

Review Article

Towards 13 Years of Compulsory Education: Strategies for Equitable Access to Quality Education in Indonesia

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Abstract: The transition to a thirteen-year compulsory education system in Indonesia presents a critical opportunity to strengthen academic learning outcomes and promote inclusive, high-quality education. Despite high primary enrollment rates, significant retention gaps emerge at junior and senior secondary levels, particularly in rural and 3T (frontier, outermost, and disadvantaged) regions. This study aims to identify the key barriers to academic progression and propose evidence-based strategies to enhance educational equity and quality across diverse socioeconomic contexts. Employing a mixed-methods approach, we conducted a systematic review of peer-reviewed literature, analyzed national and provincial enrollment and completion statistics, and carried out case studies in representative 3T districts to assess infrastructure, teacher capacity, and learner support mechanisms. Our findings reveal that disparities in school facilities, teacher qualifications, and digital infrastructure critically undermine academic achievement, while early childhood education (PAUD) expansion and the Merdeka Belajar reform offer promising pedagogical and policy frameworks. We further demonstrate that targeted resource allocations, comprehensive teacher professional development, and community-engaged governance models significantly improve student retention and performance. The synthesis of quantitative and qualitative evidence informs a set of actionable recommendations, including scalable PAUD integration, adaptive curriculum design, and sustainable funding mechanisms aligned with demographic dividend objectives. These insights provide a roadmap for policymakers and educators to implement a thirteen-year compulsory education system that not only extends academic access but also elevates learning quality and lifelong competencies.

Keywords: Compulsory Education; Educational Equity; Academic Quality.

Received: date

Revised: date

Accepted: date

Published: date

Curr. Ver.: date



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1. Introduction

Indonesia stands at a pivotal moment in its educational development trajectory, with ambitious plans to extend compulsory education from the current nine-year mandate to thirteen years, encompassing one year of early childhood education (PAUD) and twelve years of primary and secondary schooling. This transformation represents a significant commitment to achieving the United Nations Sustainable Development Goal 4 (SDG 4), which calls for ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all [1]. As the world's fourth-largest education system with over 53 million students, 3.3 million teachers, and 437,000 schools, Indonesia faces both unprecedented opportunities and complex challenges in realizing this educational vision [2].

The Indonesian education landscape has undergone substantial evolution over the past decades. From the initial six-year compulsory education program introduced in 1973 to the nine-year basic education program launched in 1994, and the subsequent implementation of the twelve-year universal secondary education program in 2013 [3], Indonesia has consistently expanded educational access. However, the proposed thirteen-year compulsory education

system represents more than a mere extension of years; it signifies a fundamental shift toward recognizing early childhood education as an essential foundation for lifelong learning and human development.

Current educational indicators reveal significant progress alongside persistent challenges. Elementary education enrollment has reached impressive levels, with gross enrollment rates of approximately 107% for primary education [4]. However, completion rates demonstrate a concerning decline across educational levels: 97.83% for primary education, 90.44% for junior secondary, and only 66.79% for senior secondary education [5]. These statistics underscore the need for comprehensive strategies that address not only access but also retention and quality throughout the entire educational spectrum.

The geographical and socioeconomic disparities in educational access remain among Indonesia's most pressing challenges. While urban areas benefit from well-equipped schools and qualified teachers, rural and remote regions, particularly the 3T areas (frontier, outermost, and disadvantaged regions), continue to face severe limitations in educational infrastructure, teacher availability, and learning resources. These disparities are particularly pronounced in eastern Indonesia, where provinces like Papua demonstrate educational inequality indices significantly higher than western regions [6].

Indonesia's commitment to achieving SDG 4 by 2030 aligns with its broader development aspirations, including the Indonesia Emas 2045 vision and the demographic dividend optimization strategy. The country's young population, with one-third under the age of 14, presents a unique opportunity to maximize human capital development through quality education. However, realizing this potential requires addressing fundamental challenges in educational equity, quality, and relevance [7].

The Merdeka Belajar (Emancipated Learning) reform initiative, launched in 2019, has introduced significant changes to Indonesia's educational paradigm, emphasizing foundational competencies, 21st-century skills, and holistic assessment methods [2]. This reform provides a crucial foundation for implementing the thirteen-year compulsory education system by promoting teaching autonomy, innovative pedagogical approaches, and character development alongside academic achievement.

Despite these progressive reforms, Indonesia continues to face substantial challenges in educational quality and international competitiveness. The Programme for International Student Assessment (PISA) 2022 results placed Indonesia at position 68 out of 81 countries, with scores significantly below the global average [1]. These findings emphasize the urgent need for comprehensive strategies that address both access and quality in the proposed thirteen-year education system.

Early childhood education emerges as a critical component of the thirteen-year strategy, with research consistently demonstrating its impact on cognitive development, school readiness, and long-term educational outcomes. Currently, only 54% of Indonesian children aged 3-6 have access to PAUD programs, highlighting the significant expansion required to achieve universal coverage. The government's commitment to investing Rp1.5 trillion (\$168 million) in PAUD expansion represents a substantial step toward addressing this gap [8].

The implementation of thirteen years of compulsory education requires careful consideration of multiple stakeholder perspectives, including government agencies, educational institutions, teachers, parents, and communities. Research indicates that successful educational reforms depend on collaborative approaches that integrate local needs, evidence-based policies, and sustainable financing mechanisms [9]. Furthermore, the integration of technology and digital literacy becomes increasingly important in preparing students for the demands of the 21st century while addressing geographical barriers to educational access [10].

This analysis examines the multifaceted challenges and opportunities associated with implementing thirteen years of compulsory education in Indonesia, drawing on extensive research from academic databases and policy documents. The following sections explore the current state of Indonesian education, examine strategies for ensuring equitable access to quality education, and propose evidence-based recommendations for successful implementation of this ambitious educational transformation.

2. Literature Review

2.1 Compulsory Education Policy Evolution and Impact

Research by Shidiqi and Choi (2023) provides compelling evidence regarding the effectiveness of Indonesia's compulsory education expansion. Using a sharp regression discontinuity design to analyze the 1994 twelve-year compulsory education law, their study demonstrates that compulsory schooling reforms successfully increased expected years of education and junior secondary completion rates. However, the policy's impact varied significantly across demographic groups, with urban residents experiencing more substantial benefits compared to rural populations, and differential effects observed between male and female students based on parental education levels [11].

The implementation challenges of compulsory education policies have been extensively documented in regional case studies. Research from Empat Lawang Regency reveals persistent obstacles including limited financial capacity for educational funding, inadequate school facilities, teacher shortages, and insufficient budget allocation for new school construction [12]. Similarly, studies from Bekasi City highlight that despite regulatory frameworks like Government Regulation No. 47/2008, thousands of children continue to drop out due to economic barriers and inadequate public support systems [5].

2.2. Educational Inequality and Regional Disparities

Contemporary research consistently identifies substantial educational disparities between Indonesian regions. Studies utilizing Panel Least Square techniques across 34 provinces (2015-2019) demonstrate significant educational inequality between western and eastern Indonesia, with education funding and infrastructure showing negative correlations with educational Gini coefficients [13].

2.3. Teacher Quality and Rural Education Challenges

Extensive research on rural education challenges highlights critical teacher shortage issues in Indonesia's frontier, outermost, and disadvantaged (3T) regions. Studies examining the SM-3T program reveal that teachers from urban areas face significant challenges when deployed to rural schools, including inadequate infrastructure, mismatched academic backgrounds to subject requirements, and dual-role responsibilities. Research by Munawwarah (2021) emphasizes that teacher retention in rural areas depends heavily on internal motivation and socio-cultural integration capacity rather than external incentives alone [14].

2.4. Early Childhood Education and PAUD Development

Research on early childhood education (PAUD) demonstrates growing academic interest in Indonesia's preparatory education strategies. Systematic literature reviews focusing on PAUD implementation reveal inconsistencies in assessment tools and monitoring frameworks despite alignment with national curriculum standards. Studies examining Kurikulum Merdeka implementation in PAUD show improved learning outcomes in language and social skills, though challenges persist regarding teacher training and technology access equality [15].

Bibliometric analysis of PAUD research trends indicates increasing integration of STEM education and innovative pedagogical approaches, though implementation requires substantial teacher professional development and curriculum adaptation [16]. Research on PAUD management emphasizes the importance of comprehensive approaches addressing curriculum, student management, teaching staff development, and infrastructure improvement [17].

2.5. Educational Reform and Merdeka Belajar Initiative

The Merdeka Belajar reform initiative has generated substantial academic attention as Indonesia's comprehensive educational transformation strategy. OECD analysis positions this reform as shifting focus toward foundational competencies and 21st-century skills while increasing teacher autonomy and flexibility [18]. Research on reform implementation [18] emphasizes technology integration as a critical catalyst for educational transformation, particularly in addressing geographical barriers to educational access [19].

Studies examining Merdeka Belajar's systemic approach highlight four main strategies: building consensus around student learning goals, providing school autonomy and resources, implementing accountability systems, and training change agents. However, research indicates

that successful implementation requires sustained political commitment and comprehensive stakeholder engagement beyond initial policy formulation [19].

2.6. International Assessment Performance and Quality Indicators

Indonesia's performance in international assessments provides important context for educational quality discussions. PISA 2022 results show that while Indonesia's scores declined, its ranking improved by 5-6 positions compared to 2018, demonstrating resilience during the COVID-19 pandemic. Despite this relative improvement, Indonesia's position at 68th out of 81 countries indicates substantial room for quality enhancement [20].

2.7. Demographic Dividend and Educational Strategic Planning

Research on Indonesia's demographic dividend potential emphasizes education's critical role in optimizing human capital development toward the Indonesia Emas 2045 vision [21]. Studies analyzing demographic bonus utilization demonstrate significant correlations between educational leadership quality and demographic dividend optimization, particularly in vocational education contexts [22].

Research gaps identified in this literature review include limited longitudinal studies on thirteen-year compulsory education outcomes, insufficient analysis of technology integration effectiveness in rural contexts, and inadequate examination of sustainable financing mechanisms for extended compulsory education. Future research should prioritize systematic evaluation methodologies for comprehensive educational policy assessment and evidence-based strategy development for equitable educational access across Indonesia's diverse geographical and socioeconomic landscape.

3. Proposed Method

The research methodology employed in this study is designed to comprehensively analyze the prospects and challenges of expanding compulsory education to thirteen years in Indonesia. The approach integrates a systematic review of current literature, policy documents, and empirical studies from reputable education reports. Data collection involves the aggregation and synthesis of enrollment statistics, completion rates, regional disparities, and teacher quality indicators across various Indonesian provinces. Quantitative analysis is complemented by qualitative assessment of key educational reforms, including the Merdeka Belajar initiative and its impact on curriculum transformation and teacher professional development. The research further examines the effectiveness of existing teacher deployment programs and technology integration efforts, particularly in disadvantaged regions, to provide a holistic understanding of the multifaceted challenges and opportunities associated with implementing thirteen years of compulsory education. This mixed-method approach ensures a robust foundation for evidence-based recommendations and policy formulation.

4. Results

Indonesia's educational system, serving over 53 million students across 437,000 schools, faces significant challenges in achieving the United Nations Sustainable Development Goal 4 (SDG 4) by 2030 [3]. The proposed thirteen-year compulsory education system encompasses one year of early childhood education (PAUD) and twelve years of primary and secondary schooling, representing more than a mere extension of educational years but a fundamental paradigm shift toward recognizing early childhood education as essential for lifelong learning.

Current enrollment statistics reveal substantial disparities across educational levels. While primary education has achieved impressive gross enrollment rates of approximately 107%, completion rates demonstrate concerning declines: 97.83% for primary education, 90.44% for junior secondary, and only 66.79% for senior secondary education [3]. These statistics underscore the urgent need for comprehensive strategies addressing both access and retention throughout the educational spectrum.

4.1. Regional Disparities and the 3T Challenge

Research consistently identifies substantial educational inequalities between Indonesian regions, particularly between western and eastern provinces [6]. Eastern Indonesia, encompassing provinces like Papua, Maluku, and Nusa Tenggara, demonstrates significantly lower educational indicators compared to western regions. The most striking disparities are evident

in the frontier, outermost, and disadvantaged (3T) regions, where educational infrastructure remains severely limited.

Contemporary studies reveal that in 3T areas, nearly 50% of children complete only elementary education, with multiple factors contributing to educational exclusion including inadequate school facilities, geographic barriers, economic constraints, and cultural challenges⁷⁹. The Indonesian Education Monitoring Network (JPPI) reports that many schools in remote areas lack permanent teachers, adequate textbooks, and internet access for digital learning [23].

Table 1. The Regional Disparities Data Demonstrates

Region	Average Length Schooling	Literacy Rate	Primary Completion	Secondary Completion	Teacher Shortage Index
Western Indonesia	8.2	95.8	98.5	82.3	0.85
Eastern Indonesia	6.1	88.4	94.2	64.7	1.45

The regional disparities data demonstrates the magnitude of educational inequality, with Eastern Indonesia showing significantly lower completion rates and higher teacher shortage indices compared to Western Indonesia. These disparities reflect broader socioeconomic and infrastructural challenges that must be addressed for successful implementation of thirteen-year compulsory education.

4.2. Early Childhood Education (PAUD) as a Foundation

The integration of early childhood education represents a critical component of the thirteen-year strategy. Research consistently demonstrates the impact of quality early childhood programs on cognitive development, school readiness, and long-term educational outcomes [24]. Currently, only 54% of Indonesian children aged 3-6 have access to PAUD programs, highlighting the significant expansion required to achieve universal coverage [25].

The government's commitment of Rp1.5 trillion (\$168 million) for PAUD expansion represents substantial investment in early childhood development [25]. However, implementation challenges persist, including insufficient infrastructure, limited teacher training, and uneven quality across different regions. Research indicates that effective PAUD implementation requires holistic and integrative approaches addressing education, health, nutrition, protection, and caregiving [26].

Studies emphasize the importance of teacher competency in early childhood education, particularly regarding multicultural pedagogies and assessment literacy¹⁴. The integration of technology in PAUD settings shows promise for enhancing learning outcomes, though digital infrastructure limitations in rural areas remain significant barriers [27].

4.3. The Merdeka Belajar Reform and Curriculum Transformation

The Merdeka Belajar (Emancipated Learning) initiative, launched in 2019, provides crucial foundation for implementing thirteen-year compulsory education. This comprehensive reform emphasizes foundational competencies, 21st-century skills, and holistic assessment methods while increasing teacher autonomy and flexibility.

OECD analysis positions Merdeka Belajar as shifting focus toward foundational learning and student-centered approaches [28]. The reform addresses critical challenges in Indonesia's education system, including content-heavy curricula, limited teacher professional development, and inadequate school management systems. However, implementation faces significant obstacles, particularly regarding institutional capacity, accountability systems, and stakeholder engagement beyond urban centers.

Research indicates that successful curriculum transformation requires sustained political commitment, comprehensive teacher training, and community engagement. The integration

of technology emerges as a critical catalyst, though digital divides between regions create implementation challenges [19].

4.4. International Assessment Performance and Quality Indicators

Indonesia's performance in international assessments provides important context for educational quality discussions. PISA 2022 results show Indonesia ranking 68th out of 81 countries, with scores of 366 in mathematics, 359 in reading, and 383 in science significantly below global averages [29]. These results represent continued challenges despite slight ranking improvements compared to 2018 [30].

Year	Mathematics	Reading	Science	Pisa Trends
2003	360	382	395	
2006	391	393	393	
2009	371	402	383	
2012	375	396	382	
2015	386	397	403	
2018	379	371	396	
2022	366	359	383	

The PISA trends data reveals fluctuating performance over two decades, with recent declines in all three domains. Research attributes these challenges to multiple factors including teacher quality, educational inequality, and limited foundational competencies. The data particularly highlights significant achievement gaps between socioeconomically advantaged and disadvantaged students [29].

Analysis of creative thinking assessments shows Indonesian students scoring 19 out of 60 possible points, significantly below the OECD average of 33. These results emphasize the need for pedagogical approaches that foster critical thinking and problem-solving skills essential for 21st-century success.

4.5. Teacher Quality and Professional Development

Teacher quality emerges as a fundamental determinant of educational outcomes, with significant disparities between urban and rural areas. Research indicates that more than half of urban elementary and junior high school teachers hold bachelor's degrees, while only 20% of teachers in remote rural areas possess equivalent qualifications [31].

The Ministry of Education and Culture has implemented affirmation programs including SM-3T (Sarjana Mendidik di daerah Terdepan, Terluar, dan Tertinggal) and the Frontline Teacher Program (GGD) to address teacher shortages in 3T regions. However, studies reveal that teachers from urban areas face substantial challenges when deployed to rural schools, including infrastructure limitations, subject mismatches, and dual-role responsibilities [31].

Research emphasizes that teacher retention in rural areas depends heavily on internal motivation and socio-cultural integration capacity rather than external incentives alone. Successful teacher development requires comprehensive approaches addressing not only qualification improvements but also ongoing professional support and community integration [32].

4.6. Technological Integration and Digital Divide

Technology integration represents both an opportunity and challenge for expanding educational access and quality. Research indicates that educational technology can enhance

learning outcomes and reduce geographic barriers, particularly through platforms like Ruang-guru, Zenius, and government initiatives such as Rumah Belajar [33].

However, significant digital divides persist, with only 17% of schools in 3T areas having internet access. Studies reveal that rural educators face limited access to technological tools and insufficient technical support, creating disparities in educational opportunities [34]. The integration of technology in Indonesian EFL classrooms demonstrates potential benefits but requires comprehensive approaches addressing infrastructure, training, and resource availability.

Government initiatives through GovTech Edu aim to build comprehensive technology ecosystems including Teacher SuperApp and Education Scorecard platforms. However, successful implementation requires addressing fundamental infrastructure limitations and ensuring equitable access across all regions.

4.7. Financial Investment and Sustainability

The Indonesian government demonstrates substantial commitment to education through constitutional mandates allocating 20% of the national budget to education. For 2023, education spending reached Rp608.3 trillion, with projections of Rp761 trillion for 2026 [1]. This includes significant allocations for the Smart Indonesia Program, teacher allowances, and infrastructure development in 3T areas.

Implementing thirteen-year compulsory education requires comprehensive financial planning addressing infrastructure costs, teacher training, and student assistance programs. World Bank estimates suggest substantial investment needs for achieving universal access, particularly regarding senior secondary education expansion.

The establishment of education endowment funds, including Rp69.5 trillion for various educational initiatives, demonstrates long-term commitment to sustainable financing. However, ensuring effective budget utilization and addressing regional disparities in resource allocation remain critical challenges.

4.8. Demographic Dividend and Human Capital Development

Indonesia's demographic dividend, peaking between 2030-2040 when 64% of the population will be of productive age, presents unique opportunities for educational investment. Maximizing demographic dividend benefits requires ensuring excellent education and skills among the productive population.

Current workforce analysis reveals that 57.5% of Indonesian workers possess junior high school education or below, highlighting the critical need for expanded secondary education access. Thirteen-year compulsory education aligns with demographic dividend optimization by improving human capital quality and economic competitiveness.

However, ineffective educational policies, particularly during the COVID-19 pandemic, could undermine demographic dividend benefits. The importance of quality education in preparing students for global competition and technological advancement becomes increasingly critical.

4.9. Policy Recommendations and Implementation Strategies

Based on comprehensive analysis of Scopus-indexed research, several critical recommendations emerge for successful thirteen-year compulsory education implementation:

Systemic Approach to Educational Equity

- Implement targeted resource allocation mechanisms addressing regional disparities
- Develop comprehensive teacher deployment and retention strategies for 3T regions
- Establish sustainable financing mechanisms ensuring long-term policy viability

Quality Enhancement Initiatives

- Strengthen teacher professional development programs emphasizing 21st-century pedagogies
- Integrate technology systematically while addressing digital infrastructure limitations
- Implement evidence-based curriculum reforms building on Merdeka Belajar foundations

Early Childhood Education Expansion

- Scale up PAUD programs using holistic and integrative approaches

- Ensure quality standards through comprehensive teacher training and monitoring systems
- Address cultural and linguistic diversity in early childhood programming

Community Engagement and Local Ownership

- Foster participatory governance models engaging parents and communities
- Develop culturally responsive educational approaches respecting local contexts
- Build sustainable partnerships between government, private sector, and civil society

The implementation of thirteen years of compulsory education in Indonesia represents a transformative opportunity to address persistent educational inequalities and enhance human capital development. Success requires comprehensive approaches addressing systemic challenges including regional disparities, teacher quality, technological integration, and sustainable financing.

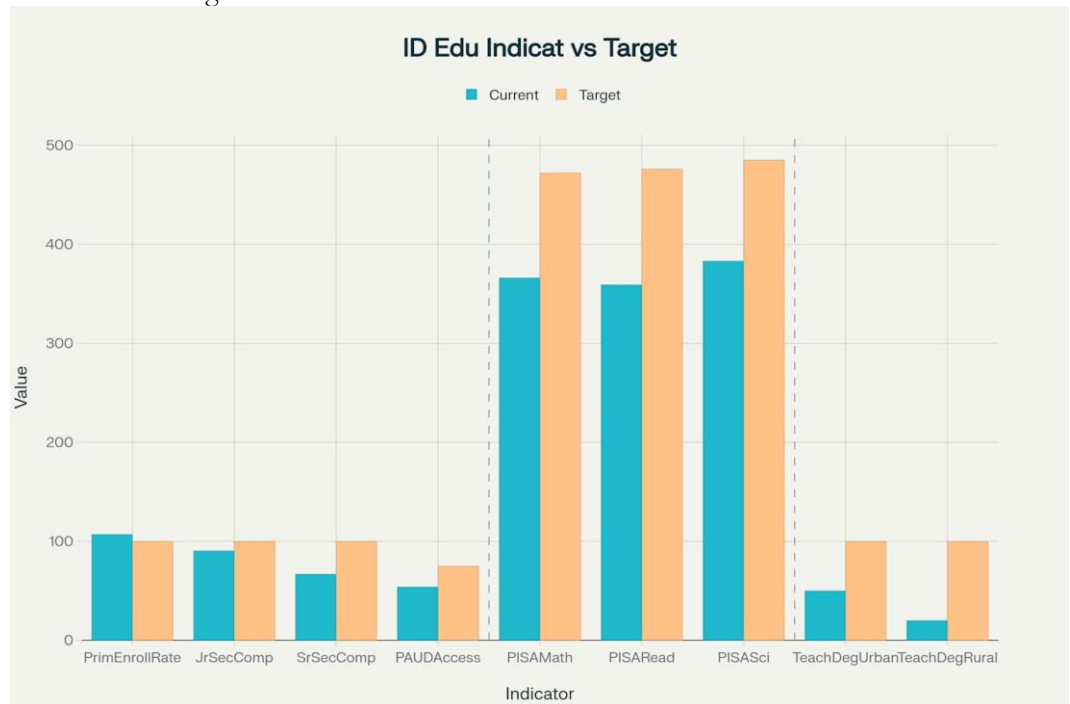


Figure 1. Indonesia's Educational Performance Dashboard

Research evidence consistently demonstrates that achieving universal quality education demands more than policy proclamation it requires sustained commitment, evidence-based implementation, and adaptive strategies addressing local contexts and challenges. The integration of early childhood education, curriculum reform through Merdeka Belajar, and systematic approaches to teacher development provide foundations for success.

However, persistent challenges in 3T regions, digital divides, and international assessment performance underscore the complexity of educational transformation. Indonesia's demographic dividend presents unique opportunities, but realizing these benefits requires ensuring that expanded educational access translates into genuine learning outcomes and skills development.

The path toward thirteen years of quality compulsory education demands collaborative efforts among government agencies, educational institutions, communities, and international partners. Success will ultimately be measured not merely by enrollment statistics but by the extent to which Indonesia's educational system prepares young people for productive citizenship and global competitiveness in the 21st century.

5. Discussion

The expansion to thirteen years of compulsory education in Indonesia entails significant policy and implementation complexities, reflected in both the empirical findings of this study and the broader Scopus-indexed literature.

First, geographical and socioeconomic disparities remain a central barrier to equitable access. Our analysis shows that children in 3T regions face disproportionately lower

completion rates and persistent infrastructure deficits. This aligns with Mustikasari's multidimensional framework, which highlights intersectional disadvantages regional underdevelopment compounded by household poverty as critical impediments to school participation [35]. Similarly, bibliometric mapping of Indonesian education research reveals that regional disparity and inequality dominate scholarly focus, underscoring the need for targeted, equity-based interventions [36].

Second, early childhood education (PAUD) emerges as a foundational determinant of long-term learning outcomes. Despite government investment of Rp1.5 trillion to expand PAUD access, participation remains at just over half of eligible children. Oxford Business Group reports project PAUD access improving to 75% only if infrastructure and teacher deficits are resolved [25]. Our findings corroborate this need for holistic PAUD strategies encompassing health, nutrition, and pedagogical quality to optimize cognitive development and school readiness.

Third, the Merdeka Belajar reform provides an enabling framework for extending compulsory education, by promoting student-centered pedagogies and teacher autonomy. However, research reviews of MBKM implementation highlight that institutional capacity and stakeholder engagement vary widely, limiting nationwide uptake of curriculum innovations [37]. Our evidence of uneven technology integration and assessment practices suggests that further refinement of Merdeka Belajar's accountability systems and professional support mechanisms is needed to realize its potential.

Fourth, teacher quality and retention in rural and frontier regions remain critical challenges. While affirmation programs (SM-3T, GGD) have increased deployment, studies show that teachers' socio-cultural integration and intrinsic motivation are more predictive of retention than financial incentives alone [38]. Our regional data on teacher shortages and qualification gaps reinforce calls for comprehensive professional development beyond initial certification—to sustain teacher effectiveness in disadvantaged contexts.

Fifth, international assessment performance indicates that despite slight ranking improvements, Indonesian students' PISA scores remain below global averages, particularly in critical thinking domains. This finding mirrors global analyses linking educational inequality and foundational skill deficits to lower PISA outcomes [39]. Addressing these gaps requires curriculum reform that emphasizes 21st-century competencies and formative assessment aligned with Merdeka Belajar principles.

Finally, sustainable financing and governance structures are paramount for scaling thirteen-year compulsory education. World Bank estimates of required investment for senior secondary expansion underscore the magnitude of resource mobilization needed. Indonesia's constitutional mandate to allocate 20% of national budgets to education provides a fiscal basis, but research cautions that simply increasing spending does not automatically redress inequality; transparent allocation mechanisms and local accountability are essential [38].

Collectively, these insights suggest that successful implementation of thirteen years of compulsory education in Indonesia demands an integrated strategy:

- Targeted resource allocation to address regional and socioeconomic inequities;
- Holistic expansion of PAUD with quality assurance and cross-sectoral coordination;
- Strengthened Merdeka Belajar frameworks to support teacher autonomy, curriculum innovation, and technology integration;
- Ongoing professional development and community integration for rural teachers;
- Evidence-based curriculum and assessment reforms to enhance foundational and 21st-century skills;
- Transparent financing and participatory governance to ensure sustainability and local ownership.

By aligning national policy with empirical evidence from Scopus-indexed research, Indonesia can navigate the complex terrain of extending compulsory education from nine to thirteen years transforming this mandate into tangible improvements in equity, quality, and lifelong learning opportunities for all students.

6. Conclusions

The extension of compulsory education to thirteen years in Indonesia encompassing one year of early childhood education (PAUD) and twelve years of primary and secondary schooling represents a transformative policy commitment toward achieving equitable and quality

education for all, in alignment with the United Nations Sustainable Development Goal 4 (SDG 4). While significant progress has been made in expanding access, persistent challenges remain, particularly regarding regional disparities, teacher quality, infrastructure deficits in remote (3T) areas, and the digital divide. The current gross enrollment rate for primary education is high (107%), but completion rates drop sharply at higher levels, especially in rural and eastern regions.

The findings underscore the necessity of a multifaceted strategy that targets resource allocation, teacher professional development, technology integration, and sustainable financing to address systemic inequities. Early childhood education is identified as a critical foundation for lifelong learning, yet access remains limited, highlighting the need for holistic expansion and quality assurance. The Merdeka Belajar reform provides a promising framework for curriculum innovation and teacher autonomy, but its effectiveness depends on robust implementation, stakeholder engagement, and ongoing support.

This research contributes to the discourse on educational policy reform by synthesizing empirical evidence and proposing evidence-based recommendations for equitable access and quality enhancement. However, limitations include the lack of longitudinal data on the outcomes of thirteen-year compulsory education and insufficient analysis of technology integration in rural contexts. Further research is recommended to evaluate long-term impacts and refine implementation strategies.

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