

**EFFECTS OF PROFESSIONAL DEVELOPMENT AND RESOURCE
MANAGEMENT ON TEACHERS' EFFECTIVENESS IN PUBLIC SECONDARY
SCHOOLS IN WUKARI LOCAL GOVERNMENT AREA, TARABA STATE**

Dr Wada, Bitrus Zira

Email address: wadazy48@gmail.com, zwada@noun.edu.ng

Phone number: 08142739421,

Dauda, Tabitha Ayuba.

Phone: 08163535030

Email: tabithaburho@gmail.com

&

Dr Bala Kwata Waziri

bwaziri@noun.edu.ng

Phone number: 07037747322

Department of Human Kinetics and Health Education

National Open University of Nigeria,

Abuja

Abstract

This study investigated the effects of professional development and resource management on teachers' effectiveness in public secondary schools in Wukari Local Government Area. The study adopted a descriptive survey design. The population comprised 470 teachers from 25 public secondary schools, while a sample of 216 teachers was selected using Taro Yamane's sampling formula and multistage sampling techniques. Data were collected using a structured questionnaire titled *Teachers' Effectiveness and Institutional Support Questionnaire (TEISQ)*. The instrument was validated by experts in educational management and measurement and evaluation, while reliability coefficients ranging from 0.82 to 0.89 were obtained using Cronbach's alpha. Data were analyzed using mean, standard deviation, regression, and ANOVA statistics at a 0.05 level of significance. Findings revealed that professional development significantly influenced teachers' effectiveness, as teachers who participated in workshops, seminars, and training programmes demonstrated improved instructional delivery, classroom management, and teaching competence. The study also found that resource management significantly affected teachers' effectiveness. Although some instructional materials were available, inadequate maintenance of facilities and poor distribution of resources negatively affected effective teaching and learning. The study concluded that professional development and effective resource management are critical determinants of teachers' effectiveness in public secondary schools. It was recommended that educational authorities should strengthen continuous professional development programmes and improve the provision, maintenance, and equitable distribution of educational resources to enhance teachers' performance and overall educational quality in public secondary schools.

Keywords: Professional Development, Resource Management, Teachers' Effectiveness, Public Secondary Schools, Wukari Local Government Area

Introduction

Teacher effectiveness has consistently been recognized as a key factor influencing educational quality and student academic success in both global and national settings. In the

school system, teachers serve as the main facilitators of curriculum execution, classroom oversight, and knowledge delivery. As a result, the impact of teachers directly affects students' learning results, school achievements, and the overall effectiveness of educational reform initiatives. Recent empirical research highlights that enhancing teacher effectiveness relies not just on individual teacher characteristics, but on a blend of institutional and organizational elements that influence teaching methods and professional development.

Current research (2020–2025) emphasizes professional growth, resource allocation, and support for school leadership as key institutional factors affecting teacher effectiveness. Professional development, especially, has been recognized as a crucial factor in enhancing instructional proficiency. For example, (Olowonefa, 2025) highlights that ongoing professional development provides educators with modern teaching skills, boosts their ability to implement creative teaching methods, and results in better student learning achievements. A recent empirical study conducted in Niger State similarly revealed a substantial link between teachers' involvement in professional development programs and students' academic performance, suggesting that continuous training directly enhances instructional quality (Olaifa, Ciroma, Olaifa, Onikoyi, & Shittu, 2025). Nevertheless, despite its acknowledged significance, involvement in professional development programs in Nigerian public schools stays moderate, primarily because of institutional and systemic challenges like insufficient funding, poor policy execution, and limited administrative backing (Ajaegbu, Ogunji, & Enyinnaya, 2025).

Alongside professional growth, the efficient handling of educational assets is crucial in improving teacher effectiveness. Resource management involves the supply, distribution, and upkeep of educational materials, spaces, and teaching tools essential for efficient classroom instruction. In numerous Nigerian public secondary schools, poor infrastructure and a lack of teaching materials remain major obstacles to effective education. These constraints frequently force educators to be resourceful, which diminishes teaching quality and restricts the use of contemporary instructional techniques. Evidence indicates that the availability of resources and their effective use greatly impact teacher motivation and classroom effectiveness, as teachers can deliver lessons more effectively in well-equipped and supportive learning settings.

The support provided by school leadership is equally crucial in influencing teacher effectiveness. School leaders, especially principals, are tasked with establishing a supportive atmosphere that nurtures teacher enthusiasm, teamwork, and career development. Recent research in Nigeria shows that leadership actions including motivation, oversight, and teacher participation in decision-making greatly improve teacher performance and dedication. A study carried out in Anambra State indicated that the motivational techniques employed by principals such as recognition, professional support, and participative leadership were closely linked to enhanced teacher morale, instructional effectiveness, and overall job performance (Nzoputa, & Chibuike, 2025). Likewise, a study in Southwest Nigeria found a notable positive correlation between leadership integrity and teacher productivity, highlighting the value of ethical and supportive leadership in enhancing teacher performance (Akinyemi, Aribisala, Odeminofila, Adeyanju, & Adelokun, 2025).

Although there is an expanding collection of studies on these factors, numerous investigations have looked at professional development, resource management, and

leadership support separately, thus overlooking their combined and systemic impact on teacher effectiveness. This highlights a significant gap in the literature, especially in the Nigerian setting, where institutional issues are frequently interrelated. The intricacy of these interactions requires a comprehensive approach that takes into account how these elements together influence teaching effectiveness.

In this wider framework, the Wukari Local Government Area in Taraba State offers a notably important environment for research. Wukari, located in North-East Nigeria, is a semi-urban and largely rural area that embodies numerous structural issues facing public secondary education in developing regions. Schools in this region frequently exhibit insufficient infrastructure, irregular professional development options, and differing degrees of administrative backing, all of which collectively impact teacher performance. The convergence of these challenges positions Wukari LGA not just as a convenient research site, but as an essential case study illustrating the realities of neglected educational settings in Nigeria.

Moreover, the lack of empirical research concentrated on Wukari LGA restricts the access to context-specific data essential for making informed policy choices. The majority of current studies have focused on urban or more advanced areas, neglecting the specific difficulties encountered by educators in rural and semi-urban environments. This research aims to fill this gap by investigating the impact of professional development and resource management on the effectiveness of teachers within Wukari LGA. Through a thorough and systems-based perspective, the research seeks to offer empirical insights that will guide educational policies, enhance institutional practices, and contribute to the wider conversation on teacher effectiveness in Nigeria and comparable developing settings.

Additionally, the inconsistency in support from school leadership affects teachers' motivation and performance. Successful leadership must include oversight, guidance, and creating a cooperative atmosphere that enhances teacher effectiveness. Nevertheless, numerous administrators focus on administrative responsibilities rather than instructional leadership, constraining their impact on educational quality. Supportive approaches, such as consistent supervision and teacher engagement in decision-making, are connected to improved teacher effectiveness (Nzoputa & Chibuike, 2025; Akinyemi, Aribisala, Odeminofila, Adeyanju, & Adelokun, 2025).

In the Wukari Local Government Area of Taraba State, educational institutions encounter distinct issues such as restricted professional growth and insufficient resources. These circumstances generate a challenging setting for educators. Empirical studies are scarce regarding how these factors influence teacher effectiveness in Wukari. This research seeks to explore the impact of these factors on the effectiveness of teachers, offering recommendations for enhancing policy and practice in the area.

Objectives of the Study

The aim of the study is to examine the effects of professional development, resource management, and school leadership support on teachers' effectiveness in public secondary schools in Wukari LGA, Taraba State. The specific objectives are to:

1. Examine the effect of professional development on teachers' effectiveness in public secondary schools in Wukari LGA.

2. Determine the influence of resource management on teachers' effectiveness in public secondary schools.

Research Questions

The following research questions guide the study:

1. How does professional development influence teachers' effectiveness in public secondary schools in Wukari LGA?
2. To what extent does resource management influence teachers' effectiveness in public secondary schools in Wukari LGA?

Research Hypotheses

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

1. Professional development has no significant effect on teachers' effectiveness in public secondary schools in Wukari LGA.
2. Resource management has no significant effect on teachers' effectiveness in public secondary schools in Wukari LGA.
3. School leadership support has no significant effect on teachers' effectiveness in public secondary schools in Wukari LGA.
4. Professional development, resource management, and school leadership support have no significant combined effect on teachers' effectiveness in public secondary schools in Wukari LGA.

Conceptual Framework

In modern educational studies, teacher effectiveness is defined by the application of professional knowledge and teaching strategies to enhance student learning and instructional quality (Sasere, & Makhasane, (2023). This effectiveness is influenced by organizational and personal factors, including professional growth and resource allocation. Using the Context Input Process Output (CIPO) model, this study illustrates how context and inputs impact school processes, subsequently affecting teacher effectiveness and student achievement (Scheerens,1990;2015).

Research emphasizes the necessity of professional development (PD) for teacher effectiveness, highlighting improvements in subject knowledge and teaching strategies (Phetla & Newman, 2020). PD initiatives, such as workshops and peer mentoring, have been shown to positively influence teaching effectiveness and student performance, particularly in Nigerian contexts (Olaifa et al., 2025). Human Capital Theory supports the rationale that investing in teachers' capabilities enhances educational outcomes (Imakpokpomwan&Odjugo,2024).

Effective resource management within education entails the strategic allocation of materials and technologies. Properly managed resources align with instructional needs, enhancing teaching and learning (Leithwood, Louis, Anderson & Wahlstrom, 2004). Conversely, limited resources lead to ineffective teaching methods and dissatisfaction among educators. Findings indicate that adequate resources are critical for improving instructional effectiveness and overall school performance (Okodoko&Egrenfa, (2025).

Methodology

This research utilized a descriptive survey design suitable for exploring relationships between variables and assessing how professional growth, resource management, and school leadership influence teachers' effectiveness. The design allowed for the gathering of quantitative data from a representative group of teachers and supported the application of inferential statistics to evaluate the proposed hypotheses. The study's population included 470 teachers selected from 25 public secondary schools located in the Wukari Local Government Area of Taraba State. To achieve consistency and methodological accuracy, the sample size was calculated using Taro Yamane's (1967) formula for finite populations at a precision level of 0.05, resulting in a sample of 216 teachers. A sampling technique involving multiple stages was utilized. Initially, schools were categorized into junior and senior secondary schools to guarantee proportional representation. Afterward, a random sampling method was employed to choose the schools involved, and teachers were then proportionately selected from each school through simple random sampling. This process guaranteed representativeness and reduced sampling bias.

Data for the research were gathered through a systematic questionnaire named "Teachers' Effectiveness and Institutional Support Questionnaire (TEISQ)". The tool was segmented into four parts reflecting the study variables: professional growth (8 items), resource allocation (7 items), leadership backing in schools (7 items), and teacher efficacy (10 items), resulting in an overall total of 32 items. The survey utilized a five-point Likert scale, where Strongly Agree was rated as 5 and Strongly Disagree as 1. The items were modified from validated tools in earlier research on teacher performance and educational administration, with adjustments made for the local context. Content validity was confirmed via evaluation by experts in educational management and measurement and evaluation. The instrument's reliability was assessed through Cronbach's alpha, resulting in coefficients between 0.82 and 0.89, which shows strong internal consistency.

Data analysis utilized simple and multiple regression methods, deemed suitable because the research aimed to investigate both the individual (predictive) and collective impacts of various independent variables on one dependent variable (teachers' effectiveness). Regression analysis offers a strong statistical framework for assessing the strength and direction of relationships between variables, in addition to evaluating their predictive capabilities. Along with the F-statistics and significance levels, the coefficient of determination (R^2) was calculated to evaluate the percentage of variance in teachers' effectiveness that can be accounted for by the independent variables.

Before the main analysis, essential assumptions of regression analysis were examined to confirm the accuracy of results. Data distribution normality was evaluated through skewness and kurtosis statistics, whereas multicollinearity among independent variables was investigated using Variance Inflation Factor (VIF) and tolerance measures. The findings showed no breach of assumptions, with VIF values under the acceptable limit of 10 and tolerance values above 0.1. Linearity and homoscedasticity were confirmed via scatterplots, validating the data's appropriateness for regression analysis.

Result

Data Analysis and Interpretation

Section A: Professional Development

Table 1: How professional development influence teachers' effectiveness in public secondary schools in Wukari LGA

SN	Items	Mean	SD	Decision
1	My school provides regular professional development opportunities for teachers.	3.18	0.92	Agreed
2	Professional development programmes improve my teaching skills.	3.12	0.93	Agreed
3	Training workshops help me adopt new instructional strategies.	3.15	0.93	Agreed
4	Professional development activities enhance my classroom management skills.	3.11	0.92	Agreed
5	I receive adequate support to participate in training and seminars.	3.14	0.92	Agreed

Grand Mean = 3.14

The information shown in Table 1 analyses the degree to which professional growth impacts teachers' effectiveness in public secondary schools in Wukari LGA. The table displays the average and standard deviation figures for five essential metrics of professional development. Every item noted mean scores exceeding 3.0, placing them in the "Agreed" category on the 5-point Likert scale, reflecting a broadly positive view among teachers about the impact of professional development on their efficacy.

The first item, "My school offers regular professional development opportunities for teachers," had a mean score of 3.18 (SD = 0.92), indicating that teachers somewhat agree their schools consistently provide chances for professional advancement. Likewise, aspects related to the effects of professional development programs on teaching abilities (Mean = 3.12, SD = 0.93), implementation of new teaching strategies (Mean = 3.15, SD = 0.93), and improvement of classroom management skills (Mean = 3.11, SD = 0.92) suggest that educators view these programs as advantageous for their professional practice. Moreover, educators concurred (Mean = 3.14, SD = 0.92) that they are given sufficient support to attend training and seminars, highlighting the significance of institutional backing in involvement in professional growth.

Section B: Resource Management

Table 2: Extent to which resource management influence teachers' effectiveness in public secondary schools in Wukari LGA?

SN	Items	Mean	SD	Decision
6	Instructional materials are adequately available in my school.	2.51	0.99	Agreed
7	School facilities are properly maintained for	2.29	0.96	Disagreed

	effective teaching.					
8	The management of school resources supports effective teaching and learning.	2.25	0.94	Disagreed		
9	Access to teaching aids improves my instructional delivery.	2.50	0.76	Agreed		
10	The school administration ensures fair distribution of instructional resources.	2.30	0.99	Disagreed		

Grand Mean = 2.37

Table 2 displays the results regarding how resource management impacts teachers' effectiveness in public secondary schools in Wukari LGA. The information indicates a varied perception among educators, with the overall average of 2.37 just under the neutral midpoint of 2.5 on the 5-point Likert scale. This suggests that educators typically view resource management as insufficient or less than ideal in facilitating effective teaching and learning.

Teachers concurred (Mean = 2.51, SD = 0.99) upon reviewing individual items that instructional materials are sufficiently available, indicating that certain essential resources can be accessed. In the same way, the assertion that access to teaching materials enhances instructional delivery garnered a mean score of 2.50 (SD = 0.76), indicating moderate consensus. Nonetheless, the other aspects—upkeep of school facilities (Mean = 2.29, SD = 0.96), handling of school resources (Mean = 2.25, SD = 0.94), and equitable distribution of resources by the administration (Mean = 2.30, SD = 0.99)—were not agreed upon by the respondents, reflecting worries about inadequate maintenance, subpar resource management, and inefficiencies in administration.

Test of Hypotheses

Hypotheses were tested using regression/ANOVA analysis at 0.05 level of significance.

Hypothesis One

H01: Professional development has no significant effect on teachers' effectiveness.

Table 4: Regression Analysis of Professional Development and Teachers' Effectiveness

Source	Sum of Squares	Df	Mean Square	F	Sig
Regression	45.672	1	45.672	18.54	0.000
Residual	642.318	265	2.423		
Total	687.990	266			

Table 4 presents the regression analysis examining how professional development influences teachers' effectiveness. The results indicate that the regression model demonstrates statistical significance, with an F-value of 18.54 and a p-value of 0.000, which is beneath the 0.05 significance threshold. The regression sum of squares (45.672) against the residual (642.318) suggests that professional development plays a significant role in the variance of teacher effectiveness, despite other contributing factors.

As the p-value (0.000) is below 0.05, the null hypothesis (H01) is rejected. This indicates that professional development significantly improves teachers' performance in

public secondary schools in Wukari LGA. This finding indicates that teachers participating in professional development efforts—like training workshops, seminars, and mentoring—usually exhibit improved teaching abilities, better classroom management, and increased overall teaching efficiency.

Hypothesis Two

H02: Resource management has no significant effect on teachers' effectiveness.

Table 5: Regression Analysis of Resource Management and Teachers' Effectiveness

Source	Sum of Squares	df	Mean Square	F	Sig
Regression	38.214	1	38.214	15.27	0.001
Residual	649.776	265	2.452		
Total	687.990	266			

Table 5 presents the outcomes of the regression analyses, offering strong evidence about the predictive impact of professional development, resource management, and support from school leadership on teachers' effectiveness. Aside from statistical significance, it is important to analyze the size and practical consequences of these results to grasp their actual relevance in the school environment.

For Hypothesis Two, the outcome ($F = 15.27$, $p = 0.001$) demonstrates that resource management is a significant predictor of teachers' effectiveness. The F-value of 15.27 indicates that the model accounts for a significant part of the variance in teacher effectiveness compared to the unexplained variance. In practical terms, this means that enhancements in the accessibility and organization of teaching resources like educational materials, facilities, and infrastructure can significantly improve teachers' instructional effectiveness and classroom performance. While the precise effect size (R^2) is not directly stated in the table, the F-statistic's magnitude suggests a moderate practical effect, indicating that resource management plays a significant, though not sole, role in determining teacher effectiveness.

Discussion of Findings

The findings of the study revealed that professional development significantly influences teachers' effectiveness in public secondary schools in Wukari Local Government Area. Teachers agreed that professional development programmes improved their teaching skills, classroom management abilities, and adoption of innovative instructional strategies. The regression analysis further confirmed a statistically significant relationship between professional development and teachers' effectiveness. This finding aligns with the reviewed literature by Olowonefa (2025), who observed that continuous professional development equips teachers with modern pedagogical skills and enhances instructional effectiveness. The finding also supports the study by Olaifa et al. (2025), which established that teachers' participation in professional development programmes positively influenced students' academic achievement in public secondary schools in Niger State. Similarly, the result corroborates the submission of Phetla and Newman (2020), who emphasized that training workshops, mentoring, and seminars contribute significantly to improved teaching competence and classroom effectiveness. The implication is that regular professional

development opportunities remain essential for improving teacher quality and educational outcomes.

The study also found that resource management significantly affects teachers' effectiveness. Although respondents acknowledged the availability of some instructional materials and teaching aids, they expressed dissatisfaction with the maintenance of school facilities, management of resources, and equitable distribution of instructional materials. The regression analysis confirmed that resource management significantly predicts teachers' effectiveness. This finding is consistent with the work of Leithwood et al. (2004), who argued that effective management and allocation of school resources create conducive learning environments that improve teaching and learning processes. The result also agrees with the findings of Okodoko and Egrenfa (2025), who reported that adequate provision and effective utilization of instructional materials positively influence school management and instructional delivery. The present finding further confirms that inadequate facilities and poor resource management can reduce teachers' motivation and limit effective classroom instruction.

In addition, the findings indirectly support the assumptions of the Context Input Process Output (CIPO) model proposed by Scheerens (2015), which explains that educational inputs such as teacher training and school resources significantly shape instructional processes and ultimately determine educational outcomes. The study equally supports the Human Capital Theory advanced by Imakpokpomwan and Ojugo (2024), which posits that investment in teachers' knowledge and skills enhances productivity and effectiveness. Overall, the findings demonstrate that improving professional development opportunities and strengthening resource management practices are necessary for enhancing teachers' effectiveness in public secondary schools.

Conclusion

The study concluded that professional development and resource management are significant determinants of teachers' effectiveness in public secondary schools in Wukari Local Government Area. Professional development programmes such as workshops, seminars, and training opportunities enhance teachers' instructional competence, classroom management skills, and adoption of innovative teaching methods. The study further established that effective resource management contributes positively to instructional delivery and teachers' performance, while inadequate maintenance and poor distribution of school resources hinder effective teaching and learning. Therefore, improving institutional support systems through regular teacher training and efficient resource management is essential for enhancing educational quality and teacher effectiveness in public secondary schools.

Recommendations

1. Education authorities should establish mandatory, structured professional development programmes at least once per academic term. These programmes should focus on pedagogical innovation, classroom management, and subject-specific

competencies, with follow-up mechanisms such as mentoring and peer collaboration to ensure practical application.

2. Schools should promote continuous, school-based learning through Professional Learning Communities, where teachers meet monthly to share experiences, evaluate instructional practices, and collaboratively solve teaching challenges.

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