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Education and Capacity Building for the Africa We Want: A Comparative Analysis of Funding in the Educational Sector in Nigeria and South Africa (2021-2025)

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Abstract

Education financing and capacity building are central to achieving the continental goals set out in Agenda 2063 and the Continental Education Strategy for Africa (CESA 16-25), yet larger allocations do not automatically translate into better learning outcomes. This study compares education funding mechanisms and capacity-building initiatives in Nigeria and South Africa between 2021 and 2025. Using a comparative analysis of secondary data from UNESCO, the World Bank, and national education sector reports, we examined budget allocation trends, execution rates, per-student expenditure, and the relationship between funding and learning outcomes. Substantial disparities emerged. Nigeria's education allocations fall short of the benchmark it aspires to, and persistent gaps between budgeted and disbursed funds limit their impact on learning. South Africa records higher per-student expenditure, but efficiency concerns and uneven provincial distribution constrain returns on spending. Both countries face difficulties aligning financing with continental frameworks and curriculum reforms. Sustained capacity building at systemic, institutional, and individual levels is necessary to convert education investment into learning gains. We recommend strengthening budget execution, improving transparency in fund allocation, investing in teacher professional development, and establishing monitoring and evaluation frameworks linked to learning outcomes.

Keywords: *Education financing; Capacity building; Comparative analysis; Nigeria; South Africa; Learning outcomes; Budget execution; Agenda 2063; CESA 16-25; Educational equity*

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Background of the Study

Education is widely recognized as a fundamental driver of human capital development, economic growth, and social transformation. In the context of the African continent's development aspirations, particularly as articulated through Agenda 2063: The Africa We Want, education and capacity building emerge as critical pillars for achieving inclusive and sustainable development. Yet, despite this recognition, many African nations continue to struggle with resource constraints that limit their ability to deliver quality education at scale. Nigeria and South Africa, as the two largest economies in Africa by GDP and among the most populous nations on the continent, occupy strategic positions in continental education policy discourse. Together, these nations account for a significant proportion of Africa's student population and represent diverse institutional, policy, and financing contexts. Nigeria, with a population exceeding 220 million and an estimated 30% of African children of school age, faces formidable challenges in achieving universal primary and secondary education. South Africa, while smaller in population (approximately 60 million), has historically invested more intensively in post-compulsory education and skills development.

This comparative analysis examines education funding trajectories in both countries over the 2021–2025 period, a quinquennium marked by the COVID-19 pandemic's disruption of education systems, subsequent recovery efforts, and renewed continental commitments to education through CESA 16–25. The study interrogates not only the volume of education funding but also its allocation across educational levels, its execution in practice, and its correlation with measured learning outcomes and capacity development indicators.

Research Objectives

This research pursues the following objectives:

i. To document and compare education budget allocation, execution, and real-to-nominal growth in Nigeria and South Africa from 2021 to 2025;
ii. To analyze the relationship between education funding levels and measured learning outcomes (primary completion rates, learning assessments, transition rates) in both nations;
iii. To examine capacity-building investments in teacher professional development, institutional strengthening, and curriculum reform in both countries;
iv. To assess the alignment of education financing and capacity-building initiatives with continental frameworks, including Agenda 2063, CESA 16–25, and UNESCO Sustainable Development Goal 4 (SDG 4);
v. To formulate evidence-based recommendations for optimizing education financing and capacity development strategies in both nations and across the continent.

Statement of the Problem

Despite sustained international rhetoric emphasizing education's centrality to development, African nations, including Nigeria and South Africa, continue to face significant financing gaps in their education sectors. The UNESCO Institute for Statistics estimates a global financing gap of approximately USD 97 billion annually in basic education alone, with sub-

Saharan Africa accounting for a disproportionate share of this shortfall. In Nigeria, despite constitutional commitments to allocate not less than 6% of the federal budget to education, actual allocations and, more critically, budget disbursement rates have frequently fallen short of these commitments. The COVID-19 pandemic exacerbated fiscal pressures, leading to further delays in fund transfer to schools and implementation of teacher training programs. While South Africa has achieved higher per-student expenditure levels, questions persist regarding the efficiency of this spending and its impact on learning outcomes, particularly in relation to persistent educational inequalities across provinces. Beyond the volume of funding, both nations confront critical challenges in capacity building the systematic strengthening of human resources, institutional systems, and organizational culture necessary to translate financial investments into improved educational quality and equity. Teacher shortages, inadequate in-service training, weak curriculum implementation capacity, and limited institutional absorptive capacity remain endemic challenges. This comparative analysis addresses a critical gap: while numerous studies have examined education financing or capacity building in isolation, few have integrated both dimensions or conducted systematic comparison across these two pivotal African contexts during a period of significant continental policy shifts.

Methodology

Research Design

This study employs a mixed-methods comparative design, integrating quantitative financial data analysis with qualitative examination of policy frameworks and capacity-building initiatives. The comparative case study approach enables rigorous examination of financing patterns and institutional responses within distinct national contexts while facilitating identification of divergent strategies and outcomes.

Data Sources

Data for this analysis derive from multiple sources:

i. National sources: Ministry of Education budget documents, annual reports, and education sector strategic plans from both Nigeria and South Africa;
ii. International databases: UNESCO Institute for Statistics (UIS) Education Database, World Bank Education Statistics, and OECD education indicators;
iii. Assessment data: National and regional learning assessment data, including TIMSS (Trends in International Mathematics and Science Study) results and nationally administered learning assessments;
iv. Policy documents: Agenda 2063 documentation, CESA 16–25 framework materials, and national curriculum reform implementation reports.

Analytical Framework

The analysis employs three complementary analytical lenses:

i. Financial Analysis: Examination of nominal and real budget allocations across educational levels (primary, secondary, tertiary), sectors (teacher development, infrastructure, materials), and program areas. Calculation of growth rates (nominal

and real, accounting for inflation), execution rates (disbursed as percentage of allocated), and per-student expenditure (PPP-adjusted where appropriate).

ii. **Outcome Analysis:** Correlation of funding levels with selected outcome indicators including primary completion rates, transition rates, performance on standardized learning assessments, and equity metrics (gender parity index, rural-urban disparity indices).

iii. **Capacity Building Assessment:** Qualitative and quantitative review of investments in teacher professional development, institutional strengthening initiatives, curriculum reform, and monitoring and evaluation system development. Mapping of capacity-building initiatives to continental frameworks and learning outcome improvements.

Limitations

This study operates within several important constraints: (1) Data availability and quality disparities between the two countries affect comparability of certain metrics; (2) The study period (2021–2025) encompasses significant pandemic disruptions, limiting longitudinal consistency; (3) Detailed provincial/state-level data for capacity-building initiatives remains incomplete in some areas; (4) Currency fluctuations between the Nigerian Naira and South African Rand require careful interpretation in comparative analysis.

Findings and Analysis

Education Budget Allocation and Growth

Table 1 presents the education budget allocation for Nigeria and South Africa from 2021 to 2025, both in nominal and real terms (inflation-adjusted to 2021 prices). The data reveals significant divergence in allocation patterns and growth trajectories.

Table 1: Education Budget Allocation and Growth

Country	2021 (USD M)	2023 (USD M)	2025 (USD M)	Nominal Growth (%)	Real Growth (%)
Nigeria	4,820	5,124	5,890	22.1	8.3
South Africa	8,560	9,240	9,890	15.5	4.8

Source: UNESCO Institute for Statistics, World Bank Education Statistics, and national Ministry of Education reports (2021–2025)

Analysis of Table 1 reveals the following key findings:

i. South Africa's absolute education budget is approximately 68% higher than Nigeria's in 2025 (USD 9,890M vs. USD 5,890M), reflecting differential fiscal capacity and revenue base.

ii. Nigeria's nominal growth (22.1% over five years) exceeds South Africa's (15.5%), indicating accelerated policy prioritization of education funding in response to pandemic disruptions and continental commitments.

iii. Real growth (inflation-adjusted) reveals more modest gains: Nigeria at 8.3% and South Africa at 4.8%, demonstrating the erosion of purchasing power in both nations over the study period.
iv. Despite higher nominal allocations, South Africa's real growth lags Nigeria's, suggesting either lower inflation impacts in Nigeria or compressed real resource availability in South Africa.

Table 2: Budget Allocation by Educational Level

Educational Level	Nigeria 2023 (%)	Nigeria 2025 (%)	S. Africa 2023 (%)	S. Africa 2025 (%)
Primary	35	36	30	29
Secondary	40	39	38	38
Tertiary	18	17	27	27
Other/Admin	7	8	5	6

Source: National Education Sector Plans and Budget Documents, 2023–2025

Key findings from the allocation analysis across educational levels include:
i. Nigeria allocates approximately 36% to primary, 39% to secondary, and 17% to tertiary education (2025), reflecting moderate prioritization of basic education relative to higher education.
ii. South Africa allocates 29% to primary, 38% to secondary, and 27% to tertiary education, indicating substantially higher tertiary investment relative to Nigeria a pattern reflecting different human capital development strategies and institutional legacies.
iii. Both countries face critique for insufficient primary education allocation relative to population growth and out-of-school children's rates, with sub-Saharan African benchmarks suggesting 40-45% allocation to primary is appropriate.

Table 3: Budget Execution Rates

Country/Year	Allocated (USD M)	Disbursed (USD M)	Execution (%)
Nigeria 2022	4,520	3,685	81.5
Nigeria 2023	5,124	4,212	82.2
Nigeria 2024	5,640	4,684	83.1
South Africa 2022	8,950	8,652	96.7
South Africa 2023	9,240	8,920	96.5
South Africa 2024	9,620	9,315	96.8

Source: Budget implementation reports from Federal Ministry of Education (Nigeria) and Department of Basic Education (South Africa)

Budget execution rates reveal a critical challenge specific to Nigeria:

i. Nigeria's execution rate averages 82.3% across 2022–2024, meaning approximately 17–18% of allocated education resources remain unspent annually. This represents a substantial leakage of approximately USD 960M cumulatively over the three-year period.
ii. South Africa achieves execution rates exceeding 96%, approaching optimal disbursement efficiency. The gap between Nigeria and South Africa approximately 14 percentage points represents a structural implementation challenge requiring institutional attention.
iii. The trend in Nigeria shows modest improvement (from 81.5% in 2022 to 83.1% in 2024), suggesting that enhanced procurement processes and decentralization initiatives are beginning to yield results, though substantial work remains.

Table 4: Per-Student Expenditure

Level	Nigeria 2023 (USD)	Nigeria 2025 (USD)	S. Africa 2023 (USD)	S. Africa 2025 (USD)
Primary	142	158	368	395
Secondary	185	207	492	528
Tertiary	1,250	1,385	2,680	2,875

Note: Figures are PPP-adjusted (Purchasing Power Parity) to improve comparability. Source: World Bank Education Statistics

Per-student expenditure analysis demonstrates pronounced resource disparities:

i. South Africa's per-student expenditure at primary level is 2.5 times Nigeria's (USD 395 vs. USD 158 in 2025), reflecting both higher absolute funding and more favorable student-to-resource ratios.
ii. The gap widens at secondary level (USD 528 vs. USD 207) and tertiary level (USD 2,875 vs. USD 1,385), indicating cumulative inequalities across the education system.
iii. Both countries demonstrate growth in per-student expenditure over the 2023–2025 period (Nigeria: +11% primary, South Africa: +7% primary), though the absolute gap persists and has in some cases marginally widened.
iv. UNESCO's recommended minimum for sub-Saharan Africa is approximately USD 300 per primary student annually; Nigeria falls substantially below this threshold, while South Africa exceeds it.

Table 5: Learning Outcomes and Fund-Outcome Correlations

Indicator	Nigeria 2021	Nigeria 2024	S. Africa 2021	S. Africa 2024
Primary Completion Rate (%)	61.2	68.5	88.6	91.2
Secondary Transition Rate (%)	42.8	49.3	87.4	89.5
Literacy Rate - Grade 6 (%)	35.4	41.8	78.5	81.3
Gender Parity Index (Primary)	0.87	0.89	0.98	0.99

Source: UNESCO Institute for Statistics, TIMSS, and national education assessments

Key findings regarding learning outcomes and resource correlation:

i. Nigeria shows modest improvement across all indicators, with primary completion rising 7.3 percentage points (2021–2024) and literacy rates improving 6.4 percentage points, suggesting that increased funding is beginning to yield results.
ii. South Africa's baseline performance exceeds Nigeria's by 20–40 percentage points across all indicators, confirming the relationship between per-student funding levels and learning outcomes.
iii. Nigeria's gender parity index remains below 0.90, indicating persistent challenges in achieving gender equity, while South Africa approaches unity (1.0), reflecting more sustained investment in girls' education.
iv. Both countries demonstrate that funding improvements alone are insufficient; capacity in curriculum implementation, teacher quality, and learning assessment systems equally determines outcome realization.

Table 6: Capacity Building Investments

Capacity Component	Nigeria Allocation (% of Ed. Budget)	S. Africa Allocation (% of Ed. Budget)	Recommendation (%)
Teacher Professional Development	3.2	5.8	8–10
Curriculum Development & Reform	1.8	3.4	3–5
Learning Assessment Systems	0.9	2.2	2–3
Educational Leadership & Admin. Capacity	1.5	2.8	2–3
ICT & Digital Learning Infrastructure	2.1	3.6	4–6

Source: Education Sector Strategic Plans and capacity development program budgets

Capacity building investment analysis reveals critical underinvestment in both countries:

I. Nigeria allocates only 3.2% to teacher professional development against recommended minimums of 8–10%, representing a gap of approximately USD 380M annually in insufficiently trained human resources.
ii. South Africa's 5.8% allocation, while higher than Nigeria's, similarly falls short of research-based recommendations, particularly given the critical role of teacher quality in post-pandemic learning recovery.
iii. Both nations underinvest in assessment and monitoring systems (Nigeria 0.9%, South Africa 2.2%), limiting evidence-based policy adjustment and accountability mechanisms.
iv. Curriculum reform implementation receives minimal dedicated resources in Nigeria (1.8%), despite high-priority alignment with CBC and CESA 16–25 frameworks.

Discussion

The comparative analysis of Nigeria and South Africa's education financing and capacity-building initiatives during 2021–2025 reveals both promising progress and persistent challenges. This section synthesizes findings within broader continental and global contexts.

Financing Gaps and Systemic Constraints

Nigeria's education budget allocation has grown nominally by 22.1% over the five-year period, representing the fastest nominal growth among major sub-Saharan African nations. Yet this growth masks two critical constraints. First, Nigeria's budget execution rates averaging 82.3%

mean that despite allocating resources, the systems lack capacity to spend allocated funds within fiscal years. This gap, consistently cited in IMF and World Bank audits, reflects procurement bottlenecks, delayed fund transfers from federal to state levels, and institutional absorptive capacity limitations. Second, real growth of 8.3%, when adjusted for inflation, reveals that purchasing power has expanded more modestly, making it impossible to achieve rapid scale-up in capital infrastructure or sustained expansion of teacher employment. South Africa's higher per-student expenditure and superior execution rates (96%+) demonstrate institutional maturity in education systems management. However, this apparent efficiency obscures persistent equity challenges. Provincial disparities in South Africa remain pronounced, with Eastern Cape and Limpopo provinces receiving lower per-pupil allocations despite higher need indicators. South Africa's challenge is not primarily resource volume but rather effective targeting, ensuring that additional resources reach schools serving the most disadvantaged populations.

Learning Outcomes and the Funding-Performance

The data establish clear correlation between funding levels and learning outcomes, yet with important requirements. South Africa's primary completion rate of 91.2% (2024) versus Nigeria's 68.5% corresponds to South Africa's per-student expenditure approximately 2.5 times Nigeria's. However, this relationship is non-linear and context-dependent. Analysis of provincial performance within South Africa demonstrates that doubling expenditure does not necessarily double learning outcomes; instead, institutional quality, teacher preparation, and curriculum implementation fidelity emerge as critical intermediary variables. Nigeria's 7.3-percentage-point improvement in primary completion (2021–2024) coupled with increased funding suggests that in contexts of severe resource constraint, incremental funding gains do translate to measurable outcomes. However, achievement of UNESCOs target completion rate of 100% at Nigeria's current funding trajectory would require not only sustained nominal increases but also dramatic improvements in execution efficiency and reallocation toward basic education.

Alignment with Continental Frameworks

Agenda 2063 and CESA 16–25 establish ambitious targets for African education systems: quality education for all, elimination of gender disparities, and development of a continental workforce with appropriate skills for the 21st-century economy. Both Nigeria and South Africa have endorsed these frameworks, yet analysis of budget allocation patterns reveals incomplete alignment. Nigeria's primary education allocation of 36% falls below the 40–45% benchmark implicit in CESA 16–25's emphasis on foundational learning. Tertiary education's 17% allocation, while appropriate for per-student cost ratios, may inadequately support technical and vocational education and training (TVET) expansion required to meet Agenda 2063's human capital goals. South Africa's allocative pattern reflects greater balance but still reflects insufficient TVET investment despite high youth unemployment. Both nations' limited investments in teacher professional development and learning assessment systems misalign with continental frameworks emphasizing quality. CESA 16–25 explicitly calls for all teachers to undergo minimum annual professional development; current allocations support only intermittent training at best.

Conclusion

This comparative analysis of education financing and capacity building in Nigeria and South Africa during 2021–2025 reveals that while both nations have increased nominal education budgets in response to pandemic disruptions and continental commitments, the translation of these investments into improved learning outcomes remains constrained by implementation efficiency, uneven capacity development, and misalignment with continental frameworks. Nigeria demonstrates accelerated nominal budget growth yet faces persistent execution challenges and under-allocation to basic education and capacity building. South Africa exhibits superior execution and per-student spending but confronts equity challenges and inadequate investment in teacher professional development and skills training. Both nations can achieve transformative education outcomes through integrated strategies addressing financing volume, implementation efficiency, and systemic capacity building. Sustained commitment to these recommendations, coupled with rigorous monitoring and pan-African collaboration, will enable progress toward Agenda 2063's vision of education systems producing graduates equipped for meaningful participation in increasingly competitive global economy while contributing to sustainable continental development. The evidence is clear; education financing is a continental imperative. The pathways to effectiveness are equally clear. What remains is political will, institutional commitment, and sustained pan-African solidarity in translating these evidence-based recommendations into reality

Recommendations

Structural Recommendations for Nigeria

Based on the foregoing analysis, the following recommendations are proposed for Nigeria:

i. **Improve Budget Execution Systems:** Establish dedicated budget execution task forces at federal and state levels to reduce the 17–18% annual disbursement gap. Implement quarterly budget execution reviews, streamline procurement procedures, and provide enhanced financial management training to education sector personnel. Target: achieve 95% execution rates by 2027.

ii. **Rebalance Sectoral Allocation:** Increase primary education allocation from current 36% to 42% by 2027, prioritizing universal primary completion. Simultaneously, establish a dedicated TVET fund (5% of education budget) to support technical skills development aligned to Agenda 2063.

iii. **Invest in Teacher Professional Development:** Increase allocations from 3.2% to 8% of education budget, targeting 100% of teachers for meaningful annual professional development. Prioritize early-grade literacy and numeracy training as entry points for system-wide capacity enhancement.

iv. **Establish National Learning Assessment System:** Invest USD 45–50M in establishing a sustainable national learning assessment system integrated with school monitoring frameworks. Use assessment data to drive evidence-based resource allocation and teacher support.

v. **Strengthen Transparency and Accountability:** Implement open budget initiatives enabling stakeholders to track education spending from federal to school levels. Publish annual education finance reviews detailing execution, outcomes, and equity metrics.

Structural Recommendations for South Africa

For South Africa, recommendations focus on efficiency and equity:

i. **Enhance Provincial Equity Allocation:** Implement needs-based funding formulas that direct proportionally higher resources to provinces with low completion rates and high poverty indices. Require detailed equity audits in every province annually.
ii. **Expand Teacher Professional Development:** Increase allocation from 5.8% to 8%, with particular emphasis on subject-specific pedagogical training and early-career mentoring for teachers in under-resourced schools.
iii. **Strengthen Curriculum Implementation Monitoring:** Establish dedicated provincial curriculum implementation coordinators with resources for school visits and teacher support. Link curriculum fidelity to learning outcome improvements.
iv. **Expand TVET and Skills Development:** Increase technical education allocation to 6% of budget, addressing 15%+ youth unemployment through enhanced vocational pathways and work-integrated learning.
v. **Leverage Data for Continuous Improvement:** Implement integrated education management information system enabling real-time tracking of resources, learner progression, and outcome metrics from district to national level.

Recommendations

i. **Establish African Education Financing Facility:** Create a continental mechanism enabling peer learning on budget execution, innovative financing (tax increase, progressive taxation, private sector partnerships), and capacity building. Pool knowledge and provide technical support to countries with systemic execution challenges.
ii. **Harmonize Continental Standards:** Develop explicit African standards for per-student minimum expenditure by educational level and investment in teacher development, assessment systems, and curriculum implementation, aligned to Agenda 2063 and CESA 16–25.
iii. **Strengthen Pan-African Monitoring and Reporting:** Establish rigorous continent-wide tracking of education financing, execution, and outcome metrics, enabling systematic identification of best practices and cross-national learning.

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