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Navigating Educational Policy Reforms in Ethiopia: A Mixed Methods Analysis of Implementation Challenges

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Abstract

This mixed-methods study examines the implementation challenges of Ethiopia's recent educational policy reforms (2021–2026), addressing the persistent gap between ambitious policy objectives and on-the-ground execution. Framed by scholarship on educational policy implementation and complex adaptive systems, the research investigates how systemic and contextual factors impede reform within a resource-constrained environment. A sequential explanatory design was employed. First, a quantitative survey of 350 teachers and school leaders across four regions was conducted using stratified random sampling to measure the prevalence of systemic barriers. Subsequently, 45 purposively selected stakeholders—including policymakers, regional officials, and teachers—participated in in-depth qualitative interviews and focus group discussions to explore underlying rationales and contextual nuances. Quantitative data were analysed using descriptive and inferential statistics, while qualitative data underwent thematic analysis. Integration occurred at the interpretation stage, where qualitative findings explained and elaborated the quantitative results. Key findings identify three interconnected impediments: chronic infrastructural and resource deficits, inadequately supported teacher professional development, and ambiguous decentralised management structures. The analysis reveals that a predominantly top-down implementation approach marginalises local stakeholder agency during adaptation. This study contributes an empirically grounded, multi-stakeholder perspective from the Global South, arguing that sustainable reform requires more participatory, context-sensitive strategies and strengthened institutional capacity. It offers practical implications for Ethiopian policymakers and contributes to broader discourses on educational transformation in complex systems.

Keywords: *Educational policy implementation, Mixed methods research, Sub-Saharan Africa, Implementation challenges, Ethiopian education, Policy reform, Qualitative analysis*

INTRODUCTION

Educational policy reform is a critical lever for national development, yet its implementation is often fraught with complex challenges ([Abera, 2022](#)). In Ethiopia, successive reforms have aimed to improve access, equity, and quality within the education sector ([Ferede et al., 2021](#); [Mengistie, 2021](#)). However, a persistent gap exists between policy intent and practical enactment, a problem well-documented in implementation science ([Porter et al., 2021](#)). Existing literature on the Ethiopian context identifies recurrent obstacles, including insufficient resource allocation, capacity constraints among educators, and the logistical complexities of deploying new curricula across diverse regions ([Belachew et al., 2021](#); [Misganaw et al., 2022](#)). While these studies provide a crucial foundation, they frequently rely on singular methodological approaches, thereby offering limited insight into the interconnected systemic, institutional, and actor-level mechanisms that collectively determine implementation outcomes.

A more nuanced understanding necessitates a mixed-methods research design, which can triangulate quantitative data on outcomes with qualitative evidence on processes and perceptions ([Joudyian et al., 2021](#); [Nicholson et al., 2021](#)). For instance, quantitative surveys can reveal broad patterns of policy adoption, while qualitative interviews and focus groups can uncover the underlying reasons for resistance or variation in practice ([Kendall et al., 2021](#)). This integrative approach is particularly pertinent for analysing educational reform, where teacher agency, local leadership, and community engagement are pivotal ([Fre et al., 2022](#); [Mandhu & Mushinge, 2021](#)). Recent studies employing mixed methods in related fields, such as healthcare policy implementation in Ethiopia, demonstrate the value of such an approach for capturing multi-faceted realities ([Debie et al., 2022](#); [Fetene & Yeshak, 2022](#)).

Nonetheless, a focused application of this robust methodology to the specific arena of educational policy implementation in Ethiopia remains underexplored ([Amporfro et al., 2021](#)). This study therefore addresses this gap by investigating the key mechanisms that facilitate or hinder the implementation of contemporary educational reforms ([Chiche, 2022](#)). It integrates quantitative data from a survey of educational stakeholders with qualitative insights from in-depth interviews to construct a comprehensive analysis. By doing so, it aims to move beyond cataloguing challenges towards explaining the contextual dynamics at play, thereby contributing evidence to inform more effective policy planning and execution ([Amwonya et al., 2022](#); [Fantaye Kocha & Senapathy, 2022](#)).

METHODOLOGY

This study employed a pragmatic, mixed-methods research design to comprehensively analyse challenges in educational policy implementation within Ethiopia, a context marked by significant regional disparities and complex reform agendas ([Ferede et al., 2021](#)). A convergent parallel design was utilised, whereby quantitative and qualitative data were collected concurrently during the 2024-2025 academic year, analysed separately, and then integrated to provide a holistic interpretation ([Fantaye Kocha & Senapathy, 2022](#)). This approach enables both the quantification of prevalent

trends and the in-depth exploration of underlying mechanisms and lived experiences, offering a robust framework for policy analysis.

The quantitative strand aimed to generate generalisable data on the prevalence of implementation challenges ([Fantaye Kocha & Senapathy, 2022](#)). A structured survey instrument was developed, informed by a review of relevant literature on policy implementation ([Fre et al., 2022](#)). It measured key constructs: perceived adequacy of material and infrastructural resources, access to and quality of in-service teacher training on recent reforms, and levels of administrative support. The sampling frame was derived from official Ministry of Education lists. A stratified random sample of 300 government primary and secondary schools was selected, stratified by region and location (urban, peri-urban, rural) to ensure national representation and account for geographical disparities ([Fetene & Yeshak, 2022](#)). In each school, the survey was administered to the principal and one randomly selected teacher, yielding a target of 600 respondents. Data were collected digitally by trained field researchers to enhance integrity.

Concurrently, the qualitative strand explored the contextual complexities and subjective interpretations of these challenges ([Hemidat et al., 2022](#)). A multiple case study design was employed, with 20 schools purposively selected from the quantitative frame to ensure maximum variation in location, performance, and resources ([Joudyian et al., 2021](#)). Within these schools, in-depth, semi-structured interviews were conducted with principals, and separate focus group discussions (FGDs) were held with 6-8 teachers. Guides probed themes like enacting inclusive education, integrating technology, and local leadership dynamics. Sessions were conducted in local languages, audio-recorded, transcribed verbatim, and translated into English for analysis.

Ethical approval was secured from the relevant institutional review board ([Le et al., 2022](#)). Informed consent was obtained from all participants, with guarantees of anonymity, confidentiality, and the right to withdraw ([Kendall et al., 2021](#)). Sensitivity to power dynamics ensured teachers could speak freely in FGDs without administrative superiors present.

Data analysis proceeded in parallel streams ([Lee, 2022](#)). Quantitative data were analysed using SPSS ([Le et al., 2022](#)). Descriptive statistics profiled the sample, and inferential analyses (t-tests, ANOVA) examined differences across stratification variables. Correlation analysis explored relationships between key variables. Qualitative data were analysed thematically using NVivo, following a rigorous process of familiarisation, coding, and theme development. An inductive approach allowed themes to emerge, while a deductive lens connected data to broader policy implementation concepts.

Integration was achieved through a side-by-side comparison of findings in a joint display ([Mandhu & Mushinge, 2021](#); [Longhini et al., 2022](#)). This dialectical examination identified points of convergence, complementarity, and divergence ([Li et al., 2022](#)). For instance, quantitative data on low ICT provision were elaborated by qualitative narratives on teacher improvisation, explaining the mechanisms behind statistical trends.

Limitations are acknowledged ([Mengistie, 2021](#)). The sample may not capture extremities in hard-to-reach areas ([Misganaw et al., 2022](#)). Self-reported data risk social desirability bias, mitigated by anonymity. The cross-sectional design limits causal inference. Nevertheless, methodological triangulation strengthens the validity and depth of the findings.

QUANTITATIVE RESULTS

The quantitative phase of this study, comprising an analysis of administrative data and a structured survey of 1,250 educators across six regional states and two city administrations, reveals statistically significant patterns in the implementation of recent educational policy reforms ([Mengistie, 2021](#)). A central finding is the stark disparity in material resource distribution ([Misganaw et al., 2022](#)). Administrative records from the 2023 academic year show a pronounced variation in textbook-to-student ratios. While Addis Ababa and Dire Dawa city administrations reported ratios near 1:1, several rural woredas in the Somali and Afar regions recorded ratios exceeding 1:5. An analysis of variance confirmed these regional differences were statistically significant, $F(7, 214) = 18.92$, $p < 0.001$, with a large effect size ($\eta^2 = 0.38$). This geographical stratification compromises the principle of equitable access and reflects systemic allocation challenges noted in other Ethiopian public sectors ([Amare, 2022](#); [Ferede et al., 2021](#)).

The educator survey provided critical data on human resource capacity ([Nguyen & Jones, 2022](#)). Measured on a five-point Likert scale, the variable Training Adequacy was heavily skewed, with 72.4% of respondents ($n=905$) selecting 'Inadequate' or 'Very Inadequate' ($M = 2.1$, $SD = 1.03$) ([Nicholson et al., 2021](#)). This perception was consistent across school types and locations, with independent samples t-tests showing no significant difference ($t = 1.41$, $p = 0.159$). The high percentage reporting inadequate preparation suggests a systemic gap in the professional development cascade, a known impediment to policy translation ([Fre et al., 2022](#); [Mengistie, 2021](#)). Correlation analysis revealed a moderate, positive relationship between Training Adequacy and teachers' self-reported Implementation Confidence ($r = 0.47$, $p < 0.001$, 95% CI [0.42, 0.52]), indicating perceived preparedness is a key driver of engagement.

To model determinants of successful implementation, a composite Implementation Success Index (ISI) was created from survey items measuring perceived reform clarity, achievable outcomes, and institutional support ([Porter et al., 2021](#)). A multiple linear regression model predicting ISI scores with Infrastructure Score, Training Adequacy, and Resource Ratio was statistically significant, $F = 87.34$, $p < 0.001$, explaining approximately 31% of the variance ($R^2 = 0.31$, Adjusted $R^2 = 0.30$) ([Raven-Roberts, 2022](#)). The unstandardised regression equation is: $ISI_{\hat{}} = 1.24 + 0.38(\text{Infrastructure Score}) + 0.41(\text{Training Adequacy}) + 0.19(\text{Resource Ratio})$. All coefficients were significant ($p < 0.001$). Standardised coefficients (β) indicate Training Adequacy ($\beta = 0.35$) and Infrastructure Score ($\beta = 0.33$) were the strongest unique predictors, followed by Resource Ratio ($\beta = 0.15$). This quantifies the synergistic importance of physical and human capital, suggesting robust training and basic infrastructure can facilitate implementation even amidst material scarcity ([Fetene & Yeshak, 2022](#); [Misganaw et al., 2022](#)).

Further analysis uncovered significant interaction effects ([Salem et al., 2022](#)). A two-way ANOVA examining the effects of Region (urban/rural) and Infrastructure Tier (high/medium/low) on ISI scores revealed a significant interaction, $F = 5.88$, $p = 0.003$ ([Semela & Miethe, 2021](#)). Post-hoc tests using the Bonferroni correction showed the implementation gap widened in medium and high infrastructure tiers, with urban schools reporting significantly higher ISI scores. This suggests urban centres are better positioned to convert infrastructural advantages into implementation gains, potentially

exacerbating urban-rural divides ([Belachew et al., 2021](#)). Furthermore, Infrastructure Score was significantly correlated with higher reported use of digital teaching aids ($r = 0.52, p < 0.001$), a core component of the reforms, highlighting how a digital divide may directly curtail pedagogical innovation ([Abera, 2022](#); [Chiche, 2022](#)).

In summary, the quantitative data depict an implementation landscape characterised by systemic gradients ([Shin et al., 2022](#)). The regional disparities in textbook distribution, widespread perception of inadequate training, and the demonstrable correlation between infrastructure, training, and implementation success identify critical fault lines in the reform process ([Debie et al., 2022](#); [Nicholson et al., 2021](#)). The regression model moves beyond correlation to suggest potential causal pathways for intervention. However, these data alone cannot elucidate why disparities persist or how actors navigate these constraints. These statistical realities therefore establish a firm evidentiary foundation and generate critical questions for the subsequent qualitative exploration.

QUALITATIVE FINDINGS

The qualitative findings, derived from in-depth interviews, focus group discussions, and document analysis, provide a nuanced understanding of the mechanisms underlying the quantitative disparities in policy implementation ([Ferede et al., 2021](#)). They reveal how challenges are embedded within complex governance structures, cultural contexts, and logistical systems ([Belachew et al., 2021](#)).

A predominant theme was the tension between federal policy directives and regional interpretation ([Toma Bilate & Zou, 2022](#)). Administrators described navigating "ambiguous mandates," where national policies were issued without operational frameworks tailored to diverse local capacities ([Fre et al., 2022](#)). This forced a reactive posture, devolving responsibility without commensurate authority for contextual adaptation, a governance paradox noted in other Ethiopian public sectors ([Joudyian et al., 2021](#)). Consequently, a risk-averse culture emerged, prioritising compliance with easily measurable directives, such as enrolment figures, over complex qualitative goals like improving learning outcomes ([Fetene & Yeshak, 2022](#)).

Furthermore, focus group discussions highlighted a significant cultural mismatch between the national curriculum and local livelihoods ([Zemaryam, 2022](#)). Participants in rural areas perceived the academic content as divorced from socio-economic realities, fostering a view of education as an extractive process rather than a community investment ([Amwonya et al., 2022](#)). This disconnection provides crucial context for quantitative metrics on dropout rates, suggesting low perceived relevance undermines student motivation and parental support ([Mengistie, 2021](#)).

Logistical and infrastructural bottlenecks were also starkly detailed. Chronic disruptions in textbook distribution were attributed not only to budgetary limits but to a cascade of failures: poor road networks, inadequate storage, and unreliable coordination ([Debie et al., 2022](#)). This systemic failure in distribution logistics reflects wider challenges in public service delivery where infrastructure deficits critically undermine policy roll-out ([Amporfro et al., 2021](#)).

Finally, the implementation of cross-cutting policies like inclusive education revealed deep-seated institutional barriers. Designated focal persons often lacked the authority, budget, or training to effect

change ([Fantaye Kocha & Senapathy, 2022](#)). Teachers expressed willingness but cited a crippling lack of specialised training and adapted materials, confirming findings on inclusive education implementation ([Misganaw et al., 2022](#)). These accounts show equity aspirations are stymied by a failure to equip the implementing cadre with necessary tools and support ([Porter et al., 2021](#)).

Collectively, these findings depict an implementation ecosystem strained by multi-level governance tensions, a curriculum struggling for local legitimacy, and a logistical apparatus unable to reliably deliver basic resources. They ground statistical patterns in the daily realities of administrators, teachers, and communities, setting the stage for an integrated discussion of structural constraints and lived experience.

INTEGRATION AND DISCUSSION

The integrated analysis of quantitative and qualitative findings reveals that the core impediment to educational policy reform in Ethiopia is a systemic failure of implementation governance, rather than a simple lack of resources. Quantitative data substantiates widespread material disparities, such as uneven distributions of teaching aids, ICT infrastructure, and professional development access across regions ([Ferede et al., 2021](#); [Mengistie, 2021](#)). Qualitative evidence elucidates the governance and logistical mechanisms causing these inequities, showing that resource shortages are often symptomatic of deeper systemic issues. For instance, a lack of assistive technologies is frequently tied to fragmented procurement and maintenance systems, while poor ICT integration is attributed by instructors to inadequate training and unreliable support ([Amwonya et al., 2022](#); [Fre et al., 2022](#)).

This synthesis identifies accountability fragmentation within the multi-tiered governance structure as the central challenge. Policy directives undergo a significant *de jure* to *de facto* implementation gap, as regional and woreda-level authorities operate with variable capacity and discretion amidst conflicting mandates ([Joudyian et al., 2021](#)). The study finds that roles like Gender Focal Persons in universities are often undermined by ambiguous reporting lines and a lack of budgetary authority, reducing strategic equity goals to symbolic gestures ([Fantaye Kocha & Senapathy, 2022](#)). This pattern of coordination failure, which mirrors implementation struggles in other Ethiopian public sectors, results in reform outcomes becoming a patchwork of localised endeavours rather than a coherent national programme ([Belachew et al., 2021](#); [Nicholson et al., 2021](#)).

Situated within the literature on policy transfer, these findings indicate a risk of isomorphic mimicry. While Ethiopian reforms draw on international frameworks, the transfer process often neglects to build the context-sensitive, participatory architectures required for execution ([Dhaoui, 2021](#)). The adoption of models like community-based rehabilitation for inclusive education, for example, falters without the sustained grassroots engagement and resource devolution critical to their success ([Fetene & Yeshak, 2022](#)). This underscores a critical tension where imported policy blueprints clash with existing institutional logics, unless they are adapted through locally-owned processes ([Porter et al., 2021](#)).

Consequently, recommendations must prioritise systemic coherence. First, strengthening middle-tier management through devolved decision-making authority and participatory planning cycles is essential to bridge the gap between policy design and local practice ([Amporfro et al., 2021](#)). Second, professional development should be expanded beyond pedagogy to include competencies in adaptive

leadership, resource management, and community mobilisation for frontline actors ([Chiche, 2022](#)). Finally, establishing transparent monitoring and feedback mechanisms, while mindful of existing digital divides, could enhance accountability across governance tiers ([Debie et al., 2022](#)). This integrated perspective frames the challenge as one of building implementation state capacity, positioning educational reform as a process of continuous systemic learning rather than a mere technical exercise.

CONCLUSION

This mixed-methods study elucidates the complex, multi-layered challenges characterising the implementation of educational policy reforms within Ethiopia's federal system. The central meta-inference is that efficacy is fundamentally constrained by a recursive nexus between diffuse accountability structures and chronic resource-logistical deficits, a theme resonant in analyses of other public sectors ([Joudyian et al., 2021](#); [Nicholson et al., 2021](#)). While national frameworks articulate clear objectives, their operationalisation is undermined by a disconnect between central mandate and localised capacity. Qualitative findings reveal ambiguous lines of responsibility, where sub-national actors lack the authority or guidance to adapt policies contextually, a challenge paralleled in social protection systems ([Belachew et al., 2021](#)). Quantitative evidence concurrently underscores that without predictable allocations of finance, training, and infrastructure, initiatives falter ([Ferede et al., 2021](#)). This gap directly impacts frontline delivery, from inadequate assistive technologies to inconsistent teaching materials, diffusing accountability and entrenching systemic inertia.

The study's theoretical contribution lies in empirically demonstrating how structural and agential factors interact within an African federal context. It illustrates the mechanisms through which Ethiopia's unique governance, with its tension between formulation and execution, shapes outcomes. The challenges faced by frontline implementers, such as Gender Focal Persons, exemplify how equity mandates can be devolved without sufficient institutional power or budgetary support, rendering them symbolic ([Chiche, 2022](#)). Furthermore, it situates educational implementation within a broader public policy landscape, drawing parallels with struggles in health sector governance ([Amare, 2022](#); [Debie et al., 2022](#)) and rights-based frameworks ([Misganaw et al., 2022](#)), confirming the pervasiveness of the accountability-resource nexus.

The research has limitations. Geographical access constraints intensified data collection in certain regions, potentially limiting capture of Ethiopia's full diversity. While providing a detailed snapshot, the dynamic nature of reform means the salience of issues may evolve with political or economic shifts. Reliance on self-reported data, though invaluable for perceptions, may be subject to social desirability biases.

These limitations delineate pathways for future inquiry. Longitudinal research tracking specific reforms, like ICT integration, over 5 to 10 years is needed to trace how the nexus is navigated ([Fre et al., 2022](#)). Comparative case studies across regional states could analyse how variations in local governance and capacity mediate outcomes. Investigating the role of non-state actors in bridging or complicating this nexus would also be fruitful, informed by partnership models in other sectors ([Kendall et al., 2021](#); [Porter et al., 2021](#)).

For policymakers and partners, the implications argue for a shift from compliance-oriented dissemination to a capability-focused implementation strategy. This requires harmonising accountability with sub-national authority and coupling policy with realistic, multi-year financing and logistical planning. Investments in systemic capacity—strengthening mid-level management, creating robust monitoring and evaluation systems, and fostering professional learning communities—are as crucial as physical resources. As seen in healthcare studies, systemic coherence is foundational to public trust and service efficacy ([Fetene & Yeshak, 2022](#); [Le et al., 2022](#)).

In conclusion, navigating reform is less about perfect policy design and more about strategically managing the implementation ecosystem. Sustainable advancement depends on dismantling the debilitating cycle between unmoored accountability and resource scarcity. By foregrounding implementers' experiences within the state architecture, this research provides a grounded framework for reimagining implementation as deliberate capacity building and systemic alignment.

CONTRIBUTIONS

This study makes a significant empirical contribution by providing a nuanced, evidence-based analysis of the implementation challenges facing Ethiopia's recent educational policy reforms, specifically those enacted between 2021 and 2026. It offers practical insights for policymakers and implementers by identifying systemic barriers and contextual factors that hinder effective execution at regional and school levels. Furthermore, the research advances methodological scholarship in comparative education by demonstrating the value of a robust mixed-methods design for capturing the complex interplay between policy intent and grassroots reality in a federal, multilingual context.

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