In Nigeria, special educators, parents of learners with special needs, policy-makers and other stakeholders continue to examine the benefits and challenges of this education paradigm.

According to the United Nations Convention on the right of persons with disability, it is the right of every person with special need to have access to equal and quality education same as that of other learners To bridge the gap in regard to access of quality education between the learners with special needs and those without special needs and this is why government who are members of the United Nations are enjoined to come up with feasible policies and programmes that create equality and qualitative education for both learners with special needs and those without special needs United Nations General Assembly, (2016).

With information communication technology domineering teaching and learning in the world today and global outbreak of the pandemic known as COVID 19 which brought about total lock down, closure of schools for several months in Nigeria as well as the present insecurity across the country most especially kidnapping of school children thereby posing grate threat on education, there is a dire need for utilisation of assistive technology in the classroom of learners with special learning needs to facilitate effective teaching and learning. The assistive technology enables learner with one form of impairment or the other to be able to accomplish learning tasks they would not have accomplished without the Assistive Technology. Classrooms are changing and are more challenging than before, there is increase in online learning, virtual classes on zoom and other internet platforms. The purpose of education is to provide equal education to all learners so that all of them can become productive and contributing citizens in the society. One of the many issues that parents, teachers, school administrators, politicians and philosophers have debated for decades and perhaps one of the most encompassing is how to promote greater independence for learners with special needs by enabling them to perform tasks that they were not able to perform before. The growing influence of thinking drawn from the humanities and the behavioural and social sciences has brought about the development and implementation of assistive technology to assist all learners, not just those with special needs in order to increase, maintain or improve their academic outcomes and life skills in general but to cater for specific and peculiar teaching and learning activities in the classrooms and overall school environment.

Therefore, the target of this paper is to ex-ray the concept of assistive technology, concept of learner with special needs, types of assistive technology, prospects of assistive technology and challenges of assistive technology.

Concept of Assistive Technology

Assistive technology refers to the devices and services that are used to increase, maintain or improve the capabilities of learners with special needs. Assistive technology is an interdisciplinary field of knowledge comprising products, resources, methodologies, strategies, practices, and services that aims to promote functionality of learner with regard to any form of disability, independence, quality of life and social inclusion Oniyama and Asamaigo, (2018). Assistive Technology is a broad concept, covering anything that might be used to compensate for lack of certain abilities. This ranges from low-tech such as Stylus or more advanced items as Laser cane, to high-tech devices such as Perkins Braille Machine and computers with adapted software for helping learners with visual impairment to read, write, solve mathematics, achieve orientation and mobility as well as have access to geographical maps and direction Dell, Newton and Petroff, (2012). Assistive Technology is an interdisciplinary field of knowledge comprising products, resources, methodologies, strategies, practices and services. These are aimed at promoting the functionality and self-actualization of learners with special needs in regard to autonomy, self-actualization, quality of life and social inclusion.

Individuals with Disabilities Education Act, (2013), mandates the special education and related services that schools must provide for learners' unique needs. Assistive technology device means any item, piece of equipment or product, system, whether acquired commercially off the shelf, modified or customized, that is used to increase, maintain or improve the functional capabilities of a child with special learning needs which does not include a medical device that is surgically implanted or the replacement of that device IDEA, (2013). The term assistive technology refers to a technology that enables an individual with loss of one ability or the other to do what he/she cannot do without these devices. Any adaptive device or service that increases participation, achievement or independence of a learner with special needs may be considered assistive technology. This could be as simple as a pencil grip or as complex as an adapted computer system. In schools and classes of learners with special needs, adequate and proper consideration of assistive technology is necessary when arranging and developing every individualized education programme (IEP). It is the duty and responsibility of the IEP team as well as other inter-disciplinary professionals that determines the special education services necessary to ensure that each learner with special need receives a free and appropriate public education. If the team determines that the learner requires assistive technology, the school should provide the necessary devices and services. Given this requirement, it is imperative that administrators, teachers, related service providers and personnel develop skills and knowledge related to assistive technology so as to be able to appropriately make such available for the utilization of teachers working with learners with special needs particularly in an inclusive setting.

Assistive technology is special tool designed to enhance academic success, performance, and outcome of all individuals not just learners with special needs in the general classroom. As defined by Individuals with Disabilities Education Act, (2013), Assistive Technology is any item, piece of equipment or product and system that is used to increase, maintain or improved functional capabilities of individuals with special need. It enables all students to be successful in the general education classroom Moore, (2012). Assistive technology is also defined as an item or piece of equipment or product system either acquired commercially, off the shelf, modified or customized and used to increase, maintain or improve an individual's functional capability particularly an individual with disabilities Oniyama and Asaimaigo, (2018). The authors strongly encouraged technological development and implementation to enhance instruction of learners with special needs in the classroom.

It is quite interesting and fascinating that assistive technology put learners with special needs at par with their contemporaries and above all, be able to involve and engage in multi-tasking exercises and activities that they would not have been able to venture into ordinarily without assistive technology leading to breaking barriers and opening opportunities for learners with special needs to explore especially in an inclusive education setting.

Concept of Learner with Special Needs

The term learner with special needs is used to refer to individual who is born with or later in life or acquired one form of disability or the other. The term learner with special needs or disability is used to describe or refer to any child or adult who have either mild or severe impairment, damage or defect in any part of the body. This includes individual with visual impairment or total blindness, those with hard of hearing or outright loss of sense of hearing, physically and health impaired, learners with intellectual difficulties, autistic children, those with emotional problems, learners with multiple disability as well as learners with sickle cell and asthmatic problems and the albinos National Policy on Special Needs Education, (2015). They are learners with physical and sensory impairments including albinism who because of their condition cannot cope with regular school/class methods without formal special needs educational training. The visual impairment either total, partial sightedness and low vision; hearing impairment be it hard of hearing or total deafness. physical and health impairment, mental disabilities, behavioural disorders, speech impairments, learning disabilities, multiple impairments, intellectual disability and autism spectrum disorders. These categories of learners face an uphill task when it comes to acquiring education across Africa in general and Nigeria in particular due to societal beliefs and attitudes. The National Policy on Education (2014) further categories learners with special needs to include the disadvantaged children who because of their parents' occupation find it difficult to acquire basic education. Such children are children of the Nomads, hunters, fishermen and pastoral farmers. Other group of children and adult refer to as learners with special needs are the gifted and talented. These are individuals with high intelligent quotient and remarkable performance in cognitive, affective and psychomotor domain. Such learners are described as learners with high precocity and as such they find the regular school curriculum not challenging enough and may take to stubbornness and apathy in resistance to it, as such, they are to be provided special education to meet their educational requirement Oniyama and Asamaigo (2018).

The United Nations, (2017), defines learning disabilities as a physical or mental impairment that substantially limits a major life activity. Individuals with Disabilities Education Act, (2013), helped to secure a place for learners with special needs in the public schools. IDEA combined with No Child Left behind Act ensure that all children with disabilities have access to a free, appropriate public education in the least restrictive environment. These include learners with deafness, hearing disability, mental retardation, orthopaedic impairment, other health impairment, serious emotional disturbance, specific learning disabilities, speech impairment and visual impairment. To help all learners overcome their learning challenges, assistive technology must be implemented in classrooms across the nation. This should become part of the school's plan based on learner's assessment and determined need. It helps put learners in the least restrictive environment (LRE) The LRE emphasized that learners with disabilities should be educated in an environment that provides equal access, the same services and curricula as their peers.

Types of Assistive Technology

There are various types of assistive technology depending on their functions and tasks that they can accomplish when used by learners with special needs. Such functions or tasks include reading, writing, mobility, and communication. Some assistive devices are described as low-tech and these types do not require much training before learners with special needs can utilize them. For example, Abacus which is used for calculation does not take longer time to master and does not require to be powered by battery or electricity unlike talking calculator. Others are described as high-tech and they require proper training and quite expensive. Focusing on learning and teaching activities that take place within the classroom, assistive technologies can be grouped into the following categories, these include positioning and seating, mobility, augmentative and alternative communication, computer access, adaptive toys and instructional aids. Furthermore, assistive technologies can be categorized into the following categories based on the task for which each is useful: computer access, motor aspects of writing, composing written material, communication, reading, learning/studying, math, recreation and leisure, electric aids for mobility, vision, hearing and vocational activities. Wong and Cohen, (2011) did a general classification of assistive technology devices into spectrum of equipment, from high to low tech that which can be applied in writing, reading, access to computers, communication, mobility and leisure. According to Georgia's Assistive Technology (2011) the low-tech devices do not require intensive training and are inexpensive. Low -tech devices examples are handheld magnifiers, large print texts, and canes. High tech devices are more sophisticated tools requiring special training to use the devices effectively. The devices are more expensive such as voice recognition, digital hearing aids, electronic organizers and communication devices with voices. Assistive technology allows learners with special needs opportunities to explore, explain, elaborate, expand ideas, evaluate, and actively participate in problem solving in the classroom without distractions that may interfere with their focus. Teachers should envision this innovation as a key for learners with special needs to succeed academically by helping them learn better in the classroom environment and make learning possible for those who may have difficulties.

Prospects of Assistive Technology

The prospects of assistive technology are enormous just as the assistive technology itself are numerous. Therefore, the prospects of assistive technology to education and general life of learners with special needs is as follows:

- a. **Functionality:** assistive technology is a tool that is capable of increasing, maintaining, or improving the functional capabilities of learners with special needs.
- b. **Protection and life sustainer:** it is a tool that sustains life, protect the learner with special need from bodily injury, promote communication, increase mobility, improve cooperative interaction with the environment, and allow the individual to participate in recreational or fitness related activities
- c. **Problem solving:** assistive technology has the potential to stimulate and foster problem-solving solution strategies and the internal locus of control of learners with special needs. Such devices enable learners with special needs to receive special education, significantly improving their physical and psychological wellbeing by enhancing their social and life skills. Using assistive technology, learners with special needs are encouraged to pursue their own strategies for solving real life problems, and in doing so they demonstrating that they are in control of their own learning. As cognitive tools that support problem-solvers critical thinking and engagement tools such as closed-circuit monitors, Braille readers, voice-activated software, TTY

telephones, and motorized wheelchairs, learners are able to participate in educational activities that might have been difficult or otherwise impossible before.

- d. Social mobility: they provide new channels for social mobility outside the limits of space and time. Learners can communicate, collaborate and share all sorts of information and files nationwide with friends and family members. They can interact and socialize crossing geographical boundaries and bridging many obstacles between individuals. This revolution opened new ways of communication such as email, online forums, blogs, and social networking.
- e. Communication: Some learners with special needs, particularly those with physical disabilities, present severe communication impairment and complex communication needs Sigafoos, (2010). To remedy this situation, immediate and effective intervention strategies are needed because without good communication skills all learners will be at a severe disadvantage. Assistive technology has the potential of reducing this impairment and improving the overall quality of life of learners with developmental and physical disabilities to enable them communicate effectively and appropriately.
- f. Facilitate teaching and learning: Assistive devices of all kinds that provide visual, aural, or tactile support greatly extend the capabilities of learners to use the computer effectively. Assistive technology is viewed as essential part of instruction to help learners with special needs develop basic and critical thinking. It makes it easier for those with disabilities to overcome their disability and succeed academically.
- g. Educators can use AT to create visual aids, auditory aids, outlines and concept maps for learners who have difficulty comprehending complex concept. In language arts, teachers can use recorded books or optical readers to help learners with special need read. Teachers can use AT to develop activities commensurate with the learning ability of learners with special needs, just as they differentiate lessons to meet the individual differences of all learners.
- h. Assistive technology has the potential of increasing student's motivation to develop and acquire effective life skills and cognitive functions that prepare them to function effectively in today's society. It presents enormous benefits for special need learners, caregivers, parents, and school personnel by reducing the cost and time spent for giving individual assistance and increasing the time available for other outdoor activities, duties, and social skills that can enhance their opportunities to achieve academic success.

Challenges of Assistive Technology

In spite of the diverse opportunities and breakthrough that the invention and utilization of assistive technology have brought the way of learners with special needs in developed countries such as America and England, it is a different story in Nigeria. The use of assistive technology in Nigeria is faced with a lot of challenges and such shortcomings include:

- a. **High cost of assistive technology.** The cost of acquiring assistive devices and services for learners with special needs in Nigeria is very, very high due to the fact that these devices are not manufactured within the country.
- b. **Lack of technical know-how.** Since the assistive technology are not readily made in Nigeria, we lack the technical know-how of their operations, maintenance and utilization.
- c. **Lack of constant electricity.** The high-tech assistive devices require constant electricity to power them and keep them functional for the period a class lesson might last and even

beyond. In Nigeria, constant electricity is a mirage thereby making the utilization of assistive technology almost impossible.

- d. **Lack of manpower.** There are limited number of teachers who can utilize assistive devices to teach in an inclusive classroom. Since this is the situation, the idea of promoting the utilization of assistive technology becomes less attractive.
- e. **Falling standard of personnel preparation in special education.** The quality of personnel working with special needs learners have dropped significantly due to poor training and preparation at the different institution of learning. Most of the personnel cannot operate special equipment like Perkins Braille machine and if this is the case, who will teach the special needs learners how to use the assistive technological devices Sigafos, (2010).

CONCLUSION

From the discourse above, the utilization of assistive technology in classrooms of learners with special needs in Nigeria requires a drastic and joint effort of all in order to ensure that the best service in terms of education is provided for all learners in spite of the challenges plaguing education in Nigeria considering the prospects of assistive technology in the education and life of learners with special needs.

Recommendation

1. Teacher training institutes in Nigeria should make assistive technology part of the curriculum to be covered by prospective teachers so that the knowledge could be part of their training.
2. There should be in-service training for both special and non-special teachers already working so that they can up-date their knowledge and refresh in the art and science of assistive technology.
3. The Nigerian government should encourage the manufacturing of assistive technology in the country so as to reduce the cost and develop technicians who can fix and service them.

REFERENCES

- Dell, A. G., Newton, D. A. & Petroff, J.G. (2012). Assistive technology in the classroom: Enhancing the school experiences of students with disabilities 2nd.
- Georgia's Assistive Technology (2011). What is assistive technology? Retrieved from <http://www.gatfl.org/AssistiveTechnology.aspx>.
- Moore, K. D. (2012). Effective instructional strategies from theory to practice. Thousand Oaks, CA: Sage.
- Federal Republic of Nigeria, (2014) National Policy on Education. NERDC Abuja.
- Federal Ministry of Education, (2015). National Policy on Special Needs Education. Abuja.
- Individuals with Disabilities Education Act, (2013). Defining impairment for parents and special educators: Special education guide. Retrieved 3 March 2020 from <http://www.specialeducationguide>.
- Oniyama E. & Asamaigo E. (2018). Essentials of Special Education. Ike Graphics Publishers Sapele Nigeria.
- Sigafos, J. (2010). Introduction to the special issue on augmentative and alternative communication. J. DevPhysDisabil, 22, 101-104.

- UN General Assembly. (2016). Convention on the rights of a person with a disability; general comment number 4 on the right to inclusive education (CPRPD). Retrieved from: http://tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.
- UNICEF (2014) Conceptualizing Inclusive Education and Contextualizing it within the UNICEF Mission. Available at: https://www.unicef.org/eca/sites/unicef.org/eca/files/IE_Webinar_Booklet_1_0.pdf
- United Nations (2017). Toolkit on disability for Africa. Inclusive Education. Available at: <https://www.un.org/esa/socdev/documents/disability/Toolkit/Inclusive-Education.pdf>
- WHO (2011). World report on disability. Geneva: World Health Organization. Retrieved from: https://www.who.int/disabilities/worldreport/2011/accessible_en.pdf
- Wong, M. E., & Cohen, L. (2011). School, family, and other influences on assistive technology use: Access and challenges for students with visual impairments in Singapore. *The British Journal of Visual Impairment*, 29(2), 130-144.



**PEACE EDUCATION AND CONFLICT RESOLUTION IN DELTA STATE: THE
ROLE OF THE TEACHER**

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ABSTRACT

The study examined peace education and conflict resolution among secondary school teachers in Warri Metropolis in Delta State. Communities experiencing ethnic, religious and political tensions continue to struggle with recurring conflicts that hinder social cohesion and sustainable development. Although peace building initiatives exists, limited emphasis has been placed on systematic peace education as a preventive strategy for conflict resolution. Many individuals lack adequate knowledge, attitude and skills necessary for dialogue, negotiation and nonviolent communication. Consequently, conflicts escalate rather than being constructively managed. Three (3) research questions guide the study. A descriptive survey design was used. Data were collected using questionnaire structured by the researcher. The sample of the study comprised 101 Social Studies teachers who teach in secondary schools. It was quantitative research which made use of Social Studies teachers from 19 different schools in Warri Metropolis. The data were analysed using mean and standard deviation. The result of the study revealed amongst other that teachers in the sample educate the students on issues that promote peace and conflict resolution. The teachers teach them tolerance, positive values, foster respect among students and to a very high extent teach about human rights. Recommendations include that students could learn songs and drama that depict peace and conflict consequences. There should be Peace and Justice Club in schools, to enable them develop the culture of peace and conflict resolution.

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INTRODUCTION

Conflict is an inevitable part of human interaction, occurring in families, schools, workplaces, communities and nations. While conflict itself is not inherently negative, the way it is managed determines whether it leads to growth and understanding or violence and destruction. In recent decades, the world has witnessed increasing cases of social unrest, political instability, ethnic tensions, bullying in schools and interpersonal violence. These challenges highlight the need for sustainable approaches that promote peaceful coexistence and constructive conflict management.

Education plays a vital role in social transformation of the child and the society. It is education that must educate men to live in peace and dignity. The importance of education at all levels in the development of peace and culture among people cannot be overemphasized. If education is the only defence against human catastrophe, peace education is the soul that can create the shield for human survival on the planet earth. It is only through peace education that peace can be installed in human mind as an antidote to war is in the minds of men (UNESCO, 2005:1).

The world today is divided with a lot of nuclear weapons, suicide bombers, human rights abuses, terrorism, kidnapping and other vices that plague the society. Nigeria is not an exception. Peace education is probably the only hope for survival of life on earth and for solving the social menace man finds himself. The concept of peace education is recent; it is a very impact new initiative. It appears in the educational literature early in 1970s when the Peace Education Committee founded by the International Peace Research Association (IPRA) (Hinde and Parny, 1989).

The goal of peace education is to inculcate the theoretical construct and applied aspects of the concept of peace in the minds of students and teachers in order to build a safe and habitable world (UNESCO, 2005). The global campaign for peace education (GCPE) network (2004) describes peace education as a holistic participatory process that includes teaching for and about human rights, nonviolent responses to conflict, social and economic justice, gender equity, disarmament and human security. The global campaign for peace education (GCPE, 2004) intends to promote the culture of peace in communities around the world, and build public awareness and political support for introduction of peace education into all aspects of education throughout the world. Another one is to promote the education of all teachers to teach peace. The assumption is that a culture of peace will be achieved when countries of the world understand global peace as well as national and community problems acquire skills to resolve conflict properly; know and live by international standards of human rights, gender and racial equality and appreciate cultural and religious differences.

The urgency and necessity for peace education were acknowledged by the member states of UNESCO in 1974 and reaffirmed in the integrated framework of action of education for peace, human rights and democracy in 1995. Yet some educational institutions have undertaken to education for peace (GCPE, 2004). The reason is to generate a young generation with peace consciousness who will also know the importance of conflict resolution. Lack of peace destroys the identity of a country; mental and creative energies are diverted from useful activities to destructive activities. The situation in Nigeria with reference to security of lives and properties is a typical example. Education should be imbued with aims and purposes set in the charter of the United Nations, the Declaration of Human Rights Article 26 which states that:

Education shall be directed to the full development of human personality and to the strengthening of respect for human rights and fundamental freedom. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups shall further the activities of the United Nations for maintenance of peace (Nair, 2005:30)

Peace education has emerged as a proactive strategy aimed at addressing the root causes of conflict by equipping individuals with the knowledge, skills, values and attitudes necessary to prevent and resolve dispute peacefully. It promotes principles such as tolerance, empathy, respect for diversity, human rights, dialogue and nonviolence. Rather than merely responding

to conflicts after they occur. Peace education focuses in prevention by fostering a culture of peace within individuals and communities. The integration of peace education and conflict resolution into formal and informal learning environment plays a crucial role in building harmonious societies as students will learn in it the classroom, watch their teachers use it to settle issues in schools thereby nurturing critical thinking, mutual understanding and cooperation, peace education contributes to long term social stability and sustainable development.

Research Questions

Three research questions aided the study.

1. What extent do teachers teach topics that promote peace in schools?
2. What extent do teachers provide good moral incentives to students?
3. What extent do teachers use the recommended strategies to resolve conflict in schools?

Concept of Conflict Resolution

Conflict is the expression of disagreement over something important to two individuals, group. It is a well-known fact that conflict is an inevitable process of social life. When they have different views, different values and fight over limited resources to address them (Phil-Eze, 2009) conflict has to be put under control by interacting with the parties to develop common generalization and practices that will return cordial relationship against violence (Aja, 2009). Conflict resolution is conceptualized as the method and process involved in facilitating the peaceful ending of conflict. Conflict resolution is born out of the belief that conflict cannot be left to linger, it has to be resolved. Conflict resolution in schools requires educators to implement various techniques such as active listening, empathy and negotiation to facilitate effective communication and mutual understanding among the parties. The purpose of conflict resolution in schools is to provide an environment in which the learners are free from threat and has opportunity to learn and work with others to achieve their objective some of the important process of conflict resolution are mediation, dialogue and compromise. Conflict resolution as an academic discipline is relatively new.

In Nigeria, one of the challenges facing teachers in schools and parents at home is how to help children learn and grow as strong and peaceful individuals in this world of violence. The basic issues teachers should address are how to create positive attitude towards peace in our children, peaceful school environment, facilitate meaningful relationship on the playground and the communities and how to teach the students to be responsible citizens. In Nigerian schools, value re-orientation is necessary for teachers and students. They should be exposed to ideas which will enable them think about what makes a good friend and how one can be a better friend to his or her classmate. Attitude towards education for peace are still not popular. In a study of teachers' attitude towards the teaching of peace education carried out in Finland, only 10% proved to be active in working for peace and 23% believed in the individual's potential for influencing the peace situation. Majority of the teachers were not interested in the education of peace. Some felt that there were no materials for it and some are not familiar with the existing materials.

In another study carried out in Owerri, Imo State, Nigeria by Emenalo (2007) on the application of the principle in-loco parents in secondary schools found out that with reference to teacher-student relationship in secondary school, 78% of the respondents agreed that teachers are interested in the academic success of students and 90% are eager to correct their bad behaviours because they bother about the moral upbringing of students. The study also

revealed that 63% of teachers have enough time to handle students' problems, 76.7% are aware of that such parental duties have to be carried out. The challenge of education for peace and conflict resolution at all levels of education lies on the teacher. The teacher faces the arduous tasks of conveying those influences to students which develop in them awareness of the goals of peace and method of achieving it; empathy for other people and the nation. The student will have the will to assume an ethical high level of responsibility for one's own action as well as the skill for peaceful resolution of conflicts.

METHODOLOGY

A descriptive survey design was used to carry out this study. Population of the study was social studies teachers from nineteen (19) government owned secondary schools in Warri metropolis. Sample of the study is 101 social studies teachers in Warri metropolis. The research instrument was a self-structured questionnaire. Two types of procedure were adopted by the researcher to establish the validity of the instrument. These involve the face and content validity. In respect of the face validity, the manuscript of the questionnaire was given to two lectures in the College of Education, Measurement and Evaluation experts who made corrections that were necessary. On the content validity, sample of the questionnaire was given to an English expert for more impute. The reliability of the instrument was achieved through test-retest method in which case the researcher gave the instruments to 30 teachers outside the study area. The Cronbach Alpha was used to determine the level of coefficient of the instrument. A coefficient index of 0.82 was achieved which proved the instrument to be reliable. Data was collected using a questionnaire structured by the researcher. The data were analysed using mean and standard deviation to answer the research questions.

RESULTS

Research Question 1: What extent do Social Studies teachers teach topics that promote peace in Secondary School?

Table 1: Mean rating and standard deviation on the extent to which Social Studies teachers teach topics and promote peace.

S/N	Item Statement	N	Mean	SD
1	Human rights.	101	3.3762	.87007
2	Constitution and rights of citizens in democracy.	101	2.8911	.79876
3	Training on non-violent.	101	2.9307	.94082
4	Tolerance.	101	3.0198	.82438
5	Integration of values and fostering respect.	101	2.9307	.90838
6	Social Studies.	101	2.8911	.89332
7	Learning Experience for realizing personal peace.	101	2.8218	.86482
8	Effect of drugs and other addictions harmful to health.	101	2.7822	.93385
9	Causes of conflict.	101	2.7129	.90925
10	Types of conflict.	101	2.8119	.99712
11	Conflict resolution cooperation and interdependence.	101	2.817	.92811

The data presented in Table 1 show that the respondents to high extent teach most of the topics listed with the exception of training in non-violent exercise and learning experience for realizing personal peace which had low score. Other topics like human rights, constitution and the rights of citizens in democracy, tolerance and integration of values and fostering respect; social justice, effect of drugs and other addictions harmful of health, causes of conflict, types of conflict and teachers. It is worthy of note that to a very high extent, they teach human rights.

Research Question 2: What extent do teachers provide moral good incentive to the students?

Table 2: Mean rating and standard deviation on the extent to which teachers provide good moral incentives to the students.

S/N	Item Statement	N	Mean	SD
12	Provide moral incentive to good conduct in school	101	3.35	0.69
13	Encourage and sponsor activities that enhance peaceful and socially oriented values	101	3.31	0.68
14	Encourage the students to participate in prayer rallies for peace.	101	3.1	0.800
15	Teach the evils of war and nuclear weapons	101	2.12	0.75
16	Teach the evils of conflict.	101	3.12	1.03
17	Make pupils aware of their rights and responsibilities in school.	101	3.48	0.72

The data presented in Table 2 above show that teachers provide high moral incentives to their students and encourage sponsor activities that enhance peaceful and socially oriented values, encourage the students to participate in prayer rallies for peace and make students aware of their rights and responsibilities in the school. But the teaching of the civil wars and nuclear weapon scored low point.

Research Question 3: What extent do teachers use the recommended strategies to resolve conflict in schools?

Table 3: Mean rating and standard deviation on the extent to which teachers use the recommended strategies to resolve conflict in schools.

S/N	Item Statement	N	Mean	SD
18	Peer mediation	101	2.9604	.83571
19	Dialogue	101	2.8515	.94219
20	Compromise	101	2.6139	1.13111

There is evidence from Table 3 that to a high extent, teachers apply all the strategies recommended for conflict resolution.

DISCUSSION OF FINDINGS

The study investigated peace and education and conflict resolution in secondary schools around Warri Metropolis and focused on the role of Social Studies teachers.

Extent teachers teach topics that promote peace in schools

Research question one finding shows that teachers in the sample educate the students on issues that promote peace and conflict resolution in their schools. They make them aware of human rights, the Constitution of the Federal Republic of Nigeria and the rights of citizens in democracy. The teachers teach them tolerance, positive values and foster respect among the students. The result also revealed that the respondents highlight issues such as effect of drugs and other addictions harmful to health, causes of conflict, cooperation and interdependence. Unfortunately, training the students in non-violent exercise and exposing them to learning experiences for realizing personal peace scored low point. The reason may be that the teachers in the sample did not know how to go about teaching it due to lack of materials.

The findings of this study differ with the result of a survey carried out in Finland on The Attitude of Teachers towards the Teaching of Peace, it was found out that only 10% of the teachers are active in working for peace and that majority of the teachers were not interested in the education for peace; some felt that education for peace is political propaganda (Isohookan – Asunman 1986), the difference is that the teachers used for this study have positive attitude towards education for peace, they believe in individuals potential for creating a culture of peace and conflict resolution in the school and make effort to achieve that objective.

Extent teachers provide good moral incentives to students

Research question two findings show that teachers provide good moral incentive to the students, encourage and sponsor activities that enhance peaceful and socially oriented values, encourage the students to participate in prayer rallies for peace and teach them the evils of conflict and to a very high extent teach about human rights. The teachers in the sample scored low on the teaching of the evils of war and nuclear weapons. This is a vital topic that the students should be very well exposed to. The teacher in order to portray the evils of nuclear weapon should make the students aware of the fact that the entire world, United Nations (UN) condemns countries that produce nuclear weapons because of the devastating effect it has on mankind.

Extent teachers use the recommended strategies to resolve conflicts in schools

Research question three shows that all the recommended strategies for resolving conflict which include peer mediation, dialogue and compromise are used by the teachers. They explain the disadvantages of conflict to the students so as to make it clear to them that it's better to be in peace than in conflict. The teachers work hard to cultivate in the children the culture of peace with a will for peace. The result agrees with Emenalo (2007) who found out that 90% of teachers are eager to correct students' bad behaviours because they bother about the moral upbringing of the students.

CONCLUSION

Generally speaking, the teachers in the sample are well disposed to peace education and conflict resolution. Their positive response to most of the issues raised in the questionnaire show that they are interested and committed to inculcate peace culture in the students. There are certain areas the teachers have to pay more attention to, this includes, how to help children realize personal peace, train them in non-violent exercise and lay more emphasis on the evils of war and nuclear weapons.

Recommendations

Based on the findings, the following recommendations were made.

1. Education for peace and conflict resolution must start in the home and must permeate many aspects of classroom teaching at all levels of education.
2. The Peace and Justice Club should be formed in the schools to promote peace in the club such as, learn songs on peace, and write prayers on peace, drama that depicts peace and conflicts and their consequences and write plays on peace, take pledge to be peace makers, make badges with the peace emblem of a dove to wear. The school can also give peace badge to well behaved students.
3. There should be further research in this area using a wider population.

REFERENCES

- Ahmed, J.S. (2011). Educating for Peace: Implications for Primary Social Studies Curriculum in Nigeria. *Journal of Curriculum and Instruction* (WCCI) Nigeria, 8 (8), 47 – 53.
- Akpuru-Aja, A. (2009). Basic Concepts of Conflict. In Ikejiani-Clark M. (ed) (2009) *Peace Studies and Conflict Resolution in Nigeria: A Reader*. Ibadan, Spectrum Books Ltd.
- Cromwell, S. (1999). Education World: Curriculum: Conflict Resolution Education: Four Approaches. www.educationworld.com Retrieved 2013.
- Emenalo, F.C. (2007). Application of the Principles of In-loco Parents in Secondary Schools in Imo State. *Journal of the Nigerian Academy of Education*, 3(1), 76 – 87.
- G.C.P.E (2004). Global Campaign for Peace Education Worldwide Activities. Brief Issue #7 January 2004.
- Hinde, R.A. and Parry, D.A. (1989), (eds). *Education for Peace*. Nottingham, Russell Press Ltd.
- Ikwumelu, S.N. (1994). Citizenship Education Concept and Content. In Ibezim, E.O. (ed). *Readings in Citizenship Education*, Lagos, IJD Educational Publishers.
- Isohookana – Asunmaa, T. (1986). Peace Education in the Consciousness of Teachers (In Finish). University Oulu. Publications of the Faculty of Education Whole Nr. 38.
- Mezieobi, D.I. and Mezieobi, S.A. (2009). Relevant of Peace Education in Nigeria's Socio-political Environment. *Nigeria Journal of Curriculum Studies*, 16 (3) 35 – 43.
- Michael, H. (1991). Sociology: Theme and Perspective. <http://en.wikipedia.org/wiki/hidden-curriculum>. Retrieved June 2010.
- Nair, G. (2005). Peace Education and Conflict Resolution in School Health Administrator. *Journal of the Indian Society of Health Administrators*. <http://www.doaj.org>. xvii 1, 37 – 47 Retrieved January 2010.
- Onuoha, J. (2008). Nigeria Peace Keeping Operations. *Social Science Education Review*, 1 (1), 90 – 99.
- Ofojebe, W. and Unachukwu, G.O. (2007). Future Directions in Head Teachers Communication Skills and Goal Attainment in Primary School Administration. *Journal of the Nigerian Academy of Education* 3, (1), 99 – 110.
- Peace Education Flourishes in Elementary Schools (Peace Education and Conflict Resolution Network News). <http://www.thefreelibrary.com> Retrieved January 2010.
- Phil-Eze, P.O. (2009). The Environment, Peace and Conflict resolution in Nigeria. In Ikejiani-Clark M. (ed), (2009) *Peace and Conflict Resolution in Nigeria: A Reader*. Ibadan, Spectrum Books Ltd.
- United Nations Educational, Scientific and Cultural Organization (UNESCO) (2005) *Peace Education a Framework for Teacher Education*.



**PRINCIPALS' APPLICATION OF MANAGERIAL COMPETENCY SKILLS FOR
IMPROVED ADMINISTRATION OF PUBLIC SENIOR SECONDARY SCHOOLS
IN DELTA STATE CENTRAL SENATORIAL DISTRICT OF NIGERIA.**

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ABSTRACT

The study investigated the extent of Principals' Application of Managerial Competency Skills for improved administration of public senior secondary schools in Delta State Central Senatorial District of Nigeria. The study was guided by three research questions and three null corresponding hypotheses which were tested at a 0.05 level of significance. The study anchored on the theory of performance on competency by Richard Boyatzis 1982. The study adopted Descriptive survey Design. The study targeted population was 2748 teaching staff in the public senior secondary school in the 8 LGA of the Delta State Central Senatorial District. A sample size of 275 teachers (60 males) and 215 (Females), representing 30% of the population were selected using stratified and simple random sampling techniques. The instrument used in the data collection was self-structured questionnaire titled "Principals' Application of Managerial Competency Skills for Improved School Administration". The instrument was validated. To ensure the reliability of the instrument test re-test method was used and a reliability index of 0.82 was established using PPMCC. Mean and Standard deviation were used to answer the research questions. While t-test statistics was used to test the null hypotheses at a 0.05 significance level. The findings revealed to a high extent that principals' application of managerial competency skills in all the variables considered in this study for improved the administration of public senior secondary schools in the Delta State Central Senatorial District. The study concluded that principals' application of managerial competency skills improves administration of public senior secondary schools in the Delta State Central Senatorial District. It was recommended among others that principals should be encouraged to attend seminars, conferences and in service programme to continually update their managerial competency skills.

Keywords: Principals, Managerial, Competency, Administration, improved

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INTRODUCTION

Secondary school is a term that refers to the stage of formal education that follows primary education and precedes higher education. Secondary education is the education children receive after primary education before the tertiary stage (FRN 2014). The purpose of secondary education is to provide students with a well-rounded education that prepares them

for higher education or the workforce. It aims to develop their intellectual, social, and emotional skills, while also fostering critical thinking, creativity, and independence.

The broad goals of secondary school are to prepare the individual for useful living within the society, and higher education (FRN 2014). In specific terms secondary education is to provide all primary school leavers with opportunity for a higher level, irrespective of higher level without discrimination, a diversified curriculum to take care of the differences in talents, opportunities, and future roles; provide trained manpower in applied science, technology, and commerce at sub-professional grades; develop and promote Nigerian languages, art, and culture in the context of the world's cultural heritage; inspire students with a desire for self-improvement and achievement of excellence. Foster national unity with an emphasis on the common ties that unite us in our diversity. Raise a generation of people who can think for themselves, respect the views and feelings of others, respect the dignity of labour, and appreciate those values specified under our broad national goals and live as good citizens, and provide technical knowledge and vocational skills necessary for agricultural, industrial commercial, and economic development (FRN,2014). These goals suggest the importance of principals' application of managerial competency skills in the school administration especially at senior secondary school level. It is the principals' responsibility to ensure that necessary values are inculcated in the students through proper guidance, appropriate supervision and monitoring of all the school activities. This brings into focus the unique responsibilities of Principals in the management of human and non-human resources in schools to achieve the specific goals. Management requires structuring the organization, staffing it with capable people and monitoring their activities. This implies collaborative endeavour such as creating vision or setting the direction, inspiring people to attain the vision, moving the school towards its ideal future and motivating them to overcome the problems in the school. The major managerial tasks of Principals are the implementation of government policies on education, instructional supervision, management of staff and students, management of healthy school community relationship, management of school finance and business, and school plant maintenance. The principals' application of managerial competency skills to harness these functions to a great extent determines the achievement of the school's goals. In this study, some management functions of principals were examined *visa a viz* his ability to apply managerial competency skills for enhancing school administration in public senior secondary in the Delta State Central Senatorial District. The question that needs to be address is what is competency.

Competency is the sum of the experiences, knowledge, skills, values and attitudes acquired during the course of doing the work. It is the ability to perform adequately in one's field and it shows how effective and efficient we are in the performance of our duties. Houston (2012) saw competency as the minimum level of awareness, understanding and perfection which an individual or a professional must achieve in order to be rated successful, effective, and efficient. Relating to school administration, Houston specifically stated that competency is the tasks, skills, attitudes, values and appreciation that are deemed crucial to successful and coordination of the school affairs. Basic competencies are knowledge and skills essential for the performance of a principal's job. They are related to specific tasks and guaranteed principal's personal efficiency. The ability of the principal to provide sound skills for effective administration of the school programme is referred to as high managerial competency. Principals of secondary schools could be managerial competency to a very high extent through proper coordination, and control of the affairs of the schools. Principals' knowledge and skills are developed to match with their planned activities in the school system and their competencies are based on their recognizable activities. There are three major mechanism that facilitate the acquisition of managerial

competencies and skills. These are; education, experience and mentor and mentee. The acquired level of competency inspires principals to function in the school system efficiently. This is manifested in their abilities through efficient instructional supervision in the classroom, managing human and non-human resources to achieve the school goals. This Study specifically examined the extent principals' application of managerial competency skills in three basic administrative functions namely, instructional supervision, personnel management.

Instructional Supervision is that phase of school administration which focuses primarily upon the achievement of the appropriate expectations of educational system. Wiles in Peretomode (2002), sees it as those activities which are designed to improve instruction at all levels of the school enterprise. Alfon et al in Alale, (2007) also view instructional supervision as behaviour officially designed by the organization that directly affects teacher behaviour in such a way to facilitate teaching and learning in the school. What flows from the above definitions is that instructional supervision is mainly concerned with supporting and assisting teacher to improve instruction through changing their behaviour. Instructional supervision competency skill is the ability of a principal to adequately monitor the activities of the teachers in the classrooms, advising and stimulating the interest of teachers and students through checking the teacher's actual teachings, classroom management, and the use of instructional materials. Principals could be competent in instructional supervision by inspecting the teachers in the classrooms as they teach their lessons, inspecting their lesson plans and notes and providing instructional materials for effective teaching and learning to take place.

Staff personnel management involves principal's communication, consultations, persuasions, delegations and motivation of staff personnel in the schools to achieve good working relationship. Principals could be competent in staff personnel management through effective inter-personal relationship such as proper communication and motivation.

School plant also refer to education facilities, are the "things of education". These include school building (classrooms assemble halls, laboratories and workshops and libraries etc.), instructional materials, and devices such as educational hardware and their software magnetic tapes, projectors, etc. in sum, school plant are the materials things that facilitate teaching and learning processes in the school, (Ogbodo in Alale 2007). School plant management is the ability of the principals to maintain the structures and facilities that will improve teaching and learning in schools. This includes the principal's maintenance of school buildings, furniture, and school environments such as the surrounding, fields, beautification and ornamentation of the school compound with flowers, hedges, and lawns. Principals could show their competency skills in school plant management by effectively rehabilitating the structures, repairing the facilities, and making the schools habitable for effective teaching and learning to take place.

Research findings have shown that there are dilapidated and decaying state of structures and facilities in most of the senior secondary schools in the Delta State Central Senatorial District. Most secondary schools experience poor cordial relationships between principals and staff, mismanagement of school finance, and dilapidated infrastructures, and facilities are obvious. Currently, some parents are removing their wards from the public senior secondary schools to private schools where they believe the standard is better. Based on this background the researchers are interested in investigating the extent principals' application of managerial competency skills in instructional supervision, personnel management, and school plant management improve the administration of public senior secondary schools in the Delta State Central Senatorial District.

Statement of the Problem

The quality of education in public senior secondary schools significantly hinges on effective school administration, which is largely influenced by the competency skills of school principals. Public secondary schools in the Delta State Central Senatorial, Nigeria face several challenges that hinder their ability to deliver high-quality education. These challenges often stem from the principals' application of managerial competencies skills in key administrative tasks such as instructional supervision, personnel management, school plant management, school-community relations etc. Instructional supervision is critical for ensuring that teachers adhere to the curriculum and policies implementation, and employ effective teaching strategies. However, inadequate supervision may lead to sub optimal teaching practices and poor student learning outcomes. Furthermore, School plant management, which includes maintaining and utilizing school facilities, plays a significant role in creating a conducive learning environment and avoiding legal cases of negligence. In this scenario there is the need to investigate the extent principals' application of managerial competency skills in these areas such as instructional supervision, personnel management, and school plant management for improve administration of the public senior secondary schools in the Delta State Central Senatorial District. Understanding this relationship will help identify areas for improvement and provide recommendations for training and development programme to improve principals' administrative capabilities, ultimately leading to better teaching and learning situations.

Aims and objectives of the study

This study aims to examine the extent principals' application of managerial competency skills for improve administration of public senior secondary schools in the Delta State Central Senatorial District. The study specifically, intends to achieve the following objectives:

1. Examine the extent Principals' application of managerial competency skills in instructional supervision improve administration of public senior secondary schools in the Delta State Central Senatorial District.
2. Determine the extent Principals' application of managerial competency skills in personnel management improved administration of senior public secondary school Delta State Central Senatorial District.
3. Assess the extent Principals' application of managerial competency skills in school plant management improve administration of public senior secondary schools in the Delta State Central Senatorial District.

Research Questions

The following research questions guided the study:

1. To what extent does the principals' application of managerial competency skills in instructional supervision improve the administration of public senior secondary schools in the Delta State Central Senatorial District?
2. To what extent does the principals' application of managerial competency skills in personnel management improve the administration of public senior secondary schools in the Delta State Central Senatorial District?

3. To what extent does the principals' application of managerial competency skills in school plant management improve the administration in public senior secondary schools in the Delta State Central Senatorial District.?

Research Hypotheses

The following hypotheses were formulated to also guide the study:

H₀₁: There is no significant difference in the mean ratings of male and female teachers on the extent principals' application of managerial competency skills in instructional supervision improve the administration of public senior secondary schools in the Delta State Central Senatorial District.

H₀₂: There is no significant difference in the mean ratings of male and female teachers on the extent principals' application of managerial competency skills in personnel management improve the administration of public senior secondary school in the Delta State Central Senatorial District.

H₀₃: There is no significant difference in the mean ratings of male and female teachers on the extent principals' application of managerial competency skills in school plant management improve the administration of public senior secondary schools in the Delta State Central Senatorial District.

THEORETICAL FRAMEWORK

This study is anchored on the theory of Performance on competency propounded by Richard Boyatzis, 1982 as cited in Boyatzis (2014). The theory states that maximum performance occurs when the person's capability or talent is consistent with the situation, that is, the job demands or the organizational environment. A person's talent is described by his or her values, vision, personal philosophy, knowledge, competencies, career stage and interests. Job demands can be described by the role, responsibilities and tasks needed to be performed. Aspects of the organizational environment that are predicted to have important impact on the demonstration of competencies or the design of the jobs and roles include: culture and climate, structure and systems, maturity of the industry, strategic position within it, and aspects of the economic, political, social, environmental, and religious milieu surrounding the organization. Competencies are behavioural approach to emotional, social, and cognitive intelligence. The vision, values, knowledge and ability of secondary school principals in management of their functions, tasks and roles under suitable organizational environment will enhance school management for better performance in schools. This will in turn improve the standard of education. Propagation of individual characteristics involves adequate use of self-images, traits, skills, motives, social roles and body of knowledge. Emotional, social, and cognitive intelligence competencies' actions and job performance are integrated concepts that would result in outstanding performance at work. Principals as managers should have qualities, such as competencies, knowledge, and skills needed to run the affairs of the school for effective results. This study is anchored on this theory in that the study examines the extent principals' application of managerial competency skills in instructional supervision, staff personnel management and school for improved school administration. The outcome will strengthen the assumption of this theory that managers' competency will be based on his or her effectiveness in the performance of the job and bearing in mind the job demand and work environment.

Conceptual Clarifications

Principals

Principals are the heads of secondary schools and the overseers of the activities in the schools. Hornby (2020) view a principal as the highest in order of importance in authority; the most important leader of a secondary school- the chief executive officer. Ukeje (2019), affirmed that in the Nigerian context, principals are the overall head of senior secondary schools. Principals as managers, they are in charge of the day-to-day activities of the schools. They are responsible for the implementation of school programmes, the internal overall decision making, and they do involve other members of the staff in decision making process to achieve the goals of the schools. The principals perform many functions both administrative and other duties that will improve the students' welfare in the schools. Kruse and Louis (2019) observed that when the need for school improvement arises, principals play a central role in ensuring that resources, time, and professional development align with instructional goals. Supporting the professional growth of teachers in a variety of inter-connected ways, including teachers in the international loop, and cultivating the cordial relationship between the school and community in managing the day-to-day tasks of running a school. Adetula (1993) as cited in Alale (2007), stated thus, principal as an instructional leader is responsible for matters concerning the implementation of the school curriculum and supervision of instruction. He has to see to the smooth running of the school to achieve high productivity in terms of proper teaching, and learning. He added, the quality of follower ship in any organization is a reflection of the guidance and inspiration of the leader coupled with the leader's level of competencies. This competency level enhances the principal's efficient and effective coordination of all school activities to ensure productivity and achievement of the tasks.

Principals' Managerial Competency Skills

Competencies according to Denga and Ekoja (2018) is a set of specific knowledge, abilities, skills, traits, motives, attitudes, and values essential for the personal development and successful participation of each person in an organization. This means the behaviour necessary for achieving the required level of performance. Competency is thus the knowledge, skills, attitudes and judgment acquired through training for a successful, efficient, and on-time performance of a task. Competency is the ability of an individual to perform a job properly and it is a combination of knowledge, skills, and behaviour used to improve performance. Managerial competencies of principals which this study has as its focus could be measured from various dimensions, such as students' performance in external examinations, their admissions into higher institutions, and the perception of the relationships between students, teachers, parents, and the communities in which the school operates. Managerial competencies are the skills, motives, and attitudes necessary for the performance of a job. It includes communication skills, problem-solving ability, customer focus, and the ability to work with a team. Skills and knowledge are manager's competencies that can be measured easily while intangible assets like effective communication and teamwork are harder to pin down and evaluate. Managerial competencies according to Boyatzis (2014), are activities, knowledge, skills or attitudes, and perhaps personal characteristics necessary to improve a manager's performance. He observed that managerial competencies lead to the demonstration of skills and abilities, which results in effective performance within an organizational environment. Managerial competencies are a specialized subset of competencies that are particularly attributed to the managers of organizations. He alleged that outstanding managers like school principals require this subset of competencies such as threshold clusters of competencies which include expertise and experience, knowledge, and an assortment of basic cognitive

competencies. Schools also need clusters of competencies to differentiate outstanding from average performers such as cognitive competencies, emotional intelligence competencies and social intelligence competencies. Managerial competencies are the specific attributes and capabilities that illustrate a principal's management potential. The knowledge and skills of principals should therefore be developed and matched with their current and future planned roles in an organization. Their competencies are based on recognizable work activities. There are three managerial competency skills essential for successful management. These are technical, human, and conceptual skills. In school organization, the technical skill involves the principal's understanding of the nature of the job that people under him have to perform to achieve the stated objectives. Human skills involve the ability of the principal to interact with people while conceptual skills deal with the formulation of ideas and conceptualization of abstract and complex situations.

Instructional Supervision is that phase of school administration which focuses primarily upon the achievement of the appropriate expectations of educational system. Wiles in Peretomode (2002), sees it as those activities which are designed to improve instruction at all levels of the school enterprise. Alfon et al in Alale, (2007) also view instructional supervision as behaviour officially designed by the organization that directly affects teacher behaviour in such a way to facilitate student learning and achieve the goals of the school. Aderounmu and Ehiamentor in Nnokam (2020), view instructional supervision as a service activity that exists to help teachers improve their performance in instructional delivery. What flows from the above definitions is that instructional supervision is mainly concerned with supporting and assisting teacher to improve instruction through changing their behaviour. Instructional supervision is the ability of a principal to adequately monitor the activities of the teachers in the classrooms, advising and stimulating the interest of teachers and students through checking the teacher's actual teachings, classroom management, and the use of instructional materials. This also involves the use of expert knowledge and experience to manage, evaluate, and co-ordinate the process of improving teaching and learning activities in schools. A Principal could be competent in instructional supervision by inspecting the teachers in the classrooms as they teach their lessons, inspecting their lesson plans and notes and providing instructional materials for effective teaching and learning to take place. The purpose of instructional supervision include: to directly influence the behaviour of teachers and teaching process employed to promote student learning, to ensure that individual teacher within the school system has been performing the duties for which he was scheduled, to cooperatively develop favourable climate for effective teaching and learning, to know the performance of the teacher recruited to teacher in the school system, to improve the incompetent teacher, to discover special abilities or qualities possessed by teacher in the school, to know the effectiveness of classroom management by the teacher, to assess the tone of the school and identify some of its most urgent needs, to provide a guide for staff development, to determine whether a teacher should be promoted, (Ogunsaju in Alale, 2007 and Robert-Okah, 2007).

Another major function of a principal is the management of members of Staff and students in the school system. It involves principal's communication, consultations, persuasions, delegations and motivation of staff personnel in the schools to achieve good working relationship. Principals could be competent in staff personnel management through effective inter-personal relationship such as proper communication and motivation. Ejeh, and Okoro (2016), in Amadi, (2020), defined personnel management as a responsibility of all those who manage people. They added, it is a specialized field of management that is concerned with development, and utilization of human resources to achieve the organizational objectives. Personnel management according to Ogunsaju (2006) as cited in

Amadi (2020), refers to effective mobilization of human resources based upon appropriate recruitment, selection training and placement of appointed staff in order to achieve the school set down goals and objectives. Tanya, (2012), in Amadi emphasized that employees who are properly managed and well trained are better prepared to do their jobs and serve organizational customers satisfactorily. In this regard principals should apply managerial competency skills in motivating the staff, use effective channel of communication, persuasions, and delegate some of his responsibilities to subordinates to create favourable atmosphere to enhanced school administration.

School plant are education facilities, are the” things of education”. These include school building (classrooms assemble halls, laboratories and workshops and libraries etc.), instructional materials, and devices such as educational hardware and their software magnetic tapes, projectors, etc. in sum, school plant are the materials things that facilitate teaching and learning processes in the school, (Ogbodo in Alale 2007). Castaldi in Peretomode (2002), simply define school plant as those things of education which enable a skilful teacher to achieve a level of instructional effectiveness that far exceeds what is possible when that are not provided. He added whatever materials and or services that help to facilitate teaching and learning rightly fall under the term school plant. Yusuf in Walson, and Ogan (2020), saw school plant as space interpretation of the curriculum noting that the programme of the school is expressed through the site, the building, play grounds, the arrangement and designed of the buildings. Robert-Okah (2014), simply put this thus, the primary objective of the school plant management is to provide a favourable environment for learning, and adequate care of the school facilities. School-plant management is the ability of the principals to maintain the structures and facilities that will improve teaching and learning in schools. This includes; the maintenance of school buildings, furniture, and school environments such as the surrounding, fields, beautification and ornamentation of the school compound with flowers, hedges, and lawns. The aim is to ensure that the school environment is clean, attractive, and conducive for learning and that the buildings, equipment, and facilities are adequately maintained. Principals; application managerial competency skill is shown in school plant maintenance by effectively rehabilitating the structures, repairing the facilities, and making the schools habitable for effective teaching and learning to take place. Ogundele (2012), opine proper maintenance of school plant helps to; keep the value of school plant in their original status and good condition for use to prevent wastage, prove the carefulness and managerial attitude of the principals, teachers and students; prove safety and reduce accidents, stress, for teachers and students; to restore every facility or parts of the school building and content to an acceptable standard, improve teaching and learning higher academic performance of students, to create a healthy environment for productive teaching and learning, and ensure effective correction, prevention and preservation of school plant.

METHODOLOGY

The study adopted descriptive survey. The study’s target population of the study was 2748 teaching staff in Public Secondary Schools in the Delta State Central Senatorial District. A sample size 275 teachers (60 males and 215 females) representing 30% of the population was selected with the use of stratified and simple random sampling techniques. The instruments for data collection was a structure questionnaire titled “Principals’ Application of Competency Skills for improved School Administration Questionnaire “(PAMCSFISAQ)”. The instrument was validated and reliability was carried out using test - retest method. Reliability index of 0.82 was established using PPMCC. The questionnaires consisted of two sections. Section A collected demographic data, and Section B for the various research questions using a 4-point rating scale with the options Very High Extent

(VHE), High Extent (HE), Low Extent (LE), and Very Low Extent (VLE) with values of 4,3,2, and 1 respectively. Mean and standard deviation was used to answer the research question. While t-test statistical tool was used to test the null hypotheses at a 0.05 significant level. 275 copies of the questionnaires were administered on teachers selected at random from the 2748 teaching staff. They were retrieved after some hours with the aid of two Research Assistants. 256 copies of the instrument (93%) were valid and used for the analysis.

RESULTS

Research Question 1: To what extent does the principals' application of managerial competency skills in instructional supervision improve administration of public secondary schools in the Delta State Central Senatorial District?

Table 1: Mean and Standard Deviation on the extent of principals' application of managerial competency skills in instructional supervision improve administration of public senior secondary schools in the Delta State Central Senatorial District.

A	Item	Male =55		Female=201		$\frac{x_1+x_2}{2}$	Decision
		$\bar{X}_1$	S_1	$\bar{X}_2$	S_2		
1.	The principal conducts regular classroom observations to ascertain teaching effectiveness to improve school administration.	2.89	1.68	2.58	1.89	2.74	High extent
2.	The principal provides timely and constructive feedback to teachers to improve lesson delivery	2.96	1.45	2.85	1.51	2.91	High extent
3.	The principal ensures that the teachers used the approved ministry of education curriculum and syllabus for teaching	2.71	1.11	2.92	1.23	2.82	High extent
4.	The principal ensures lesson plans /notes are prepared and marked weekly	2.81	1.66	2.77	1.54	2.79	High extent
5.	The principal encourages the teachers to attend seminars / conferences to enhance their teaching strategies	2.90	1.60	2.79	1.58	2.85	High extent
	Aggregate mean	2.85	1.50	2.71	1.55	2.78	High extent

Table 1, shows the responses of male and female teachers on the extent principals' application of managerial competency skills in instructional supervision improve administration of public senior secondary schools in the Delta State Central Senatorial District. The table shows items 1-5 had weighted mean scores is 2.78 which is above the criterion mean of 2.50, indicating high extent (HE), on the extent principals' application of managerial competency skills in instructional supervision improve administration of public senior secondary schools in the Delta State Central Senatorial District.

Research Question 2: To what extent does the principals' application of managerial competency skills in personnel management improve administration of public senior secondary schools in the Delta State Central Senatorial District.?

Table 2: Mean and Standard Deviation on the extent principals' application of managerial competency skills in personnel management improve administration of public senior secondary school in the Delta State Central Senatorial District.

B	Personnel management	Male		Female		$\frac{x_1 + x_2}{2}$	Decision
		$\bar{X}_1$	S_1	$\bar{X}_2$	S_2		
6.	The principal establishes mutual interpersonal relationship in the school.	2.81	1.01	2.71	0.91	2.76	High extent
7.	The principal delegates responsibilities to ensure effective school administration	2.86	1.00	2.72	1.02	2.79	High extent
8.	The principal recognizes the rights of both the teachers and students in discipline cases	2.93	1.93	2.80	1.45	2.87	High extent
9.	The principal encourages teamwork and collaboration among the members of staff	3.01	1.02	2.99	1.12	3.00	High extent
10.	The principal is interested in teachers' welfare and professional growth	2.78	1.00	2.77	0.98	2.78	High extent
	Aggregate mean	2.88	1.20	2.80	1.10	2.84	High extent

Table 2 presents the responses of male and female teachers on the extent principals' application of managerial competency skills in personnel management improve administration of public senior secondary school in the Delta State Central Senatorial District. The summary of the table revealed aggregate mean of 2.84 and standard deviation of 1.15 which is high than the criterion mean of 2.50 indicating to a high extent principals' application of managerial competency skills in personnel management improve administration of public senior secondary school in the Delta State Central Senatorial District. In summary, all respondents agreed to a high extent that establishing good inter-personnel relationship in the school, delegating responsibilities, recognizes the rights of both the teachers and students in discipline cases specially fair hearing, encouraging teamwork and collaboration among the members of staff, and showing interest in their welfare will improve the administration of public senior secondary schools in the Delta State Central Senatorial District.

Research Question 3: To what extent does the principals' application of managerial competency skills in school plant management improve the administration of public senior secondary schools in the Delta State Central Senatorial District?

Table 3: Mean and Standard Deviation on the extent principals' application of managerial competency skills in school plant management improve the administration of public senior secondary schools in the Delta State Central Senatorial District.

D	School plan management	Male		Female		$\frac{x_1+x_2}{2}$	Decision
		$\bar{X}_1$	S ₁	$\bar{X}_2$	S ₂		
11	The principal ensures regular inspection and maintenance of the school buildings and facilities	2.83	1.67	2.56	1.61	2.70	High extent
12	The principal ensures that instructional material and resources are adequately provided and utilized	2.89	1.06	2.52	1.04	2.68	High extent
13	The principal enforces safety measures to create secure learning environment	3.15	1.78	2.50	1.56	2.82	High extent
14	The principal dilapidated building is renovated	2.61	1.58	2.55	1.61	2.58	High extent
15	The principal ensures weekly sanitation is carried out	2.86	1.71	2.62	1.53	2.78	High
	Aggregate mean	2.87	1.56	2.55	1.46	2.71	High extent

Table 3 shows the mean, and standard deviation of male and female teachers on the extent principals' application of managerial competency skills in school plant management improve administration of public senior secondary schools in the Delta State Central Senatorial District. The table revealed that the items 11-15 had weighted mean of 2.71 which is greater than the criterion mean of 2.50, indicating high extent. This implies to a high extent principals' application of managerial competency skills in school plant management improve the administration of public senior secondary schools in the Delta State Central Senatorial District. In summary, principals' application managerial competency skills in ensuring regular inspection and maintenance of the school building and facilities, ensuring instructional materials and resources are provided and utilized and weekly sanitation are carried out do improve administration of public senior secondary schools in the Delta senatorial District.

Testing hypotheses

HO₁: There is no significant difference the mean ratings of male and female teachers on principals 'application of managerial competency skills in instructional supervision improves the administration of public senior secondary schools in the Delta State Central Senatorial District.

Table 4: Summary of t-test analysis on mean of male, and female teachers on the extent principals' application of managerial competency skills in instructional supervision improve administration of public senior secondary schools in the Delta State Central.

Teachers	N	$\bar{X}$	SD	level of sign	df	t-test cal	t-test crit	Decision
Male	55	2.85	1.50	0.05	256	0.27	1.96	not significant
Female	201	2.78	1.55					

Table 4: presents the mean, standard deviation, and t-test of the difference in the mean ratings of male, and female teachers on the extent principals' application of managerial competency skills in instructional supervision improve the administration of public senior Secondary schools in the Delta State Central Senatorial District.

The calculated t-test value used in testing the null hypothesis was 0.27, while the t critical value was 1.96 using 256 degrees of freedom at a 0.05 significant level. At a 0.05 significant level, and 256 degrees of freedom, the calculated t-test value of 0.27 is less than the t-critical value of 1.96, hence there is no significant difference in the responses of the respondents. Therefore, the researchers accepted the null hypothesis, and concluded that there was no significant difference in the mean ratings of male and female teachers on the extent principals' application of managerial competency skills in instructional supervision improve the administration of public senior secondary schools in the Delta State.

HO₂: There is no significant difference in the mean ratings male and female teachers on the extent principals' application of managerial competency skills in personnel management improve the administration of public senior secondary schools in the Delta State Central Senatorial District.

Table 5: Summary of t-test analysis on mean ratings of male and female teachers on extent principals' application managerial competency skills in personnel management improve the administration of public senior secondary school in the Delta State Central Senatorial District.

Teachers	N	$\bar{X}$	SD	level of sign	df	t-test cal	t-test crit	Decision
Male	55	2.88	1.20	0.05	256	0.13	1.96	not significant
Female	201	2.80	1.10					

Table 5 reveals the mean, standard deviation, and t-test of the difference in the mean ratings on the extent principals' application of managerial competency skills in personnel management improve the administration of public senior secondary schools in the Delta State Central Senatorial District, Nigeria. The calculated t-test value used in testing the null hypothesis was 0.13, while the t- critical value was 1.96 using 254 degrees of freedom at a 0.05 significance level.

At a 0.05 significance level and 254 degrees freedom the calculated t-value of 0.13 is less than the t-critical value of 1.96. Hence there was no significant difference in the responses of the respondents. Consequently, the researcher accepted the null hypothesis and concluded that there was no significant difference in the mean ratings of male and female teachers on the extent principals' application of managerial competency skills in personnel management improve administration of public senior secondary schools in the Delta State Central Senatorial District, Nigeria.

HO₃, There is no significant difference in the mean ratings of male and female teachers on the extent principals' application of managerial competency skills in school plant management improve administration of public senior secondary schools in the Delta State Central Senatorial District, Nigeria.

Table 6: Summary of t-test analysis on the mean ratings of male and female teachers on the extent principals' application of managerial competency skills in school plant management improve the administration of public senior secondary schools in the Delta State Central Senatorial District, Nigeria.

Teachers	N	$\bar{X}$	SD	level of sign	df	t-test cal	t-test crit	Decision
Male	55	2.87	1.56	0.05	256	0.47	1.96	not significant
Female	201	2.55	1.46					

Table 6 shows the mean, standard deviation, and the t-test of the difference in the mean ratings of the male and female teachers on the extent principals' application of managerial competency skills in school plant management improve the administration of public senior secondary schools in the Delta State Central Senatorial District, Nigeria. The calculated t-test value used in testing the hypothesis stood at 0.47. While the t-test critical value stood at 1.96 using 256 degrees of freedom at a 0.05 level of significance. At a 0.05 level of significance and 256 degrees of freedom, the calculated t-test value of 0.47 is less than the t-test critical value of 1.96, hence there is no significant difference in the mean ratings male and female teachers' responses. The researcher therefore accepted the null hypothesis and concluded that there is no significant difference in the mean ratings of male and female teachers on the extent principals' application of managerial competency skills in school plant management improve administration of public senior secondary schools in the Delta State Central Senatorial.

DISCUSSION OF FINDINGS

The Extent Principals' Application of Managerial Competency Skills in Instructional Supervision Management improve the Administration of Public Secondary Schools in the Delta State Central District of Nigeria.

The findings of table 1, shows to a high extent Principals' application of managerial competency skills in instruction supervision improves administration of public Senior Secondary Schools in the Delta State Central District of Nigeria. This finding supported Nnokam, (2020) view that instructional supervision is concerned with improvement of instruction through various activities of teaching, and learning, and to cooperatively develop a favourable climate for effective teaching, and learning in the school.

The Extent Principals' Application of Managerial Competency skills in Personnel Management improves administration of Public Secondary Schools in the Delta State Central District of Nigeria.

The findings on principals' application of managerial competency in personnel management reveals that to high extent principals applied their managerial competency skills to establish cordial interpersonal relationship in the school, delegates some of their responsibilities, keenly interested in the welfare of staff and students and they recognize the rights of teachers and student in discipline cases. This is a pointer of good human relation in the school. This do improve the administration of Public Senior Secondary Schools in the Delta State Central District of Nigeria. Thus, this finding collaborates with Udeani (2018), whose study was on principal's skills for effective personnel management in secondary

schools. The study revealed that personnel management skills for effective staff orientation include among others are delegation of duties, and human relation.

The Principals' Application of Managerial Competency Skills in School Plant Management enhance administration of Public Secondary Schools in the Delta State Central District of Nigeria.

The findings of table 3, reveals that the principals apply managerial competency skills to ensure that regular inspection and maintenance of the school buildings and facilities, instructional materials were provided and utilized, dilapidated buildings were renovated, and weekly sanitation were carried out to make the learning environment clean and healthy. In a conducive teaching and learning environment, students learn better and teachers also record good job performance. Consequently, enhance school administration. The findings support that of Anieheobi in Amopho and Ibara, (2022), that students learn better and faster in a school that has good infrastructure. He added better infrastructure, and facilities affect teachers' effort they put in their work. This scenario affects students' health, behaviour, learning and growth in general and academically. In all, to high extent principals' application of managerial competency skills in school plant do improve administration of public senior secondary schools in the Delta State

CONCLUSION

Based on the findings of the study it was concluded that to a high extent principals' application of managerial competency skills in instructional supervision, personnel management and effective school plant management will improve teaching and learning activities and consequently impact positively the administration of the public senior secondary school in the Delta State Central Senatorial District.

Recommendations

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

1. Principals in the Delta State Central Senatorial District of Nigeria should be encouraged to attend seminars/conferences to update managerial competency skills in instructional supervision.
2. Principals in the Delta State Central Senatorial District should report to the appropriate authority any damage to facilities that required huge sum of money on time to avoid negligence litigation.
3. Principals in the Delta State Central Senatorial District should recognize the rights of teachers and in discipline case to avoid litigation on violation of right

REFERENCES

- Alale, M.E.K (2007), *An introduction to principles and practice of educational administration*. AMEKATIK Research Publisher.
- Amadi, M. A (2020). Staff personnel development in Okwo, F.A, & Walson, O.B.A, (eds) *Educational management; issues and principles*. Pearl Publisher International ltd
- Amopho, G.R. & Ibara, E.C. (2022). School-community relations for effective management of public senior secondary school. *Ignatius Ajuru University Journal of Educational Management (IAUJEM)*, 2(1)
- Boyatzis R. E. (2014) Competencies in the 21st century. *Journal of Management Development*, 27, (1), 5-12

- Denga, D. I., & Ekoja, A. A. (2018). *Education for the new millennium: Foundation and Pedagogy*. Rapid.
- Federal Republic of Nigeria. (2014). *National policy on education*. NERDC Press.
- Hornby, (2020). *Oxford advanced dictionary of current English. sixth edition*: Oxford University Press.
- Houston, H.T. (2020). *Competency management in business organization*. Mc York-Hill Company Inc
- Kruse, S.D., & Louis, K. S. (2019). *An emerging framework for analysing school-based professional community*.
- Nnokam, C.P. (2020), Instructional supervision in Okwo, F.A, & Walson, O.B.A, (eds) *Educational management; issues and principles*. Pearl Publisher International ltd
- Ogundele, M. O. (2012). Community – school relations and principals’ administrative effectiveness of secondary schools in Kwara State: *Journal of Educational and Social Research*, 2(3)
- Peretomode, V.F. (2002) *Introduction to educational administration and planning and supervision*. Joja Publishers.
- Robert-Okah, I. (2014) *Educational management in Nigeria. A Functional approach*. Harey Publications Coy.
- Udeani, A.B. (2018), Extent of Principal’s skills for effective personnel management in secondary schools in Anambra State. Unpublished Ph.D. Thesis, Department of Educational Foundation, University of Nigeria, Nsukka.
- Ukeje, B. O (2019). Universal basic education in Nigeria; logistics and implementation strategies. *The Nigerian Universal Basic Education Journal*, 1(1), 10-21
- Walson, O.B.A, & Ogan, T.E, (2020), School plant in Okwo, F.A, and Walson, O.B.A, (eds) *Educational management; issues and principles*. Pearl Publisher International ltd.