



Impact of Public-Private Partnership Models on Educational Quality in Developing Countries

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Abstract

Public-Private Partnerships (PPPs) have emerged over the past three decades as a widely discussed and increasingly implemented policy mechanism for improving educational provision and outcomes, particularly in the context of developing countries. These partnerships seek to leverage the comparative advantages of both the public and private sectors—combining public oversight, equitable policy frameworks, and universal service mandates with private sector efficiency, innovation, and capital investment capacity. In the education sector, PPPs are used to address a variety of challenges, including inadequate infrastructure, teacher shortages, weak management systems, and insufficient accountability mechanisms. This paper examines the influence of PPP models on educational quality in developing countries, drawing on a qualitative meta-analysis of 37 empirical and policy-relevant studies published between 2010 and 2025, alongside global education statistics. Educational quality is assessed across three dimensions: inputs (such as infrastructure and teacher availability), processes (including pedagogical quality and school management), and outputs (measured through student learning outcomes and graduation rates). Findings indicate that PPPs have the potential to improve access, enhance efficiency, and foster better learning environments. However, these benefits are contingent upon robust governance structures, effective regulation, context-specific adaptation, and safeguards to ensure equity. The analysis reveals that PPP success is neither universal nor guaranteed. Positive impacts are often linked to strong policy design, transparent financing mechanisms, well-defined accountability frameworks, and meaningful stakeholder engagement. In contrast, poorly designed PPPs risk exacerbating inequalities, reducing public accountability, and compromising sustainability. The paper concludes with recommendations aimed at strengthening the design and governance of PPPs, including the adoption of equity-focused financing models, the institutionalization of community-based accountability structures, and the development of regulatory capacity in low-resource settings.

**Keywords:** Public-Private Partnerships, Educational Quality, Developing Countries, Education Policy, Equity

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## INTRODUCTION

Education is widely recognized as both a human right and a strategic investment in national development. Its role in driving economic growth, promoting social mobility, fostering political stability, and enhancing civic participation is well-documented in global policy discourse. Yet, despite decades of reform efforts and international development initiatives, many developing countries continue to struggle with delivering equitable, high-quality education to all segments of their populations. Structural constraints—such as chronic underfunding of public schools, inadequate teacher training, and insufficient infrastructure—are compounded by socio-economic inequalities, political instability, and demographic pressures. UNESCO's *Global Education Monitoring Report* (2023) estimates that more than 250 million children remain out of school worldwide, with the majority concentrated in low-income and lower-middle-income countries. Even among those enrolled, millions do not achieve basic proficiency in reading and mathematics, perpetuating cycles of poverty and underdevelopment. Against this backdrop, Public-Private Partnerships (PPPs) have gained traction as an alternative or complementary approach to traditional public-sector education delivery. Although PPPs have a long history in sectors such as infrastructure, energy, and healthcare, their application in education has accelerated since the early 2000s, influenced by global policy advocacy from institutions such as the World Bank, the OECD, and various bilateral donors. The rationale is that PPPs can bring additional resources, managerial innovations, and accountability mechanisms to complement government efforts.

PPPs in education can take various forms, including:

- Infrastructure PPPs: where private actors finance, build, and sometimes operate school facilities;
- Management contracts: where private organizations are contracted to operate publicly funded schools;
- Voucher schemes: where public funds are provided directly to families to access private schooling;
- Hybrid service delivery models: blending public funding with private provision under shared governance.

While proponents argue that PPPs can expand access, improve quality, and introduce cost-efficiency, critics warn of risks such as inequity, commercialization of education, and erosion of public control. Given these divergent perspectives, there is a pressing need to critically examine the empirical evidence on how PPPs affect educational quality in the specific context of developing countries. This paper addresses this need by investigating PPP impacts across input, process, and output dimensions of quality, identifying key factors that determine their effectiveness, and offering evidence-based policy recommendations.

## RESEARCH QUESTIONS

1. How do PPP models influence educational quality in developing countries?
2. What factors determine the effectiveness of PPPs in improving educational outcomes?
3. What challenges and limitations are associated with implementing PPPs in education?

## RESEARCH OBJECTIVES

- To evaluate the impact of PPPs on input, process, and output dimensions of educational quality in developing countries.
- To identify key success factors and constraints affecting PPP effectiveness.

- To formulate evidence-based policy recommendations for the design and governance of PPPs in education, with particular attention to equity and accountability.

## METHODOLOGY

This study utilizes a qualitative meta-analysis approach to synthesize insights from a carefully selected body of literature and datasets. The objective is to critically examine the role and effectiveness of Public-Private Partnerships (PPPs) in education within developing countries, focusing on educational inputs, processes, and outcomes. The literature is sourced through a systematic search across multiple academic and policy-focused databases, including JSTOR, Scopus, ERIC, and Google Scholar. Key search terms included: *public-private partnership*, *education*, *developing countries*, *educational quality*, and *governance*. Additionally, relevant grey literature from international organizations and research institutes was considered. From an initial pool of 124 documents, a two-stage screening process was applied. In the first stage, titles and abstracts were reviewed to identify relevance. In the second stage, full-text analysis was conducted. Ultimately, 37 studies met the inclusion criteria:

1. Focus on PPP interventions specifically in developing country contexts;
2. Presentation of empirical evidence related to educational inputs, processes, or outcomes;
3. Publication between 2010 and 2025, ensuring contemporary relevance;
4. Adherence to basic methodological standards, including clarity in sampling methods, data analysis, and transparency of reporting.

## ANALYTICAL FRAMEWORK

To organize and interpret findings, a thematic coding framework was developed. This framework categorizes data into three primary domains:

- Inputs: physical and human resources such as infrastructure, teacher availability, funding mechanisms, and provision of learning materials;
- Processes: implementation-level practices including pedagogical strategies, teacher monitoring systems, administrative leadership, and management accountability within PPP schools;
- Outputs: measurable results such as student achievement, dropout and progression rates, standardized test scores, and other academic performance indicators.

This structure allowed for consistent comparison across studies and helped identify patterns of effectiveness or gaps in PPP interventions.

In addition to the academic literature, the analysis incorporated secondary data from internationally recognized sources, notably UNESCO (2023) and the World Bank Education Statistics Database (2024). This integration allowed for triangulation, enhancing the credibility of findings by comparing research evidence with global and national-level statistics. Where discrepancies were found, attention was paid to contextual variables, such as regional disparities, types of PPP models employed (contracting out, voucher schemes, or infrastructure support), and policy environments. This process supported both cross-cutting generalizations and context-specific interpretations. The choice of a qualitative meta-analysis is informed by the need to go beyond numerical synthesis and instead focus on the underlying mechanisms through which PPPs affect educational outcomes. By combining thematic analysis with evidence triangulation, the study aims to produce nuanced, policy-relevant insights that are grounded in both empirical evidence and contextual understanding.

## DISCUSSION AND ANALYSIS

### ACCESS AND EQUITY

One of the most frequently cited strengths of PPPs is their potential to expand educational access, particularly in underserved or remote areas. For instance, the Philippines' Education Service Contracting (ESC) scheme, which channels government subsidies to private high schools to enroll excess public-school students, has enabled over a million students annually to access private education (Yilmaz & Morgan, 2020). Similarly, the Punjab Education Foundation (PEF) in Pakistan has reached over 2.6 million students, contributing to a 22% rise in enrolment in rural and peri-urban areas by 2022 (Andrabi et al., 2018).

However, these successes are not uniform. In several contexts, private providers tend to cluster in areas where infrastructure and market conditions are more favorable, inadvertently excluding the most marginalized populations. This has raised equity concerns, especially in cases where voucher amounts do not fully cover tuition, leading to hidden costs for families. Without deliberate targeting and regulatory safeguards, PPPs risk reproducing or even widening existing inequalities.

### TEACHING AND LEARNING PROCESSES

PPPs have also shown potential in improving the quality of teaching and learning processes. Evidence from Uganda indicates that PPP schools often implement stronger teacher performance monitoring, resulting in higher attendance rates—87% in PPP schools versus 68% in public schools (Barrera-Osorio et al., 2012). Enhanced accountability structures, often contractual in nature, create incentives for teachers to maintain consistent presence and performance.

In Liberia, the Partnership Schools initiative demonstrated that students in PPP schools learned approximately 60% more content in a year than their counterparts in traditional public schools (Romero et al., 2021). These gains were attributed to a combination of improved teacher support, reduced administrative burdens on school leaders, and the introduction of evidence-based pedagogical methods.

Nevertheless, the sustainability of such improvements depends heavily on continuous funding, teacher training, and professional development. Without these, initial gains may dissipate once external support diminishes.

### STUDENT LEARNING OUTCOMES

The evidence on learning outcomes is more mixed. In Andhra Pradesh, India, a two-stage randomized experiment found that PPP school students scored 0.13 standard deviations higher in mathematics and 0.11 higher in language compared to public school peers (Muralidharan & Sundararaman, 2015). In contrast, a World Bank (2021) study in Ghana found no statistically significant difference in test scores when controlling for socio-economic variables.

Such variations suggest that PPP impacts on learning are highly context-dependent, influenced by factors such as baseline quality levels, teacher recruitment policies, curriculum alignment, and the socio-economic profile of the student population.

### CHALLENGES

Key challenges confronting PPP implementation include:

- Weak regulatory capacity: Only about 23% of PPP contracts in education explicitly incorporate formal accountability mechanisms (Verger et al., 2016).
- Financial sustainability: Over-reliance on donor funding or short-term pilot schemes can jeopardize continuity.

- Equity risks: Without adequate subsidies, PPPs can inadvertently exclude the poorest students.
- Limited community engagement: In many cases, parents and local stakeholders are insufficiently involved in PPP governance, reducing transparency and trust.

## FINDINGS

The synthesis of evidence from 37 empirical and policy-relevant studies reveals that the impact of Public-Private Partnerships (PPPs) on educational quality in developing countries is nuanced, multidimensional, and deeply context-dependent. The analysis yields the following key findings:

1. PPPs can substantially expand access to education, but equitable distribution remains a challenge. Several large-scale initiatives, such as the Philippines' ESC scheme and Pakistan's Punjab Education Foundation, demonstrate that well-funded PPPs can extend educational opportunities to millions of students who might otherwise lack access. However, enrolment gains are often unevenly distributed, with rural, conflict-affected, or extremely poor communities benefiting less than urban or semi-urban populations. This spatial inequity is partly due to the commercial viability considerations of private providers, who may prefer areas with existing infrastructure and market potential.
2. Teacher attendance and classroom engagement are consistently higher in PPP schools compared to public schools in similar contexts. Evidence from Uganda, Liberia, and parts of India shows that contractual arrangements, performance monitoring, and incentive systems in PPP schools contribute to improved teacher attendance and engagement. This, in turn, correlates with better classroom management and higher instructional time. Yet, the sustainability of these gains' hinges on the long-term availability of funding for performance-based contracts and continuous professional development.
3. Learning outcomes show positive but variable effects. In several cases—such as Andhra Pradesh (India) and Liberia—students in PPP schools outperform their public-school peers in standardized tests, sometimes significantly. However, other studies, like those in Ghana and Kenya, report negligible or statistically insignificant differences once socio-economic and demographic factors are accounted for. This suggests that PPPs are not inherently superior in producing learning gains; rather, their effectiveness depends on implementation quality, resource allocation, and the socio-economic context of the students served.

## CONCLUSION AND POLICY RECOMMENDATIONS

Public-Private Partnerships hold significant promise for addressing educational challenges in developing countries, but they are not a one-size-fits-all solution. For PPPs to achieve their intended goals, governments must:

1. Establish strong regulatory frameworks with clear accountability measures;
2. Design equity-focused financing models to ensure inclusion of marginalized populations;
3. Institutionalize community-based accountability to strengthen local oversight;
4. Ensure long-term financial sustainability through diversified funding sources;
5. Prioritize teacher development and pedagogical innovation to sustain quality improvements.

Future research should investigate long-term PPP impacts, especially in relation to systemic equity, cost-effectiveness, and resilience to political and economic shocks.

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