AFRICAN JOURNAL of Social & Behavioural Sciences

Volume 16, Number 8 (2026)
Print ISSN: 2141-209X
ISSN-L: 2141-209X
Double-blind peer reviewed

Research Article
DOI: https://doi.org/10.68442/ajsbs/2026/v16i8.014

Women Commissioners and Education Reform: A Multiple-Case Study of Three States in Northern Nigeria

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Received: 11 September 2026 • **Accepted:** 14 October 2026 • **Published:** 24 October 2026

ABSTRACT

This study examines leadership practices, reform implementation and reported education results associated with three women commissioners for education in Northern Nigeria. Through exploratory qualitative analysis, the study interviewed two female commissioners of education and a documentary reconstruction of a third case in which the researcher previously held office. Thematic analysis and cautious cross-case comparison identify recurring attention to priority setting, coordination, resource mobilisation, stakeholder engagement and implementation oversight. Executive authorisation, financing, agency capacity and development-partner participation were important contextual conditions rather than achievements attributable to an individual commissioner alone. The documents provide evidence of reform announcements and selected implementation outputs; independent, comparable evidence of changes in enrolment, learning or completion is insufficient across the cases. Claims of improvement in one case are therefore treated as reported rather than independently established outcomes. Gender-specific effects cannot be inferred without comparison cases or more direct evidence of gendered decision-making. The study contributes an exploratory account of how women officeholders engage in education governance, while identifying the evidence required to assess whether and when their actions contribute to improved educational outcomes.

Keywords: Women Commissioners; Education Governance; Policy Implementation; Northern Nigeria; Qualitative Multiple-Case Study; Educational Reform

Cite this article: Dahiru, J. M. (2026). Women commissioners and education reform: A multiple-case study of three states in Northern Nigeria. *African Journal of Social and Behavioural Sciences, 16*(8), 173–191. https://doi.org/10.68442/ajsbs/2026/v16i8.014

Background

Education is widely acknowledged as a cornerstone of sustainable development because of its contribution to human capital formation, social inclusion, economic productivity, and democratic governance. Consequently, improving education systems has become a central policy priority for governments and development agencies worldwide through sustained investments in school infrastructure, teacher development, curriculum reform, and education financing. Yet growing empirical evidence suggests that these investments alone are insufficient to produce sustained improvements in educational outcomes unless accompanied by effective leadership and governance capable of translating policy intentions into performance (Hallinger, 2011; Robinson et al., 2008; Leithwood et al., 2020).

Revisiting over a decade of international evidence, Leithwood et al. (2020) reaffirm that leadership remains second only to classroom instruction among school-related influences on student learning because it shapes conditions, professional capacity, and instructional quality through indirect but powerful pathways. Similarly, Hallinger (2011) examines the relationship between educational leadership and student learning, highlighting the processes through which leadership may contribute to educational improvement.

The growing recognition of leadership as an important factor in educational effectiveness has stimulated renewed scholarly interest in the role of women in educational governance. Although women constitute a substantial proportion of the global education workforce, they continue to be disproportionately

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underrepresented in senior leadership positions across ministries of education, school systems, and higher education institutions (Morley, 2013; UNESCO, 2024).

Scholars generally agree that this disparity is less a reflection of leadership capability than of entrenched structural barriers. Eagly and Carli (2007) conceptualise these barriers as a "labyrinth" through which women must navigate multiple organisational, cultural, and social constraints rather than a single "glass ceiling." Extending this perspective, Morley (2013) argues that leadership structures within education continue to privilege masculine norms that shape recruitment, promotion, and leadership legitimacy. A systematic review by Kaymakcioglu and Thomas (2024), examining women's academic leadership in Nigeria, South Africa and the United Kingdom, similarly identifies institutional and sociocultural barriers affecting women's progression into leadership in higher education.

While scholarship has extensively examined women's access to leadership, considerably less attention has been devoted to understanding the governance processes associated with women's leadership in education. Evidence from educational leadership research suggests that leadership influences educational improvement through indirect processes rather than direct instructional intervention (Leithwood et al., 2020; Robinson et al., 2008; Hallinger, 2011).

Studies examining gender and leadership have also identified differences in some leadership practices. Eagly et al. (2003), for example, report differences in transformational and transactional leadership styles between women and men, although these findings do not establish that such differences necessarily produce better educational outcomes. Similarly, a meta-analysis by Hallinger et al. (2016), drawing on 28 studies, found a small difference in ratings of instructional leadership favouring female school principals (Cohen's d = 0.288). This finding was based on principals' and teachers' perceptions rather than direct observation of leadership practices.

Despite these advances, an important scholarly disconnect remains. Educational leadership research has primarily sought to explain how leadership relates to educational performance, whereas gender and leadership scholarship has focused predominantly on women's access to leadership positions, leadership experiences and barriers.

The literature considered for this study was identified through a focused review of scholarly publications on women's leadership, educational governance, education reform and educational outcomes, alongside relevant Nigerian education policy documents. The review prioritised studies addressing leadership practices, governance processes and conditions, with particular attention to evidence from Nigeria and comparable contexts. Within the literature examined, limited attention was found to the governance practices of women occupying state-level education leadership positions, particularly commissioners for Education. This gap is relevant within developing countries, where education reforms operate within complex political and sociocultural environments that shape both leadership practice and policy implementation.

Northern Nigeria provides a particularly compelling empirical context for examining education governance under women commissioners for Education. Despite considerable investments in educational reforms over the past two decades, the region continues to experience some of the country's most persistent educational challenges, including high rates of out-of-school children, gender disparities in school participation, inadequate school infrastructure, teacher shortages, poor learning outcomes, and the combined effects of poverty and insecurity on educational access and retention (UNESCO, 2024).

These challenges have reinforced the need for reforms that extend beyond increased resource allocation to address the quality of educational governance and leadership capacity responsible for policy implementation and service delivery.

Accordingly, recent education reforms in Nigeria have increasingly recognised leadership and institutional governance as important considerations in educational improvement. National initiatives such as the Universal Basic Education (UBE) programme, Better Education Service Delivery for All (BESDA) programme, and Adolescent Girls Initiative for Learning and Empowerment (AGILE) incorporate provisions relating to educational access, accountability, stakeholder participation, intergovernmental

coordination and implementation effectiveness (Universal Basic Education Commission, n.d., 2020; Mohammed, 2020).

This policy orientation is consistent with international evidence indicating that education reforms depend partly on leadership practices that strengthen capacity, promote collaboration and create conditions supportive of educational improvement (Leithwood et al., 2020).

Against this backdrop, women have occupied educational leadership positions across Northern Nigeria, serving as Commissioners for Education, Permanent Secretaries, Executive Secretaries of State Universal Basic Education Boards, Vice-Chancellors, Provosts and directors of major education programmes. Their leadership experiences provide opportunities to examine reforms aimed at improving girls' education, teacher professional development, inclusive education, school safety, community participation and accountability.

Nevertheless, the existence of reform initiatives does not, by itself, establish measurable improvements in educational outcomes. Understanding the contribution of leadership therefore requires attention to governance practices, conditions and the evidence available to assess reform implementation. The present study addresses this concern through an exploratory qualitative examination of three women commissioners for Education in Northern Nigeria. It investigates their leadership practices, governance mechanisms, documented education reforms and the conditions associated with implementation.

The study proceeds from the working proposition that occupying a leadership position does not, in itself, establish reform effectiveness; rather, the relationship between leadership decisions, processes and educational change requires empirical examination. Given the scope of the three cases and the available evidence, the study seeks to provide an exploratory account of education reform processes without assuming that gender independently determines educational outcomes.

Aim and Objectives of the Study

The aim of this exploratory study is to analyse how women's leadership contributes to education reform and reported education outcomes in three states in Northern Nigeria.

The specific objectives are to:

1. Examine the leadership practices employed by women occupying strategic education leadership positions in Northern Nigeria.
2. Analyse the governance pathways and institutional mechanisms through which women's leadership contributes to education reform and reported outcomes.
3. Assess the education outcomes associated with women's leadership in the three states examined.
4. Examine the contextual factors that enable or constrain the capacity of women leaders to contribute to education reform and reported outcomes in Northern Nigeria.

This study seeks to answer the following research questions:

1. What leadership practices are employed by women occupying strategic education leadership positions in Northern Nigeria?
2. Through what governance pathways and institutional mechanisms does women's leadership contribute to education reform and reported outcomes?
3. What education outcomes are associated with women's leadership in the three states examined?
4. What contextual factors enable or constrain the capacity of women leaders to contribute to education reform and reported outcomes in Northern Nigeria?

Literature Review

Education Outcomes

Education outcomes are central to evaluating the effectiveness of education systems because they reflect the extent to which educational policies, programmes and practices achieve their intended goals. Although the concept is widely used in educational research and policy, there is no single measure of education

outcomes because educational success extends beyond students' examination performance or academic achievement. Education outcomes encompass learner achievement, equitable access to education, retention and completion rates, quality of learning and the effectiveness of education systems in responding to societal needs (Leithwood et al., 2020).

Earlier educational research measured education outcomes primarily through students' cognitive achievement, standardised test scores, literacy levels and progression from one level of education to another. While these indicators remain important, they provide only a partial understanding of educational effectiveness because they do not fully account for the conditions that support learning. Contemporary educational leadership scholarship therefore considers how teaching quality, professional development, school organisation and capacity contribute to educational improvement (Hallinger, 2011; Leithwood et al., 2020).

Educational leadership research further demonstrates that improvements in learning are rarely produced by isolated interventions. Rather, leadership operates through the processes that influence the conditions under which teaching and learning occur. Leithwood et al. (2020) explain that educational leaders may influence student learning through four interconnected pathways: rational, emotional and family conditions. These pathways demonstrate the indirect relationship between leadership practices and educational improvement.

This broader understanding is particularly relevant to developing countries, where education reforms address challenges extending beyond academic performance. In Nigeria, educational improvement is commonly examined through indicators such as school enrolment, retention and completion, gender parity, teacher availability and quality, learning achievement and equitable access to educational opportunities. These indicators must, however, be distinguished from the activities and outputs of education reform programmes.

Reform activities include policy formulation, stakeholder engagement, teacher recruitment initiatives and programme implementation. Outputs may include newly constructed classrooms, recruited teachers, distributed learning materials and scholarships awarded. These interventions can strengthen education service delivery, but do not independently establish improvements in educational outcomes. Demonstrating such improvements requires evidence of changes in indicators such as enrolment, retention, completion and learning achievement.

For this study, education outcomes refer to identifiable changes in educational access, participation, retention, completion and learning achievement. Education reform activities and implementation outputs are examined separately as evidence of policy action and service-delivery efforts. This distinction allows the study to assess the available evidence without assuming that documented reforms necessarily produced measurable educational improvements.

Women's Leadership

Women's leadership has received growing scholarly attention over the past three decades, reflecting increasing interest in gender diversity in governance and public administration performance. Earlier debates focused largely on women's access to leadership positions and the barriers limiting their advancement, while subsequent scholarship has examined their leadership experiences, practices and participation in decision-making (Eagly & Carli, 2007; Morley, 2013).

The concept of women's leadership refers to the exercise of leadership authority by women in ways that influence direction, performance, decision-making and policy implementation. Scholars caution against assuming that women necessarily lead differently because of their gender. Leadership practices are influenced by individual experience, organisational responsibilities and the sociocultural environments within which authority is exercised (Eagly & Carli, 2007).

Research examining gender differences in leadership styles provides some evidence of variation between women and men. Eagly et al. (2003), in a meta-analysis of 45 studies, found that women scored slightly higher on transformational leadership and certain transactional leadership behaviours. However, the reported differences were generally small and do not establish that women possess an inherently superior

leadership style or that their leadership necessarily produces better outcomes. Leadership effectiveness must therefore be examined in relation to actual practices and the conditions under which leadership responsibilities are exercised.

Within the education sector, women's leadership extends beyond occupying senior administrative positions. It encompasses participation in education policy development, governance, resource allocation, stakeholder engagement and programme implementation. At the state-government level, Commissioners for Education exercise leadership within political and administrative systems that involve governors, ministries, education agencies, development partners and communities. Their capacity to pursue reforms depends not only on individual leadership practices but also on the authority, resources and other support available to them.

For the purpose of this study, women's leadership refers to the exercise of policy and administrative authority by women serving as Commissioners for Education, particularly their roles in setting priorities, coordinating institutions, mobilising stakeholders and overseeing education reforms. This conceptualisation focuses on the leadership practices and governance responsibilities examined in the three cases without assuming that these practices are exclusive to women or determined by gender.

Women's Leadership and Education Outcomes

The relationship between women's leadership and education outcomes has become an important area of inquiry within educational leadership and public governance research. Existing scholarship suggests that leadership may contribute to educational improvement through policy direction, resource allocation, stakeholder engagement and the creation of conditions that support teaching and learning (Hallinger, 2011; Leithwood et al., 2020). However, the relationship between leadership practices and educational outcomes is neither direct nor independent of the wider governance environment.

Studies examining gender and leadership have identified differences in certain leadership practices, including transformational leadership behaviours (Eagly et al., 2003). Nevertheless, these findings do not establish that women's leadership independently determines educational performance. Evidence concerning leadership styles must be distinguished from evidence demonstrating changes in educational access, retention, completion or learning achievement.

Within education systems, leadership decisions are implemented through institutions responsible for policy execution, resource management, programme delivery and accountability. As a result, the contribution of education leaders to reform depends partly on political support, funding, administrative capacity, partnerships and stakeholder cooperation. These conditions may facilitate or constrain implementation regardless of the gender of the leader.

This perspective is particularly relevant to education systems in developing countries, where leadership frequently extends beyond school administration to include policy formulation, inter-agency coordination, community engagement, resource mobilisation and the management of sector-wide reforms. At this level, educational improvement involves multiple actors and institutions, making it necessary to distinguish the contribution of individual leaders from broader government policies, development partnerships and implementation arrangements.

Accordingly, this study examines women's leadership and education outcomes as related but analytically distinct dimensions of education governance. The study distinguishes reported leadership actions and reform outputs from measurable educational outcomes and does not assume that the gender of the Commissioners independently explains the reforms examined.

Empirical Review

Empirical studies examining women's leadership and education outcomes have produced varied findings concerning leadership practices, institutional effectiveness, policy priorities and educational improvement. While some studies identify differences in leadership behaviour and governance outcomes, the nature and strength of these relationships depend on the research context, level of leadership and methods employed. The existing literature provides a useful foundation for understanding women's

participation in educational governance, especially around school-level leadership, political representation and higher education rather than state-level education administration.

Hallinger et al. (2016) conducted a meta-analysis of 28 studies using the Principal Instructional Management Rating Scale to compare perceptions of male and female school principals' instructional leadership practices. The analysis identified a statistically significant but small difference in ratings favouring female principals (Cohen's d = 0.288). These findings suggest a small but consistent difference in perceived instructional leadership practices. However, the evidence was derived from principals' and teachers' ratings rather than direct observations of leadership behaviour. Furthermore, the study did not establish whether these differences resulted in corresponding improvements in student learning or system-level education outcomes.

Using a randomised policy experiment in India, Chattopadhyay and Duflo (2004) examined whether the gender of local political leaders influenced public policy priorities and resource allocation. Their findings indicated that women leaders invested more heavily in public goods corresponding to priorities expressed by women in their communities. The study provides evidence that women's participation in political decision-making can influence policy choices and public resource allocation. However, its focus was local political governance rather than education-sector leadership not explain how women serving as education administrators influence reform implementation or educational outcomes.

Beaman et al. (2012) extended this line of inquiry by examining the effects of women's political leadership on girls' aspirations and educational attainment in rural India. Using the random reservation of village leadership positions for women, the researchers surveyed adolescents and their parents across 495 villages. They found that repeated exposure to women leaders reduced gender differences in educational and career aspirations. Girls in communities exposed to women leaders for two electoral cycles also spent less time on domestic work and experienced improvements in educational attainment. The study demonstrates that exposure to women in political leadership can influence girls' aspirations and educational experiences. Nevertheless, the women examined were political leaders rather than education administrators, and the research did not investigate the governance processes through which state education policies are formulated and implemented.

More recent evidence has examined women's participation in school governance. Jain and Nandwani (2024) investigated the relationship between female representation in school management committees and school quality in India. Drawing on administrative school data and changes associated with legislation requiring women's participation in school management committees, the researchers examined indicators including teacher availability, teacher qualifications, school enrolment and learning outcomes. Their findings associated increased female participation with improvements in several indicators, including learning outcomes, particularly among girls. However, the study also identified limited effects on most infrastructure indicators and relatively small effects on teacher composition. Although the research provides evidence concerning women's participation in school governance, its focus on collective school management committees differs from the individual policy and administrative responsibilities exercised by state Commissioners for Education.

Within Africa, empirical scholarship has focused considerably on women's leadership experiences, barriers and practices. Mankayi and Cheteni (2021) conducted a phenomenological study involving female faculty deans in South African universities. Their findings identified challenges relating to appointment processes, gender stereotypes, limited support, professional networking and mentoring. The study demonstrates how formal structures and gender-related expectations can affect women's experiences in senior educational leadership. However, it examines university leadership rather than basic education administration and does not establish a relationship between the participants' leadership practices and measurable educational outcomes.

Related research by Akinola and Naidoo (2024) examined gendered barriers affecting women's progression into school leadership in South Africa. The study contributes to understanding how institutional practices and gender expectations can constrain women's leadership opportunities. However, the study concerns school leadership progression in South Africa, not women education administrators in Nigeria, and cannot be treated as direct evidence concerning Nigerian education governance.

Nigerian scholarship has similarly examined gender inequality and women's experiences within educational institutions. Ogbogu (2011) investigated gender inequality in Nigerian academia, identifying factors affecting women's participation and advancement in university leadership. The focus on higher education limits its direct application to state-level education governance, where Commissioners exercise political and administrative authority over education policies and programmes.

More recently, Kaymakcioglu and Thomas (2024) reviewed research on women's academic leadership in Nigeria, South Africa and the United Kingdom. Their review highlighted the importance of contexts in understanding women's leadership experiences in higher education rather than the responsibilities of Commissioners for Education or the implementation of state education reforms.

The distinction between these levels of educational leadership is important. University administrators and school leaders generally exercise authority within individual educational institutions, whereas Commissioners for Education operate within state-government systems involving executive decision-making, education-sector planning, resource allocation and coordination among implementing agencies. Findings concerning women's experiences in universities and schools provide relevant contextual insights but cannot independently explain how women Commissioners contribute to education reform.

Evidence concerning education governance in Northern Nigeria provides an important perspective on the conditions within which state education leaders operate. The region continues to experience challenges involving educational access, gender disparities, school participation, teacher availability and learning outcomes. These challenges have informed government and development-partner interventions aimed at improving educational opportunities, particularly for girls and children excluded from formal schooling.

The Girls' Education Project Phase 3 (GEP3) provides relevant empirical evidence concerning education reform in Northern Nigeria. Implemented between 2012 and 2022 through a partnership involving the Nigerian government, UNICEF and the United Kingdom's Foreign, Commonwealth and Development Office, the programme sought to improve girls' access to basic education and reduce disparities in educational participation and learning. Its final evaluation examined barriers associated with sociocultural and gender norms, poverty, local governance, education financing and institutional capacity (UNICEF, 2023). The evaluation illustrates the importance of coordinated government action, community engagement and development partnerships in addressing barriers to girls' education. However, because the programme involved multiple implementing institutions and partners, its findings cannot independently establish the contribution of individual Commissioners for Education to the results reported.

Beyond girls' education, the relationship between formal schooling and traditional Islamic education represents another important dimension of educational governance in Northern Nigeria. Omotayo and Sulaiman (2013) investigated management challenges affecting Almajiri model schools in North-West Nigeria. Their study identified inadequate public awareness, funding, trained teachers, educational facilities and supervision as obstacles to effective programme implementation. These findings demonstrate that expanding educational opportunities requires more than establishing schools or introducing policy reforms. Implementation also depends on administrative capacity, resource availability, community acceptance and effective oversight.

The Universal Basic Education Commission's Tsangaya Education Programme seeks to expand access to basic education among Almajiri school-age children while facilitating the integration of Islamic disciplines into basic education. Its implementation involves coordination between the Universal Basic Education Commission and State Universal Basic Education Boards (Universal Basic Education Commission [UBEC], n.d.). Nevertheless, the existence of these arrangements does not independently demonstrate their effectiveness in improving enrolment, retention or learning outcomes.

These findings are relevant to the responsibilities of state-level education leaders. Under Sections 192 and 193 of the Constitution of the Federal Republic of Nigeria, Commissioners are appointed by Governors, subject to the prescribed confirmation process, and may be assigned responsibility for government departments and executive functions (Federal Republic of Nigeria, 1999, as amended). Commissioners for Education therefore exercise their responsibilities within broader executive and administrative structures

rather than as independent policymakers. Their capacity to pursue reforms depends partly on government priorities, executive authorisation, funding arrangements and the cooperation of implementing agencies.

This context is important when examining women's leadership in education governance. While Commissioners may contribute through policy direction, strategic planning, stakeholder mobilisation, institutional coordination and implementation oversight; education reforms also involve Governors, ministries, education boards, development partners and communities. Assessment of Commissioners' leadership must distinguish their documented actions from the contributions of other actors and from outcomes that cannot be independently attributed to individual officeholders.

Hence, the empirical literature offers three relevant insights.

1. International research indicates that women's participation in leadership can be associated with differences in leadership ratings, policy priorities and selected educational indicators depending in strength and context.
2. African and Nigerian studies demonstrate that women's leadership experiences are influenced by organisational structures, sociocultural expectations and institutional support.
3. Empirical research and programme evaluations from Northern Nigeria highlight the importance of funding, administrative capacity, community engagement and intergovernmental coordination in implementing education reforms.

However, the literature reviewed provides limited direct evidence concerning women Commissioners for Education in Northern Nigeria. International studies primarily examine school principals, school management committees and political leaders, while African and Nigerian studies of women's educational leadership largely concern schools and universities. Research on education programmes in Northern Nigeria provides valuable evidence concerning implementation conditions and educational challenges but does not specifically investigate how women Commissioners exercise their authority or distinguish their contributions from those of Governors, government agencies and development partners.

Theoretical Review

This study draws on Transformational Leadership Theory (TLT) and the Gender and Development (GAD) framework. The Transformational Leadership Theory, developed by Burns (1978) and extended by Bass (1985), explains how leaders inspire, motivate and mobilise others towards shared goals. The theory emphasises four dimensions: idealised influence, inspirational motivation, intellectual stimulation and individualised consideration (Bass & Riggio, 2006). Within education, transformational leadership is associated with organisational improvement, professional development, stakeholder engagement and institutional change (Leithwood & Jantzi, 2005).

The theory is relevant to understanding how Commissioners for Education establish reform priorities, mobilise stakeholders, encourage cooperation and pursue educational change. However, strategic planning, resource mobilisation, coordination and implementation monitoring are primarily governance and managerial functions; their occurrence does not independently establish transformational leadership. Demonstrating transformational leadership would require evidence of behaviours such as inspiring shared commitments, encouraging innovation and developing followers.

Since the study relies on interviews with two Commissioners and documentary evidence across three cases, without systematic assessments of followers' perceptions, TLT is employed as an interpretive perspective rather than a measure of transformational leadership effectiveness. Its application is therefore limited to considering how reported leadership practices relate to mobilisation and change.

The Gender and Development framework on the other hand examines how social, political, economic and institutional relationships shape women's participation, access to resources and decision-making authority. Unlike approaches concerned primarily with women's inclusion, GAD emphasises the structural conditions and power relations influencing their opportunities and experiences (Moser, 1993; Reeves & Baden, 2000).

Within educational governance, the framework provides a perspective for examining how authority, political support, resource availability, practices and sociocultural expectations may enable or constrain

women occupying strategic leadership positions. Its relevance to Northern Nigeria lies in recognising that Commissioners exercise leadership within political and administrative structures involving Governors, government agencies, development partners and communities. However, the study does not systematically investigate gender discrimination or compare women's experiences with those of male Commissioners. Accordingly, the GAD framework provides contextual guidance without assuming that gender-related constraints were necessarily present or decisive in the cases examined.

The frameworks complement each other by directing attention to leadership practices and the environments within which they occur.

Methodology

Research Design

The study adopted an exploratory qualitative research design to explore women's leadership practices, governance mechanisms, education reforms and reported outcomes in Northern Nigeria between 2023 and 2026. Conducted in July 2026, the study employed thematic analysis and cross-case comparison to explore leadership experiences across three selected cases. The design enabled an examination of reform implementation within different contexts without assuming relationships between individual leadership and educational outcomes. Qualitative design considerations were informed by Creswell and Poth (2018).

Study Population and Case Selection

The study population comprised seven women who served as Commissioners for Education across Northern Nigeria's 19 states during the 2023–2026 period. Three cases were purposively selected based on their relevance to education reform and the availability of interview and documentary evidence. This approach was consistent with the study's exploratory purpose rather than an attempt to achieve statistical representativeness (Patton, 2015).

Two Commissioners participated in key informant interviews, while the third case concerned the researcher's previous tenure as Commissioner for Education and was examined exclusively through documentary evidence. The cases were designated A, B and C, with Case C representing the researcher-insider case.

The selection of three cases from a population of seven women Commissioners provided an opportunity to examine different leadership experiences. However, the study did not include male-led administrations or systematically selected unsuccessful reform cases and therefore cannot establish gender-specific effects or the prevalence of particular leadership practices.

The number of eligible Commissioners approached the number declining participation, and the basis for any non-response were not retained in the available audit materials and cannot be reliably reconstructed. Accordingly, no response rate is reported. Case selection was based on accessibility and documented reform activity, potentially favouring more visible initiatives.

Unit of Analysis

The unit of analysis was the education reform experience and associated governance processes within each case rather than the personal characteristics of the Commissioner. The analysis examined leadership actions, coordination, resource mobilisation, stakeholder engagement, implementation activities and reported education outcomes.

Sources and Instruments of Data Collection

Primary data were obtained through semi-structured key informant interviews with two women Commissioners for Education. A common interview guide organised around the four research objectives explored leadership practices, governance mechanisms, education reform experiences, reported outcomes and enabling or constraining conditions.

The interviews were conducted physically in July 2026, in English, and lasted approximately 60–90 minutes each. Consent was obtained from both participants, and the interviews were recorded and transcribed for analysis.

Documentary evidence was obtained from the respective Ministries of Education and supplemented by relevant government publications, programme information, development-partner documents and publicly available reports. The documentary materials were examined for evidence of policy decisions, programme implementation and reported educational results. The study distinguished official records and independent evaluations from government announcements, public statements and media reports. Announcements of planned interventions or approved programmes were not treated as evidence of completed implementation or improved educational outcomes.

Data Collection Procedure

Data collection was undertaken in July 2026. The interviews followed a common semi-structured guide while allowing participants to discuss their respective leadership experiences and education reforms. Questions addressed the educational challenges encountered, leadership decisions taken, actors involved, implementation processes, reported achievements and factors influencing reform delivery.

Documentary materials submitted by the Ministries of Education were reviewed alongside other relevant sources. For Case C, the researcher's personal testimony was excluded, and the analysis relied exclusively on documentary evidence. A document review matrix was used to organise the available materials according to case, source, date, reform activity, reported result and evidential limitations.

Data Analysis

The study used deductive thematic analysis based on an a priori coding framework derived from the four research objectives. Two coders undertook coding of the interview transcripts and documentary materials. The four predefined analytical categories around the four research objectives were leadership practices, governance mechanisms, reported education reform activities and outcomes, and enabling or constraining contextual factors. Within these categories, the analysis examined recurring patterns and differences across interview transcripts and documentary sources.

Leadership practices included strategic planning, stakeholder mobilisation, communication, resource mobilisation and implementation oversight. Governance mechanisms concerned coordination, stakeholder engagement and arrangements supporting policy implementation.

Political support, government financing, institutional capacity, development partnerships and security conditions were examined separately as contextual factors rather than automatically attributed to the Commissioners' leadership.

Evidence of educational reform was classified into three categories: reform activities, including policy decisions and programme approvals; implementation outputs, including documented programme delivery, infrastructure and teacher recruitment; and education outcomes, including measurable changes in access, enrolment, retention, completion or learning achievement.

Reported educational outcomes were assessed against available indicators, reporting periods and corroborating evidence. Where baseline and subsequent figures or independent verification were unavailable, claims were presented as reported achievements rather than established improvements.

Cross-case comparison identified similarities and differences in leadership practices, governance arrangements, implementation experiences and the strength of available evidence. The analysis remained exploratory rather than causal.

Trustworthiness

Credibility was supported by comparing interview accounts with documentary evidence submitted by the Ministries and other available sources. A common interview guide and analytical structure supported consistency across cases.

The analysis distinguished participants' descriptions of leadership practices from independent evidence of implementation and educational outcomes. Documentary claims were assessed according to source type, specificity and corroboration. The limited number of interviews and uneven availability of outcome indicators were recognised as constraints on verification and interpretation.

Analytical sub-themes included priority setting and data use (leadership); agency coordination and community participation (governance); approvals, delivered outputs and reported indicator change (reform evidence); and financing, political authorisation and insecurity (context). Two coders were involved in coding, rather than the researcher personally. The coding overlap, intercoder reliability measure and agreement value are to be verified from the original coding records before being reported. Member checking and sensitivity analysis excluding Case C are not claimed as completed procedures.

Researcher Positionality and Reflexivity

The researcher previously served as Commissioner for Education in one of the states examined. This experience provided contextual familiarity with education governance but also introduced potential insider bias. To limit reliance on personal accounts, the researcher was excluded as an interview participant, and Case C was examined exclusively through documentary evidence. Nevertheless, this approach does not eliminate potential bias in document selection and interpretation. Case C is therefore identified as the researcher-insider case, and its findings are interpreted with this limitation in view.

Ethical Considerations

Participation in the interviews was based on consent granted by the two Commissioners. The interviews were conducted with their approval, recorded and transcribed for research purposes. Documentary materials were also submitted by the respective Ministries of Education.

The study also maintained confidentiality by using case identifiers rather than participants' names. However, because some education reforms and official documents are publicly identifiable, confidentiality was treated as a reporting safeguard rather than a guarantee of complete anonymity.

Cases are labelled A–C to avoid directly attaching interview quotations to names.

Findings

The findings are organised around the four research objectives: leadership practices, governance mechanisms, education reform outcomes and contextual factors. Evidence was drawn from two interviews conducted in July 2026 and documentary materials concerning three women Commissioners for Education who served between 2023 and 2026.

To preserve confidentiality, the cases are designated A, B and C. Cases A and B draw on interviews with the respective Commissioners and documentary evidence, while Case C, the researcher-insider case, relies exclusively on documentary sources. Interview quotations are attributed to their corresponding cases. The analysis distinguishes reported leadership practices, documented reform activities and educational outcomes supported by measurable evidence.

Case Profiles and Evidence Boundaries

Case A: Leadership through coordination, data use and monitoring. Drawing on an interview and documentary materials, this case concerns a commissioner who described an education reform agenda spanning basic education, skills development and implementation oversight. Her account emphasised coordinated decision-making, monitoring and the involvement of multiple levels of government and community actors. She identified educational technology pilots, evaluation reports and school inspections as sources suggesting improvements in attendance, enrolment and teaching engagement. These are reported indications rather than independently established outcome changes: the material available for this analysis does not provide comparable baseline and endline figures. The narrative therefore documents leadership priorities, governance processes and reported implementation experiences without

isolating the commissioner's contribution from those of the Governor, implementing agencies and development partners.

Case B: Inclusion, Almajiri education and stakeholder mobilisation. This case draws on an interview and supporting documentary materials. The commissioner identified Almajiri education and efforts to reduce dropout and educational exclusion as central priorities. Her account stressed coordination, resource mobilisation, monitoring and evaluation, and community feedback as mechanisms for advancing reform. She also identified the Governor, the State Universal Basic Education Board and development partners as important participants in implementation. The evidence supports an account of the reform agenda, and the governance practices associated with it, but does not independently establish the scale of any reduction in out-of-school children. Accordingly, the case is interpreted as an exploratory account of leadership and reform implementation rather than a measured impact assessment.

Case C: Documentary account of access-oriented reforms. Case C was examined through documentary sources only; no interview or retrospective personal testimony from the researcher was used. The available records describe girls' education and access interventions, scholarship approvals, proposed teacher recruitment and related policy announcements. For example, records refer to approvals concerning 20,250 scholarships and 3,000 recruitment positions; these figures denote reported approvals and cannot establish disbursement, appointments or improved educational outcomes. The researcher's previous professional involvement in this setting creates a positionality concern, which is addressed by distinguishing documentary statements from verified implementation and by making the evidential limits explicit. Two coders participated in the study's coding process, but no unverified agreement statistic is attributed to this case.

Leadership Practices Employed by Women Commissioners

The first objective examined the leadership practices employed by women occupying strategic education leadership positions. Strategic planning, stakeholder mobilisation, coordination, resource mobilisation and implementation oversight emerged as recurring practices.

Describing her leadership approach, the commissioner in Case A stated that "Coordinated data driven decision making through multi-layer policy direction with effective monitoring and oversight function by all and sundry." The commissioner in Case B also identified her principal leadership contributions as "Coordination and resource mobilisation." These accounts indicate that both commissioners emphasised administrative practices rather than an explicitly gender-specific leadership approach. Documentary evidence from Case C similarly identified policy mobilisation and targeted education interventions.

Table 1. Leadership practices identified across the three cases

Leadership practice	Case A	Case B	Case C (documentary)
Strategic planning and priority setting	Interview and documentary evidence	Interview evidence	Documentary evidence
Stakeholder mobilisation	Interview and documentary evidence	Limited interview detail	Documentary evidence
Institutional coordination	Interview evidence	Interview evidence	Documentary evidence
Implementation monitoring	Interview evidence	Interview evidence	Documentary evidence
Resource mobilisation	Interview evidence	Interview evidence	Documentary evidence
Data-informed decision-making	Explicitly described	Limited supporting detail	Programme-targeting documentation

Note: Entries indicate the available source of evidence rather than the intensity or effectiveness of a leadership practice.

These findings suggest that the commissioners exercise their leadership through combinations of strategic decision-making, stakeholder engagement and implementation oversight. However, the available evidence does not establish that one commissioner was more effective than another.

Governance Mechanisms Supporting Education Reform

The second objective examined the governance processes through which leadership priorities were translated into reform activities. Four recurring mechanisms were identified: coordination, resource mobilisation, stakeholder engagement and implementation oversight.

The commissioner in Case A identified the actors involved in her reform implementation, including the Governor, Executive Council, State Universal Basic Education Board (SUBEB), development partners, traditional and religious leaders, teachers, communities and civil society organisations. Explaining how governance arrangements supported implementation, she stated: "All of the mentioned were effectively harnessed to translate education reforms to results in my state". Her response highlighted specific areas such as inter-agency coordination, monitoring and evaluation, data use, budgeting and community participation to ensure education reforms are successful.

The Commissioner in Case B identified the Governor, SUBEB and development partners as key actors. When asked which area were the actors paly more important role, she acknowledge the monitoring and evaluation process.

> All stakeholders especially related departments and agencies like SUBEB, SAME, Teachers Service Board, Education Secretaries are involved in ensuring monitoring and evaluation of reforms as it relates to their respective mandates. The development partners like UNICEF, UNDP and Learn2Read also play a critical role in quality assurance through technical support. The Governor ensures that our ministry exercises its mandate by giving us all the necessary support, and other supporting ministries like Finance and Budget ensure they coordinate with us. (Case B)

Table 2. Governance mechanisms and their evidential basis

Governance mechanism	Supporting evidence	Interpretation
Institutional coordination	Interview accounts and documents	Reform involved multiple government institutions
Resource mobilisation	Both interviews	Commissioners reported mobilising resources
Stakeholder engagement	Interviews and programme documents	Communities, agencies and partners participated
Implementation oversight	Both interviews	Participants regarded oversight as important

These findings indicate that commissioners exercised leadership through established government institutions and partnerships. Political authorisation, government financing and development-partner programmes were therefore treated as contextual conditions rather than achievements attributable exclusively to individual Commissioners.

Education Reform Outputs and Reported Outcomes

The third objective assessed education reforms and associated outcomes across the cases. The evidence identified interventions concerning educational access, teacher capacity, infrastructure, inclusion and skills development.

The commissioner in Case A identified basic education and skills transformation as her flagship reform, describing its scope as: **"**All the facets of education from basic, secondary and even tertiary education integrating skills and career development alongside." Her reported priorities included expanded access, improved learning outcomes, Almajiri integration, infrastructure development, community engagement and technical and vocational education. When asked what evidence demonstrated the reform's effects, she stated:

> ….data from pilot on edu-tech shows improved attendance in school among pupils and students. The BESDA programme report also revealed the number of almajiri integrated in the formal education as well as the teachers that were trained with literacy and numeracy. The ministry conducts annual school census with support from development partners. Our evaluation reports show more enrolment in schools and teachers getting more involved in teaching process. (Case A)

She also referred to school inspections and community feedback. Even though these statements identify evidence considered relevant by the participant, the interview response does not provide the underlying statistical series needed to independently establish the magnitude of improvement.

The commissioner in Case B identified Almajiri education as her flagship programme, describing it as an initiative to reduce dropout and out-of-school children. She also identified EMIS and Community feedback as evidence sources for assessing the reform.

> When I assumed office, the first thing that captured my attention was the number of out-of-school children in the state. I knew that we had to do something about it, so we conducted a scan of the system. Our findings revealed that the out-of-school children are mainly girls, who are sent out as house girls and boys sent for almajiranci. So, we rolled out a project in partnership with UBEC through the BESDA programme, enrolling children in school and integrating non-formal education (tsangaya/almajiri schools) into formal education with numeracy and literacy lessons and training of teachers. (Case B)

Documentary evidence across the cases also identified government and programme interventions, although some records described approvals or planned activities rather than completed implementation.

Table 3. Education reform activities, outputs, outcomes and evidence levels across cases

Case	Reform focus	Activity/approval	Reported/ documented output	Verified educational outcome/ baseline-endline	Evidence level
A	Access, teacher capacity, infrastructure, inclusion and skills development	Broad education and skills reform priorities; Almajiri integration identified	Participant reports pilots and implementation; selected supporting documents	Enrolment and learning improvements reported, but no comparable baseline/endline series supplied; outcome not independently verified	L1; selected L2
B	Almajiri education, out-of-school children, teacher challenges and educational access	Almajiri and out-of-school-child initiatives	Implementation extent not independently established	No verified trend or comparable baseline/endline figures supplied	L1
C	Girls' access, scholarships, teacher recruitment and infrastructure	Scholarship and teacher-recruitment approvals; construction/rehabilitation reported	Approvals documented; delivery or beneficiary reach not verified	No comparable baseline/endline figures or independently verified outcome supplied	L2 (approval / announcement)

Note: Reported achievements, approved interventions and implementation outputs are distinguished from independently verified educational outcomes. The absence of verified outcome data does not establish that no improvement occurred.

Evidence levels: L1 = interview or official claim without independently checked implementation; L2 = dated documentation of approval or an activity; L3 = verified outcome with baseline, endline and defined reporting periods. None of the three cases reached L3 on the material available.

The documentary accounts contain differing out-of-school-child estimates (approximately 550,000 and more than 700,000). Because the sources do not establish equivalent reference years, age bands, measurement methods or denominators, the figures are not treated as a comparable trend and no net change is calculated.

Educational Access and Inclusion

Educational access emerged as a central reform priority across the cases. Case A identified expanded access, particularly for girls in underserved areas, alongside Almajiri integration and retention. Case B focused on reducing school dropout and the number of out-of-school children. Case C included targeted girls' education interventions. However, documentary announcements concerning approved scholarships or recruitment were not treated as evidence that all intended beneficiaries had received support or that educational participation had measurably improved. The findings therefore establish access and inclusion as prominent reform priorities, while the available evidence remains insufficient to quantify their effects consistently across the cases.

Teacher Capacity, Infrastructure and Skills

Teacher development, infrastructure improvement and skills acquisition featured in the reform experiences examined. Case A associated improved infrastructure with better teaching conditions and linked skills development to entrepreneurship and employment opportunities. Case B identified inadequate teachers and poor infrastructure among the education-sector challenges encountered upon assuming office. Documentary evidence from Case C also identified interventions concerning teacher recruitment and infrastructure. Nevertheless, programme approvals and infrastructure activities constitute reform decisions or outputs rather than direct evidence of improved learning achievement.

Learning Outcomes

Evidence of measurable improvements in learning outcomes was more limited. Case A reported improvements in attendance and enrolment associated with educational technology and other interventions. However, the available interview responses did not supply sufficiently detailed statistical series to establish the magnitude of these changes or attribute them to specific leadership actions. Comparable learning-outcome indicators were also not established for Cases B and C. The research only found evidence of reform priorities, governance practices and implementation activities than of verified improvements in educational achievement. Accordingly, the findings only provide list of reform priorities, governance practices and implementation activities than of verified improvements in educational achievement.

Contextual Factors Enabling or Constraining Reform Implementation

The fourth objective examined the conditions influencing reform implementation. Political support, funding, institutional capacity and development partnerships emerged as important enabling conditions. Resource limitations and insecurity were identified as constraints.

The Commissioner in Case A emphasised the importance of political commitment and support. Reflecting on lessons for future women leaders, she stated:

> Future women leaders have to have strong leadership support, strong political will and good governance structure. Financial disbursements require strong backing from the executive governor and responsible MDA's, likewise the need to have good support and team spirt within ministry to achieve your mandate. (Case A)

Similarly, the Commissioner in Case B also identified political support and funding partnerships as enabling conditions and named funding and security as constraints.

> Education reform requires more than the introduction of new programmes. It involves bringing together government institutions, teachers, development partners, and communities to understand the priorities and responsibilities of each stakeholder. Without sustained coordination and adequate resources, even well-designed interventions may encounter significant implementation challenges. (Case B)

Table 4. Contextual factors identified across the cases

Contextual factor	Case A	Case B	Case C
Political support	Identified	Identified	Government decisions documented
Funding and resources	Enabler and constraint	Enabler and constraint	Relevant to implementation
Institutional capacity	Challenges reported	Limited detail	Arrangements documented
Development partnerships	Implementing actors	Implementing actors	Partnerships documented
Community engagement	Implementing actors	Limited detail	Programme interventions
Insecurity	Reported constraint	Reported constraint	Contextual consideration
Gender-related constraints	Not major reported constraint	Not major reported constraint	Not assessed by interview

Discussion of Findings

This exploratory study examined three women Commissioners for Education in Northern Nigeria between 2023 and 2026. The findings provide insights into their leadership practices, governance mechanisms, reform priorities, and contextual in relation to Transformational Leadership Theory (TLT), the Gender and Development (GAD) framework, and relevant empirical scholarship.

Leadership Practices and Executive Education Governance

The findings identify strategic planning, stakeholder mobilisation, resource coordination, and implementation oversight as prominent leadership practices. These reflect aspects of Transformational Leadership Theory, particularly the articulation of shared objectives and mobilisation of collective commitment towards institutional change (Bass, 1985; Bass & Riggio, 2006).

Hallinger et al. (2016) found a small but statistically significant difference favouring female school principals in instructional leadership ratings, while Eagly et al. (2003) identified gender-related patterns in transformational and transactional leadership. The present findings extend this discussion to executive education governance, where leadership involves policy direction, administrative coordination, and engagement with multiple implementing institutions. Unlike school-level leadership, the commissioners' responsibilities required navigating political and administrative relationships beyond individual educational organisations. The findings highlight the importance of understanding executive leadership through the practices used to coordinate reform priorities within wider governance systems.

Governance Mechanisms and Reform Implementation

The second finding identifies stakeholder engagement, coordination with implementing agencies, resource mobilisation, development partnerships, and implementation monitoring as important governance mechanisms. These findings demonstrate that education reform operates through interconnected administrative arrangements involving political authorities, education ministries, implementing agencies, and development partners. The Commissioners' leadership practices were therefore closely related to the established structures supporting implementation.

The GAD framework provides a useful interpretation of these relationships. Moser (1993) and Reeves and Baden (2000) emphasise organisational structures, resources, and power relations shape women's participation in development processes. Applied to executive education governance, this perspective highlights the importance of examining women's substantive exercise of authority rather than focusing exclusively on their appointment to leadership positions.

The findings also align with Leithwood et al. (2020), who emphasise the relationship between educational leadership and organisational conditions. They suggest that executive leadership is exercised through governance arrangements that influence the translation of reform priorities into administrative action.

Reform Priorities and Educational Outcomes

The third finding identifies initiatives relating to educational access, girls' education, Almajiri education, teacher development, scholarships, infrastructure, and skills development. Chattopadhyay and Duflo (2004) demonstrated that women's political leadership influenced public investment priorities in India. Similarly, Beaman et al. (2012) found that exposure to women political leaders influenced girls' aspirations and educational attainment. These studies establish the relevance of examining the substantive implications of women's political representation.

The present findings contribute to this discussion by identifying education reform priorities pursued during the tenure of selected women Commissioners. However, the study's emphasis is on leadership practices and reform implementation rather than establishing gender-based differences in policy choices or educational outcomes. Jain and Nandwani (2024) examined female representation in school management and its relationship with educational indicators in India. Their work highlights the importance of measurable evidence when assessing the educational implications of women's participation in governance.

In the present study, documentary and interview evidence more clearly establishes reform priorities, programme approvals, and selected implementation activities than independently verified educational outcomes. This distinction is reflected in Table 3 and underscores the importance of separating reported achievements from demonstrated changes in enrolment, retention, completion, or learning.

Contextual Conditions Influencing Reform

The fourth finding identifies political support, financing, administrative capacity, stakeholder cooperation, and development partnerships as important conditions influencing education reform. Resource limitations and insecurity also emerged as implementation challenges. These findings reinforce the relevance of the GAD framework, which emphasises the institutional conditions shaping women's access to authority and resources (Moser, 1993; Reeves & Baden, 2000).

Mankayi and Cheteni (2021) examined challenges experienced by female university deans in South Africa, while Ogbogu (2011) highlighted gender inequality within Nigerian academia. Although these studies focus on educational institutions rather than executive government positions, they demonstrate the importance of organisational contexts in understanding women's leadership experiences.

The present findings extend this discussion by identifying political, financial, and administrative conditions associated with education reform implementation. They suggest that the exercise of executive authority is closely connected to recognised capacity, political cooperation, and access to resources. These conditions are relevant to understanding women's participation in education governance without necessarily attributing every implementation challenge to gender.

Synthesis and Contribution to Knowledge

The findings demonstrate the complementary relevance of TLT and the GAD framework. TLT helps interpret the leadership practices associated with strategic direction and stakeholder mobilisation, while GAD highlights the institutional relationships, authority structures, and resources shaping reform implementation. The study contributes to existing scholarship by extending the examination of women's leadership beyond political representation and school-level administration to executive education governance in Northern Nigeria. It identifies how leadership practices, governance mechanisms, reform priorities, and contextual conditions interact within selected reform experiences. Its principal contribution is therefore a governance-centred understanding of women Commissioners' participation in education reform, distinguishing the exercise of executive leadership and documented reform activities from independently verified educational outcomes.

Limitations of the Study

The findings of this study should be interpreted in light of several limitations. The study examined three purposively selected cases from a population of seven women Commissioners identified during the study period. Only two Commissioners were interviewed, and their accounts concerned their own leadership experiences, creating potential self-reporting and positive-selection biases.

Documentary evidence varied in quality and included official publications, programme information and media reports, some of which described planned interventions or government claims rather than independently verified results. The researcher's previous service as Commissioner in Case C introduced additional risks of source-selection and interpretation bias, notwithstanding the exclusion of personal testimony.

Furthermore, the absence of male-led comparison cases, independently selected unsuccessful reforms, additional informants and consistent longitudinal education indicators limits causal interpretation and generalisation. These limitations do not negate the evidence of leadership practices and reform activities. They restrict conclusions about comparative effectiveness, gender-specific influences and measurable educational outcomes across Northern Nigeria.

The analysis distinguishes what Commissioners reported doing from what Governors, agencies and donors authorised or implemented; the available sources cannot allocate causal contributions between them. Future research should incorporate interviews with implementing officials and communities,

administrative school census and examination series, comparison cases, and independent analysis of researcher-insider cases.

Conclusion and Recommendations

This study explores the leadership practices, governance mechanisms, education reform experiences and contextual conditions associated with three women Commissioners for Education in Northern Nigeria between 2023 and 2026. Findings indicate that the Commissioners reported employing strategic planning, stakeholder mobilisation, resource mobilisation, coordination and implementation oversight. These practices were also reflected in the documentary evidence. The study also identified four governance mechanisms associated with reform implementation which include resource mobilisation, stakeholder engagement, implementation oversight among others. The cases documented interventions concerning educational access, teacher capacity, infrastructure, inclusion and skills development.

However, evidence of reform activities and implementation outputs was stronger than evidence of measurable improvements in enrolment, retention and learning outcomes. Political support, funding, capacity and development partnerships emerged as important enabling conditions, while resource limitations, insecurity and administrative challenges constrained implementation.

Based on the findings, the study recommends the following:

1. State Ministries of Education should employ strategic planning, stakeholder engagement, evidence-informed decision-making and implementation oversight as core administrative practices. Clear reform priorities, defined responsibilities and periodic performance reviews would strengthen the leadership practices identified across the cases and support more consistent reform implementation.
2. State Ministries of Education, State Universal Basic Education Boards (SUBEBs) and relevant government agencies should establish clear coordination arrangements, joint implementation reviews and regular information-sharing mechanisms. These measures should improve collaboration with development partners and communities while strengthening accountability for education reform implementation.
3. State Ministries of Education and SUBEBs should strengthen monitoring and evaluation systems to distinguish approved interventions, completed activities and measurable educational outcomes. Baseline and subsequent indicators should be systematically collected for enrolment, attendance, retention, completion and learning achievement. This would enable more reliable assessment of reforms concerning educational access, teacher capacity, infrastructure and inclusion.
4. State Governors, Executive Councils and relevant education financing authorities should provide sustained political support, predictable funding and adequate administrative capacity for education reforms. State Ministries of Education should also strengthen partnerships and develop context-sensitive implementation arrangements to address insecurity, resource limitations and other constraints identified in the study.
5. Future research should incorporate interviews with implementing officials and communities, administrative school census and examination series, comparison cases, and independent analysis of researcher-insider cases.

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