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ASSESSMENT OF TEACHERS' ATTRITION RATE IN PRIMARY AND JUNIOR SECONDARY SCHOOLS IN EBONYI STATE UNIVERSAL BASIC EDUCATION

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ABSTRACT

Experienced teachers are crucial in ensuring quality education, as they guide learners, foster a positive learning environment and enhance achievement through effective classroom management and engagement. However, the loss of skilled and qualified teachers poses a serious threat to education quality, especially in rural areas where teacher shortages are more severe. This paper assessed teachers' attrition rate in primary and junior secondary schools in Ebonyi State Universal Basic Education. Four research questions guided the study and three hypotheses were tested at 0.05 level of significance. This study adopted a descriptive survey design with the population of 8,334 teachers from 427 public primary and junior secondary schools across the 13 Local Government Areas of Ebonyi State. Census sampling was employed to evaluate all teachers who joined, remained and or left the system. The Teacher Nominal Role in Ebonyi State Basic Education (TNRESBE) served as the data collection tool for this study. This pre-existing, validated, and standardized instrument, developed by experts in the Ebonyi State Ministry of Education, was adapted and adopted by the researchers due to its reliability and widespread use within the state. Data from the instrument were analyzed using percentages to address the research questions. Chi-square tests of goodness-of-fit, t-tests, and ANOVA were employed to test the hypotheses, with the choice of statistical method tailored to each specific hypothesis. The study revealed that teacher attrition rates in primary and junior secondary schools in Ebonyi State Universal Basic Education are significantly low. It also found that teachers' attrition rates in primary and junior secondary schools in Ebonyi State vary

significantly across Local Government Areas. Additionally, the study found that the attrition rate among male teachers in primary and junior secondary schools in Ebonyi State was significantly higher than that of female teachers. The study concluded that a shortage of qualified teachers results in overcrowded classrooms, diminished individual attention for students, and a general decline in educational outcomes. It was recommended among others that the government prioritize teacher welfare by ensuring regular salary payments, expanding professional development opportunities, improving working conditions, and enhancing job security to keep teachers motivated and committed to public education.

Keywords: Teachers, Attrition Rates, Universal Basic Education & Retention

Introduction

Education is a systematic process that empowers individuals with knowledge, skills, values, and critical thinking abilities, enabling them to achieve personal growth and contribute meaningfully to society. By fostering holistic development, it helps individuals adapt to challenges, pursue lifelong learning and drive societal progress (UNESCO, 2021). Education encompasses both formal and non-formal learning experiences, delivered through institutions, communities, and personal initiatives. In the context of this paper, the focus is on formal education, which is delivered through structured institutions from the basic to tertiary levels. In Nigeria, Universal Basic Education refers to the education provided to children aged six to 14 years, encompassing three years of lower basic education, three years of middle basic education, and three years of senior basic education (UBEC, 2012). In Nigeria, the Universal Basic Education (UBE) programme is designed to provide free, accessible and quality primary and junior secondary education to every Nigerian child (FRN, 2010).

Teachers are central to achieving the objectives of the Universal Basic Education (UBE) programme, as they are instrumental in delivering quality education and shaping pupils' learning experiences (FRN, 2013). Their expertise, commitment and ability to foster engagement are essential for translating the promise of free and accessible education into impactful outcomes. However, without sufficient and motivated teachers, the goals of the UBE programme risk being undermined, highlighting the need to address teacher attrition and improve their working conditions (Diliberti & Schwartz, 2023).

Teacher attrition, as a concept in education, refers to the measure of teachers leaving the teaching profession over a specified period. Carrier Guide (2023) describes attrition as the process where individuals retire or resign for personal reasons, and their positions remain unfilled. Similarly, BasuMallick (2021) defines employee attrition as the natural departure of employees due to resignation or retirement without replacement, often termed the "churn rate." In the educational context, Teachers for Education for All (EFA, 2010) describe

teacher attrition as the permanent loss of teachers from the profession, often equated with teacher turnover (Okeke, Okeaforcha, & Ekwusianya, 2019). Teacher attrition refers to the departure of educators from the teaching profession, whether through resignation, retirement, or other means. Borman and Dowling (2014) define it as the process of leaving the teaching profession for other career endeavors. Similarly, Nguyen et al. (2020) describe teacher attrition as a significant problem facing schools, with a large percentage of teachers leaving the profession within their first few years. Furthermore, UNESCO (2023) highlights that teacher attrition is a global concern, noting that between 2015 and 2022, attrition rates of primary education teachers doubled worldwide from 4.6% to 9%.

These definitions underscore the multifaceted nature of teacher attrition and its potential to destabilize educational systems. For instance, a rural primary school may lose teachers to urban centers due to better pay and working conditions, aligning with Borman and Dowling's (2014) emphasis on career changes. In another scenario, an educator might leave the profession within the first few years due to challenges faced, reflecting Nguyen et al.'s (2020) findings. Additionally, the global increase in attrition rates highlighted by UNESCO (2023) illustrates the widespread nature of this issue. These examples highlight how teacher attrition, in its diverse forms, affects the availability and quality of teaching personnel in schools.

Attrition manifests as teachers leaving classroom roles to pursue other professional responsibilities either within or outside the educational system. Okeke et al. (2019) highlight that such labor mobility often stems from the pursuit of better opportunities, leaving schools understaffed and affecting the quality of instruction. Marinette (2018) lamented that teacher attrition imposes significant setbacks on school performance and imposes financial strains on the education system. This phenomenon underscores the need for effective strategies to retain teachers and mitigate its adverse impact on education service delivery.

Globally, teacher attrition rates have become a growing concern. In the United States, it was reported that nearly one in four teachers planned to leave the profession by the end of the 2020-2021 school year, with the attrition rate for Black teachers reaching 50%, reflecting a 60% increase in the projected rate. Additionally, 78% of teachers reported significant job-related stress and lack of technical support, a figure 50% higher than the general workforce. Teachers also experienced depression at a rate two and a half times higher than the general population. In response to these challenges, 90% of school districts implemented policy changes to address teacher shortages, including increased pay, expanded benefits, and the introduction of "grow-your-own" teacher preparation programs (Balow, 2021; Diliberto & Schwartz, 2023).

In response to the growing concern over teacher attrition, the International Task Force on Teachers for Education for All (EFA, 2010) advised education managers in sub-Saharan Africa to take several key actions. These included the need for improved tracking of teacher attrition rates, as many countries lack effective monitoring systems. The task force highlighted that teacher attrition rates vary between countries and are likely to change over time. It was also noted that while some countries in sub-Saharan Africa report relatively low attrition rates, these are unlikely to be sustainable in the long term. Additionally, teacher attrition was identified as a selective process, impacting certain regions or demographics more than others. The task force emphasized that teacher attrition is part of a broader set of teacher policy issues that require attention from policymakers. Most notably, it was pointed out that the negative impact of teacher attrition disproportionately affects the poorest and most vulnerable learners (UNESCO, 2010).

Attrition in schools refers to the loss of teachers over time and manifests in various structures and arrangements, known as forms. These forms represent specific categories with defining characteristics, which are referred to as types of attrition rates. According to Egu, Wuju, and Chinoye (2010), teacher attrition rates can be categorized into permanent attrition—where teachers leave the profession entirely—and temporary attrition, where teachers leave but may return at a later time.

Teacher attrition rate is a critical measure of workforce stability in schools. It compares the number of teachers leaving to the average number of teachers employed in a given year. To calculate this, begin by counting the number of teachers at the start of the year (s). Then, record the number of teachers who left during the year (l) and the number hired during the year (h). By the year's end, the total number of teachers (t) is given as:

$$t = s + h$$

To determine the average number of teachers (a), use the formula:

$$a = \frac{s + h}{2}$$

This calculation provides insights into the school's ability to retain teachers and highlights areas that may require interventions to reduce turnover and ensure a stable learning environment.

The attrition rate is calculated using the formula:

$$\text{Attrition Rate } (AR) = \frac{l}{a} \text{x} 100$$

Where:

- l = Number of teachers who left (attrition)
- a = Average number of teachers employed during the year

Simply put, the attrition rate represents the percentage of teachers leaving compared to the average number of teachers employed in a given period.

Teacher attrition can occur in two forms: permanent attrition and temporary attrition. In permanent attrition, teachers leave the teaching profession entirely, often for

careers unrelated to education, and do not return. Conversely, temporary attrition occurs when teachers leave the profession but intend to return after a period. This distinction is crucial for understanding workforce dynamics and addressing the root causes of teacher turnover effectively. Obike et al. (2018) identified several types of teacher attrition in Nigeria, including retirement, resignation, transfer, acquisition of higher qualifications, dismissal, and death. These reflect the diverse ways teacher attrition manifests in the country. Similarly, BasuMallick (2021) categorized attrition types into retirement-based, voluntary, involuntary, internal, and demographic-based attrition, offering additional perspectives on the issue.

Retirement-based attrition, according to BasuMallick, occurs when a significant portion of the workforce retires simultaneously, often causing noticeable gaps in staffing. While retirement is sometimes linked to age, it can also result from early retirement decisions or transitions to consulting roles. Voluntary attrition happens when teachers leave their jobs for personal or professional reasons. This type of attrition can negatively impact productivity over time and requires strategies to curb its frequency. Involuntary attrition, on the other hand, results from actions taken by employers, such as dismissing teachers due to misconduct or underperformance. Internal attrition occurs when teachers leave their current roles to take up positions within the same sector that offer better opportunities or benefits. BasuMallick emphasized that if many teachers leave a school within a short period, it signals deeper issues requiring investigation. Demographic-based attrition refers to specific groups of teachers—such as women, ethnic minorities, individuals with disabilities, veterans, or older professionals—leaving their jobs in significant numbers. This trend highlights potential systemic or cultural challenges within the work environment. Understanding these types of teacher attrition provides valuable insights into workforce trends and helps schools develop targeted strategies to address retention challenges effectively.

Researchers have identified several factors driving the high rates of teacher attrition in education. These include inadequate salaries, poor conditions of service, low prestige or social recognition of the teaching profession, and ineffective leadership styles (Ojong, 2009; Fati, 2010; Maku and Begi, 2017; Ukessays, 2018; Obike et al., 2018). These challenges underscore the critical need for education managers to implement strategies that shield teachers from factors contributing to attrition. Ensuring a supportive environment requires addressing systemic issues that affect both male and female teachers. This includes improving remuneration, enhancing working conditions, promoting the social value of the teaching profession, and adopting leadership styles that foster motivation and satisfaction among educators. Proactively tackling these issues is essential to retaining talented teachers, maintaining the smooth operation

of educational programmes, and ensuring long-term stability and effectiveness within the education sector.

Gender has been identified as a significant factor in teacher attrition, though research findings vary on which gender is more at risk. According to Adams (2016), female teachers were about 37% more likely to leave the teaching profession compared to their male counterparts. This may be influenced by factors such as family responsibilities, societal expectations, or limited career advancement opportunities. However, this contrasts with findings from Marso and Pigge (2017), who reported that with female teachers already outnumbering males, attrition rates were notably higher among male teachers. They suggested that male teachers might leave due to dissatisfaction with working conditions, better opportunities in other fields, or perceptions of teaching as a less prestigious career for men. Similarly, Aregawu and Mariyappan (2023) found that male teachers had a significantly higher turnover impact than their female counterparts, further emphasizing the gendered nature of teacher attrition. These divergent views highlight the need for nuanced policies that address the specific factors influencing teacher retention for both genders, ensuring a balanced and stable workforce in the education sector.

School location also has been identified as a critical variable in teacher attrition (Edakpor, Anho, & Asiyal, 2023; Obike, 2018; Egu et al., 2011). Attrition rates are notably higher in rural areas, where the lack of educational resources, infrastructure, and support is more pronounced (Idoko, 2023). For instance, in Ebonyi State, the teacher-pupil ratio in public primary schools stands at 1:52 for all teachers (qualified and unqualified) and 1:54 for qualified teachers alone (Ebonyi State Ministry of Education, 2023). These ratios far exceed the 1:35 specified in Nigeria's National Policy on Education and are particularly concerning for a state with a historically weak educational foundation. This acute shortage of teachers in Ebonyi State's rural schools has been corroborated by a USAID (2022) report, which highlighted that some rural primary schools have fewer than four teachers. The situation is worsening as teachers leave due to retirement, resignation, illness, or death. The lack of adequate staffing severely impacts the quality of education and disproportionately affects students in underserved areas.

Today, teacher attrition remains a pressing challenge in the education sector, particularly at the basic education level in Ebonyi State and across other regions, influenced by various factors including inadequate salaries, poor working conditions, leadership styles, gender dynamics and school location. Rural areas, such as those in Ebonyi State, bear the brunt of these issues, with acute teacher shortages and disproportionately high teacher-pupil ratios that hinder effective teaching and learning. The disparities in gender-specific attrition trends and the forms of attrition—ranging from retirement and resignation to involuntary dismissals—further complicate

efforts to stabilize the teaching workforce. These persistent challenges not only undermine the quality of education but also threaten the attainment of national education policy goals. It is against this background that, the researchers deemed it necessary to assess the extent of teacher attrition rates in primary and junior secondary schools in Ebonyi State Universal Basic Education programme.

Statement of the Problem

Basic education plays a crucial role in fostering foundational literacy, numeracy, and life skills, equipping individuals to contribute meaningfully to society and access higher educational opportunities. Recognizing its importance, governments at all levels have made efforts to create an enabling environment for this level of education. However, despite these efforts, several challenges, including hardships and poor teaching and learning environments, appear to have forced some teachers to leave the profession temporarily or permanently. This situation has led to public concerns about the declining quality of basic education outcomes in Ebonyi State and beyond.

The apparent exodus of teachers from basic education seems to have resulted in a significant shortage of teaching personnel, negatively impacting the quality of instruction at this level. Diliberti and Schwartz (2023) identified teacher attrition as a global phenomenon, noting its prevalence in countries such as the United States of America and across the globe. This trend is evident in Ebonyi State, where teachers appear to frequently leave the profession or migrate western countries in search of better working conditions, only to continue teaching in countries with improved environments.

As an educationally less developed state (Ebonyi State Ministry of Education, 2023), Ebonyi state seems to be facing heightened challenges due to high teacher attrition rates, further exacerbating the fragile state of its basic education system. The inability of the state government to fill the resulting vacancies seems to have worsened the situation, increasing the workload on the few remaining teachers. This excessive workload appears to compromise teachers' job performance, subsequently leading to a decline in pupils learning outcomes. In light of these pressing challenges, this study seeks to assess the extent of teacher attrition rates in primary and junior secondary schools in Ebonyi State Universal Basic Education system. This assessment aims to provide valuable insights into the nature and implications of teacher attrition, ultimately contributing to strategies for improving the quality of basic education in the state.

Purpose of the Study

The purpose of the study is to assess the extent of teachers' attrition rates in primary and junior secondary schools in the Ebonyi State Universal Basic Education. Specifically, the study to:

1. Find out the extent of teachers' attrition rates in primary and junior

secondary schools in the Ebonyi State Universal Basic Education.

2. Establish the extent of variations in teachers' attrition rates in primary and junior secondary schools among Local Government Areas of Ebonyi State.
3. Identify the types and forms of teachers' attrition rates prevalent in in primary and junior secondary schools in the Ebonyi State Universal Basic Education.
4. Examine the gender effects of teachers' attrition rates in primary and junior secondary schools in the Ebonyi State Universal Basic Education.

Research Questions

The following research questions guided the study:

1. What is the extent of teachers' attrition rates in primary and junior secondary schools in the Ebonyi State Universal Basic Education?
2. To what extent do teachers' attrition rates in primary and junior secondary schools vary among Local Government Areas of Ebonyi State?
3. What are the types and forms of teachers' attrition rates prevalent in in primary and junior secondary schools in the Ebonyi State Universal Basic Education?
4. What are the gender effects of teachers' attrition rates in primary and junior secondary schools in the Ebonyi State Universal Basic Education?

Hypotheses

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

1. Teachers' attrition rates in primary and junior secondary schools in the Ebonyi State Universal Basic Education are not significantly high.
2. Teachers' attrition rates in primary and junior secondary schools significantly vary among Local Government Areas of Ebonyi State, with distinct types and forms prevalent in different areas.
3. Teachers' attrition rates in primary and junior secondary schools in Ebonyi State are significantly influenced by gender differences.

Research Method

This study adopted a descriptive survey design to assess teachers' attrition rates in primary and junior secondary schools within the Ebonyi State Universal Basic Education system. The study population consisted of 8,334 teachers (3,013 males and 5,327 females) from 427 public primary and junior secondary schools (covering lower and upper basic education) across the 13 Local Government Areas of Ebonyi State, Nigeria. Census sampling was employed to evaluate all teachers who joined, remained and or left the system. The Teacher Nominal Role in Ebonyi State Basic Education (TNRESBE) was utilized as the instrument for data collection. This pre-existing, validated, and standardized tool, developed by experts in the Ebonyi State Ministry of Education, is widely used within the state. The researchers

adapted and adopted the instrument for the purpose of this study.

Each Local Government Education Authority (LGEA) annually submits the teachers' nominal role to the SUBEB headquarters using the TNRESBE. Data extracted from this instrument, disaggregated into various forms and types, were analyzed using percentages. Additionally, chi-square, t-tests, and ANOVA were employed to test the hypotheses, with the choice of statistical method determined by the specific research questions and hypotheses. The attrition rate was calculated using the data extracted from the TNRESBE based on the specified formula.

Attrition Rare: =

No of teachers that left during a period
Average Number of teachers for the period

Data Analysis and Interpretation

The data were analyzed and interpreted in response to the research questions and hypotheses.

Research Question 1: What is the extent of teachers' attrition rates in primary and junior secondary schools in the Ebonyi State Universal Basic Education?

Table 1: *Yearly Analysis of Teachers' Attrition Rates According to the Education Zones in Ebonyi State*

Zone	Average Number of Teachers				Attrition Rate (%)		
	Year	M	F	T	M	F	Total
Ebonyi North	2020	1659	2171.5	3830.5	2.26	0.87	1.644
Ebonyi Central	2020	1216	1617.5	2833.5	1.64	1.29	1.446
Ebonyi South	2020	436.5	1827.5	2264	11.68	9.03	9.45
Ebonyi North	2021	1514	2076.5	3590.5	16.90	8.23	11.89
Ebonyi Central	2021	1235.5	1363.5	2599	11.81	14.37	13.15
Ebonyi South	2021	397	1700	2097	7.05	6.0	6.19
Ebonyi North	2022	1357.5	1970	3327.5	4.199	2.13	2.975
Ebonyi Central	2022	1026	1403	2429	6.62	2.56	4.28
Ebonyi South	2022	362	1745.5	2107.5	2.57	11.60	4.12

Source: *Ebonyi SUBEB (2023)*

The data in Table 1 reveals variations in teacher attrition rates across the education zones in Ebonyi State over the years. Ebonyi Central Zone recorded the highest attrition rate of 13.15% in 2021, followed by Ebonyi North Zone with 11.89% during the same year. The lowest attrition rate was observed in Ebonyi Central Zone, with 1.446% in 2020, closely followed by Ebonyi North Zone at 1.644% in 2020. Additional attrition rates include 9.45% for Ebonyi South Zone in 2020, 6.19% for Ebonyi South in 2021, and 4.28% and 4.12% for Ebonyi Central and Ebonyi South Zones, respectively, in 2020. These figures highlight notable annual and zonal disparities in teacher attrition rates in Ebonyi State.

Research Question 2: To what extent do teachers' attrition rates in primary and junior secondary schools vary among Local Government Areas of Ebonyi State?

Table 2: *Variations in Teacher Attrition Rates Across Local Government Areas in Ebonyi State Universal Basic Education between 2020-2022*

S/NO	LGA	Average number of teachers	No of Trs that left	Attrition Rate
1	Abakaliki	845.5	97	11.49
2	Afikpo North	542	148	27.30
3	Afikpo south	353.5	7	0.848
4	Ebonyi	788.5	91	11.54
5	Ezza North	595	58	9.74
6	Ezza SouthIkwo	420.5	53	12.60
7	Ikwo	888.5	207	23.29
8	Ishielu	706.5	149	21.09
9	Ivo	325.5	85	26.11
10	Izzi	1055.5	137	12.97
11	Ohaozara	441	43	9.75
12	Ohaukwu	878	254	28.92
13	Onicha	500	134	26.8
	Total	8334.5	1443	17.54

Source: Ebonyi SUBEB (2023)

Table 2 reveals significant variations in teacher attrition rates across the local government areas (LGAs) in Ebonyi State. Ohaukwu LGA had the highest attrition rate at 28.92%, followed closely by Afikpo North with 27.30%. Onicha and Ivo LGAs recorded attrition rates of 26.8% and 26.11%, respectively. The LGA with the lowest attrition rate was Afikpo South, at just 0.84%, followed by Ezza North and Ohaozara, with rates of 9.74% and 9.75%, respectively. Other notable LGAs include Abakaliki (11.47%), Ikwo (23.29%), Ishielu (21.09%), Izzi (12.97%), and Ezza South (12.60%). The cumulative teacher attrition rate for the state was 17.54% (see Table 2). From this data, it is clear that teacher attrition rates in Ebonyi State vary significantly among the LGAs, with some areas experiencing rates in the single digits, while others report double-digit attrition rates. This highlights the uneven distribution of teacher turnover across the state within the study period.

Research Question 3: What are the types and forms of teachers' attrition rates prevalent in in primary and junior secondary schools in the Ebonyi State Universal Basic Education?

Table 3: *Percentage Distribution of Permanent Teacher Attrition Rates in Ebonyi State Basic Education (2020–2022)*

	Retirement			**Death**			**Resignation**			**Change of services others**		
	M	F	T	M	F	T	M	F	T	M	F	T
%	98	94.8	97.1	0	0	0	1.2	0	08	05	52	20
2020	167	93	240	0	0	0	2	-	2	1	4	5
%	88.7	71.8	60.2	12.2	187	14.8	20	0	12	0	93	3.7
2021	42	23	65	6	6	12	1	-	1	-	3	3
%	95	97.5	95.8	0.88	0	0.5	3.5	12	26	0.88	12	1.0
2022	107	80	187	1	0	1	4	1	5	1	1	2
%	95	92	94	2	3	2.5	2	05	1.5	0.6	41	1.7
Total	316	176	492	7	6	13	7	1	8	2	8	10

Source: Ebonyi SUBEB (2023)

Table 3 highlights the various types of permanent teacher attrition rates, including retirement, death, resignation, and others (e.g., changes in service). The cumulative data show that retirement is the dominant factor, accounting for 94% of attrition cases, followed by death (2.5%), others (1.9%), and resignation (0.5%).

A year-by-year breakdown reveals the following trends: In 2020, retirement accounted for 97.1% of attrition, with no recorded cases of death, resignation, or other factors. In 2021, retirement dropped to 80.2%, while death rose to 14.8%, resignation to 1.2%, and others to 3.7%. In 2022, retirement surged again to 95.8%, with death at 0.5%, resignation at 2.6%, and others at 1.0%. These figures clearly indicate that retirement is the primary driver of permanent teacher attrition rates in the Ebonyi State Basic Education system.

Table 4: *Types and Percentages of Temporal Teacher Attrition in Ebonyi State Basic Education (2020–2022)*

Year	**Leave of Absence**			**Study Leave**			**Secondment**			**Others**		
	M	F	T	M	F	T	M	F	T	M	F	T
%	80	91.6	83.7	-	-	-	12	8.3	10.8	8	-	5.4
2020	20	11	31	-	-	-	3	1	4	2	-	2
%	80	50	68.75	-	16.7	6.25	10	33.3	18.75	1-	-	6.25
2021	8	3	11	-	1	1	1	2	3	1	-	1
%	83.3	51.5	84.6	-	-	-	16.7	12.5	15.3	-	-	-
2022	15	7	22	-	-	-	3	1	4	-	-	-
%	81.1	80.7	81	-	3.8	1.3	13.2	15.4	13.9	5.7	-	3.8
TOTAL	**43**	**21**	**64**		**1**	**1**	**7**	**4**	**11**	**3**	**-**	**3**

Source: *Ebonyi SUBEB (2023)*

Table 4 provides a breakdown of temporal teacher attrition in Ebonyi State Basic Education, categorizing it into four types: leave of absence, study leave, secondment, and others. The cumulative data indicate that leave of absence was the dominant factor, accounting for 81% of temporal attrition, followed by secondment at 13.9%, others at 3.8%, and study leave at 1.3%. Looking at the annual trends, leave of absence

accounted for 83.7% of attrition in 2020, 68.75% in 2021, and 84.6% in 2022. Study leave had no recorded attrition in 2020, but increased to 6.25% in 2021, and returned to 0% in 2022. Secondment made up 10.9% of attrition in 2020, increased to 18.75% in 2021, and dropped slightly to 15.4% in 2022. The "others" category, which includes various other forms of temporal attrition, accounted for 5.4% in 2020, 6.25% in 2021, and 0% in 2022. These figures clearly show that leave of absence was the primary cause of temporal teacher attrition in Ebonyi State Basic Education during the period from 2020 to 2022.

Research Question 4: What are the gender effects of teachers' attrition rates in primary and junior secondary schools in the Ebonyi State Universal Basic Education?

Table 5: *Teachers' Attrition Rate by Gender Between 2020 and 2022 in Ebonyi State Universal Basic Education*

S/No	LGA	Average Number of Teachers			Attrition Rate		
		M	F	T	M	F	T
1	Abakaliki	277.5	568	845.5	21.26	6.69	11.49
2	Afikpo North	59	483	542	50.84	24.43	27.30
3	Afikpo South	102.5	251	353.5	14.63	0	0.848
4	Ebonyi	290	498.5	788.5	21.37	5.81	11.54
5	Ezza North	270.5	324.5	595	16.63	4.00	9.74
6	Ezza South Ikwo	133.5	287	420.5	18.72	9.75	12.60
7	Ikwo	457	431.5	888.5	21.8	24.79	23.27
8	Ishielu	248	458.5	706.5	25.80	18.58	21.09
9	Ivo	49	276.5	325.5	20.40	27.12	26.11
10	Izzi	574	481.5	1055.5	17.77	7.2	12.97
11	Ohaozara	73	368.5	441	19.17	7.86	9.75
12	Ohaukwu	361	517	878	34.35	21.98	26.8
13	Onicha	118	382	500	42.31	14.31	17.54
	Total	**3,013**	**5327.5**	**8334.5**	**23.23**	**14.32**	**17.54**

Source: *Ebonyi SUBEB (2023)*

Table 5 presents the teachers' attrition rates by gender across various LGAs in Ebonyi State from 2020 to 2022. The overall male attrition rate stands at 23.23%, while the female attrition rate is significantly lower at 14.32%. Among the LGAs, Afikpo North recorded the highest male attrition rate at 50.84%, while the highest female attrition rate was also observed in Afikpo North at 24.43%. In contrast, Afikpo South exhibited minimal attrition, particularly among females, with a female attrition rate of 0%. Other LGAs, such as Ohaukwu and Onicha, showed notable discrepancies between male and female attrition rates, with males generally having higher attrition rates than females. The overall data indicates a gender-based disparity, with male teachers experiencing higher attrition rates across most LGAs. This data is further analyzed to assess whether the differences in attrition rates between genders are statistically significant.

Hypothesis 1: Teachers' attrition rates in primary and junior secondary schools in the Ebonyi State Universal Basic Education are not significantly high.

Table 6: *ANOVA test on the Means of Average Number of Teachers in Basic Education Ebonyi State 2020 - 2022*

Sources	SS	Df	Ms	f-cal	f-crit	Decision	et a^2
Between	53,236.63	2	26,618.3				
Within	2,254,632,45	36	63,628.7	0.425	3.32	Accept	0.023
Total	2,307,869.00	32					

P<: 0.05

The ANOVA test results presented in Table 6 indicate that the calculated F-value (0.425) is less than the critical F-value (3.32) at a 0.05 significance level. This leads to the acceptance of the null hypothesis, suggesting that teachers' attrition rates in primary and junior secondary schools in Ebonyi State Universal Basic Education are not significantly high. The eta-squared value ($\eta^2 = 0.023$) indicates that only 2.3% of the variance in attrition rates is attributable to differences between the years, highlighting that the variation in attrition rates over the years under review is minimal and statistically insignificant. This indicates that teacher attrition rates in primary and junior secondary schools in Ebonyi State Universal Basic Education are significantly low.

Hypothesis 2: Teachers' attrition rates in primary and junior secondary schools significantly vary among Local Government Areas of Ebonyi State, with distinct types and forms prevalent in different areas.

Table 7: *Showing the Result of the Chi-square Test on Teachers' Attrition Rate by Zones in Ebonyi State Basic Education from 2020 - 2022*

Zones	2020	2021	2022	X^2 cal	X^2crit	Alpha	Decision	DF
Ebonyi North	1.644	1.446	9.45	18.281	9.49	0.05	Reject	4
	(3.75)	(4.29)	(4.49)					
Ebonyi Central	11.89	13.15	6.19					
	(9.35)	(10.09)	(11.21)					
Ebonyi South	2.97	4.28	4.12					
	(3.41)	(3.89)	(4.07)					
Total	8334							

P<: 0.05

The Chi-square test results in Table 7 indicate a calculated value ($X^2 = 18.281$) that exceeds the critical value ($X^2crit = 9.49$) at an alpha level of 0.05 with 4 degrees of freedom. This result leads to the rejection of the null hypothesis, confirming that teachers' attrition rates in primary and junior secondary schools in Ebonyi State significantly vary among the Local Government Areas. The distinct types and forms of attrition across zones, as reflected in the table, highlight disparities in the attrition patterns, with Ebonyi North and Central zones showing higher variations compared to Ebonyi South. This variation suggests localized factors influencing

attrition rates in different zones over the years under study.

Hypothesis 3: Teachers' attrition rates in primary and junior secondary schools in Ebonyi State are significantly influenced by gender differences.

Table 8: *T-tests on the Attrition Rates and Mean Differences in the Average number of Male and Female Teachers in Basic Education in Ebonyi State*

X	N	Attention rate	$\bar{X}$	SD	DF	t-cal	t-crit	Decision
Males	3013	23.23	231.76	166.9	12	4.63	1.7	Reject
Females	5327	14.32	409.8	98.3				
Total	8334							

P<: 0.05

The t-test results show that the calculated t-value (t-cal = 4.63) is greater than the critical t-value (t-crit = 1.7) at a significance level of 0.05 and 12 degrees of freedom. Consequently, the null hypothesis is rejected, indicating that teachers' attrition rates in primary and junior secondary schools in Ebonyi State are significantly influenced by gender differences. The mean attrition rate for male teachers (23.23%) is notably higher than that of female teachers (14.32%), suggesting that male teachers are more likely to leave the teaching workforce in Ebonyi State during the period under review. This result reveals that the attrition rate among male teachers in primary and junior secondary schools in Ebonyi State is significantly higher than that of female teachers.

Discussion of Findings

The study revealed that teacher attrition rates in primary and junior secondary schools in Ebonyi State Universal Basic Education are significantly low. This outcome can be attributed to government initiatives aimed at enhancing teacher welfare, such as the prompt payment of salaries and the provision of professional development opportunities. Furthermore, the relatively stable working conditions and job security in the state's public education sector likely play a role in retaining teachers. However, this finding contrasts with Idoko (2023), who reported higher attrition rates in rural areas, often linked to poor resources, infrastructure, and limited support. Similarly, a report by the Ebonyi State Ministry of Education (2023) highlighted a teacher-pupil ratio of 1:52 for all teachers and 1:54 for qualified teachers, suggesting that the high pupil-teacher ratio in the state may be driven by increased pupil enrollment without proportional teacher recruitment. This indicates that the high pupil-teacher ratio is not necessarily due to teacher resignation or retirement but rather a lack of sufficient teacher intake at the outset. Thus, while there is a high pupil-teacher ratio, the attrition rate among teachers in the state remains notably low.

The study further revealed that teachers' attrition rates in primary and junior secondary schools in Ebonyi State vary significantly across Local Government

Areas, with higher variations observed in Ebonyi North and Central zones compared to Ebonyi South. The significant variations in teacher attrition rates across Local Government Areas in Ebonyi State, particularly higher in the North and Central zones, may be attributed to unequal distribution of resources, infrastructure, and administrative support, which often affect working conditions. Additionally, socio-economic disparities and differing levels of investment in education across the zones likely contribute to these regional variations. This aligns with findings by Okorie, Ibiam, Nwosu, Adedeji, and Onele (2023), who reported similar patterns and attributed them to disparities in resource allocation, infrastructure, and support systems across the zones. Supporting this, Nwangwu, Okeke, and Eze (2023) emphasized that regional differences in access to resources significantly influence teacher attrition rates. Additionally, Madumere-Obike, Uka, and Nwabueze (2018) identified diverse forms of teacher attrition in Nigeria, including retirement, resignation, transfer, acquisition of higher qualifications, dismissal, and death, reflecting the multifaceted nature of the issue. Similarly, BasuMallick (2021) categorized attrition into retirement-based, voluntary, involuntary, internal, and demographic-based types, offering a broader perspective on the various dimensions of teacher attrition. The supporting findings align with the current study by emphasizing how regional disparities in resource allocation, infrastructure, and support systems influence variations in teacher attrition rates across Local Government Areas. Moreover, the identification of various types of teacher attrition, such as retirement, resignation, and transfer, underscores the complex nature of attrition and helps explain the observed differences in teacher retention across the Ebonyi State zones.

The study's final finding reveals that the attrition rate among male teachers in primary and junior secondary schools in Ebonyi State is significantly higher than that of female teachers. This higher attrition rate may be attributed to factors such as limited career advancement opportunities and the pursuit of better-paying jobs outside the education sector, as well as societal and familial pressures that drive male teachers to seek more financially rewarding or stable employment. In line with this, Aregawu and Mariyappan (2023) found that male teachers experienced a significantly higher turnover impact than their female counterparts, emphasizing the gendered nature of teacher attrition. These findings highlight the need for policies that address the specific factors influencing retention for both genders, ensuring a more balanced and stable workforce in education. On the other hand, Adams (2016) reported that female teachers were about 37% more likely to leave the profession compared to males, often due to family responsibilities and societal expectations, although this contrasts with Marso and Pigge (2017), who found that male teachers had higher attrition rates despite their lower numbers. The previous findings agree with the current study by highlighting that male teachers often face higher attrition rates due to factors such as

limited career advancement, financial pressures, and societal expectations, which align with the higher turnover observed among male teachers in Ebonyi State. However, they disagree in that Adams (2016) found female teachers to have higher attrition rates, primarily due to family responsibilities, which contrasts with the current study's finding of a higher attrition rate among male teachers. This may be due to female teachers being relocated from rural areas to urban centers by their influential husbands, resulting in a higher concentration of male teachers remaining in the rural areas.

Conclusion

The loss of experienced and qualified teachers is a critical challenge that can significantly undermine the quality of education, particularly in rural areas where the shortage of qualified teachers is more pronounced. Experienced teachers play a vital role in delivering high-quality education, guiding learners and fostering an effective learning environment. Their expertise, classroom management skills, and ability to engage learners are essential to pupil success. A shortage of qualified teachers can lead to overcrowded classrooms, reduced individual attention for learners, and an overall decline in educational outcomes. Without a steady supply of well-trained teachers, efforts to provide equitable and quality education for all learners, especially in underserved areas, will be compromised. Therefore, continuous investment in teacher welfare, professional development and improving working conditions is crucial to ensuring the long-term stability and effectiveness of the educational system in Ebonyi State, as well as the broader goal of achieving sustainable educational progress.

Recommendations

Based on the findings, this study recommended that:

1. Government should sustain and continue to prioritize initiatives that enhance teacher welfare, including regular salary payments and expanding professional development opportunities. Additionally, efforts should be made to further improve working conditions and job security, ensuring that teachers remain motivated and committed to their roles in the public education system.
2. Government should prioritize equitable distribution of resources such as infrastructure and administrative support, particularly in the North and Central zones, to address the significant variations in teacher attrition rates across Local Government Areas. Targeted interventions, such as improving working conditions and providing additional support to these regions, are essential to reduce disparities and ensure teacher retention across the state.
3. Government should also implement policies that would improve career advancement opportunities and financial incentives to address the higher attrition rate among male

teachers, particularly in areas where male teacher attrition rate is most pronounced. Additionally, support systems that address societal and family pressures on male teachers should be developed to help retain them in the profession.

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