

## **Addressing Educational Inequality in Indonesia: Policy Challenges and Digital Solutions for Disadvantaged Regions**

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### **ABSTRACT**

This study examines educational inequality in Indonesia, focusing on the most disadvantaged regions, particularly the 3T (*terluar, terdepan, tertinggal*) areas. The research aims to evaluate the effectiveness of key policies, such as the Merdeka Curriculum and Indonesia Pintar (PIP) program, and assess the role of digital solutions in addressing disparities in educational access and quality. Despite various government initiatives, educational inequality in Indonesia remains persistent, driven by factors including economic constraints, teacher quality, social exclusion, and regional disparities. The study reveals that although some policies and digital solutions have shown promise, major barriers remain, such as inadequate policy implementation, unequal teacher distribution, poor infrastructure, and limited access to technology, particularly in rural areas. The research uses a Systematic Literature Review (SLR) approach to synthesize existing studies from both international and regional perspectives. The findings highlight significant gaps in educational outcomes between urban and rural students, and within the 3T regions, with disparities in years of schooling, literacy rates, and access to higher education. Additionally, while the use of technology in education presents opportunities for bridging educational gaps, issues like digital illiteracy and limited infrastructure hinder its full implementation. This study offers valuable insights into the challenges and solutions for achieving educational equity in Indonesia and provides evidence-based recommendations for policymakers, educators, and communities working to reduce disparities and improve long-term educational outcomes in remote areas.

**Keywords:** *Educational inequality, 3T regions, Merdeka Curriculum.*

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### **Introduction**

Educational inequality is a persistent challenge across the globe, and its implications extend far beyond the classroom. According to the United Nations, educational disparity remains a significant

barrier to achieving Sustainable Development Goal 4, which aims to ensure inclusive and equitable quality education for all by 2030 (Ali et al., 2025; I. Anwar, 2025). Despite global progress in addressing this issue, many countries, particularly in low- and middle-income regions, continue to face profound challenges. These challenges are often exacerbated by factors such as geography, socioeconomic status, and gender, which systematically limit access to educational opportunities. Globally, the growing gap in access to education is not only a matter of human rights but also an obstacle to social mobility and economic development. In particular, rural areas and disadvantaged regions suffer disproportionately from the lack of infrastructure, poor teacher distribution, and limited access to educational resources, including digital technologies, which further entrench inequality in educational outcomes (Kumar et al., 2024).

In Indonesia, the problem of educational inequality is particularly pronounced, with significant disparities between urban and rural areas, as well as between different socioeconomic groups. For instance, provinces in the eastern part of the country, such as Papua, have significantly lower levels of educational attainment compared to more developed regions such as Jakarta. According to research, the average years of schooling in Jakarta were approximately 1.65 times higher than in Papua in 2017, highlighting the vast provincial disparities in terms of learning opportunity and attainment (Amin et al., 2020). These geographic divides are further compounded by gender disparities, with studies indicating that girls, particularly in rural and remote areas, outperform boys in reading literacy but face numerous challenges such as cultural barriers and limited access to digital learning tools (Pijoh, 2025).

The geographical and socio-economic disparities are most stark in Indonesia's 3T (Disadvantaged, Frontier, and Outermost) regions. These areas often experience systemic challenges such as inadequate school infrastructure, limited access to technology, and a shortage of qualified teachers, which contribute to poorer educational outcomes. Research has shown that these regions face major infrastructure deficits, including a lack of electricity and internet access, which make it difficult for students to access quality learning opportunities (Fismariza & Ofianto, 2025; Syabily et al., 2024). Additionally, teacher distribution remains uneven across the country, with rural and remote areas suffering from teacher shortages and lower teacher readiness for modern digital instruction. This unequal teacher distribution has a direct impact on students' academic performance and overall educational outcomes (Jayadi et al., 2024; Setiadi & Muhamidin, 2024). The combination of these factors perpetuates a cycle of educational disadvantage for students in rural and underserved areas, limiting their opportunities for social and economic advancement.

Theoretical perspectives on educational equity often draw on the principles of social justice and human rights. Social justice in education emphasizes the need for equitable access to quality education, where all students—regardless of their background, location, or gender—have equal opportunities to succeed. From this viewpoint, education is seen as a fundamental human right and an essential tool for

reducing inequality. In this context, policies aimed at promoting educational equity must not only address resource distribution but also ensure that the educational system is responsive to the needs of diverse populations, particularly those from disadvantaged backgrounds (Çelik, 2024; Smith et al., 2025). Furthermore, technology has been recognized as a powerful tool to bridge educational gaps, particularly in remote regions where access to physical educational resources is limited. Digital innovations, including online learning platforms and educational apps, have the potential to expand access to quality education by overcoming barriers of distance, infrastructure, and cost. However, while technology has been proposed as a solution to educational inequality, its effectiveness is often hindered by challenges such as low digital literacy, inadequate infrastructure, and disparities in access to devices.

The urgency of addressing educational inequality in Indonesia is underscored by the significant long-term social and economic consequences of unequal access to education. Education is widely regarded as one of the most powerful tools for social mobility, and unequal access to quality education perpetuates cycles of poverty and limits opportunities for future generations. Moreover, as Indonesia's population continues to grow and urbanize, it is imperative that educational policies and practices evolve to meet the needs of a diverse and increasingly digital society. Without urgent action, the educational divide between urban and rural students, as well as between the wealthy and the poor, will only widen, further entrenching social and economic inequality. This research aims to fill the gap in empirical studies by analyzing the effectiveness of integrated strategies that combine policy reforms, digital innovations, and community-driven solutions to reduce educational inequality in Indonesia's most disadvantaged regions. Specifically, this study will evaluate the impact of key policy interventions, such as the Merdeka curriculum and the Indonesia Pintar (PIP) program, on improving educational access and outcomes in 3T regions. Additionally, the study will explore how digital solutions, including remote learning and offline educational platforms, can address infrastructure and access gaps in these areas. By providing a comprehensive analysis of these interventions, the research aims to offer evidence-based recommendations for policymakers, educators, and communities seeking to bridge the educational divide and promote long-term sustainable development.

## Methods

### Research Design

This study employs a Systematic Literature Review (SLR) to synthesize existing research on educational inequality in Indonesia, with particular attention to disparities affecting remote, frontier, and outermost (3T: terluar, terdepan, tertinggal) regions. The SLR approach was chosen to ensure a structured, transparent, and reproducible examination of empirical evidence related to policy interventions, technological solutions, and community-based strategies aimed at promoting educational

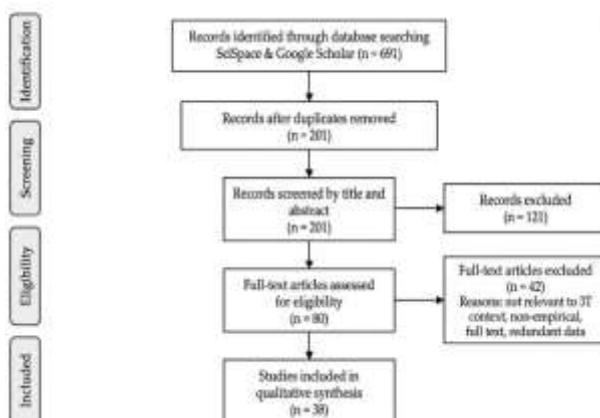
equity. The review process followed established SLR principles and was guided by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework.

## Search Strategy

A comprehensive literature search was conducted across multiple academic databases, including SciSpace (paper and full-text search) and Google Scholar. These databases were selected to capture both international and Indonesian scholarly publications. The search used combinations of the following keywords: *educational inequality*, *educational equity*, *remote areas*, *marginalized communities*, *3T regions*, *education policy*, *teacher distribution*, *infrastructure*, *technology in education*, and *community engagement*. Boolean operators (AND/OR) were applied to refine the search results. The search was limited to peer-reviewed journal articles, conference proceedings, and credible research reports published between 2010 and 2025 to ensure the inclusion of recent and relevant developments. To maintain contextual and linguistic consistency, only studies written in English or Indonesian were included. Studies published in other languages were excluded.

## Study Selection Process

The initial search identified 691 records, consisting of 400 articles from *SciSpace* paper search, 200 articles from *SciSpace* full-text search, and 91 articles from Google Scholar. After merging all records and removing duplicate publications ( $n = 490$ ), a total of 201 unique articles remained. These articles underwent title and abstract screening, during which 121 records were excluded because they did not focus on educational inequality, remote or marginalized contexts, or the Indonesian education system. As a result, 80 full-text articles were assessed for eligibility. Following full-text review, 42 articles were excluded due to insufficient empirical relevance, lack of focus on 3T or marginalized regions, unavailability of full text, or redundancy with previously included studies. Ultimately, 38 studies ( $n = 38$ ) met all inclusion criteria and were included in the final qualitative synthesis. The study selection process is illustrated in Figure 1 using a PRISMA 2020 flow diagram.



**Figure 1. PRISMA 2020 flow diagram of the study selection process.**

## **Inclusion and Exclusion Criteria**

Studies were included if they met the following criteria:

1. Published in peer-reviewed journals, conference proceedings, or credible research reports.
2. Focused on educational inequality, equity, or access in remote, marginalized, or disadvantaged regions.
3. Examined policy interventions, technological innovations, or community-based approaches to improving educational outcomes.
4. Employed empirical (qualitative, quantitative, or mixed-methods), review, or theoretically grounded research designs.

Studies were excluded if they:

- a. Did not address education in remote or marginalized contexts.
- b. Were non-empirical in nature (e.g., opinion articles or editorials).
- c. Were not available in full text or not written in English or Indonesian.
- d. Presented duplicate findings or failed to contribute new analytical insights.

## **Data Extraction and Synthesis**

Data extraction was conducted using a standardized coding framework to ensure consistency across studies. Each included article was systematically reviewed and coded according to the following dimensions:

1. Types of interventions and strategies, including policy reforms, technology integration, teacher deployment initiatives, and community-led programs.
2. Outcomes and effectiveness, focusing on access to education, learning outcomes, participation, and equity-related impacts.
3. Theoretical frameworks, such as Educational Equity Theory, Social Capital Theory, and technology-related adoption or implementation models.
4. Geographic and contextual characteristics, with specific attention to Indonesia's 3T regions and relevant socio-cultural factors.
5. Research gaps and limitations, including under-researched regions, methodological weaknesses, and unexamined variables, to inform future research agendas.

The extracted data were synthesized thematically to identify recurring patterns, key challenges, effective practices, and evidence-based priorities for advancing educational equity in Indonesia.

## **Result and Discussion**

This section presents the synthesis of literature regarding educational inequality in Indonesia and strategies for addressing it, with a focus on urban-rural, regional, socioeconomic, and gender gaps,

particularly in the 3T (*terluar, terdepan, tertinggal*) regions. The synthesis reveals that national policies such as PIP, zoning, and the Merdeka reforms, alongside digital innovations, show promise, but major bottlenecks persist in implementation, teacher distribution, and infrastructure.

### Educational Inequality in Indonesia: Key Factors and Challenges

Research shows that educational equity in Indonesia is still uneven, especially regarding school opportunities (years of schooling), literacy outcomes, access to higher education, and educational services in the 3T regions ((Jayadi et al., 2024; Kusuma et al., 2024; Mujiburrohman et al., 2024; Sari & Jasiah, 2025).

**Table 1. Current Equity Status and Evidence of Gaps in Indonesia**

Equity Gap	Key Findings	Evidence (Sources)
School Duration Gap	Average years of schooling in DKI Jakarta were about 1.65 times higher than in Papua (2017)	Kusuma et al. (2024)
Reading & Gender Gap	Significant literacy differences by gender and region; female & urban students outperform male & rural peers	Sari & Jasiah (2025)
Higher Education Access	Enrollment continues to skew toward wealthier students; a policy requiring 20% low-SES intake in higher education addresses this	Mujiburrohman et al. (2024); Fadhil & Sobic-El-Rayess (2021)
3T Region Disadvantage	Worse infrastructure, teacher shortages, and lower technology access compared to urban centers	Jayadi et al. (2024); Nurfadilah et al. (2024)

Empirically, regional disparities are clearly visible in the differing average years of schooling across provinces, with Jakarta far surpassing Papua as a representation of the structural learning opportunity gap (Kusuma et al., 2024). In terms of learning outcomes, reading literacy shows a layered gap: disparities are not only between urban and rural areas but also interwoven with gender—females and urban students generally outperform males and rural students (Sari & Jasiah, 2025). At the higher education level, access remains skewed toward higher socioeconomic groups; despite the introduction of low-SES quotas, research indicates that economically disadvantaged students remain underrepresented in top universities, especially in public institutions (Fadhil & Sobic-El-Rayess, 2021; Mujiburrohman et al., 2024). The 3T regions face the most extreme disparities, with a combination of infrastructure deficits, teacher shortages, and limited access to technology contributing to educational exclusion (Jayadi et al., 2024; Nurfadilah et al., 2024).

## Major Barriers to Educational Equity

Literature categorizes barriers to equity into four main clusters: (1) regional-geographic, (2) socioeconomic, (3) gender, and (4) quality and curriculum implementation, with Indonesia's unique context being heavily shaped by the 3T regions and disparities in capacity across different regions (Fitri et al., 2024; Jayadi et al., 2024; Setyadi, 2022; A. Widiastuti, 2021).

**Table 2. Barrier Typology, Manifestations, and Supporting Evidence**

Barrier	Main Manifestations in Indonesia	Sources
Regional & Geographic	School shortages, poorer infrastructure, lower years of schooling in 3T and eastern provinces	Jayadi et al. (2024); Kusuma et al. (2024); Widiastuti (2025)
Socioeconomic Inequality	Lower enrollment and persistence in poor households; wealth-skewed higher education intake	Mujiburrohman et al. (2024); Setyadi (2022)
Gender Disparities	Girls generally outperform boys in reading, but social norms and limited technology access constrain girls' digital learning in some areas	Sari & Jasiah (2025); Amin (n.d.)
Quality & Curriculum Implementation	Uneven rollout of Merdeka curriculum and gaps in teacher capacity and materials across regions	Fitri et al. (2024); Tanudjojo (2024)

Regional-geographic barriers in the 3T regions are described as “multiple deficits,” including limited infrastructure, teacher shortages, and restricted technology access, which compound educational exclusion compared to urban areas (Jayadi et al., 2024; Nurfadilah et al., 2024; I. Widiastuti, 2025). Socioeconomic barriers function through both direct and indirect cost limitations, reducing participation and educational progression; even when cash assistance programs increase participation, issues in distribution and leakage weaken their overall effectiveness (Setyadi, 2022). Gender disparities in literacy outcomes are linked to socio-cultural constraints and unequal access to technology, which further hinder the involvement of girls in digital education in certain contexts. Meanwhile, quality and curriculum implementation challenges are evident in the uneven capacity of teachers and materials, as well as the lack of adequate monitoring, which reduces the effectiveness of education reforms and digital initiatives (Fitri et al., 2024; Muslimin & Indrawati, 2024; Tanudjojo, 2024).

## Government Responses and Interventions

Government responses include policies aimed at expanding access, reducing cost barriers, and improving educational quality, such as conditional cash transfers (PIP), zoning policies, compulsory schooling, higher education mandates for low-SES students, 3T-targeted interventions, and curriculum reforms like *Merdeka Belajar*.

**Table 3. Key Interventions, Intended Mechanisms, and Implementation Issues**

Intervention	Targeted Mechanisms	Common Implementation Issues	Sources
Indonesia Pintar (PIP) Program	Reduce cost barriers and increase participation of poor students	Weak distribution/monitoring, risk of misuse	Setyadi (2022)
Zoning Policy	Equalize access and incentivize local school improvement	Effectiveness dependent on regional capacity and implementation design	Fitriansyah et al. (2020)
Higher Education Low-SES Mandate	Address socioeconomic skew in higher education access	Low enrollment of low-SES students without proper support	Mujiburrohman et al. (2024); Fadhil & Sabic-El-Rayess (2021)
3T-targeted Measures	Reduce gaps through teacher incentives and outreach schooling	Resource sustainability and effectiveness concerns	Nurfadilah et al. (2024); Jayadi et al. (2024)
Merdeka & Autonomy Reforms	Increase curriculum relevance and contextual teaching	Uneven rollout; teacher readiness and materials gaps	Tanudjojo (2024); Muslimin & Indrawati (2024); Fitri et al. (2024)
Digital and Remote Learning	Address distance learning gaps through digital platforms and offline solutions	Digital divide and teacher readiness hinder full adoption	Muslimin & Indrawati (2024); Indriaty et al. (2025)

Cash transfer programs like PIP are linked to increased participation, but their overall impact is constrained by poor governance and distribution inefficiencies, reducing their effectiveness (Setyadi, 2022). The zoning policy, designed to equalize school access and quality, has varied in effectiveness depending on regional preparedness and execution design (Fitriansyah et al., 2020). At the higher education level, the mandate to admit low-SES students addresses the long-standing socioeconomic gap, but its success is undermined by implementation challenges, especially in ensuring proper funding and support (Fadhil & Sabic-El-Rayess, 2021; Mujiburrohman et al., 2024). In the 3T regions, initiatives such as teacher incentives and outreach programs are essential for bridging regional gaps, but they face sustainability and resource limitations (Jayadi et al., 2024; Nurfadilah et al., 2024). Merdeka Belajar reforms and digital learning solutions are essential steps forward, but the uneven readiness of teachers, lack of instructional materials, and inadequate monitoring create significant gaps in effective policy rollouts.

### Teachers, Infrastructure, Poverty, and Inclusion as Interlocking Constraints

Literature stresses that teacher distribution, quality, school infrastructure, technological access, and household poverty are interconnected and collectively affect access to education and learning

outcomes. In this context, inclusive education policies face substantial implementation barriers (Aditya, 2021; Aini, 2025; Muslimin & Indrawati, 2024; Nurfadilah et al., 2024; W. A. B. B. A. Rahman et al., 2024; Setyadi, 2022; Sunarya, 2025).

**Table 4. Interlocking Constraints Affecting Equity: Evidence and Implications**

Domain	Key Findings	Implications for Equity	Sources
Teacher Distribution & Readiness	Rural/remote schools face shortages and lower readiness for digital teaching; urban schools report better preparedness	Digital curriculum and reform risks being ineffective unless teacher capacity is addressed	Aditya (2021); Nurfadilah et al. (2024)
Professional Development (PD)	National OER and PD initiatives have grown but localized, sustained PD systems remain uneven	Educational disparities between regions persist	Judijanto (2025)
Infrastructure & Digital Divide	Limited internet, devices, and digital skills; offline tools and partnerships recommended	Digital learning solutions need low-bandwidth/offline designs and ecosystem support	Muslimin & Indrawati (2024); Mulyaman & Catherine (2022)
Poverty's Impact	Reduces participation and completion; PIP improves participation but distribution weaknesses persist	Strengthening governance and transparency is necessary for long-term impact	Setyadi (2022); Rahman et al. (2024)
Inclusive Education Barriers	Special needs policies align with international goals but face obstacles like inadequate facilities, teacher training, and weak cross-agency coordination	Equity must consider special needs education, not just general access	Anwar et al. (2025); Sunarya (2025)

The distribution and readiness of teachers are crucial: rural and remote schools not only suffer from a shortage of teachers but also exhibit lower preparedness for digital instruction, exacerbating disparities when educational reforms and digitalization are accelerated (Nurfadilah et al., 2024). In terms of professional development, literature shows progress in open educational resources (OER) and PD initiatives, but a lack of sustained and localized PD systems across islands still limits their effectiveness in reducing disparities (Judijanto, 2025). Infrastructure limitations, including the digital divide, demand low-bandwidth/offline solutions and public-private partnerships to ensure that digital learning can reach remote regions (Mulyaman & Catherine, 2022; Muslimin & Indrawati, 2024). Poverty continues to be a fundamental barrier, reducing participation and educational outcomes; even though financial assistance programs like PIP have improved participation, challenges in distribution and governance hinder the program's full potential (A. Rahman & Robandi, 2024; Setyadi, 2022). Finally, inclusive education must integrate special needs into the broader equity framework, as barriers to access for children with disabilities continue to limit their educational opportunities (C. Anwar et al., 2025; Masseru & Ishartiwi, 2025; Sunarya, 2025; Yoyon & Hermanto, 2025).

## Reform Successes, Remaining Challenges, and Evidence-Based Priorities

Since 2020, the Merdeka curriculum, the acceleration of digital learning in response to COVID-19, and renewed focus on 3T and low-SES students have become central to Indonesia's education reforms. Literature also identifies successful practices like increased participation through PIP, government-philanthropy partnerships, and innovations in remote/offline learning; however, implementation issues, monitoring deficiencies, infrastructure deficits, and higher education enrollment gaps persist.

Literature shows that PIP is linked to increased participation, but its overall impact is constrained by poor governance and distribution inefficiencies, reducing its effectiveness (Setyadi, 2022). At a cross-sector level, government-philanthropy partnerships are identified as accelerating scaling when coordinated with local actors and strengthened during crises, making them a relevant model for managing complex inequities (Aini, 2025; Tanudjojo, 2024). Innovations in remote learning and offline/community-based solutions are promising for reaching 3T areas, but success is still reliant on policy support, school readiness, and basic infrastructure (Indriaty et al., 2025; Muslimin & Indrawati, 2024; MY et al., 2025; Sari & Jasiah, 2025). Persistent challenges include weak implementation fidelity, inadequate monitoring, unequal teacher distribution, infrastructure deficits in 3T, and under-enrollment of low-income students in higher education, indicating a need for policy design that is both enforceable and capacity-driven at the regional level (Sunarya, 2025).

Evidence-based priorities include strengthening monitoring of financial assistance programs, improving teacher incentives and placements in 3T areas, investing in digital equity solutions with offline options, enforcing low-SES quotas in higher education, and ensuring that reforms align with local social, cultural, and inclusion needs. The reviewed literature does not provide precise post-2024 national-level learning statistics (e.g., PISA-equivalent trendline values for 2025–2026); thus, quantifying recent national test-score shifts between 2020–2026 remains insufficiently supported by the available studies (Kusuma et al., 2024; Muslimin & Indrawati, 2024; I. Widiastuti, 2025).

## Conclusion

This study has examined strategies aimed at addressing educational inequality in Indonesia, with a focus on the most disadvantaged regions, particularly the 3T (terluar, terdepan, tertinggal) areas. The findings indicate that educational inequality in Indonesia is primarily driven by economic constraints, teacher quality, social exclusion, and regional disparities. Despite various government initiatives, such as the Merdeka Curriculum and the Indonesia Pintar (PIP) program, significant gaps persist in policy implementation and monitoring. Moreover, the role of technology in education, although promising, faces substantial challenges related to infrastructure deficits, digital illiteracy, and limited access to resources, particularly in rural areas. While some policies and digital solutions have

contributed to improvements in educational outcomes, considerable barriers remain, especially in ensuring equitable access to education in remote regions.

The findings of this study carry important theoretical and managerial implications. From a theoretical standpoint, this research reinforces the relevance of Educational Equity Theory and Social Capital Theory in understanding the persistence of educational inequality in marginalized regions. These frameworks emphasize the importance of equitable access to resources and community engagement in the educational process. Additionally, the Technology Acceptance Model (TAM) provides valuable insights into the barriers to adopting digital learning solutions in remote areas. From a managerial perspective, the study highlights the need for targeted policy interventions that address the unique challenges faced by the 3T regions. Education managers should focus on improving teacher recruitment and professional development, particularly in rural and remote areas, to enhance teaching quality. Furthermore, collaborative partnerships between government, the private sector, and local communities are essential for the successful implementation of digital learning solutions and equitable resource distribution.

While this study offers valuable insights into strategies for addressing educational inequality, several limitations must be acknowledged. Firstly, the study's focus on the 3T regions of Indonesia means that the findings may not be fully generalizable to urban areas or other countries with different educational contexts. Additionally, as the study is based on existing literature and secondary data, it may not fully capture the diverse perspectives and experiences of local stakeholders, such as students, parents, and teachers. Future research could address these limitations by incorporating primary data collection methods, including interviews and surveys with key stakeholders in remote regions. Furthermore, longitudinal studies could be conducted to assess the long-term impact of educational interventions, such as the Merdeka Curriculum and digital learning initiatives, on students' academic performance and social mobility. Additionally, cross-national comparative studies could offer valuable insights into best practices from countries that have successfully addressed educational inequality in rural and marginalized communities.

## References

Aditya, D. S. (2021). Embarking Digital Learning Due to COVID-19: are Teachers Ready? *Journal of Technology and Science Education*, 11(1), 104–116. <https://doi.org/10.3926/JOTSE.1109>

Aini, M. A. (2025). *Bridging the Digital Divide: Ensuring Equitable Access to Education Technology*. 3(1), 11–22. <https://doi.org/10.70610/edujavare.v3i1.800>

Ali, M. I., Ismail, A., & MY, N. (2025). The Effect of STEAM-Based Environmental Learning on Students ' Ecoliteracy Level at SDI Hartaco Indah Makassar. *Journal Iof Innovative and Creativity*, 5(2), 11280–11288.

Amin, A. M., Asani, R. N. C. P., Wattimena, C. R. J., & Yuniasih, A. F. (2020). *Determinan ketimpangan capaian pendidikan di indonesia tahun 2017*. 2019(1), 593–601.

<https://doi.org/10.34123/SEMNASOFFSTAT.V2019I1.212>

Anwar, C., Komariyah, L., Aznem, A., Hasbar, H., Payung, L. T., & Kesuma, A. H. (2025). Evaluasi Kebijakan Pendidikan Inklusif di Indonesia: Pendekatan CIPP dan Perspektif Keadilan Sosial. *Journal of Education Research*, 6(3), 739–750. <https://doi.org/10.37985/jer.v6i3.2576>

Anwar, I. (2025). *Bridging Educational Inequalities with Future AI in Advancing SDG 4*. 3(2), 43–47. <https://doi.org/10.70356/jafotik.v3i2.82>

Çelik, Ç. (2024). Principles of Equality. *Advances in Educational Marketing, Administration, and Leadership Book Series*, 23–52. <https://doi.org/10.4018/979-8-3693-5782-8.ch002>

Fadhil, I., & Sabic-El-Rayess, A. (2021). *Providing Equity of Access to Higher Education in Indonesia: A Policy Evaluation*. 3(1), 57–75. <https://doi.org/10.23917/IJOLAE.V3I1.10376>

Fismariza, W., & Ofianto, O. (2025). Teknologi sebagai Solusi untuk Meningkatkan Akses Pendidikan di Daerah Terpencil. *Tsaqofah*, 5(4), 3604–3617. <https://doi.org/10.58578/tsaqofah.v5i4.6408>

Fitri, N. E., Panggabean, E. E., Amalia, N. D., Hanum, I., & Harahap, S. H. (2024). Kurikulum dan Realitas Sosial: Sebuah Tinjauan Teoritis tentang Disparitas Implementasi Kurikulum antara Daerah Perkotaan dan Daerah Terpencil. *Indonesian Journal of Education and Development Research*, 2(2), 1473–1484. <https://doi.org/10.57235/ijedr.v2i2.2632>

Fitriansyah, R., Fatinah, L., & Syahril, M. (2020). *Critical Review: Professional Development Programs to Face Open Educational Resources in Indonesia*. 2(2), 109–119. <https://doi.org/10.23917/IJOLAE.V2I2.9662>

Indriaty, D., Astriani, D., Sabrifha, E., & Aqilla, L. (2025). Strategi Kebijakan Pendidikan dalam Menghadapi Ketimpangan Sosial dan Budaya. *PEMA/Pema*, 5(2), 551–565. <https://doi.org/10.56832/pema.v5i2.1258>

Jayadi, U., Harahap, A., & Aslan, A. (2024). Educational Landscape in Indonesia in 2023: Challenges and Opportunities. *International Journal of Education and Digital Learning*, 2(2), 49–58. <https://doi.org/10.47353/ijedl.v2i2.266>

Judijanto, L. (2025). Challenges and Opportunities in Education Equity through the 13-Year Compulsory Education Program in Indonesia. *The Eastasouth Journal of Learning and Educations*, 3(1), 1–8. <https://doi.org/10.58812/esle.v3i01.510>

Kumar, A., Sharma, P., Patel, R., Gupta, A. Sen, & Singh, V. (2024). Educational Inequality and Its Impact on Social and Economic Opportunities in Rural India. *International Journal of Humanities, Management and Social Science (IJ-HUMASS)*, 7(2), 87–96. <https://doi.org/10.36079/lamintang.ij-humass-0702.697>

Kusuma, J. W., Hamidah, H., Umalihayati, U., & Rini, P. P. (2024). Mengurai Benang Kusut Kebijakan Pendidikan Indonesia: Sebuah Literature Review Analitik. *JURNAL ILMIAH GLOBAL EDUCATION*, 5(2), 1810–1826. <https://doi.org/10.55681/jige.v5i2.2772>

Masseru, H., & Ishartwi, I. (2025). Evaluation of Differentiated Learning for Students with Special Needs in Inclusive Classes at TK Pembina Kabupaten Kutai Timur. *Electronic Journal of Education, Social Economics and Technology*. <https://api.semanticscholar.org/CorpusID:281270688>

Mujiburrohman, Putri, D., & Sabic-El-Rayess, F. (2024). *The Impact of Social Inequality on Educational Quality in Indonesia: Challenges and Policy Recommendations*. <https://doi.org/10.61455/sujiem.v3i01.248>

Mulyaman, D., & Catherine, C. (2022). Comparative Analysis on South Korea and Indonesia's Outcome-Based Education (OBE) Resilience Amidst The COVID-19 Pandemic. *Humaniora*, 13(3), 265–275. <https://doi.org/10.21512/humaniora.v13i3.7734>

Muslimin, M., & Indrawati, R. A. (2024). Digitalization and Education Equity in Remote Areas: Challenges and Strategic Solutions. *Journal of Education, Humaniora and Social Sciences*, 7(2), 376–383. <https://doi.org/10.34007/jehss.v7i2.2356>

MY, N., Ardiansyah, M., & Sarbani, A. A. (2025). Meningkatkan Keaktifan Siswa Melalui Model Project Based Learning dengan Meningkatkan Keaktifan Siswa Melalui Model Project Based Learning dengan Pendekatan TPACK. *Pinisi Journal PGSD*, 5(March), 62–68.

Nurfadilah, A., Aditya, D. S., & Aslan, F. (2024). Implementation of Equal Distribution of Education for Indonesia's Disadvantaged, Frontier, and Outermost Regions. *Socio Politica*, 14(1), 15–24. <https://doi.org/10.15575/socio-politica.v14i1.30183>

Pijoh, F. E. (2025). *Gender Analysis in Higher Education Access in Remote Areas*. 2(3), 185–195.

https://doi.org/10.64924/ww7pv774

Rahman, A., & Robandi, B. (2024). Foundations of Kurikulum Merdeka development in elementary education (from a philosophical perspective). *Inovasi Kurikulum*. <https://doi.org/10.17509/jik.v21i1.65859>

Rahman, W. A. B. B. A., Asha, L., & Fakhruddin, F. (2024). The Analysis of the Comparison of the Education System in Indonesia: Perspectives on Gaps and Innovation. *The Future of Education Journal*, 3(5), 2009–2016. <https://doi.org/10.61445/tofedu.v3i5.340>

Sari, T. N., & Jasiah, J. (2025). Membangun Pendidikan Berkeadilan: Mengatasi Masalah Pemerataan Pendidikan Antara Daerah dan Perkotaan. *Jurnal Pendidikan Indonesia*, 6(4), 1723–1731. <https://doi.org/10.59141/japendi.v6i4.7661>

Setiadi, A. E., & Muhamidin, D. (2024). The Effectiveness of Teacher Certification Policy in Addressing the Teacher Crisis in Indonesia. *International Journal of Science and Society*, 6(2), 861–873. <https://doi.org/10.54783/ijsc.v6i2.1245>

Setyadi, S. (2022). Inequality of Education in Indonesia by Gender, Socioeconomic Background and Government Expenditure. *Eko-Regional*. <https://doi.org/10.32424/1.erjpe.2022.17.1.2895>

Smith, W. C., Aktas, F., Barlete, A. L., & Horner, L. K. (2025). Equality, Equity, and Social Justice in Education Policy: Illustrative Examples From Brazil and South Africa. *Oxford Research Encyclopedia of Education*. <https://doi.org/10.1093/acrefore/9780190264093.013.1999>

Sunarya, D. T. (2025). The Exclusion Process in Education in Indonesia: an Analysis of Social and Policy Deprivation Factors. *Journal of Social Research*, 4(6), 923–929. <https://doi.org/10.55324/josr.v4i6.2538>

Syabilly, A. A., Sari, I., & Ilmi, S. (2024). The Post- Covid-19 Pandemic Learning Loss in 3T Regions, What Can We Try? *Journal of Health and Behavioral Science*, 6(4), 459–469. <https://doi.org/10.35508/jhbs.v6i4.18511>

Tanudjojo, J. S. (2024). *Building Effective Philanthropy through Strategic Partnerships*. <https://doi.org/10.1017/9781009400565.005>

Widiastuti, A. (2021). *Merancang Strategi Mengajar di Era Kurikulum Merdeka*. Alfabeta.

Widiastuti, I. (2025). *Assessing the Impact of Education Policies in Indonesia: Challenges, Achievement, and Future Direction*. <https://doi.org/10.35445/alishlah.v17i2.6803>

Yoyon, A., & Hermanto, H. (2025). Analysis of Assistive Technology Needs for Inclusive Education in the Early Childhood Education Development Sector of the East Kutai Regency Education Office. *Electronic Journal of Education, Social Economics and Technology*, 6(2), 1018.