



WORKFORCE PLANNING, TEACHER DISTRIBUTION AND STUDENTS' LEARNING OUTCOMES IN OGUN STATE RURAL SCHOOLS

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Abstract

This study examined the relationship between workforce planning, teacher distribution and student learning outcomes in rural Nigerian secondary schools. Descriptive research design of the survey type was used for the study. The population of the study comprised 1,200 educational personnel (school principals, vice-principals, and education officers) serving in rural public secondary schools across Ogun State. A sample of 300 educational personnel was selected using multistage sampling procedures. Data were collected using “Workforce Planning Questionnaire (WPQ), Teacher Distribution Questionnaire (TDQ), and Learning Outcomes Questionnaire (LOQ) with reliability coefficients of 0.79, 0.74, and 0.78 respectively using Cronbach alpha method. Findings revealed a moderate positive significant relationship between workforce planning practices and student learning outcomes ($r = 0.654, p < 0.05$), and a moderate positive significant relationship between teacher distribution and student learning outcomes ($r = 0.584, p < 0.05$). The study concluded that improving learning outcomes in rural Nigerian schools requires strategic workforce planning, equitable teacher distribution, and interventions to mitigate rural teaching challenges and teacher retention issues. It was recommended among others, that policies should be developed to promote fair distribution of teachers across rural schools, with particular attention to critical subjects such as Mathematics, Sciences, and English Language.

Keywords: Workforce Planning, Teacher Distribution, Learning Outcomes, School Effectiveness, Rural Schools



Introduction

Persistent disparities in learning outcomes between urban and rural schools remain a major educational challenge in Nigeria. Students in many rural communities consistently record lower academic achievement, weaker literacy levels, and reduced success rates in national examinations such as the West African Senior School Certificate Examination (WAEC) and the National Examination Council (NECO). These gaps raise serious concerns about educational equity and the capacity of the school system to support national development. Student learning outcomes, which represent the measurable knowledge, skills, attitudes, and competencies learners acquire through schooling, are widely regarded as key indicators of educational effectiveness. However, the quality of these outcomes is heavily influenced by the availability, competence, and stability of teachers. Teachers remain the most critical school-based factor affecting student achievement, yet their impact is largely determined by how effectively they are planned, deployed, and supported within the education workforce.

Workforce planning in education involves the systematic assessment of teacher demand and supply, strategic recruitment, equitable distribution across schools, and continuous professional development to ensure optimal instructional delivery (Ogunyemi, 2018). Ideally, this process guarantees that the right number of qualified teachers are positioned where they are most needed. In Nigeria, however, workforce planning challenges are particularly evident in rural areas, where schools frequently experience shortages of qualified teachers, especially in mathematics, science, and technical subjects (Umar, 2021). In Nigeria, especially in rural areas, workforce planning is often poorly implemented due to unreliable education data, weak human-resource structures, and inconsistent recruitment practices. When workforce planning is ineffective, schools may face shortages of qualified teachers, inappropriate staffing levels, and poor learning outcomes.

Teacher distribution further compounds this problem. Teacher distribution means allocating teachers across schools in a fair and balanced way so that learners in every community urban or rural receive quality instruction. Effective teacher distribution ensures that no school is understaffed or overwhelmed by large class sizes. However, in Nigeria, teacher distribution is highly uneven. Urban schools tend to attract more experienced and specialized educators due to better infrastructure, access to professional growth opportunities, and improved living conditions (Umar, 2021). In contrast, rural schools often contend with understaffing, multi-grade classrooms, teacher absenteeism, and reliance on underqualified personnel. Such conditions significantly limit effective curriculum delivery and negatively influence students' academic performance (Eze & Nwafor, 2019). Rural schools in Nigeria operate within challenging conditions that directly influence teacher motivation and student performance. Many rural communities lack basic infrastructure such as electricity, good road networks, potable water, and secure accommodation for teachers (Okonkwo & Ibrahim, 2020). These conditions make rural postings unattractive to teachers and contribute to high teacher turnover. Consequently, rural students face structural disadvantages, including larger class sizes, fewer subject specialists, and limited learning resources. Understanding this context is essential to interpreting workforce planning and teacher distribution challenges.

In their studies, Adeoye and Olaniyan (2018) found that structured workforce planning supports proactive decisions that ensure adequate staffing at the right time. Similarly, Aina (2020) noted that effective human resource planning is a critical determinant of school functionality and teacher deployment efficiency in Nigeria. Olatunji (2021) and Uko (2017) studies revealed that equitable posting of teachers enhances instructional quality and reduces learning disparities. Moreover, the UNESCO (2019, p4) report on teacher allocation in developing countries stressed that balanced teacher distribution is a driver of fairness and equity in education. Eze and Anya (2022) found that rural teachers experience isolation, lack of professional support, and inadequate infrastructure, which push them away from rural schools. Oyedeji (2019) also reported that most staffing challenges in rural schools are products of administrative oversight rather than lack of qualified teachers. Similarly, Olaleye (2018) observed that lack of housing, transportation



difficulties, and limited career growth opportunities discourage teachers from staying in rural areas. World Bank (2020) also identified rural hardship as one of the biggest obstacles to teacher retention in Sub-Saharan Africa.

This study is hinged on Equity Theory by Adams (1963). Equity Theory focuses on fairness in the allocation of resources. In education, it asserts that all students, regardless of geographical location, should have equal access to quality teachers and learning opportunities. Unequal teacher distribution between rural and urban schools creates educational injustice. When teachers cluster in urban areas, rural students experience inequity that leads to poor learning outcomes. Equity Theory therefore underscores the need for fair teacher deployment policies and incentives that encourage teachers to work in disadvantaged rural areas. The theory further suggests that perceptions of imbalance can influence motivation and performance among both teachers and students. Teachers who feel unfairly treated in terms of workload, professional support, or living conditions may demonstrate reduced commitment, while students exposed to limited instructional resources often struggle to compete academically with their urban counterparts. Promoting equity through strategic workforce planning not only enhances teacher morale but also strengthens instructional quality, ultimately fostering improved learning outcomes and supporting broader educational development.

Despite growing scholarly attention to teacher shortages and student achievement, limited studies have examined how workforce planning and teacher distribution interact to shape learning outcomes in rural Nigerian schools. Addressing this gap is important because rural communities home to a substantial proportion of Nigeria's population continue to lag behind in key educational indicators (Federal Ministry of Education, 2022). Understanding these relationships can provide practical insights for improving teacher allocation, strengthening instructional quality, and promoting equitable access to education. Therefore, this study investigates the nexus between workforce planning, teacher distribution, and student learning outcomes in rural Nigerian schools, with the aim of identifying strategies that can enhance teacher effectiveness, improve student achievement, and support sustainable educational development.

Statement of the Problem

The Nigerian education system faces numerous structural and administrative challenges, particularly regarding the distribution of teachers between rural and urban schools. Reports indicate that many rural schools experience a shortage of teachers, and there are concerns about the adequacy of qualifications and workloads of the available staff (UBEC, 2021). Despite various government interventions, questions remain about the effectiveness of workforce planning, recruitment, and teacher deployment in addressing staffing disparities. The uneven distribution of teachers has raised concerns about its potential impact on student learning outcomes in rural schools. Large class sizes, limited access to subject-specialist teachers, and multi-grade teaching situations may pose challenges to instructional quality. Furthermore, teacher retention in rural areas appears to be problematic, with anecdotal evidence suggesting that many teachers seek transfers due to living conditions, insecurity, and limited professional development opportunities (Okonkwo & Ibrahim, 2020). While previous studies have highlighted these issues, there is limited empirical evidence examining the relationship between workforce planning, teacher distribution, and student learning outcomes in rural Nigerian schools. This study seeks to fill this gap by investigating how workforce planning and teacher distribution affect the quality of education in these contexts.

Research Objectives

The study was guided by the following three specific objectives:

1. To examine the relationship between workforce planning practices and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria.
2. To establish the relationship between teacher distribution and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria.



Hypotheses

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

1. There is no significant relationship between workforce planning practices and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria.
2. There is no significant relationship between teacher distribution and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria.

Methodology

The study adopted a descriptive research design of survey type. The population of the study comprised 1,200 educational personnel (school principals, vice-principals and education officers) serving in rural public secondary schools across Ogun State. A sample of 300 respondents was determined using Taro Yamane's sample size formula at a 95% confidence level, 0.05% margin error. Multistage sampling procedures was used in the study. Data were collected using "Workforce Planning Questionnaire (WPQ), Teacher Distribution Questionnaire (TDQ), and Learning Outcomes Questionnaire (LOQ) with reliability coefficients of 0.79, 0.74, and 0.78 respectively using Cronbach alpha method. Data were analysed using Pearson Product Moment Correlation (PPMC) at 0.05 level of significance.

Results

Hypothesis One: There is no significant relationship between workforce planning practices and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria.

Table 1: Relationship between workforce planning practices and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria

Variables	N	Mean	Std. Dev	Df	r	Sig.	Decision
Workforce Planning Practices	300	16.54	1.56	298	0.654	0.001	Significant
Student Learning Outcomes		13.85	1.77				

Table 1 shows the relationship between workforce planning practices and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria. It indicates a moderate positive relationship between the two variables ($r = 0.654$, $p < 0.05$). Since the significance value ($p = 0.001$) is lesser than 0.05, the null hypothesis was rejected. Therefore, it was concluded that there is a significant relationship between workforce planning practices and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria.

Hypothesis Two: There is no significant relationship between teacher distribution and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria.

Table 2: Relationship between teacher distribution and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria

Variables	N	Mean	Std. Dev.	Df	r	Sig.	Decision
Teacher Distribution	300	16.64	1.59	298	0.584	0.001	Significant
Student Learning Outcomes		13.85	1.77				

Table 2 shows the relationship between teacher distribution and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria. It indicates a moderate positive relationship between the two variables ($r = 0.584$, $p < 0.05$). Since the significance value ($p = 0.001$) is lesser than 0.05, the null hypothesis was rejected. Therefore, it was concluded that there is a significant relationship between teacher distribution and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria.



Discussion of Findings

The result from hypothesis one showed a significant moderate positive relationship between workforce planning practices and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria. This means that workforce planning strongly determines how adequately rural schools are staffed which in turn affect student learning outcomes positively. This finding suggests that when school administrators and educational planners engage in systematic forecasting, needs assessment, and timely recruitment, teacher shortages are significantly reduced. The result aligns with the work of Aina (2020), who noted that effective human resource planning is a critical determinant of school functionality and teacher deployment efficiency in Nigeria. Similarly, Adeoye and Olaniyan (2018) argued that structured workforce planning supports proactive decisions that ensure adequate staffing at the right time. The positive relationship found in this study implies that ineffective planning contributes to unequal teacher staffing, last-minute deployment decisions, and chronic shortages in key subjects. This confirms the conclusion of Oyediji (2019), who reported that most staffing challenges in rural schools are products of administrative oversight rather than lack of qualified teachers. Thus, this study contributes to the growing evidence that strategic workforce planning is essential for maintaining teacher availability, especially in hard-to-reach rural communities.

The second finding indicated that there is a significant relationship between teacher distribution and student learning outcomes in rural public senior secondary schools in Ogun State, Nigeria. The results demonstrated that when teachers are equitably distributed across subjects, classes, and grade levels, students tend to achieve higher academic outcomes. The result showed that schools with more equitable teacher distribution tend to achieve better student performance while schools where teachers are concentrated in certain subjects, leaving gaps in others, tend to perform poorly. That the finding showed a moderate positive relationship between the two variables, suggests that rural schools with more balanced teacher postings will record better student performance in internal examinations and standardized assessments. This finding confirms that teacher distribution plays a central role in shaping student academic achievement. This finding corroborates studies by Olatunji (2021) and Uko (2017), who emphasized that equitable posting of teachers enhances instructional quality and reduces learning disparities. Moreover, the UNESCO (2019) report on teacher allocation in developing countries stressed that balanced teacher distribution is a driver of fairness and equity in education. The implication of this finding is that students in rural schools are disadvantaged not because they lack interest or capability, but because they often lack sufficient access to qualified teachers in core subjects. When distribution is unbalanced, students in some classes have access to experts, while others rely on underqualified or overstretched teachers. Therefore, this study reinforces the idea that equitable teacher distribution is both a policy necessity and a pedagogical requirement for improving academic outcomes in rural Nigeria.

Conclusion

This study concludes that workforce planning practices and teacher distribution are intricately linked to the effectiveness of rural public secondary schools and are determinants of students learning outcome in rural public senior secondary schools in Ogun State, Nigeria. Therefore, improving learning outcomes in rural Nigerian schools requires strategic workforce planning, equitable teacher distribution, as well as interventions to mitigate teaching challenges and teacher retention issues undermining efforts to achieve balanced staffing which in turn significantly influences learning outcomes. However, policymakers must prioritize strategic workforce planning, address infrastructural gaps, and implement incentives to attract and retain teachers in hard-to-reach areas.

Recommendations

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

1. Educational authorities should implement systematic workforce planning strategies that include accurate teacher data collection, forecasting of staffing needs, and timely recruitment. This will ensure that rural schools are adequately staffed to meet student learning demands.



2. Policies should be developed to promote fair distribution of teachers across rural schools, with particular attention to critical subjects such as Mathematics, Sciences, and English Language. Incentives such as rural allowances, housing, and career advancement opportunities can encourage teachers to accept postings in less favored schools. This is essential for a satisfactory learning outcome.
3. The government and school management should improve rural infrastructure, provide safe accommodation, ensure reliable transportation, and enhance security in rural areas. Professional development programs and support networks for rural teachers can also improve retention.

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