


REVIEW

Five Years into the Implementation of the 2030 Agenda: Educational Progress and Challenges in Latin America

A Cinco Años del Cumplimiento de la Agenda 2030: Avances y Desafíos Educativos en América Latina

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ABSTRACT

Introduction: five years into the 2030 Agenda, education in Latin America continues to face persistent inequalities in access, quality, and equity.

Objective: analyze the progress and challenges in the implementation of the 2030 Agenda in the education system, considering the impact of the adopted policies, the resources invested, and the obstacles that have hindered sustained progress.

Method: the study was based on a documentary review, analyzing academic and documentary sources categorized into access, equity, financing, and digitalization to compare trends and educational policies.

Results: the findings show progress in coverage and digitalization, but inequalities in educational equity, financing, and infrastructure persist. The digital divide and lack of teacher training continue to affect educational quality.

Conclusions: despite advancements in digitalization and coverage, persistent inequalities limit educational transformation. Without sustained investment and equitable strategies, Latin America will not fully achieve SDG 4 by 2030.

Keywords: Inequality; Gap; Financing; Digitalization; Inclusion.

RESUMEN

Introducción: a cinco años de la Agenda 2030, la educación en América Latina enfrenta desigualdades persistentes en acceso, calidad y equidad.

Objetivo: analizar los avances y desafíos en la implementación de la Agenda 2030 en el sistema educativo, considerando el impacto de las políticas adoptadas, los recursos invertidos y los obstáculos que han impedido un progreso sostenido.

Método: el estudio se basó en una revisión documental, se analizaron fuentes académicas y documentales, categorizándolos en acceso, equidad, financiamiento y digitalización para comparar tendencias y políticas educativas.

Resultados: los hallazgos evidencian avances en cobertura y digitalización, pero persisten desigualdades en equidad educativa, financiamiento e infraestructura, la brecha digital y la falta de formación docente afectan

la calidad educativa.

Conclusiones: a pesar de avances en digitalización y cobertura, persisten desigualdades que limitan la transformación educativa. Sin inversión sostenida y estrategias equitativas, América Latina no alcanzará plenamente el ODS 4 para 2030.

Palabras clave: Desigualdad; Brecha; Financiamiento; Digitalización; Inclusión.

INTRODUCTION

Five years away from the fulfillment of the 2030 Agenda, education faces structural challenges that require a comprehensive and sustained approach to ensure its evolution in the context of a global transformation.

⁽¹⁾ The education system is in the process of adapting to social demands, facing issues such as socioeconomic inequality, the digital divide, and limitations that impact the quality of education.

These challenges jeopardize the achievement of the Sustainable Development Goals [SDGs], particularly SDG 4, which seeks to ensure inclusive, equitable, and quality education. ⁽²⁾ Although progress has been made in education coverage and in reducing access gaps, progress has not been homogeneous in all regions.

In Latin America, educational inequality remains a significant challenge, characterized by disparities in the quality of teaching, access to technology, and inadequate funding for implementing educational transformation policies. ⁽³⁾ Added to this, the crisis generated by the HIV/AIDS pandemic, which left its mark on educational continuity and deepened pre-existing gaps, ⁽⁴⁾ highlighted the fragility of education systems, reflecting the need to strengthen technological infrastructures, improve teacher training and develop contingency plans for educational continuity. ⁽⁵⁾

Although governments have implemented various strategies to mitigate the effects of these problems, they have not been sufficient to guarantee a sustainable educational transformation; the recovery has been uneven, with differences between countries and within the same territories, depending on factors such as public investment in education and digital connectivity. ⁽⁶⁾

Another aspect is the training of education professionals, as the success of educational reforms depends to a large extent on educators' ability to implement them. ⁽⁷⁾ If this is not done permanently, it would limit the adoption of innovations and the application of pedagogical approaches focused on competency-based learning, as well as the use of technological tools. ⁽⁸⁾ Work overload in the education sector makes it difficult to implement continuous training programs, which in turn affects the quality of teaching and teacher motivation. ⁽⁹⁾

Educational transformation in the region must also consider the strengthening of inclusive education. ⁽¹⁰⁾ Despite progress in inclusion policies, there are still barriers that prevent the participation of students with disabilities and in vulnerable situations. ⁽¹¹⁾ In this sense, the objective of this research was to analyze the progress and challenges in the implementation of the 2030 Agenda in the education system, considering the impact of the policies adopted, the resources invested, and the obstacles that have prevented sustained progress.

METHOD

The study adopted an exploratory qualitative approach based on a desk review. ⁽¹²⁾ An analysis of academic and documentary sources was conducted, prioritizing studies that assessed the impact of adopted policies, the allocation of resources, and the factors that have hindered sustained progress in the education sector.

The review process was organized into two main phases: the first was a conceptual analysis, exploring the predominant theoretical frameworks in education research and their alignment with SDG4, and the second was a thematic synthesis, in which studies were categorized into dimensions such as access, equity, financing, and digital transformation, facilitating the comparison of trends and policies implemented in different countries.

To ensure the rigor of the analysis, the literature was selected according to the criteria of thematic relevance, which included studies on educational inequalities, the impact of digitalization, and inclusion strategies. Methodological rigor prioritized qualitative research, case studies, and reviews.

The information collected was organized into analytical categories, allowing for an examination of the factors influencing educational transformation in the region. From this classification, an interpretive analysis was conducted, identifying patterns, trends, and relationships between the findings of different studies.

RESULT

The research findings on the progress and challenges in implementing the 2030 Agenda in Latin American education systems are presented, focusing on the dimensions of educational access, equity and quality, educational financing, digital transformation, and the technological divide.

Educational Access and Coverage

Over the last five years, Latin America has witnessed progress in the expansion of pre-primary education, particularly in rural areas and among lower-income sectors; however, significant challenges persist in terms of educational equity and quality. According to the Education for All Global Monitoring Report,⁽¹³⁾ there are gaps in access to education for vulnerable groups, such as indigenous peoples, Afro-descendant communities, and children with disabilities. Socio-economic inequalities continue to largely determine educational opportunities, with marked differences in completion according to income level.

The educational landscape in Latin America and the Caribbean faces challenges that put the development of millions of students at risk. According to the Inter-American Development Bank, it is estimated that, without additional measures, 84 million children and youth will be out of school by 2030, and approximately 300 million students will lack the basic numeracy and literacy skills needed to succeed in life. This is reflected in the high rate of underachievers in the region, with more than 50 % of 15-year-olds failing to reach the minimum competencies in reading and science and three out of four experiencing difficulties in mathematics.⁽¹⁴⁾

Education coverage in the region shows significant disparities between urban and rural areas. While cities have achieved high enrollment rates, rural areas face barriers such as a lack of infrastructure, limited resources, and trained teachers. Geographic dispersion and poverty aggravate the situation, impacting school retention, especially among indigenous and peasant youth, and although there are initiatives to strengthen rural education, dropout rates remain high.⁽¹⁵⁾ This gap is reflected in the quality of education in rural areas.

This gap is reflected in the quality of education offered, where rural students often have less access to educational materials, technology, and qualified teaching staff, which significantly limits their learning opportunities. The COVID-19 pandemic exacerbated existing inequalities in access to education, prolonged school closures, which in some countries in the region extended for more than 70 weeks, disproportionately affected students from vulnerable backgrounds, disrupting their academic training, increasing school dropout, exposure to child labor and the digital divide, leaving thousands of children and adolescents in a situation of educational backwardness that persists.⁽¹⁶⁾

The transition to online education accentuated the digital divide, mainly affecting students in vulnerable contexts. Despite efforts for educational inclusion, Indigenous and Afro-descendant populations continue to face structural barriers such as lack of connectivity, precarious infrastructure, and historical exclusion. According to ECLAC,⁽¹⁷⁾ the pandemic exacerbated these inequalities, limiting access to training in key areas such as STEM, which in turn impacts their employment opportunities.

The analysis of educational access and coverage in Latin America enables the identification of progress and challenges in implementing the 2030 Agenda within the education system. In terms of equity, although pre-primary education has been expanded in vulnerable sectors, socio-economic, ethnic, and geographic gaps persist, limiting the achievement of SDG 4.

The completion gap and low acquisition of essential skills in reading, science, and mathematics affect educational development. The Inter-American Development Bank's projections of under-enrolment and fundamental skills deficiencies underscore the urgency of strengthening government strategies to mitigate these problems.

Urban-rural disparities in education coverage reflect the structural limitations of the system; this lack of infrastructure, materials, and trained teachers in rural areas, coupled with poverty, impacts school retention and learning. Despite initiatives aimed at reducing dropout, progress is insufficient.

Limited access to technology and connectivity in vulnerable communities restricted training in strategic areas such as STEM, affecting future job opportunities. In this context, analyzing the impact of the policies adopted and the resources invested is key to assessing real progress toward the 2030 Agenda and designing strategies to overcome the obstacles that have prevented sustained improvement in the region.

Educational Equity and Quality

Despite efforts to promote equity, inequalities in educational quality continue to be a challenge in Latin America, with factors such as geographic location, socio-economic status, and ethnicity influencing access to quality academic resources. Rural communities often face limitations in infrastructure and access to technology, which negatively impact learning outcomes.

According to the SDG4-Education 2030 regional monitoring report, the COVID-19 pandemic has exacerbated these inequalities, impacting students' access to and retention in the education system; estimating that, in 2020, around 10.4 million children and youth were excluded from access to primary and secondary education in Latin America and the Caribbean, with vulnerable sectors being most affected.⁽¹⁸⁾

Educational disparities have widened due to the lack of sustained investment in education, as 15 countries in the region have reduced their public spending in this sector since 2015, limiting the capacity to respond to crises such as the pandemic and hindering the implementation of equity policies. The results of assessments such as PISA and ERCE indicate stagnation in learning improvement, particularly in communities with limited

access to resources.⁽¹⁸⁾

The quality of education in the region is affected by the lack of continuous teacher training. This lack of sustainable and well-structured professional development programs limits the acquisition of up-to-date pedagogical tools, which prevents educators from effectively addressing the diverse needs of their students. This has a direct impact on the effectiveness of the teaching-learning process, generating inequalities in academic achievement and reducing opportunities for students' holistic development.⁽¹⁹⁾

Quality education requires a profound transformation of teacher training models framed within public policies that guarantee ongoing updating and educational innovation. Education in the 21st century requires teachers to transmit knowledge and foster critical thinking and autonomous learning in an inclusive and dynamic environment. However, the reality in many Latin American countries reveals that training programs are often disconnected from the real needs of the classroom, exacerbating the educational gap between different socio-economic sectors.

Work overload and precarious conditions represent another challenge that negatively impacts teacher motivation and performance. This difficulty in attracting and retaining talent in education is exacerbated by insufficient support and inadequate professional development policies.⁽²⁰⁾ This problem is compounded by the influence of the lack of a strong and effective teacher training system.

This problem is compounded by the influence of economic and political interests in the formulation of education policy, which distorts its objectives and distances education from its fundamental role in building democratic societies. The increasing privatization of education in Latin America has widened the gap between privileged and vulnerable sectors, limiting equitable access to quality education and undermining its potential as a tool for social justice.

The lack of adequate resources in public schools also contributes to educational inequity; educational institutions in disadvantaged areas often lack teaching materials, insufficient infrastructure, and access to modern technologies, placing their students at a disadvantage compared to those attending better-equipped schools.^(21,22)

Educational equity in Latin America faces structural challenges that affect the quality of learning. Geographic location, socio-economic status, and ethnicity all influence access to resources, especially in rural communities with poor infrastructure and limited technology.

Since 2015, reductions in public spending on education in 15 countries have limited crisis response and hampered equity policies. Assessments such as PISA and ERCE reflect stagnation in learning, highlighting underinvestment in essential resources.

Public schools in disadvantaged contexts often lack access to modern technologies, resulting in a gap in learning opportunities. At the same time, the privatization of education deepens inequalities, restricting equitable access. The influence of economic interests in the formulation of education policies compromises their effectiveness.

To advance the implementation of the 2030 Agenda, it is essential to strengthen educational investment, guarantee continuous teacher training, and reduce structural disparities. Additionally, it is crucial to evaluate the impact of adopted policies to identify the obstacles that have prevented sustained progress.

Education Financing

Educational financing in Latin America faces challenges linked to economic inequality and the equitable distribution of resources. Although some countries have increased their investment in education, the region continues to show notable disparities in the allocation of funds between urban and rural areas, which deepens gaps in infrastructure, teacher quality, and access to educational materials. According to UNESCO,⁽²³⁾ over the last two decades, education spending in the region has increased slightly, from 3,9 % of GDP in 2000 to 4,5 % in 2017. However, this increase has not been sufficient to meet the Sustainable Development Goals (SDGs), which suggest funding between 4 % and 6 % of GDP or between 15 % and 20 % of total public spending.

The high inequality in Latin American countries is also reflected in the financing of education systems, with several studies indicating that the availability of resources within the system is characterized by a significant disparity in resources per student, region, and socio-economic sector, particularly affecting Indigenous and migrant populations. This inequality is exacerbated by differences in the education financing models implemented in the area, with some countries adopting centralized resource allocation schemes. In contrast, others rely on decentralized approaches that amplify the education investment gaps between territories.⁽²⁴⁾

An analysis of education financing in Latin America reveals structural problems that reflect both the global economic crisis and regional development disparities. Unlike developed countries, where education benefits from stable financial systems and consolidated resource allocation mechanisms, Latin America faces an unequal distribution of educational spending, which is conditioned by factors such as a regressive fiscal structure, institutional segmentation, and limitations in public investment. This situation limits the capacity of education systems to guarantee quality education, deepens the gaps in access and permanence in school between different

socio-economic groups, and affects vulnerable populations, such as Indigenous communities.⁽²⁵⁾

The financing of educational management is a fundamental pillar for the sustainable development of Latin American and Caribbean societies. Education in this region faces challenges arising from economic inequality, insufficient resources, and marked disparities in educational quality.⁽²⁶⁾ According to recent studies, strategic, equitable, and sustained investment in education improves academic indicators and has a direct impact on long-term economic growth and social development.⁽²⁷⁾

A lack of adequate financing limits the expansion of quality educational offerings and generates unequal learning environments, thereby affecting inclusion.⁽²⁸⁾ Therefore, it is imperative that governments, educational organizations, and society as a whole implement effective resource allocation mechanisms, ensuring that education is a strategic investment in the region's future.^(29,30)

Education financing is a crucial factor in implementing the 2030 Agenda in Latin America, as it has a direct impact on the equity and quality of education. The region faces serious challenges due to the unequal distribution of resources, which perpetuates educational gaps between different socio-economic sectors.

Differences in financing models have generated disparities in educational investment, with centralized systems that seek to homogenize the allocation of funds and decentralized systems that rely on the economic capacity of each territory, thereby amplifying inequalities.

To meet the goals of the 2030 Agenda, it is essential to reform financing mechanisms to ensure equitable distribution of resources and sustainable investment in education. The efficiency of education financing depends on policies that ensure the strategic allocation of funds, prioritizing sectors with the greatest needs and promoting transparency and accountability mechanisms.

Digital Transformation and the Technology Gap

The digital transformation in education has advanced significantly in Latin America following the COVID-19 pandemic. However, the technology gap remains a significant challenge that limits equitable access to learning opportunities. The lack of access to quality internet and adequate devices in rural areas and vulnerable communities hinders the effective integration of technologies in the teaching-learning process, thereby amplifying pre-existing educational inequalities.⁽³¹⁾

To achieve an effective digital transformation in education, it is essential to strengthen policies that ensure universal connectivity, equitable access to technological devices, and teacher training in digital skills. However, the simple provision of technology is insufficient if it is not accompanied by integrated pedagogical strategies that facilitate its use in the classroom. According to UNESCO,⁽³²⁾ digital transformation should focus on a holistic approach, ensuring that infrastructure, training, and financial sustainability work in a coordinated way to reduce the digital divide and improve educational equity.

Evidence suggests that the digital competencies of teaching staff in Latin America are highly heterogeneous, resulting in disparities in the implementation of technologies in higher education. According to the report on digital transformation in the region, institutions with lower digital skills still rely primarily on face-to-face teaching and face significant difficulties in effectively incorporating digital tools into their pedagogical practices.^(6,10)

Digital innovation transforms education because it has the potential to accelerate the achievement of Sustainable Development Goal 4 (SDG 4). The incorporation of digital technologies has enabled the expansion of access to education, particularly in vulnerable contexts, and has improved the quality of learning through inclusive approaches. Its impact depends on the institutional capacity to integrate these resources effectively, which requires policies that strengthen digital infrastructure, teacher training, and equitable access to devices.⁽³³⁾ Digital transformation in education must extend beyond the digitization of content and focus on developing flexible educational models that cater to students' needs and reduce disparities in access to education.

Bridging the digital divide is a crucial factor in promoting equitable societies, as it affects access to education, labor market integration, and civic participation. The effective integration of Information and Communication Technologies in education facilitates the democratization of knowledge. It is also a crucial mechanism for social inclusion and sustainable development in the digital era.⁽³⁴⁾

The post-pandemic push for digital transformation in education reflects an effort to integrate technologies into learning; however, its real impact on the implementation of the 2030 Agenda remains contingent upon bridging the technology gap. While resources have been invested in improving connectivity and equipping educational communities with devices, the effectiveness of these initiatives depends on factors such as teacher training and the sustainability of digital infrastructure.

The lack of equity in access to these tools limits the reduction of educational inequalities and also affects the capacity of education systems to meet the commitments of SDG 4. In this sense, digital transformation should not be measured in terms of access to technology but rather in the system's capacity to generate structural changes that guarantee its effective use in educational processes.

The central challenge in implementing the 2030 Agenda in the education system lies in the digitization of

content and the construction of a sustainable pedagogical model that leverages technology to improve equity and educational quality. Dependence on traditional models, heterogeneity in the digital skills of teaching staff, and insufficient technology integration strategies have limited the consolidation of sustained progress.

This indicates that, although education policies have attempted to address the demands of digital transformation, there are still structural barriers that hinder their actual impact on reducing educational gaps. To align educational digitalization with the goals of the 2030 Agenda, a comprehensive approach is needed that strengthens teacher training, ensures long-term technological infrastructure, and promotes pedagogical strategies that respond to the diversity of educational contexts.

CONCLUSIONS

Despite progress in educational coverage and digitization in Latin America, significant inequalities in equity, infrastructure, and teacher training persist as substantial obstacles. This reflects the fact that the policies implemented so far have not been sufficient to guarantee sustained progress in all regions, which limits the improvement of educational quality.

While significant efforts have been made in terms of financing and reforms, the lack of sustained investment and the persistence of structural barriers, such as the digital divide and socio-economic inequality, impede effective educational transformation. Without urgent measures to promote equity in access to learning opportunities and strengthen continuous teacher training, Latin America will fail to meet the SDG 4 targets by 2030 fully.

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