**STRATEGIES EMPLOYED BY SCHOOL LEADERS TO IMPLEMENT EFFECTIVE INSTRUCTIONAL SUPERVISION IN DELTA STATE PUBLIC SECONDARY SCHOOLS**

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**Abstract**

This study investigated the strategies employed by school leaders to implement effective instructional supervision in Delta State public secondary schools. Two research questions and hypotheses respectively guided the study. Using a descriptive survey design with an ex-post-facto approach, the research examined 226 principals from a population of 479 across 25 Local Government Areas. The study was anchored on Clinical Supervision Theory, Transformational Leadership Theory, and Glickman's Developmental Supervision Model. Data were collected using the Instructional supervision Strategy Questionnaire (IOSQ) and analyzed through descriptive statistics, t-tests, correlation analysis, and factor analysis. Results revealed that principals predominantly employ administrative monitoring and developmental supervision strategies, with high agreement on reviewing instructional notes (M = 2.75), examining lesson plans (M = 2.79), and conducting classroom observations (M = 3.31). However, student-centered assessment strategies showed limited implementation. Correlation analysis demonstrated significant positive relationships between administrative experience and all oversight strategies (r = 0.28 to 0.42, p < 0.01). Experienced principals significantly outperformed inexperienced ones across all domains (p < 0.001), with medium effect sizes (Cohen's d = 0.39-0.55). No significant gender differences were found in strategy implementation. The study concluded that principals' strategic leadership is vital for instructional culture, with experience serving as a key enabler. Recommendations include intensifying professional development for inexperienced principals, establishing mentorship programs, and integrating student-focused evaluation methods into supervisory practices.

**Keywords:** Strategies Employed, School Leaders, Instructional Supervision, Delta State, Public Secondary Schools

**Introduction**

Educational supervision represents a fundamental component of the teaching-learning continuum, constituting a primary responsibility of educational administrators in promoting instructional quality within educational institutions. The conceptual foundations of instructional supervision can be traced to early industrial models of management, where scientific management principles were applied to educational settings (Taylor, 1911). However, the evolution toward more collaborative and developmental approaches gained momentum through the pioneering work of Cogan (1973) and Goldhammer (1969), who introduced clinical supervision models that emphasized professional growth rather than mere compliance monitoring. The transformation of instructional supervision from authoritarian inspection to collaborative professional development represents a significant paradigm shift in educational leadership. Early supervision models, dominant in the early 20th century, were characterized by bureaucratic control and fault-finding approaches (Blumberg, 1980; Sergiovanni & Starratt, 1993). These traditional models often created adversarial relationships between supervisors and teachers, focusing primarily on compliance rather than instructional improvement. The 1960s and 1970s marked a turning point with the emergence of clinical supervision (Cogan, 1973; Goldhammer, 1969) and later, developmental supervision models (Glickman et al., 1995). These approaches emphasized collaborative observation, reflective dialogue, and differentiated support based on teacher needs and developmental stages. Subsequent research by Sergiovanni and Starratt (1993) and Zepeda (2012) further refined these models, emphasizing the importance of instructional leadership in creating cultures of continuous improvement.

According to Chen and Rodriguez (2023), instructional supervision is defined as a systematic approach to enhancing teaching quality through collaborative engagement with educators directly involved in student instruction. This contemporary definition reflects the evolution from supervision as control to supervision as support. The framework for instructional supervision encompasses various systematic approaches, procedures, and conditions strategically developed to enhance the professional effectiveness of educators, recognizing that human resources constitute the most valuable asset in educational institutions (Nkedishu, 2021; Patel & Singh, 2023). Recent developments have repositioned instructional supervision as a collaborative endeavor focused on promoting quality assurance in educational settings. Ahmad and Wilson (2024) emphasize that educational quality assurance involves comprehensive assessment of resource allocation, management practices, evaluation systems, monitoring procedures, and transformation processes to generate quality outcomes that meet societal standards and expectations. This shift aligns with transformational leadership theories (Burns, 1978; Bass, 1985) that emphasize the role of educational leaders as change agents who inspire and motivate staff toward shared goals.

Nigeria's educational system faces unique challenges that significantly influence the implementation of effective instructional supervision. The country's educational system is characterized by resource constraints, infrastructural deficits, teacher shortages, and varying levels of professional development opportunities (Igwebuike, et. al., 2013; Omeni & Nkedishu, 2021; Akinfolarin, 2017; Ololube, 2013). These systemic challenges create a complex environment where traditional supervision models may be inadequate for addressing contemporary educational needs. Historical analysis of Nigerian educational supervision reveals a legacy of colonial administrative structures that emphasized bureaucratic control rather than instructional improvement (Ogunu, 2005). Post-independence reforms have attempted to modernize supervisory practices, but implementation has been inconsistent across different states and regions. The National Policy on Education (Federal Republic of Nigeria, 2013) emphasizes the importance of quality assurance and instructional supervision, but the translation of policy into effective practice remains a significant challenge.

Delta State, located in Nigeria's South-South geopolitical zone, presents a unique educational system characterized by both opportunities and constraints. The state's oil-rich economy provides potential resources for educational development, yet many public secondary schools continue to face significant challenges in instructional quality and supervision effectiveness (Okorji & Agu, 2015; Nkedishu & Osakwe, 2017). Delta State’s educational system faces multifaceted challenges that impair effective instructional supervision. Resource constraints are acute in many schools, which lack adequate instructional materials, laboratory equipment, and classroom infrastructure creating environments where principals struggle to oversee comprehensive teaching activities, a dynamic exacerbated in riverine and rural schools where desk shortages and under‑resourcing demotivate both teachers and pupils (Okafor et al., 2024). Teacher quality and retention remain problematic: rural and riverine areas experience high turnover, insufficient professional development, and motivational issues stemming from low salaries, weak recognition, and poor working conditions complicating sustained instructional supervision. Geographical diversity within the state spanning urban centers, rural hinterlands, and water‑locked communities further complicates access to supervision and training, with riverine areas notably disadvantaged in staffing and material provisions. Finally, significant policy‑implementation gaps persist: despite state-level education policies emphasizing quality assurance, chronic under‑funding, irregular supervisory visits, and limited facility and teacher training in rural schools hinder effective enactment (Ekwevugbe, 2014; Ossa, 2022).

Research across Sub-Saharan Africa reveals similar patterns in instructional supervision challenges and opportunities. Studies from Ghana (Enyonam et al., 2020), Kenya (Wanzare, 2011), and South Africa (Bush & Glover, 2016) demonstrate that principals in developing countries face comparable constraints in implementing effective oversight strategies. In Ghana, Enyonam et al., (2020) found that principals' supervisory effectiveness was significantly influenced by their experience and training, similar to patterns observed in Nigerian situation. However, Ghanaian schools showed greater integration of technology-enhanced supervision methods, suggesting potential areas for improvement in Nigerian practices. Kenyan research by Wanzare (2011) emphasized the importance of collaborative supervision models, finding that principals who adopted more participatory approaches achieved better teacher satisfaction and instructional outcomes. This finding parallels Okendu's (2012) work in Rivers State, Nigeria, which demonstrated positive correlations between collaborative supervision and teacher effectiveness. South African studies (Bush & Glover, 2016) highlight the persistent challenges of implementing effective supervision in post-apartheid educational systems, where historical inequalities continue to influence resource distribution and professional development opportunities. These findings resonate with Nigerian experiences, where regional and socioeconomic disparities affect supervision quality.

**Experience as a Factor in Supervisory Practices**

Principals' professional experience significantly impacts their effectiveness in instructional supervision. Greater experience correlates with stronger supervisory skills, increased leadership confidence, and more sophisticated instructional oversight. Experienced principals better understand pedagogy, teacher needs, and organizational dynamics, leading to more effective supervision. For instance, veteran principals in Ghana's Colleges of Education are more engaged in promoting collaboration, providing support, and facilitating professional development (Agyeman-Nyarko, 2021). Differences in instructional leadership are evident across experience levels. Novice principals often focus on establishing authority and managing operations, leaning towards compliance-focused and directive supervision due to limited exposure to complex instructional nuances. In contrast, veteran principals typically adopt more transformational and instructional leadership behaviors, prioritizing teacher support, growth, and participative decision-making. Studies in Pakistan show experienced principals are more visible and actively engaged in supervision, fostering a positive learning climate and encouraging professional development (Riaz, 2024). Seasoned principals also better balance administrative and instructional roles, adapting their style to staff and school needs, while less experienced principals may prioritize management over instructional support (Kim et al., 2024). These disparities highlight the need for differentiated professional support; new principals benefit from mentorship, while experienced ones need opportunities to update practices (Deniz & Mehmet, 2020). Despite the advantages of experience, challenges exist across the spectrum. Less experienced principals may struggle with contemporary, democratic supervision models due to insufficient training or an overemphasis on administrative tasks, defaulting to monitoring rather than collaborative development (Nyaaba, 2012). Resource scarcity and heavy workloads exacerbate these limitations, underscoring the need for continuous professional development and systemic support for early-career leaders. Conversely, highly experienced principals may face pitfalls like complacency or reliance on outdated supervisory models. Resistance to innovation can hinder the adoption of progressive frameworks like culturally responsive supervision or technology integration (Valdés Sánchez & Gutiérrez-Esteban, 2023). This can decrease responsiveness to changing teacher needs and educational challenges. Research emphasizes the need for periodic re-skilling of veteran principals to align with best practices, especially given demographic shifts and pedagogical reforms (Supovitz et al., 2009). Addressing these gaps requires a strategic blend of ongoing training, mentoring, and policy interventions tailored to principals' diverse developmental needs.

**Gender and Supervisory Styles among Principals**

Gender noticeably influences principals’ supervisory styles, affecting their interactions, decision-making, and leadership. Studies in New Jersey found female principals often favor democratic, participative supervision, emphasizing collaboration, teacher development, and support (Eagly & Johnson, 1990). This aligns with theories suggesting female administrators exhibit relational leadership, promoting growth and trust (Tan et al., 2020). Conversely, male principals frequently adopt authoritarian or directive styles, focusing on control, program management, and hierarchical command (Hallinger, 2003). These distinctions reflect societal and cultural expectations, though individual and institutional variations exist. Comparative studies reveal subtle but significant differences in instructional leadership. In Saudi Arabia, female principals prioritize active problem-solving, individualized teacher support, and nurturing professional development, unlike their male counterparts who focus on team-directed improvement and project management (Alsubaie & Jones, 2017). Similar patterns appear in Jamaica and Africa, where female principals often display collaborative leadership, while male principals may be more autocratic (Oplatka, 2006). These findings suggest female principals may foster better instructional environments through communication and empowerment, while male principals might prioritize organizational efficiency and policy implementation. Understanding these gendered tendencies can inform tailored professional development and leadership policies. Teachers' perceptions further illuminate the intersection of gender and supervisory effectiveness. Teachers often report higher satisfaction with female principals, viewing their supervisory styles as more supportive, collaborative, and responsive (Shakeshaft, 1987). However, cultural contexts can influence these perceptions; male principals may be respected for authority but seen as less approachable (Deniz & Mehmet, 2020). Trust and communication quality are often mediated by gender, with female leaders tending to cultivate stronger relational trust, positively impacting supervision and instructional engagement (Tschannen-Moran & Gareis, 2015). Conversely, male principals might face challenges in fostering this trust if their style is perceived as rigid. These gendered dynamics significantly impact school climate, teacher morale, and student outcomes, urging educational stakeholders to consider gender influences when designing supervisory practices and support systems.

**Global and Regional Studies Affecting Gender and Experience in Supervision**

Extensive research in African contexts highlights how gender and experience influence instructional supervision amidst resource constraints and systemic challenges. In Ghana, head-teachers' instructional leadership often suffers due to overwhelming administrative duties, limited professional development, and negative teacher perceptions of supervision (Nyaaba, 2016). Experienced Ghanaian leaders navigate complex conditions to provide mentorship but require enhanced systemic support. Kenyan research corroborates gender's influence on instructional leadership, though some studies find no statistically significant gender differences in instructional supervision, possibly due to evolving gender norms and increased female representation (Kiprotich et al., 2015). Tanzania faces unique challenges, including negative teacher attitudes toward school-based supervision due to unfriendly practices and perceived inadequacies in supervisors' knowledge (Kafyulilo et al., 2012). These regional findings underscore the importance of context-sensitive policies and culturally informed professional development to improve supervision quality across diverse African education systems.

In the Middle East, cultural and societal norms distinctly influence female principals’ experiences and supervisory practices. Research on Saudi and Qatari female principals emphasizes teacher supervision including classroom observations and feedback as a primary instructional leadership responsibility (Alsubaie & Jones, 2017). These principals also integrate professional development initiatives, despite constraints from prevailing gender roles. Qualitative studies show female principals tend to enact relational, altruistic leadership behaviors, actively problem-solving and nurturing teacher collaboration (Alsubaie & Jones, 2017). Cultural expectations often necessitate gender-specific training and support to empower female leaders effectively.

Research in Asian countries, such as Malaysia and Turkey, reveals intricate interplays between gender, experience, and instructional supervision. Malaysian studies indicate that technological leadership self-efficacy and supervisory practices do not significantly differ by gender but are influenced by experience and training accessibility (Tan et al., 2020). In Turkey, studies find no substantial gender disparities in principals' supervisory roles but emphasize the importance of professional development for effective instructional leadership (Deniz & Mehmet, 2020). Western research, particularly from the U.S. and Canada, further contributes to cross-cultural comparisons, identifying variations in leadership styles linked to demographic factors (Urick & Bowers, 2013). These global perspectives emphasize the importance of culturally responsive leadership preparation that accounts for gender and experience as key factors in effective instructional supervision.

**Theoretical Framework**

This study on Strategies Employed by School Leaders to Implement Effective Instructional supervision in Delta State Public Secondary Schools is anchored in three complementary theoretical frameworks that provide a robust foundation for understanding the dynamics and practices of instructional supervision within the school leadership context.

Clinical Supervision Theory (Cogan, 1973; Goldhammer, 1969) serves as a foundational model by advocating for a structured, cyclical process of classroom observation and feedback aimed at improving teaching practices. This theory emphasizes the importance of pre-observation planning, focused classroom observation, and post-observation analysis, which collectively foster a reflective and developmental process between supervisors and teachers. In the context of Delta State public secondary schools, this approach is particularly relevant as it emphasises the need for principals to engage in systematic and supportive supervision strategies that build teacher capacity while enhancing instructional quality.

Transformational Leadership Theory (Burns, 1978; Bass, 1985) further deepens the theoretical lens by emphasizing the role of school leaders as visionaries and change agents. Transformational leaders inspire and motivate staff through characteristics such as intellectual stimulation, individualized consideration, inspirational motivation, and idealized influence. Applied to instructional supervision, principals who embody these qualities are better positioned to foster a culture of continuous improvement, motivate teachers to exceed performance expectations, and align instructional practices with school goals. In resource-constrained settings like Delta State, where morale and motivation may be affected by infrastructural or policy limitations, transformational leadership becomes a vital component of effective instructional supervision.

Glickman’s Developmental Supervision Model (Glickman, Gordon, & Ross-Gordon, 1995) complements the above theories by introducing a differentiated approach to supervision. This model argues that effective supervision should be tailored to the developmental level, capacity, and willingness of the teacher. It categorizes supervisory behavior into three styles directive, collaborative, and non-directive each appropriate for different teacher profiles. In Delta State’s diverse public school system, where teacher experience, qualifications, and commitment levels vary widely, this model provides a practical framework for principals to adopt flexible and context-sensitive oversight strategies.

Together, these theories provide a comprehensive lens through which to explore and analyze the strategies employed by school leaders in Delta State. By integrating structured observation (clinical supervision), visionary and motivational leadership (transformational leadership), and differentiated supervisory approaches (developmental supervision), this study seeks to offer a nuanced understanding of how principals can implement effective instructional supervision to improve teaching and learning outcomes in public secondary schools. The integration of clinical supervision theory, transformational leadership theory, and Glickman’s developmental supervision model offers a comprehensive theoretical lens for enhancing instructional supervision in Delta State. Clinical supervision, with its structured process of observation, conferencing, and feedback, aligns well with the state's quality assurance mandates; however, practical application is often hindered by large class sizes, limited staffing, and time constraints. Transformational leadership theory, emphasizing vision, motivation, and professional growth, is especially relevant in Delta State’s education system where teacher morale may be undermined by resource limitations, workload pressures, and infrastructural deficits. Among these, Glickman’s developmental supervision model presents the most contextually adaptive framework, as it supports differentiated supervision based on individual teacher readiness and professional maturity. This approach is particularly significant in Delta State, where disparities in teacher qualifications and experience levels especially between urban, rural, and riverine schools necessitate flexible and supportive supervisory practices that promote instructional improvement across diverse educational settings.

**Gap in Literature**

Despite growing interest in instructional supervision, significant empirical and contextual gaps persist especially in African and other resource-constrained educational systems. First, prevailing supervision models, primarily developed in Western contexts, often fail to account for large class sizes, multilingual classrooms, and chronic resource limitations common in African schools (Nwangwu, 2022; Okeke & Anyaegbunam, 2021). Second, while technology-enhanced supervision is globally promoted, its applicability in rural African contexts remains under-researched, particularly concerning cost-effective, scalable digital tools in schools without stable electricity or internet access (Aduwa-Ogiegbaen & Iyamu, 2023). Third, although many interventions yield short-term improvements, they frequently lack sustainability and system-wide scalability due to administrative bottlenecks, funding issues, and inconsistent policy enforcement (UNESCO, 2021). Furthermore, the literature disproportionately emphasizes principals’ perspectives, neglecting teachers’ voices and reactions to supervision processes an oversight that limits understanding of supervision’s on-the-ground effectiveness (Eze & Ugwoke, 2020). Culturally insensitive models also undermine success; supervision approaches rarely reflect African sociocultural values, including norms about feedback, hierarchy, and authority (Chikoko, 2019). Lastly, there is limited empirical work on how to implement impactful supervision under severe budgetary and infrastructural constraints, a critical omission for many sub-Saharan African education systems striving for equity and quality (World Bank, 2020).

**Statement of the Problem**

The quality of teaching and learning in public secondary schools is strongly influenced by the effectiveness of instructional supervision provided by school leaders, particularly principals. Educational administrators and policymakers widely recognize that instructional supervision is a critical lever for improving instructional practices, student outcomes, and overall school performance. As such, considerable efforts have been made in Nigeria to embed quality assurance mechanisms at the secondary education level, with an emphasis on institutional oversight. Despite these efforts, concerns persist regarding the consistency and efficacy of instructional supervision practices across schools, especially in resource-constrained settings such as Delta State. While some teachers attribute improvements in their instructional delivery, motivation, and professional development to the supportive supervision provided by their principals, others voice dissatisfaction, citing inadequate feedback, lack of follow-up, and minimal classroom engagement from school leaders. These disparities raise pertinent questions about the strategies employed by principals to supervise instruction effectively. Moreover, the influence of principals’ experience, professional training, and leadership style on their ability to perform this critical function remains insufficiently explored. It is unclear whether principals with longer years of administrative service are more adept at applying effective instructional supervision strategies or if other contextual variables play a more decisive role. Given the complex dynamics surrounding instructional leadership in public secondary schools, it becomes imperative to examine the specific strategies adopted by principals in Delta State to ensure effective instructional supervision. Understanding these strategies, along with the contextual factors that enhance or hinder their implementation, can inform policy reforms, leadership training, and capacity-building initiatives aimed at strengthening instructional quality. Therefore, this study seeks to investigate the strategies employed by school leaders to implement effective instructional supervision in Delta State public secondary schools.

**Research Questions**

The following research inquiries were developed to guide the study:

1. What strategies do principals employ to achieve effective instructional supervision in Delta State public secondary schools?
2. How does principals' administrative experience influence the implementation of instructional supervision strategies?

**Hypotheses**

The following hypotheses were formulated:

1. There exists no significant difference between male and female principals regarding their evaluation of strategies used to achieve effective instructional supervision.
2. There exists no significant difference between experienced and inexperienced principals concerning the implementation of instructional supervision strategies.

**Significance of the Study**

This study addresses a critical gap in understanding how instructional supervision strategies can be effectively implemented in the specific context of Delta State's public secondary schools. The research is particularly significant given the state's unique position as an oil-producing region with both urban and rural educational challenges. The findings will contribute to the broader discourse on educational leadership in developing countries, particularly in contexts where traditional supervision models may require adaptation to local realities. By examining the role of experience and gender in supervision effectiveness, the study provides insights relevant to leadership development and deployment strategies across similar educational systems. Furthermore, the research responds to calls from the Nigerian National Policy on Education for evidence-based approaches to educational quality assurance. The systematic examination of supervision strategies employed by principals will inform policy development and professional development initiatives at state and national levels.

**Methodology**

Research Design

This study employed a descriptive survey design with an ex-post-facto approach. The ex-post-facto design was selected because the independent variables (administrative experience and gender) had already occurred and could not be manipulated by the researcher. This design allows for the examination of relationships between variables without experimental manipulation, making it appropriate for investigating naturally occurring phenomena in educational settings (Creswell, 2014). While a longitudinal design would have provided stronger evidence for causal relationships, practical constraints including time limitations, resource availability, and the challenge of tracking principals across multiple academic years necessitated a cross-sectional approach. The cross-sectional design was deemed appropriate for achieving the study's primary objective of examining current practices and relationships among variables (Bryman, 2016).

Population and Sample

The target population consisted of 479 public secondary school principals in Delta State during the 2024/2025 academic year. This population was drawn from the official register maintained by the Delta State Post Primary Education Board (PPEB). The sample size was determined using Krejcie and Morgan's (1970) table for determining sample size, which recommended a minimum of 214 participants for a population of 479 (margin of error = 5%, confidence level = 95%). To account for potential non-response and ensure adequate representation, the sample was increased to 226 participants. For the purpose of this study, principals were classified as "experienced" if they had served in administrative positions for more than five years, and "inexperienced" if they had five years or less of administrative experience. This classification was based on research by Leithwood et al. (2008) indicating that significant improvement in principal effectiveness typically occurs after the fifth year of administrative service. The five-year threshold has been widely used in educational leadership research as a meaningful distinction between novice and experienced administrators (Day, et. al., 2016).

Sampling Procedure

A stratified random sampling technique was adopted to ensure proportional and representative coverage across Delta State's 25 Local Government Areas. The stratification was based on three key criteria: geographic zones (North, Central, and South senatorial districts), school size (small with fewer than 500 students, medium with 500–1000 students, and large with over 1000 students), and principals’ administrative experience (inexperienced with ≤5 years and experienced with >5 years in leadership roles). This multi-stage stratification strategy enabled the study to capture the diversity of school contexts, regional disparities, and leadership experience across the public secondary school system. Within each stratum, schools and participants were randomly selected using a computer-generated random number system to minimize selection bias and enhance the generalizability of findings.

Instrument

The research instrument titled Instructional Supervision Strategy Questionnaire (ISSQ) was developed through a rigorous five-stage process to ensure its validity, reliability, and contextual appropriateness for assessing instructional supervision practices in Delta State. Stage 1 involved a comprehensive review of literature on instructional supervision, drawing on frameworks such as Glickman's Developmental Supervision Model, Clinical Supervision Theory, and Transformational Leadership Theory to generate an initial pool of 35 items. Stage 2 focused on expert review and content validation, where three professionals a professor of educational administration, a retired principal, and a senior education officer assessed item relevance and clarity using a 4-point scale. Items with Content Validity Index (CVI) scores below 0.75 were revised or discarded, refining the instrument to 25 items. Stage 3 involved pilot testing with 30 principals who were not part of the main study, assessing clarity, completion time, reliability, and response trends. The pilot yielded a Cronbach’s alpha of 0.79, with average completion time of 15–20 minutes, and identified three ambiguous items, which were revised. Stage 4 led to instrument refinement into three structured sections: demographic data (2 items), instructional supervision strategies (10 items), and influence of administrative experience (10 items), using a 4-point Likert scale. Stage 5 finalized the validation process through exploratory factor analysis, revealing two dominant factors explaining 64.2% of the variance, affirming the instrument’s theoretical alignment. The decision to use a 4-point Likert scale was intentional to avoid neutral responses and promote clear stance-taking, thereby enhancing the interpretability of supervisory patterns in the context studied.

Validity and Reliability

To ensure the accuracy and appropriateness of the Instructional supervision Strategy Questionnaire (IOSQ), multiple validity and reliability checks were conducted. Face validity was established through a thorough review of the instrument by three experts in educational administration, who affirmed the relevance and clarity of the items. Content validity was assessed using the Content Validity Index (CVI), which yielded a score of 0.82, indicating strong alignment between the items and the constructs they were intended to measure. Construct validity was determined through an exploratory factor analysis, which revealed two distinct factors corresponding to the key domains of the instrument and collectively explained 68.4% of the total variance. To assess reliability, the split-half method was applied, and a reliability coefficient of 0.75 was obtained using the Spearman-Brown formula, demonstrating acceptable internal consistency of the instrument.

Data Collection Procedure

The data collection procedure followed a structured, multi-phase approach designed to optimize both response rates and data quality. Phase 1 focused on institutional approval and gatekeeping, beginning with ethical clearance obtained from the university’s research ethics committee. Principals were formally informed through established administrative channels. Phase 2 involved the distribution of questionnaires to principals. Each questionnaire package included a cover letter outlining the study’s objectives, confidentiality measures, and contact details. Respondents were given two weeks to complete the questionnaires, and a tracking system was employed to monitor response rates across Local Government Areas (LGAs). Phase 3 focused on follow-up and response enhancement efforts. Reminder calls were made after one week, followed by a second reminder at day ten. Non-responding schools were contacted directly, and a one-week extension was granted to schools in hard-to-reach areas. Ultimately, out of 226 questionnaires distributed, 215 were completed and returned, yielding a high response rate of 95.1%. A non-response analysis showed that 8 questionnaires (3.5%) were not returned and 3 (1.3%) were incomplete. Response rates were slightly lower in riverine areas (4.2%) compared to urban areas (2.1%), although no significant non-response variation was observed by gender or administrative experience.

**Data Analysis**

## Data analysis for the study was conducted using SPSS version 26.0, incorporating both descriptive and inferential statistical techniques to ensure comprehensive interpretation of the data. Descriptive analysis involved calculating means, and standard deviations to summarize question items and evaluate central tendencies and variability across all scale items. Distribution patterns were examined to detect any potential outliers. Inferential analysis included independent samples t-tests to assess group differences based on gender and administrative experience, as well as Pearson correlation analysis to explore relationships between instructional supervision variables. Exploratory factor analysis (EFA) was employed for construct validation, confirming the dimensionality of the instrument, while Cohen’s d was calculated to assess the practical significance of observed differences. A benchmark criterion mean of 2.50 representing the midpoint of the 4-point Likert scale was established for interpretation, with values ≥2.50 indicating agreement and values <2.50 interpreted as disagreement with each item statement.

**Study Limitations**

While this study offers valuable insights into instructional supervision strategies in Delta State’s public secondary schools, several limitations must be acknowledged that may influence the interpretation and generalizability of findings. Methodologically, the exclusive reliance on self-reported data from principals introduces the risk of social desirability bias, as respondents may have overstated their supervisory engagement or downplayed challenges, particularly given the professional expectations attached to their roles. The absence of triangulation such as teacher perspectives, classroom observations, or document analysis limits the comprehensiveness of the findings. Additionally, the cross-sectional design precludes causal inferences, restricting conclusions to correlational patterns between administrative experience and supervisory effectiveness without capturing temporal dynamics. The binary classification of experience (≤5 years vs. >5 years) may also oversimplify the developmental nuances of leadership growth, excluding variables such as quality, diversity of experience, or professional training. Though sampling was stratified and achieved strong representation across Delta State’s LGAs, generalizability remains limited to public schools and may not extend to other Nigerian states, private institutions, or educational systems with differing contexts. Regarding measurement and instrumentation, the forced-choice format of the 4-point Likert scale, while helpful in discouraging neutrality, may have constrained authentic responses, masking ambivalence or uncertainty. The construct validity of certain domains, such as the Student-Centered Assessment domain (α = 0.69), signals potential reliability concerns, suggesting that some supervisory dimensions may not be fully captured. Contextually, the study’s single-time-point design offers only a temporal snapshot, potentially overlooking seasonal variations in supervision intensity (e.g., during exams or inspections). Though the response rate was high (95.1%), non-response bias remains a consideration, particularly if non-respondents were less engaged or overwhelmed. Lastly, the English-language development of the instrument may not have fully reflected local linguistic and cultural nuances in supervisory practice, potentially omitting important contextual dimensions relevant to the Delta State education system.

### Implications of Limitations

The identified limitations highlight important directions for future research aimed at deepening the understanding of instructional supervision in Delta State and comparable educational contexts. First, the reliance on single-source data underscores the need for multi-source validation through the inclusion of teacher perspectives, classroom observations, and document reviews, which would enable more comprehensive and credible assessments of supervisory practices and their impact. Second, to address the limitations of the cross-sectional design, longitudinal studies are recommended to track the evolution of principals’ supervisory behaviours over time, establish causal relationships, and pinpoint key phases for targeted professional development. Third, given the variation in school environments across Delta State, contextual analysis examining how factors such as school size, geographic location, and resource availability shape supervision practices would offer practical insights for policy and tailored interventions. Fourth, qualitative approaches, including case studies and ethnographic methods, could capture the lived experiences of school leaders, illuminating the real-world challenges and adaptive strategies used in diverse supervisory contexts. Despite these methodological and contextual constraints, the study offers a meaningful baseline for instructional supervision research in Delta State, providing policymakers, education managers, and scholars with a foundational understanding of current practices and areas for strategic improvement.

**Results and Discussion**

**Research Question 1:** What strategies do principals employ to achieve effective instructional supervision in Delta State public secondary schools?

**Table 1: Descriptive Statistics and Factor Analysis of Strategies principals employ to achieve effective instructional supervision**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Strategy** | **Mean** | **SD** | **Factor loading** | **Remark** |
| **Administrative Monitoring (α = 0.78)** |  |  |  |  |
| Reviewing teachers' instructional notes | 2.75 | 1.01 | 0.72 | Agree |
| Examining teachers' lesson plans | 2.79 | 0.92 | 0.75 | Agree |
| Ensuring curriculum adherence | 2.60 | 1.03 | 0.68 | Agree |
| Ensuring appropriate resource use | 2.46 | 0.95 | 0.63 | Disagree |
| **Developmental Supervision (α = 0.83)** |  |  |  |  |
| Conducting classroom observations | 3.31 | 0.80 | 0.81 | Agree |
| Delivering feedback after observations | 2.92 | 0.88 | 0.77 | Agree |
| Recommending improvement methods | 3.13 | 0.83 | 0.74 | Agree |
| Organizing micro-teaching sessions | 2.41 | 0.96 | 0.59 | Disagree |
| **Student-Centered Assessment (α = 0.69)** |  |  |  |  |
| Reviewing student notebooks | 2.47 | 0.87 | 0.71 | Disagree |
| Questioning students about teaching | 2.30 | 0.94 | 0.68 | Disagree |

**Overall Scale Reliability (Cronbach's α = 0.84)** **Total Variance Explained: 68.4%**

The research question explores the strategies principals use to achieve effective instructional supervision in Delta State public secondary schools. Table 1 presents descriptive statistics and factor analysis results grouped into three strategic domains: Administrative Monitoring, Developmental Supervision, and Student-Centered Assessment. Under Administrative Monitoring, principals largely agree that they review teachers' instructional notes (M = 2.75), examine lesson plans (M = 2.79), and ensure curriculum adherence (M = 2.60), but they are less inclined to ensure appropriate resource use (M = 2.46), which received a “disagree” remark. In the Developmental Supervision domain, strategies such as conducting classroom observations (M = 3.31), giving feedback (M = 2.92), and recommending improvements (M = 3.13) were affirmed, while organizing micro-teaching sessions (M = 2.41) was not widely practiced. For Student-Centered Assessment, both reviewing student notebooks (M = 2.47) and questioning students (M = 2.30) were marked with “disagree,” indicating limited implementation. The factor loadings (ranging from 0.59 to 0.81) confirm good construct validity, and the internal consistency of each domain is acceptable to strong (Cronbach's α = 0.69–0.83), with the overall reliability at α = 0.84 and a total variance explained of 68.4%. In summary, principals predominantly employ administrative and developmental strategies for instructional supervision, while student-centered assessment strategies are less emphasized.

**Research Question 2:** How does principals' administrative experience influence the implementation of instructional supervision strategies?

**Table 2: Correlation Analysis on how principals' administrative experience influence the implementation of instructional supervision strategies**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variables** | **1** | **2** | **3** | **4** | **5** |
| Years of Experience | 1.00 |  |  |  |  |
| Administrative Monitoring | 0.34\*\* | 1.00 |  |  |  |
| Developmental Supervision | 0.41\*\* | 0.52\*\* | 1.00 |  |  |
| Student-Centered Assessment | 0.28\*\* | 0.45\*\* | 0.38\*\* | 1.00 |  |
| Overall Supervision Score | 0.42\*\* | 0.81\*\* | 0.85\*\* | 0.73\*\* | 1.00 |

**Note:** \*\*p < 0.01, \*p < 0.05

Research Question 2 investigates how principals' administrative experience influences the implementation of instructional supervision strategies. Table 2 presents the results of a correlation analysis showing statistically significant positive relationships between years of administrative experience and all aspects of instructional supervision at the p < 0.01 level. Specifically, experience correlates moderately with Administrative Monitoring (r = 0.34), more strongly with Developmental Supervision (r = 0.41), and to a lesser extent with Student-Centered Assessment (r = 0.28). The strongest relationship is observed between experience and the Overall Supervision Score (r = 0.42), suggesting that more experienced principals are more likely to implement instructional supervision strategies effectively. Additionally, the high intercorrelations among the strategy domains (ranging from 0.38 to 0.85) indicate a cohesive and integrated approach to instructional supervision. In summary, the findings suggest that principals’ administrative experience significantly enhances their implementation of instructional supervision strategies, particularly in developmental supervision.

**Hypothesis 1:** There exists no significant difference between male and female principals regarding their evaluation of strategies used to achieve effective instructional supervision.

**Table 3: t-test Analysis on Gender Differences in principals regarding their evaluation of strategies used to achieve effective instructional supervision**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Male (n=96)** | **Female (n=119)** | **t-value** | **p-value** | **Cohen's d** | **Effect Size** |
| Administrative Monitoring | 2.65 (0.89) | 2.71 (0.95) | -0.47 | 0.64 | 0.06 | Negligible |
| Developmental Supervision | 2.89 (0.82) | 3.05 (0.87) | -1.36 | 0.18 | 0.19 | Small |
| Student-Centered Assessment | 2.32 (0.91) | 2.44 (0.86) | -0.98 | 0.33 | 0.14 | Negligible |
| Overall Supervision | 2.62 (0.75) | 2.73 (0.81) | -1.02 | 0.31 | 0.14 | Negligible |

**Note:** \*\*p < 0.01, \*p < 0.05

Hypothesis 1 posits that there is no significant difference between male and female principals in their evaluation of strategies used to achieve effective instructional supervision. The t-test results in Table 3 support this hypothesis. Across all strategy domains Administrative Monitoring, Developmental Supervision, Student-Centered Assessment, and the Overall Supervision score there are no statistically significant gender differences, as all p-values are well above the conventional thresholds (p > 0.05). The t-values range from -0.47 to -1.36, indicating minimal differences in mean ratings between male and female principals. Furthermore, Cohen’s d values range from 0.06 to 0.19, suggesting negligible to small effect sizes, with no practical significance. These findings indicate that both male and female principals share similar perceptions and evaluations of instructional supervision strategies, and thus the null hypothesis is retained.

**Hypothesis 2:** There exists no significant difference between experienced and inexperienced principals concerning the implementation of instructional supervision strategies.

**Table 4: t-test Analysis - Experience Differences in principals concerning the implementation of instructional supervision strategies.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Experienced (n=102)** | **Less Experienced (n=113)** | **t-value** | **p-value** | **Cohen's d** | **Effect Size** |
| Administrative Monitoring | 2.94 (0.78) | 2.46 (0.95) | 4.02\*\* | <0.001 | 0.55 | Medium |
| Developmental Supervision | 3.21 (0.81) | 2.79 (0.84) | 3.78\*\* | <0.001 | 0.51 | Medium |
| Student-Centered Assessment | 2.58 (0.87) | 2.24 (0.87) | 2.95\*\* | 0.004 | 0.39 | Small |
| Overall Supervision | 2.91 (0.72) | 2.50 (0.78) | 4.08\*\* | <0.001 | 0.55 | Medium |

**Note:** \*\*p < 0.01, \*p < 0.05

Hypothesis 2 posits that there is no significant difference between experienced and inexperienced principals in the implementation of instructional supervision strategies. However, the results in Table 4 reject this null hypothesis, showing statistically significant differences across all strategy domains. Experienced principals consistently reported higher mean scores than their less experienced counterparts in Administrative Monitoring (M = 2.94 vs. 2.46, t = 4.02, p < 0.001), Developmental Supervision (M = 3.21 vs. 2.79, t = 3.78, p < 0.001), Student-Centered Assessment (M = 2.58 vs. 2.24, t = 2.95, p = 0.004), and Overall Supervision (M = 2.91 vs. 2.50, t = 4.08, p < 0.001). The effect sizes, measured by Cohen’s d, range from small (0.39) to medium (0.55), indicating that the differences are not only statistically significant but also of practical relevance. These findings suggest that experienced principals are significantly more effective in implementing instructional supervision strategies than their less experienced counterparts.

**Discussion of Results**

The findings from the descriptive statistics and factor analysis indicate that principals predominantly employ administrative monitoring and developmental supervision strategies for effective instructional supervision. Specifically, high agreement was recorded for reviewing instructional notes (M = 2.75), examining lesson plans (M = 2.79), ensuring curriculum adherence (M = 2.60), conducting classroom observations (M = 3.31), providing post-observation feedback (M = 2.92), and recommending improvement methods (M = 3.13). However, strategies such as ensuring appropriate resource use, organizing micro-teaching, reviewing student notebooks, and questioning students recorded mean scores below 2.50, indicating general disagreement or low implementation. The factor loadings ranged from 0.59 to 0.81, showing good construct validity, while internal consistency was acceptable (α = 0.69–0.83). The overall scale reliability was high (Cronbach’s α = 0.84), with 68.4% of the variance explained. This suggests a reliable and structured use of instructional supervision strategies among principals. Administrative and developmental oversight activities such as reviewing lesson plans, conducting classroom observations, and providing feedback are foundational practices traditionally emphasized in principal training and school evaluation systems. These practices are also more within the direct control of school leaders, who often operate in systems where hierarchical supervision is prioritized. Conversely, student-centered assessment strategies such as reviewing students' notebooks or questioning students a more participatory and feedback-driven approach that may not be deeply embedded in the professional culture or may be constrained by large class sizes, limited time, and a lack of training in formative assessment practices. This reflects findings in prior research, where principals tend to focus more on teacher accountability than on direct engagement with student learning evidence (Nguyen, 2021; Oyetunde & Muodumogu, 2009). This finding aligns with Glickman et al.'s (1995) developmental supervision model, which emphasizes the multifaceted nature of effective supervision. Administrative Monitoring emerged as the most commonly employed strategy, with principals consistently reviewing lesson plans (M = 2.79) and instructional notes (M = 2.75). This finding supports Sergiovanni and Starratt's (1993) assertion that monitoring functions form the foundation of instructional supervision. However, the relatively lower mean for ensuring appropriate resource use (M = 2.46) suggests potential resource constraints in Delta State schools, consistent with challenges facing Nigerian public education (Akinfolarin, 2017). The results also correspond with Williams (2023) who observed that consistent instructional supervision using comprehensive supervisory strategies such as examining student work, reviewing lesson plans, conducting classroom visits, and inspecting record-keeping demonstrates substantial correlation with teacher performance and student achievement in secondary schools. The findings are supported by Anderson, Lee, and Parker (2024) who discovered that areas addressed by principals in instructional supervision included lesson planning, curriculum schemes, student documentation, work completion records, and attendance monitoring.

Correlation analysis revealed that principals' administrative experience positively influences the implementation of instructional supervision strategies. Significant positive correlations were found between years of experience and all strategy domains: Administrative Monitoring (r = 0.34, p < 0.01), Developmental Supervision (r = 0.41, p < 0.01), and Student-Centered Assessment (r = 0.28, p < 0.01). The strongest association was observed with the overall instructional supervision score (r = 0.42, p < 0.01), suggesting that more experienced principals are better at applying a diverse range of instructional supervision practices. Experienced principals are more likely to have developed the confidence, procedural knowledge, and professional networks necessary to implement a wide range of oversight strategies. Over time, these administrators become more skilled at navigating bureaucratic constraints, managing teacher relationships, and aligning instructional practices with curricular expectations. Experience also provides greater exposure to capacity-building opportunities, mentoring from senior colleagues, and lessons learned from trial-and-error. These cumulative benefits help experienced principals become more proactive and strategic in their oversight roles (Fullan, 2001; Ubben et al., 2017). In contrast, less experienced principals may still be adjusting to the demands of school leadership and may lack the authority or skill to enforce instructional standards effectively.

Findings from the independent samples t-test revealed no statistically significant differences between male and female principals across all strategy domains (p > 0.05). The mean ratings were comparable, and effect sizes (Cohen’s d) ranged from 0.06 to 0.19, indicating negligible to small differences. Thus, the null hypothesis is retained, and it is concluded that both male and female principals share similar views and approaches in implementing instructional supervision strategies. This finding aligns with growing evidence that gender does not inherently determine leadership competence or instructional decision-making. Both male and female principals in Delta State likely operate under the same policy mandates, administrative structures, and professional development regimes, which standardize their leadership practices to a large extent. Furthermore, Nigeria's educational leadership training programmes and inspectorate systems do not differentiate responsibilities based on gender. Therefore, their shared exposure to professional norms, school improvement goals, and accountability expectations likely leads to similar approaches to instructional supervision, regardless of gender (Eagly & Johannesen-Schmidt, 2001; Okendu, 2012).

This hypothesis was rejected based on statistically significant differences found in all measured domains. Experienced principals reported higher implementation levels than inexperienced ones in Administrative Monitoring (t = 4.02, p < 0.001), Developmental Supervision (t = 3.78, p < 0.001), Student-Centered Assessment (t = 2.95, p = 0.004), and Overall Supervision (t = 4.08, p < 0.001). The effect sizes (Cohen’s d = 0.39 to 0.55) suggest that the differences are not only statistically significant but also meaningful in practice. Therefore, experience plays a crucial role in principals’ effectiveness in instructional supervision implementation. The practical experience of managing instructional programs, dealing with curriculum challenges, and evaluating teacher performance equips experienced principals with the tools needed for more consistent and effective oversight. They often possess a deeper understanding of classroom dynamics, curriculum requirements, and pedagogical strategies. Additionally, experience builds credibility among teachers, making it easier for veteran principals to enforce oversight measures without resistance. In contrast, newer principals may lack the authority or confidence to conduct meaningful instructional supervision, particularly in environments where senior teachers may resist feedback or reforms. This supports the argument that leadership effectiveness in schools often grows with time-on-task and contextual familiarity (Leithwood, Harris, & Hopkins, 2008; Okorji & Agu, 2015). The study outcomes align with research by Thomas (2023) and Garcia (2024) who established a positive influence of administrators' experience on instructional supervision practices and curriculum implementation. Rahman (2024) established that highly experienced administrators were more effective in instructional supervision as they possess comprehensive knowledge, skills, and attitudes necessary for adequate supervision performance. However, Nelson (2022) found that administrative experience does not significantly influence instructional supervision practices in public primary schools. Collins et al. (2023) established that instructional supervision practices were influenced by administrators' experience, class sizes, professional development, and staffing levels.

**Conclusion**

This study investigated the strategies employed by principals to achieve effective instructional supervision in Delta State public secondary schools, the influence of administrative experience, and the role of demographic factors such as gender. The findings revealed that principals primarily adopt administrative monitoring and developmental supervision strategies, with less emphasis on student-centered assessment methods. Furthermore, administrative experience was found to be a significant predictor of effective instructional supervision, while gender showed no significant influence on the implementation of these strategies. These results highlight the centrality of experience in shaping principals' ability to carry out effective oversight functions, particularly in settings where instructional leadership is critical to improving learning outcomes. The relatively low use of student-centered assessment strategies suggests a need for more inclusive and learner-focused supervisory approaches. Overall, the study confirms that principals' strategic leadership plays a vital role in shaping the instructional culture of public secondary schools, and experience serves as a key enabler in that process.

**Recommendations**

The following were recommended for implementation in Delta State.

1. The Ministry of Education and the Post Primary Education Board (PPEB) should enhance professional development by organizing regular workshops and training on instructional leadership, formative assessment, and feedback practices. In addition, a structured mentorship programme should be established to pair experienced principals with novice leaders, promoting effective instructional oversight and stakeholder engagement.
2. Educational policymakers should deploy experienced administrators to high-need schools and align promotion policies with leadership experience. Principals should adopt student-centered evaluation methods and evidence-based supervision frameworks to assess teaching effectiveness. Furthermore, gender-inclusive access to leadership training should be promoted to ensure diversity in school leadership.

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**Conflict of Interest**

The authors declare that there are no conflicts of interest related to this study.

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**Ethical Consideration**

Ethical approval for the study was obtained from the Ethics Committee of the Department of Educational Management and Foundations, Faculty of Education, Delta State University, Abraka (Approval No: DEL/FOE/EMF/0136, dated December 15, 2024), ensuring adherence to ethical standards in protecting participants’ rights and welfare.

**Informed Consent Declaration**

All human participants provided informed consent prior to participation. They were fully briefed on the study's purpose, procedures, and potential benefits. Participation was voluntary, with the option to withdraw at any stage without consequence. Confidentiality and anonymity were maintained throughout the research.

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