

Equity, Inclusion, and Access in Educational Systems: Evidence from China's Educational Management Perspective

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Abstract

Sustainable development has become a central principle in global policy-making, with education playing a critical role in advancing the Sustainable Development Goals. Education is both a fundamental human right and a cornerstone of sustainable national development, serving to advance social equity and build human capital. For developing countries marked by large populations and regional disparities, ensuring equitable access, processes, and outcomes in education remains a critical governance challenge. This study examines how educational management mechanisms shape educational equity, with particular attention to regional inequality. Using China as a case study, it adopts a qualitative descriptive approach based on policy documents, statistical data, and academic literature from 2014–2024. A comparative analysis of Guangdong and Guizhou highlights the “geographic lottery” in resource distribution. Findings show that despite substantial progress in expanding access, disparities persist in funding allocation, teaching quality, and learning outcomes. Equitable resource redistribution, evidence-based policymaking, multi-level governance, and systematic monitoring emerge as key managerial mechanisms for narrowing these gaps. The study refines theoretical understandings of educational equity by incorporating governance perspectives and offers policy implications for other developing contexts, including Indonesia.

Keywords: Educational equity; Educational management; Urban-rural disparity; Fiscal decentralization; Guangdong and Guizhou

Introduction

Education occupies a central role in the global development agenda. Within the framework of the United Nations 2030 Agenda for Sustainable Development, education is recognized as both a fundamental human right and a key driver of sustainable social and economic progress. The adoption of the Sustainable Development Goals (SDGs) marked a shift from expanding access to schooling toward ensuring inclusive, equitable, and quality education. Sustainable Development Goal 4 (SDG 4) explicitly calls for “inclusive and equitable quality education and lifelong learning opportunities for all.” This commitment extends beyond enrollment expansion to emphasize fairness in resource distribution, meaningful participation, and improved learning outcomes (Al-khamaiseh et al., 2024). In this context, access, inclusion, and equity represent three interconnected dimensions of educational justice. Access focuses on removing structural barriers to participation, ensuring that all individuals can enter and remain in school. Inclusion concerns the quality of educational experiences, requiring

systems to respond to diverse learner needs. Equity goes further by addressing disparities in outcomes, recognizing unequal starting points and advocating differentiated support to reduce structural disadvantage. Although significant global progress has been made in expanding basic education, disparities across regions and socio-economic groups persist. For developing countries with large populations and uneven development, translating SDG 4 commitments into equitable educational outcomes remains a complex governance challenge. Understanding how educational management systems operationalize these principles is therefore critical to achieving sustainable and inclusive development (Shah, 2025; Alam, 2024; Lü & Zhang, 2025).

In recent decades, school leadership has emerged as a critical determinant of educational quality and equity. As education systems move beyond expanding access toward improving learning outcomes and reducing disparities, the role of school leaders has shifted from administrative management to strategic instructional and organizational leadership. Research consistently indicates that effective school leadership is second only to classroom teaching in influencing student achievement (Hu, 2022; Zhou et al., 2023). Principals and school administrators shape school climate, allocate resources, guide curriculum implementation, and support teacher professional development (Chang & Ding, 2026; Guo, 2020).

Their decisions directly affect how policies related to access, inclusion, and equity are translated into daily practice. Within the context of growing regional and socio-economic disparities, school leaders play a mediating role between macro-level policy frameworks and micro-level classroom realities. In disadvantaged or rural areas, strong leadership can mitigate resource constraints by fostering collaborative cultures, improving teacher motivation, and leveraging community partnerships. Conversely, weak leadership may exacerbate inequality by failing to adapt policies to local needs. As a result, contemporary educational reform increasingly emphasizes leadership capacity building, accountability systems, and evidence-based decision-making. Strengthening school leadership is therefore not merely an administrative concern but a strategic lever for advancing equitable and inclusive education systems (Liu, 2023; Chang & Ding, 2026).

Building upon the global commitment to equitable education and the growing importance of educational leadership and management, this study seeks to examine how governance mechanisms shape educational equity within developing contexts. Using China as a case study, the research addresses the following questions:

- How do educational management structures influence disparities in access, inclusion, and learning outcomes across regions?
- What fiscal and administrative mechanisms contribute to the persistence or reduction of regional educational inequality?
- To what extent can targeted management interventions mitigate structural disadvantages in underdeveloped areas?

The significance of this study lies in both its theoretical and practical contributions. Theoretically, it integrates educational equity discourse with governance and management perspectives, emphasizing that equity is not merely a social ideal but an outcome shaped by institutional design and policy implementation. Practically, by analyzing regional disparities within China, the study provides policy-relevant insights for other developing countries facing similar challenges of fiscal decentralization, uneven development, and

rural-urban divides. Through this dual contribution, the research aims to bridge the gap between global normative commitments and localized educational realities, offering evidence-based recommendations for achieving more inclusive and equitable education systems.



Fig. 1. Conceptual Model: Governance and Educational Equity in Developing Contexts

Education for Sustainable Development (ESD) refers to an educational approach that equips learners with the knowledge, skills, values, and attitudes necessary to contribute to sustainable social, economic, and environmental development. Promoted by the United Nations Educational, Scientific and Cultural Organization (UNESCO), ESD emphasizes critical thinking, global citizenship, and long-term responsibility. Within the framework of the Sustainable Development Goals, ESD extends beyond environmental education. It integrates equity, social inclusion, and responsible governance into educational practice. In this sense, sustainable development in education requires not only expanded access but also fair distribution of resources and equal opportunities for learning outcomes. Therefore, ESD provides the normative foundation for linking educational equity with broader development objectives.

Educational leadership refers to the processes through which school leaders and administrative actors influence teaching practices, organizational culture, and institutional performance in order to achieve educational goals. In contemporary educational theory, leadership is no longer confined to bureaucratic administration or procedural compliance (Duan, 2020). Rather, it encompasses strategic vision-setting, instructional guidance, human resource development, and ethical stewardship.

Modern conceptions of educational leadership emphasize its transformational and instructional dimensions. Transformational leadership focuses on motivating teachers, fostering collaborative cultures, and aligning institutional goals with broader educational reforms. Instructional leadership, meanwhile, prioritizes curriculum quality, pedagogical improvement, and student learning outcomes. Both dimensions are particularly relevant in contexts marked by socio-economic inequality, where leadership quality can significantly mediate the impact of structural constraints (Guo, 2020).

From an equity perspective, educational leadership plays a critical intermediary role between macro-level policy frameworks and micro-level classroom realities. National policies may promote access and inclusion, but their effectiveness depends largely on how school leaders interpret, implement, and adapt them to local contexts. In under-resourced or rural settings, strong leadership can compensate for limited infrastructure by optimizing available resources, strengthening teacher commitment, and cultivating partnerships with local communities (Hu, 2022). Conversely, weak leadership may exacerbate inequality by failing to prioritize marginalized learners or by mismanaging scarce resources.

Therefore, educational leadership should be understood as a governance mechanism that shapes whether policy intentions translate into equitable educational outcomes. Its significance extends beyond school management to the broader architecture of educational justice.

The policy implementation logic chain explains how national educational goals are translated into measurable outcomes through sequential governance processes. This chain can be understood as four interconnected stages:

- Policy Formulation Establishing normative goals such as access, inclusion, and equity.
- Resource Allocation Distributing fiscal, human, and infrastructural inputs.
- Institutional Execution Implementing policies through schools and local administrations.
- Outcome Evaluation Assessing learning performance, participation, and equity indicators.

Breakdowns at any stage—whether fiscal imbalance, administrative inefficiency, or weak leadership—can generate disparities. Thus, equity is not only a policy objective but also the product of coherent governance across the entire logic chain.

Based on the preceding analysis, this study proposes a conceptual model linking global norms, governance mechanisms, and educational outcomes. At the macro level, SDG-oriented principles define equity goals. At the meso level, educational management and leadership determine how resources are allocated and policies enacted. At the micro level, schools translate governance structures into teaching practices and student experiences. The model conceptualizes access as the entry condition, inclusion as the process condition, and equity as the outcome condition. Educational leadership functions as the operational bridge connecting policy inputs to equitable results. This integrated framework provides the analytical basis for examining regional disparities and management interventions in the subsequent case study.

Despite notable achievements in global education, disparities in access, inclusion, and learning outcomes remain substantial. According to the Global Education Monitoring Report and SDG statistics, global primary enrollment reached approximately 91% in 2022, up from 83% in 2000, reflecting widespread expansion in basic education participation. Nevertheless, an estimated 244 million children and youth remain out of school, with sub-Saharan Africa alone accounting for about 46% of this total. Regional participation also varies significantly: secondary education net enrollment was about 87% globally in 2022, but as low as 59% in sub-Saharan Africa. These figures highlight persistent geographic inequality in access to schooling. Early childhood education participation exhibits similar disparities. Globally, pre-primary enrollment has stagnated at around 75% since 2015, but regions such as sub-Saharan Africa ($\approx 48.6\%$) and Northern Africa and Western Asia ($\approx 51.4\%$) lag significantly behind global averages. At the same time, completion and quality indicators indicate uneven progress. Secondary completion rates have increased from 53% in 2015 to 59% in 2023, but 650 million learners still leave school without a secondary certificate. Furthermore, teacher qualification levels differ markedly, with approximately 15% of global primary school teachers lacking minimum required qualifications, disproportionately concentrated in lower-income regions.

The global implementation of SDG 4 reveals several entrenched challenges that constrain equity and inclusion: Persistent Out-of-School Rates With roughly one in five children aged 6–17 out of school, low-income contexts face the greatest deficits in participation.

Despite notable progress in expanding school enrollment worldwide, substantial inequalities continue to characterize global education systems. Participation in early childhood education remains below 50% in several regions of Africa and West Asia, limiting children's opportunities to develop foundational cognitive and socio-emotional skills before entering formal schooling. Furthermore, nearly two-thirds of young people worldwide still fail to complete secondary education, exacerbating socio-economic disparities by restricting access to higher education and better employment opportunities (Lei, 2021). These challenges are compounded by persistent inequalities in teacher qualifications, particularly in disadvantaged regions where shortages of adequately trained educators undermine instructional quality and student learning outcomes. In addition, literacy and foundational skills continue to develop unevenly across regions, with sub-Saharan Africa and parts of Oceania experiencing considerably slower progress than higher-income countries. Collectively, these findings suggest that improvements in enrollment rates alone are insufficient to achieve educational equity, as they conceal deeper structural disparities in educational quality, resource distribution, and learning outcomes. Addressing these systemic challenges therefore requires comprehensive governance reforms that prioritize equitable resource allocation, teacher capacity development, and targeted policy interventions to ensure that expanded educational access translates into meaningful and equitable learning opportunities for all learners.

Capacity limitations at multiple governance levels further impede equitable implementation: Fiscal and Resource Capacity Countries with constrained budgets and limited fiscal decentralization often fail to provide equitable school infrastructure, learning materials, or technology access. Administrative Capacity Ministries and local authorities face shortages in planning, monitoring, and evaluation skills (Liu, 2023), restricting their ability to translate policies into effective practice. Teacher and Leadership Capacity Teacher shortages and gaps in professional qualifications, combined with uneven leadership training in disadvantaged regions, reduce classroom effectiveness and widen the quality gap between regions. These capacity gaps underscore that equity is not merely a function of increasing resources but also depends on institutional competence in managing and deploying resources in alignment with equity goals.

Regional disparities manifest clearly across global education indicators. For example, secondary net enrollment rates in developed regions approach global averages, while sub-Saharan Africa lags significantly. Enrollment in early childhood education exhibits similarly wide variance, with structured learning participation at about 90% in high-income regions but under 50% in low-income regions.

Gender and wealth intersect with geography to compound inequality. While global gender gaps at primary levels have narrowed, regional patterns show persistent disparities in secondary and higher education completion, particularly in low-income regions. Moreover, wealth-related disparities remain stark; children from the poorest households are consistently underrepresented in upper secondary completion relative to peers from wealthier families (Liu, 2025). These comparative data highlight how access and inclusion may expand unevenly across regions and socio-economic groups. Without targeted interventions and capacity improvements, regional disparities risk perpetuating cycles of unequal opportunity and outcomes.

Educational leadership begins with normative alignment. Leaders must cultivate shared values centered on inclusion, fairness, and equal opportunity among teachers, administrators, parents, and

community stakeholders. This involves articulating a clear equity-oriented vision and embedding it into school culture and organizational discourse. Through strategic communication, participatory meetings, and professional dialogue, leaders foster collective understanding of why equitable resource distribution and inclusive practices are essential for long-term institutional development (Pan et al., 2025). Consensus building reduces resistance to reform and strengthens collective responsibility for disadvantaged learners. Importantly, value internalization is not symbolic; it shapes decision-making priorities. When equity becomes a shared institutional norm, resource allocation, performance evaluation, and curriculum adaptation are more likely to align with inclusive objectives.

Effective educational leadership requires the construction of a coherent and systematic institutional framework that transforms policy intentions into stable operational mechanisms. Rather than relying on ad hoc initiatives or individual discretion, leaders must embed equity objectives within formal governance structures, regulatory procedures, and accountability systems. This includes the establishment of transparent budgeting processes, standardized performance indicators linked to inclusion and learning outcomes, and data-driven monitoring systems capable of identifying disparities in enrollment, resource allocation, and achievement (Qu & Gao, 2022). A systematic framework also clarifies vertical and horizontal coordination among central authorities, local administrations, and schools, thereby reducing fragmentation and policy inconsistency. By institutionalizing procedures and rules, leadership ensures continuity across administrative cycles and safeguards equity goals from being undermined by short-term political or fiscal pressures. In this sense, institutional design functions as the structural backbone of sustainable educational reform.

Educational inequality often reflects not merely resource scarcity but uneven distribution and weak coordination. Leadership therefore plays a strategic role in integrating financial, human, and technological resources to achieve more balanced development across regions and schools. Through coordinated fiscal transfers, teacher deployment strategies, inter-school collaboration networks, and digital infrastructure expansion, leaders can mitigate structural disadvantages affecting rural and underdeveloped communities. Effective coordination also requires alignment across multiple sectors, including finance, social services, and local governance bodies, to ensure that education policies are supported by complementary social interventions (Wang & Hu, 2022; Zhu & Wu, 2025). When leadership successfully harmonizes these diverse actors and resources, the education system shifts from fragmented provision toward cohesive redistribution. Such integration enhances efficiency while reinforcing the normative objective of equitable opportunity, ensuring that resource allocation corresponds to differentiated needs rather than uniform distribution.

Sustainable educational equity ultimately depends on institutional and human capacity. Leadership must therefore prioritize the development of competencies at both organizational and individual levels. Demonstration initiatives—such as pilot schools implementing inclusive pedagogical models or targeted funding mechanisms—serve as experimental platforms for refining policy instruments before broader scaling. These pilot experiences generate empirical evidence and practical lessons that inform adaptive governance. At the same time, systematic professional development for school leaders and teachers strengthens instructional quality, data literacy, and strategic management skills. Capacity building also involves cultivating collaborative networks that link high-performing schools with disadvantaged institutions, promoting knowledge transfer and shared problem-solving. By enhancing the ability of local actors to implement reforms effectively,

leadership ensures that equity policies translate into durable improvements in student outcomes. In this dynamic process, leadership functions not only as a coordinating authority but as a catalyst for long-term institutional learning and resilience.

The construction of evaluation dimensions begins with aligning measurement criteria to the core triad of access, inclusion, and equity. A comprehensive evaluation system must therefore integrate input, process, and outcome indicators. Input dimensions typically include per-student expenditure, teacher student ratios, infrastructure adequacy, and digital resource availability. Process dimensions assess classroom engagement, inclusive teaching practices, leadership effectiveness, and school climate. Outcome dimensions focus on graduation rates, standardized assessment performance, dropout reduction, and regional achievement gaps.

Importantly, equity evaluation should incorporate both absolute performance and relative disparity indicators. For example, it is insufficient to measure overall completion rates without simultaneously analyzing rural urban gaps or socio-economic achievement differentials. By structuring evaluation dimensions across multiple governance levels—national, regional, and school-level—the system ensures that performance measurement reflects both efficiency and fairness. Such multidimensional construction prevents narrow metric dependence and promotes holistic accountability.

The selection of evaluation methods must balance quantitative rigor with contextual sensitivity. Quantitative approaches, such as statistical trend analysis, regression modeling, and comparative regional benchmarking, provide objective measurement of resource allocation and learning outcomes. Longitudinal data analysis is particularly valuable for assessing whether redistributive policies generate sustained improvements over time. However, equity assessment cannot rely solely on numerical indicators. Qualitative methods including case studies, stakeholder interviews, and policy document analysis—capture leadership practices, institutional culture, and contextual constraints that influence implementation effectiveness. A mixed-method approach therefore enhances analytical validity by triangulating data sources. By combining empirical measurement with interpretative analysis, the evaluation framework moves beyond surface-level performance metrics to examine structural causality.

The allocation of weights among evaluation indicators significantly influences overall assessment outcomes. An equity-oriented weighting system should prioritize outcome disparity reduction rather than merely aggregate performance improvement. For example, indicators measuring rural urban achievement gaps or teacher distribution balance may receive greater weight than absolute test score averages. Weight setting may adopt structured methodologies such as the Analytic Hierarchy Process (AHP), entropy weighting, or expert consultation panels to ensure methodological transparency and rationality. The weighting logic should reflect policy priorities and developmental stage. In contexts where access has largely been achieved, greater emphasis may be placed on quality and outcome equity. Conversely, in underdeveloped regions, access indicators may retain higher weighting. Dynamic adjustment of weights allows the evaluation system to remain responsive to evolving governance objectives.

Performance evaluation must ultimately inform policy adjustment and leadership decision-making. Evaluation results should be integrated into fiscal allocation formulas, leadership appraisal systems, and school improvement planning processes. Regions demonstrating persistent disparities

may receive targeted financial transfers or professional development support, while high-performing schools can serve as demonstration models for peer learning.

Moreover, transparency in reporting enhances public accountability and stakeholder trust. Publishing evaluation findings encourages evidence-based dialogue and incentivizes continuous improvement. Feedback mechanisms should also allow local actors to respond to evaluation outcomes, fostering adaptive governance rather than punitive oversight. In this framework, performance evaluation functions not merely as a monitoring tool but as a strategic governance instrument. By systematically linking measurement, accountability, and policy refinement, the evaluation system reinforces the long-term pursuit of educational equity and institutional sustainability.

Methodology

This study employed a qualitative descriptive research design using a case study approach to examine educational equity from the perspective of educational management in China. The research relied exclusively on secondary data, including national education policy documents, government statistical reports, international publications (e.g., UNESCO and OECD), and peer-reviewed academic literature published between 2014 and 2024. A comparative case analysis was conducted by comparing two Chinese provinces Guangdong and Guizhou representing economically developed and less-developed regions, respectively. These cases were selected to illustrate differences in educational resource allocation, governance capacity, and policy implementation. Data were analyzed through qualitative content analysis, focusing on educational governance, fiscal decentralization, leadership practices, educational access, inclusion, and equity outcomes. Comparative analysis was then used to identify patterns of regional disparities and management mechanisms that contribute to improving educational equity.

Results and Discussion

Provincial Governance Innovation for Educational Equity: The Case of Guangdong

As one of China's most economically developed provinces, Guangdong provides an illustrative example of how strong fiscal capacity and administrative coordination can support equity-oriented governance. In 2023, Guangdong's GDP exceeded RMB 13 trillion, enabling substantial public investment in education. Per-student fiscal expenditure in compulsory education remains significantly above the national average, particularly in the Pearl River Delta region. Guangdong has implemented inter-district fiscal transfer mechanisms to narrow intra-provincial disparities, particularly between economically advanced cities such as Shenzhen and less-developed northern counties. Teacher rotation policies, digital education platforms, and inter-school collaboration networks have been institutionalized to mitigate uneven teacher distribution. The province has also established data-driven monitoring systems to track rural urban achievement gaps and dropout rates. However, despite strong aggregate performance indicators, disparities persist within the province. Migrant children in urban areas and students in remote mountainous regions continue to experience unequal access to high-quality

resources. This demonstrates that high fiscal input alone does not automatically eliminate structural inequality; targeted governance and leadership coordination remain essential.

Policy Execution Under Fiscal Decentralization: Regional Resource Redistribution Dynamics

China's education system operates within a fiscally decentralized governance structure, where local governments shoulder substantial responsibility for funding compulsory education. While the central government has strengthened equalization transfer payments, regional fiscal capacity still significantly shapes educational outcomes. Between 2014 and 2023, central transfer payments to less-developed provinces increased steadily, reflecting national efforts to reduce regional disparities. Nevertheless, wealthier provinces maintain stronger self-financing capacity, allowing greater investment in teacher salaries, infrastructure modernization, and digitalization. This fiscal asymmetry illustrates how decentralization can simultaneously promote administrative flexibility and reproduce inequality. Policy implementation effectiveness varies across regions depending on administrative competence and leadership capacity. Regions with robust data systems and professionalized education bureaus demonstrate stronger alignment between policy objectives and implementation outcomes. Conversely, areas with limited technical expertise or weaker monitoring systems experience delays and uneven resource utilization. This case underscores the importance of integrating fiscal redistribution with institutional capacity building. Without strengthening local governance capabilities, redistributive policies may fail to achieve intended equity outcomes.

Leadership Adaptation in Resource-Constrained Contexts: The Case of Guizhou

Guizhou province, historically one of China's less-developed regions, exemplifies the challenges of pursuing educational equity under fiscal and structural constraints. With GDP per capita significantly below the national average, Guizhou has long faced shortages of qualified teachers, limited infrastructure, and difficult geographic conditions. Over the past decade, however, substantial central government investment and targeted poverty alleviation programs have expanded access to compulsory education. Enrollment rates in primary and lower secondary education now approach national averages. Boarding school programs and digital distance-learning platforms have been introduced to overcome geographic isolation in mountainous areas. Despite these improvements, quality disparities remain evident. Teacher retention in rural areas continues to pose difficulties, and student performance gaps relative to coastal provinces persist. Leadership adaptation has therefore focused on capacity development, including principal training programs, inter-provincial school partnerships, and professional mentoring systems linking Guizhou schools with counterparts in more developed provinces.

The Guizhou case illustrates that educational equity is not solely a matter of financial redistribution but also of institutional learning and leadership development. Adaptive governance, supported by sustained national coordination, has enabled gradual narrowing of access gaps, though outcome equity remains an ongoing challenge.

Conclusions

This study demonstrates that achieving educational equity extends beyond expanding access to schooling and depends fundamentally on the effectiveness of educational governance and management. Through a qualitative descriptive analysis of policy documents, statistical evidence, and a comparative case study of Guangdong and Guizhou, the findings reveal that regional disparities in educational outcomes are shaped by differences in fiscal capacity, administrative effectiveness, leadership quality, and institutional capability. While China has made substantial progress in increasing educational participation, significant inequalities remain in resource allocation, teacher quality, educational infrastructure, and learning outcomes, particularly between economically developed and underdeveloped regions.

The comparative analysis further shows that provinces with stronger governance systems, greater fiscal capacity, and evidence-based management practices are better positioned to reduce educational disparities. Conversely, regions facing financial constraints and limited administrative capacity continue to experience challenges in delivering equitable educational opportunities despite receiving targeted government support. These findings indicate that financial investment alone is insufficient to eliminate educational inequality unless accompanied by effective leadership, systematic institutional development, transparent accountability mechanisms, and continuous performance evaluation.

Overall, this study contributes to the educational management literature by demonstrating that educational equity should be understood as a governance outcome rather than merely a policy aspiration. The proposed performance evaluation framework provides a practical managerial approach for assessing equity-oriented educational reforms through integrated indicators of access, inclusion, resource allocation, leadership effectiveness, and learning outcomes. These findings also offer valuable policy implications for developing countries, including Indonesia, by highlighting the importance of combining equitable financing, institutional capacity building, and evidence-based decision-making to achieve sustainable and inclusive education systems.

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