
The Challenges and Potential of Education Systems in Developing Countries: *A Focus on Pakistan*

ABSTRACT:

Education is the backbone of socioeconomic development, playing a transformative role in reducing inequality, fostering innovation, and preparing societies to meet the demands of a rapidly evolving global economy. In developing countries, education systems are tasked with addressing complex challenges, including poverty, gender inequality, and skill gaps, while simultaneously providing the foundation for sustainable growth. Despite these constraints, education systems in developing nations have made significant strides, driven by global commitments such as the United Nations' Sustainable Development Goal 4 (SDG 4), which emphasizes inclusive and equitable quality education for all (United Nations, 2023). Pakistan, as one of the most populous developing nations, serves as a microcosm of the challenges and opportunities in education. With over 85 million children under the age of 18, Pakistan has an immense pool of untapped human potential that hinges on the quality of its education system. Reforms such as the Single National Curriculum (SNC), introduced in 2021, and digital learning platforms like Taleemabad and the Pakistan Learning Passport represent efforts to bridge inequities and improve outcomes. However, systemic weaknesses such as chronic underfunding, inadequate infrastructure, and governance failures, including ghost schools and diploma mills, continue to hinder progress (UNICEF, 2021). A particularly pressing issue in Pakistan and other developing countries is the overemphasis on grades at the expense of practical learning and skill development. This narrow focus, compounded by rote memorization and standardized curricula, leaves students ill-prepared for the demands of the modern workforce. Insights from McKinsey & Company's *Jobs Lost, Jobs Gained* report (2017) underscore the urgency of aligning education systems with future workforce needs, which include adaptability, digital literacy, and critical thinking. When compared with countries like India and Nigeria, Pakistan's struggles illustrate both common barriers and unique complexities in education reform. This paper explores the strengths and challenges of education systems in developing countries, focusing on Pakistan. It delves into key issues such as underfunding, curriculum rigidity, the prevalence of ghost schools, and the rise of diploma mills while drawing lessons from comparable contexts in India and Nigeria. The analysis concludes with actionable recommendations to ensure that education systems in these nations prepare students not just for academic success, but also for meaningful participation in a rapidly changing global economy.

KEYWORDS: *Single National Curriculum, Developing Countries, Education, Pakistan*

INTRODUCTION:

Education serves as the cornerstone of socioeconomic development, enabling individuals to unlock opportunities, reduce inequalities, and contribute to national progress. In developing countries, the role of education systems is even more critical, as they must address issues of poverty, gender inequality, and skill gaps while fostering human capital. However, systemic weaknesses often

prevent these systems from realizing their full potential.

Pakistan, as one of the largest developing nations, encapsulates many of the strengths and challenges faced by education systems in similar contexts. Despite notable achievements, such as increased enrollment rates and the introduction of the Single National Curriculum (SNC) in 2021, Pakistan's education system struggles with chronic

underfunding, inadequate infrastructure, and inequitable access. Moreover, the focus on grades over meaningful learning outcomes, the presence of ghost schools, and the proliferation of diploma mills further exacerbate these challenges. Comparisons with countries like India and Nigeria highlight shared struggles while offering valuable insights into potential solutions.

The rapid pace of global technological change, as emphasized in McKinsey's *Jobs Lost, Jobs Gained* report (2017), underscores the urgency for education systems to adapt. By 2030, the global workforce will demand a range of skills, including critical thinking, adaptability, and digital literacy, which traditional education systems in developing countries often fail to prioritize. This paper explores the challenges faced by education systems in developing countries, with a focus on Pakistan, and proposes actionable solutions to bridge the gap between current educational practices and future workforce needs.

CHALLENGES:

Education systems in developing countries face a host of interconnected challenges that hinder their ability to deliver equitable, high-quality education. These systemic issues not only undermine students' academic progress but also limit their preparedness for the demands of an evolving global workforce.

1. Underfunding and Resource Constraints

Underfunding remains one of the most critical barriers to educational progress in developing countries. Pakistan allocates only 1.7% of its GDP to education, which is significantly below the UNESCO-recommended 4–6% (UNESCO, 2023). This chronic underinvestment impacts nearly every facet of the education system, including teacher salaries, infrastructure, curriculum development, and access to learning resources. The lack of adequate funding contributes to overcrowded classrooms, a dearth of modern teaching aids, and insufficient school supplies. These conditions make

it nearly impossible for schools, particularly in rural areas, to provide a conducive learning environment.

The situation is similar in Nigeria and India, where education expenditures stand at approximately 1.5% and 3% of GDP, respectively (World Bank, 2022; Chakrabarti & Jha, 2021). In these countries, insufficient funding exacerbates inequalities between urban and rural schools. Urban schools often have access to better infrastructure, qualified teachers, and advanced teaching tools, while rural schools struggle with resource deficits and a lack of qualified staff. This disparity widens educational inequities and leaves students in marginalized communities at a significant disadvantage.

2. Infrastructure Deficits

Infrastructure deficits are a pervasive challenge in developing countries, with Pakistan serving as a stark example. According to recent statistics, 41% of schools in Pakistan lack functional toilets, and 46% do not have access to clean drinking water (Pakistan Education Statistics, 2021-22). These shortcomings disproportionately affect female students, who are more likely to drop out of school when basic sanitation facilities are unavailable. Poor infrastructure also contributes to absenteeism and low enrollment rates, particularly in rural areas where such deficits are most acute.

In Nigeria, many schools lack basic amenities such as safe buildings, electricity, and sufficient classroom space, resulting in overcrowded and poorly maintained learning environments. In some cases, students are forced to attend classes under trees or in makeshift shelters, which significantly hampers their ability to concentrate and learn effectively (UNICEF, 2021). Similarly, in India, infrastructure development remains uneven, with rural schools lagging far behind urban counterparts. While programs like the Sarva Shiksha Abhiyan have made progress in improving infrastructure, many rural schools still lack libraries, laboratories, and adequate seating arrangements, limiting

students' access to quality education (Choudhury, 2020).

3. Focus on Grades Over Learning

A prevalent issue across Pakistan, India, and Nigeria is the overemphasis on grades as the primary indicator of academic success. This focus promotes a culture of rote memorization, where students are trained to recall information rather than develop critical thinking or problem-solving skills. Teachers often tailor their instruction to prepare students for standardized exams, leaving little room for creativity, inquiry-based learning, or the development of practical skills.

The implications of this approach are profound. As McKinsey's *Jobs Lost, Jobs Gained* report (2017) highlights, the future workforce will require skills such as adaptability, creativity, and digital literacy—competencies that rote learning fails to nurture. In Pakistan, this grade-centric culture is reinforced by rigid assessment systems and a lack of experiential learning opportunities. Similarly, in India, students face immense pressure to excel in board exams, often at the expense of broader personal development (Chakrabarti & Jha, 2021). Nigeria, too, struggles with a similar fixation on grades, leaving students ill-equipped to meet the demands of a dynamic global economy (UNESCO, 2022).

4. Single National Curriculum (SNC)

In an effort to standardize education and address disparities, Pakistan introduced the SNC in 2021. While the initiative aims to create a unified framework for public, private, and madrassah schools, its rigid implementation has led to significant challenges, particularly for private institutions.

Private schools, which historically have maintained higher academic standards and fostered critical thinking, are now constrained by the standardized curriculum. The SNC mandates that private schools align their content with public school curricula,

limiting their ability to innovate or provide advanced coursework (Zafar, 2022). As a result, the overall quality of education in private schools has declined, sparking dissatisfaction among educators and parents alike. Furthermore, the SNC has faced criticism for being overly focused on theoretical content, with insufficient emphasis on practical skills, digital literacy, and critical thinking. These shortcomings highlight the need for greater flexibility in curriculum implementation to accommodate the diverse needs of students and schools.

5. Ghost Schools and Diploma Mills

Governance failures, such as the existence of ghost schools and diploma mills, further undermine education systems in developing countries. Ghost schools—institutions that exist only on paper—are a significant issue in Pakistan and Nigeria, where funds allocated for teacher salaries and infrastructure are often siphoned off due to corruption and lack of oversight (UNICEF, 2021). In provinces like Sindh and Balochistan, thousands of ghost schools have been identified, depriving communities of essential educational resources and perpetuating inequities in access.

Similarly, diploma mills exploit vulnerable students by offering unaccredited degrees and certificates that hold little value in the job market. In Pakistan, the proliferation of these institutions reflects weak regulatory frameworks and insufficient monitoring of higher education. Students who graduate from diploma mills often struggle to secure employment, further exacerbating cycles of poverty and underemployment (Ahmed & Ali, 2022). Nigeria faces similar issues, with unregulated institutions undermining the credibility of the education system and eroding public trust (World Bank, 2022).

Addressing these interconnected challenges requires comprehensive reform efforts that target funding, infrastructure, governance, and curriculum development. Without systemic changes, education systems in developing countries risk perpetuating

inequalities and failing to prepare students for the complexities of the modern world.

SOLUTIONS:

Addressing the systemic challenges faced by education systems in developing countries requires a multi-faceted approach. By increasing investment, modernizing curricula, leveraging technology, strengthening oversight mechanisms, and shifting the focus from grades to holistic learning, governments can create education systems that are more equitable, effective, and aligned with future workforce demands.

Increase Education Investment

Governments in developing countries must prioritize education by allocating at least 4–6% of their GDP to the sector, as recommended by UNESCO. In Pakistan, where current education spending stands at only 1.7% of GDP, increased funding is essential to address critical gaps in infrastructure, teacher training, and resource provision (UNESCO, 2023). Targeted investments could include building safe and functional schools, especially in rural areas, and ensuring that schools are equipped with basic facilities such as clean drinking water and toilets.

Public-private partnerships can also play a pivotal role in addressing resource gaps and introducing innovative solutions. For instance, India's collaboration with non-governmental organizations (NGOs) under the Sarva Shiksha Abhiyan program has significantly expanded access to education in rural and underserved areas (Choudhury, 2020). Pakistan can adopt similar models, involving private enterprises and NGOs in initiatives such as school infrastructure development and teacher training programs. This partnership approach not only mobilizes additional resources but also fosters innovation by incorporating diverse perspectives and expertise into the education sector.

Modernize Curricula

Curriculum modernization is essential to prepare students for the demands of the 21st century. Education systems in developing countries often emphasize rote memorization, which undermines critical thinking, creativity, and problem-solving skills. In Pakistan, the Single National Curriculum (SNC) should be revised to allow private schools greater flexibility in delivering advanced coursework while maintaining alignment with national standards. Such flexibility would enable private institutions to retain their academic rigor and innovation, ensuring that students receive a well-rounded education (Zafar, 2022).

Similarly, integrating STEM education, vocational training, and digital literacy into national curricula can equip students with the skills required for emerging job markets. Nigeria has begun incorporating vocational training in secondary schools, while India's New Education Policy (NEP) 2020 emphasizes competency-based learning and the inclusion of coding and robotics in school curricula (UNESCO, 2022). These efforts reflect a global shift toward experiential and practical learning, which better aligns with workforce needs in technology-driven economies. Pakistan can draw lessons from these initiatives to enrich its curriculum with hands-on learning opportunities and future-ready subjects.

Leverage Technology

The integration of technology into education systems can bridge access gaps and improve learning outcomes in developing countries. Digital platforms such as Taleemabad in Pakistan and Digital India have demonstrated the transformative potential of e-learning, particularly in reaching underserved populations. These platforms provide curriculum-aligned content that is accessible via mobile devices, making education more inclusive and adaptable to the needs of students in remote areas (UNICEF, 2021).

Governments should invest in affordable internet connectivity and distribute digital devices, such as

tablets and laptops, to students in rural and low-income communities. By ensuring equitable access to digital tools and resources, countries can reduce the urban-rural divide in education and foster a more inclusive learning environment. Additionally, training programs for teachers in digital pedagogy should be prioritized to maximize the effectiveness of e-learning platforms. Expanding digital access is not only a solution for bridging gaps in traditional education but also a means of equipping students with the technological literacy required for future employment, as highlighted in McKinsey's *Jobs Lost, Jobs Gained* report (2017).

Strengthen Oversight Mechanisms

Governance reforms are crucial for addressing systemic inefficiencies, such as ghost schools and diploma mills, which undermine the credibility and equity of education systems. In Pakistan, ghost schools—institutions that exist only on paper—divert critical resources away from genuine educational initiatives, while diploma mills exploit students by offering substandard, unaccredited qualifications (Ahmed & Ali, 2022).

To combat these issues, governments must establish robust oversight mechanisms, including regular audits of schools and higher education institutions. Stricter accreditation standards should be enforced to ensure that degrees and certifications hold value in the job market. Nigeria's efforts to strengthen accreditation for universities and colleges offer a valuable model for Pakistan and other developing countries. Community-based monitoring programs can also enhance accountability by involving local stakeholders in tracking school performance and resource allocation (World Bank, 2022).

Shift Focus from Grades to Holistic Learning

One of the most pervasive issues in education systems in developing countries is the overemphasis on grades as the ultimate measure of success. This focus incentivizes rote memorization and discourages the development of critical thinking,

creativity, and problem-solving skills. Reforms must shift the emphasis toward holistic learning, where students are evaluated on a broader range of competencies, including adaptability, collaboration, and ethical reasoning.

Structured assessments, such as project-based evaluations and situational judgment tests, can replace traditional exam formats to better capture students' real-world capabilities. McKinsey's *Jobs Lost, Jobs Gained* report (2017) highlights the growing importance of skills such as digital literacy and adaptability in automation-driven job markets. Education systems must align with these trends by integrating life skills and digital tools into classrooms. India's NEP 2020 has already begun emphasizing holistic education by incorporating multidisciplinary approaches and reducing the rigidity of exam-focused learning (Choudhury, 2020). Pakistan and Nigeria can adopt similar reforms to foster well-rounded individuals who are prepared to navigate complex professional and personal challenges.

By addressing these key areas—investment, curriculum modernization, technology integration, oversight, and holistic learning—education systems in developing countries can overcome existing barriers and create pathways for equitable, high-quality education. These solutions not only address immediate gaps but also position education as a strategic enabler of economic growth and social mobility in a rapidly changing global landscape.

CONCLUSION:

Education systems in developing countries, including Pakistan, India, and Nigeria, stand at a critical juncture. While these systems have achieved notable successes, such as increased enrollment rates and the integration of technology to expand access, they continue to grapple with systemic challenges that limit their ability to deliver equitable, high-quality education. Chronic underfunding remains a significant barrier, depriving schools of the resources needed to improve infrastructure, train

teachers, and provide learning materials. Infrastructure deficits, particularly in rural areas, exacerbate inequities and discourage school attendance, especially among girls. Furthermore, the narrow focus on grades as the ultimate measure of success undermines the development of critical thinking, problem-solving, and adaptability—skills essential for thriving in the 21st-century workforce.

Pakistan's introduction of the SNC exemplifies the complexities of education reform in developing countries. While the SNC was designed to standardize education and reduce disparities, its rigid implementation has inadvertently constrained private schools, leading to concerns about declining academic standards and innovation. Similarly, governance failures, such as the persistence of ghost schools and diploma mills, further erode public trust in education systems and divert resources away from communities that need them the most. These systemic weaknesses are not unique to Pakistan but are also observed in countries like India and Nigeria, where similar challenges hinder progress toward inclusive and equitable education.

The urgency of addressing these issues is further underscored by global workforce trends. According to McKinsey's *Jobs Lost, Jobs Gained* report (2017), automation and technological advancements will significantly transform labor markets by 2030, creating new opportunities while displacing traditional roles. Developing countries must prepare their populations for this transition by equipping students with skills such as digital literacy, critical thinking, and collaboration. However, the current overemphasis on rote memorization and grades in many education systems fails to align with these demands, leaving students ill-prepared for future employment.

Targeted reforms can unlock the transformative potential of education in developing countries. First, governments must prioritize increased investment in education, meeting the UNESCO-recommended benchmark of 4–6% of GDP. These funds should be directed toward improving infrastructure, expanding

digital access, and supporting teacher training programs to enhance instructional quality. Second, modernizing curricula to emphasize experiential and competency-based learning is essential. By integrating STEM education, vocational training, and digital tools into classrooms, education systems can better prepare students for emerging industries and global opportunities.

Moreover, addressing systemic governance failures, such as ghost schools and diploma mills, requires robust accountability measures. Regular audits, community involvement, and stricter accreditation standards for higher education institutions can ensure that resources are utilized effectively and that degrees hold legitimate value in the job market. Public-private partnerships can play a pivotal role in addressing resource gaps, fostering innovation, and ensuring that education systems remain dynamic and responsive to changing societal needs.

Finally, education systems must shift their focus from academic success alone to holistic development. This includes fostering interpersonal skills, ethical reasoning, and creativity, which are critical for navigating the complexities of modern workplaces and societies. As McKinsey's report highlights, adaptability will be one of the most sought-after traits in future job markets, and education systems must instill this capability in students from an early age.

In conclusion, education systems in developing countries possess immense potential to drive social and economic progress. However, realizing this potential requires a sustained commitment to addressing systemic barriers and embracing innovative reforms. By aligning education systems with future workforce demands, countries like Pakistan, India, and Nigeria can equip their populations to thrive in a rapidly evolving global economy. The transformative power of education lies not only in its ability to improve individual lives but also in its capacity to create more equitable, resilient, and prosperous societies. Through strategic investments, modernized policies, and a

commitment to equity and innovation, developing nations can ensure that education becomes a cornerstone of their sustainable development goals.

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