

## Gender Equality in Education: A Systematic Analysis of Educational Equity Between Males and Females in Southeast Asia

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### Abstract

Gender equality in education remains a critical issue within the Southeast Asian context, where sociocultural diversity and economic disparities contribute to uneven educational access and outcomes. This study employs a Systematic Literature Review (SLR) method, synthesizing research published between 2018 and 2024 from Scopus, SpringerLink, and Google Scholar databases. Findings reveal that while gender parity has largely been achieved at the primary education level, significant disparities persist at the secondary and tertiary levels, particularly in rural areas of Indonesia, Laos, and Cambodia. Cultural norms, patriarchal values, and socioeconomic constraints remain dominant barriers to educational participation among females. Furthermore, gender-based differences in academic achievement are evident, with females outperforming males in literacy while lagging in mathematics and science. Regional initiatives, such as Malaysia's *STEM for Girls Program* and Vietnam's *Gender-Responsive Education Policy*, demonstrate promising outcomes in narrowing gender gaps through inclusive pedagogical practices and mentorship programs. The study concludes that gender-responsive educational frameworks, community engagement, and teacher training are pivotal to achieving sustainable gender parity in education. Strengthening these measures is essential for promoting social and economic development aligned with the Sustainable Development Goals (SDGs) 4 and 5.

**Keywords:** Gender equality, education, Southeast Asia, access and participation, gender disparity, educational policy.

### INTRODUCTION

The issue of gender equality in education remains pertinent in the current global context, especially following the establishment of Sustainable Development Goals (SDGs) 4 and 5, which aim to ensure quality education and promote gender equality worldwide. In Southeast Asia, characterized by its cultural, economic, and social diversity, significant challenges persist regarding equitable access to education for both genders. Countries such as Singapore and Thailand show commendable progress in narrowing the educational gap between males and females. In contrast, nations like Laos and Cambodia, as well as certain regions of Indonesia, continue to face considerable disparities in participation, quality, and educational outcomes influenced by gender (Kumar & Pandey, 2020; , (Muafiah et al., 2025; , Azizah, 2023). The unequal educational landscape results in the underrepresentation of women in higher education, which adversely affects future labor market outcomes, reinforcing cycles of poverty and limiting economic growth (Abdullahi et al., 2021; , (Esteves, 2020; ,

Several underlying factors contribute to the persistent gender-based inequalities in educational access and outcomes. Socioeconomic conditions significantly affect education, as lower family incomes may lead to a prioritization of male education over female education. Cultural norms and deeply rooted patriarchal values often shape educational practices by perpetuating stereotypes regarding gender-appropriate fields of study, negatively influencing educational trajectories for both genders (Kong, 2023; , Miralles-Cardona et al., 2021; , Canuto & Espique, 2023). Research indicates the impact of gender stereotypes on course selection, with females often guided towards social and humanitarian fields while males dominate STEM disciplines (Muafiah et al., 2025; , Canuto & Espique, 2023). This occupational segregation limits career prospects for women and inhibits societal progress towards achieving gender equality.

Despite these challenges, various strategies and interventions aim to promote gender equality in education. Effective educational frameworks incorporating gender-sensitive pedagogies can enhance perceptions of equality and foster inclusive environments (Türkkan et al., 2024; , Pandey & Shekhar, 2024). Interdisciplinary learning approaches that integrate gender studies into curricula can redefine traditional perceptions and promote egalitarian attitudes among students (Kataeva et al., 2025). Furthermore, empowering educators to recognize and address gender biases, along with community engagement in educational reforms, plays a critical role in challenging entrenched stereotypes and facilitating gender-responsive learning environments (Abdullahi et al., 2021; , Shang, 2024). Utilizing technology to bridge educational access gaps can be pivotal in rural and underserved areas where resources are scarce (Tsuma, 2023).

In conclusion, addressing gender disparities in education within Southeast Asia requires a concerted effort that mobilizes multiple stakeholders, including policymakers, educators, and community members. This involves revising curricular frameworks to be more gender-sensitive and actively engaging in community discourse to shift societal attitudes concerning gender roles (Wu, 2024; , Wroblewski, 2021). By prioritizing gender equality in education, the region can uplift educational prospects for women and drive holistic development that values contributions from all genders, ultimately aligning with broader global goals for sustainable development (Esteves, 2020; , Danomira & Safirah, 2022). The task ahead is multi-faceted, demanding continuous evaluation of practices and policies to ensure equitable educational opportunities for all genders, leading to comprehensive social and economic enhancements benefiting society as a whole.

## **METHODS**

This research employs a systematic literature review (SLR) methodology focusing on scientific publications from 2018 to 2024 to ensure the relevance of data concerning gender equality in education in Southeast Asia. The literature search was conducted using international databases, including Scopus, Google Scholar, and SpringerLink, with specific keywords such as "gender equality in education," "Southeast Asia," "education access," and "gender disparity." The selection criteria for literature included articles that addressed aspects of gender equality within primary, secondary, or higher education while concentrating on the Southeast Asian region, encompassing nations such as Indonesia, Malaysia, Thailand, the Philippines, Vietnam, Laos, Cambodia, Myanmar, and Brunei Darussalam Sukarno & Nurmandi (2023), Susilo, 2020; , Djekourmane et al., 2025; , Bharti & Kumari, 2024; , Feng et al., 2021). The focus was also confined to reputable international or nationally indexed journals, which validated the quality and reliability of the literature being analyzed (Santos-Costa et al., 2024; , Pardoel et al., 2021; , Bairagi et al., 2020; , Mannen et al., 2020).

Data analysis was conducted using thematic synthesis techniques. This involved categorizing research findings based on three primary themes: (1) access and participation in education, (2) quality and educational outcomes, and (3) the impact of policy and cultural frameworks on gender equality (Nguyen et al., 2024; , Jaisamrarn et al., 2023; , Kumar et al., 2024; , Kenangsari & Falikhatun, 2022). This approach aligns with the PRISMA model, which emphasizes transparency and traceability in the literature analysis process, thus ensuring that the review's methodological rigor is maintained throughout (Lehman, 2020; , Kang et al., 2022; , Ledhem, 2020). Overall, this research methodology is designed to derive comprehensive insights into the various factors influencing gender equality in education

within the unique sociocultural context of Southeast Asia while adhering to rigorous academic standards (Satria et al., 2022; , Le et al., 2024; , Ledhem & Mékidiche, 2021).

## RESULTS AND DISCUSSION

### 1. Access and Participation in Education

Most countries in Southeast Asia have achieved near gender parity at the primary education level, with the Gender Parity Index (GPI) close to or at 1.0 in several regions, highlighting almost equal participation of girls and boys in schooling Khatimah & Destra (2023), Visser et al., 2021; , McGuire et al., 2021). However, disparities persist at the secondary and higher education levels. Economic factors, combined with entrenched social norms, particularly in rural regions of Indonesia and Laos, often restrict girls' educational opportunities, resulting in higher dropout rates among female students (Dong et al., 2025; , Salawu et al., 2021). Countries like the Philippines and Thailand have seen significant increases in female participation in higher education; however, certain fields, especially education and health sectors, now exhibit a reversed gender gap where women outnumber men (Sifuna et al., 2023). This trend reflects shifts in gender roles and educational aspirations, influenced by socio-economic factors that guide women's educational choices and affect labor market outcomes (Sifuna et al., 2023).

Advancing gender equality in education also necessitates addressing cultural perceptions surrounding traditional gender roles. In various Southeast Asian contexts, societal expectations often lead girls to prioritize domestic responsibilities over academic pursuits, which adversely impacts their long-term educational potential (Rizwan, 2021). Programs designed to encourage girls' education should focus on changing narratives related to female education and fostering supportive environments to enhance girls' learning and retention (Oliveros & Fernández-Río, 2022). Strategies that involve community engagement and parental support can play a critical role in mitigating barriers to education for girls (Kalulu et al., 2024). By encouraging discussions about gender roles within families and communities, alongside promoting parental involvement, initiatives can help shift perspectives and enhance educational opportunities for girls, ultimately contributing to their future success (Groffik et al., 2022).

### 2. Quality and Learning Outcomes

Significant variations in educational quality and academic outcomes are apparent across the region. According to results from the 2022 OECD PISA assessment, while girls tend to excel in reading literacy, boys generally outperform girls in mathematics and science across many Southeast Asian countries (Kyei-Gyamfi et al., 2025; , Schiefer et al., 2021). This trend reflects societal stereotypes that may impact educational engagement and aspirations (Khan & Tidman, 2023). Interventions such as the STEM for Girls Program in Malaysia and Gender-Responsive Education Policy in Vietnam have been implemented to bridge these gaps, effectively increasing female participation in traditionally male-dominated fields through inclusive approaches and mentorship opportunities (Stoilova et al., 2022; , Stoeger et al., 2023).

Additionally, ongoing efforts to reshape educational content and teaching methodologies are vital for dismantling gender biases that impede academic achievement. By adopting gender-sensitive educational frameworks and curricula, educators can facilitate an environment conducive to equal participation in all subjects (Yabaş et al., 2022). Educational institutions should also promote holistic approaches that integrate gender equity into pedagogical practices, enhancing students' abilities to challenge prevailing biases (Urbaniak & D'Amico, 2024). Engaging both boys and girls in discussions about gender roles can foster

healthier attitudes towards participation in STEM and other underrepresented fields, contributing to a more equitable academic environment (Mossie et al., 2023).

Implementing comprehensive gender-responsive strategies can yield significant benefits, ultimately enhancing educational outcomes for all genders. Schools can serve as catalysts for societal change when they prioritize both educational access and quality, while remaining responsive to the diverse needs and perspectives of students (Seff et al., 2021). The establishment of inclusive educational policies and effective monitoring frameworks can address equity issues, fostering environments where all students are empowered to succeed academically (O'Reilly et al., 2022). Continued research into effective measures promoting gender equality in educational environments remains essential for developing sustainable and equitable educational systems across Southeast Asia (Neupane et al., 2023).

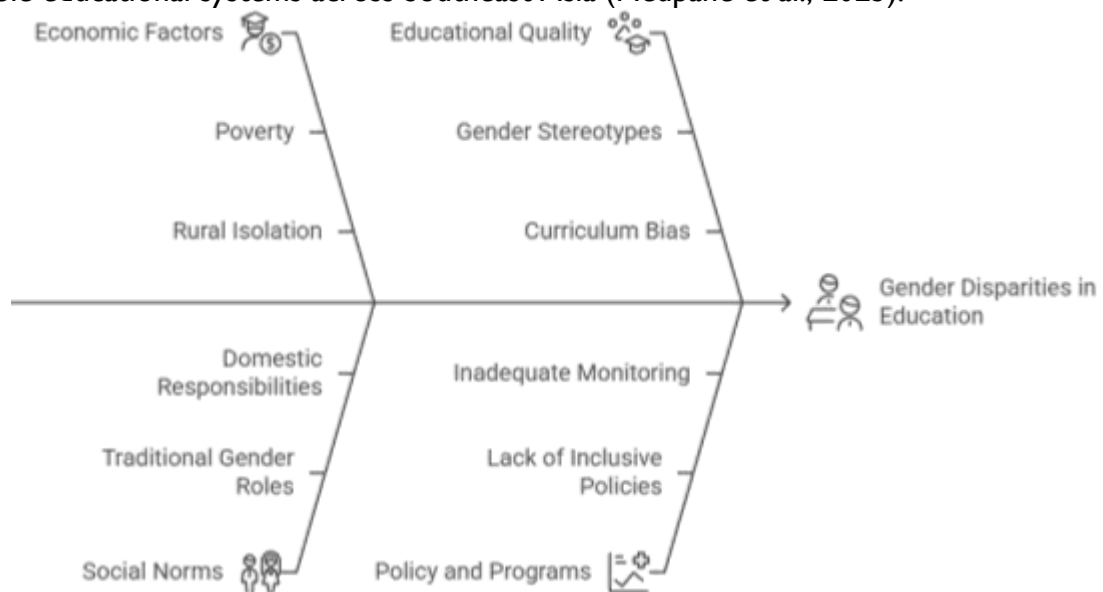


Figure 1. Challenges in Achieving Gender Equality in Education

## Discussion

The analysis reveals that Southeast Asian countries are approaching gender parity at the primary education level, with a Gender Parity Index (GPI) nearing 1.0, indicating an almost equal participation of girls and boys. However, disparities become more pronounced at the secondary and tertiary education levels, particularly in rural and economically disadvantaged regions of Indonesia, Laos, and Cambodia. Here, socio-cultural norms and economic constraints significantly inhibit girls' access to education, leading to lower enrollment and higher dropout rates among female students (Kumar & Pandey, 2020; Muafiah et al., 2025; Azizah, 2023; Abdullahi et al., 2021; Esteves, 2020; Kong, 2023). In contrast, certain nations, such as the Philippines and Thailand, are witnessing an increase in female enrollment in higher education; yet, this is largely within fields like education and healthcare, which traditionally attract women. This phenomenon highlights a reversed gender gap, where men are increasingly disengaged from higher education due to labor market trends and societal expectations surrounding immediate employment (Miralles-Cardona et al., 2021). To address these inequalities effectively, interventions should be community-oriented, emphasizing the importance of girls' education while simultaneously challenging entrenched gender roles. Promoting parental involvement in educational decisions has shown promise in enhancing both girls' academic performance and retention rates, thus serving as a pivotal strategy for

improving educational outcomes (Canuto & Espique, 2023; Türkkan et al., 2024; Pandey & Shekhar, 2024).

The quality of education and learning outcomes present significant discrepancies across genders and geographical contexts within the region. For instance, recent data from OECD's PISA assessment indicate that girls perform better in reading literacy compared to boys, who tend to excel in mathematics and science. This divergence not only reflects educational achievements but also underscores the persistent gender stereotypes that influence student self-perception and motivational levels (Kataeva et al., 2025; Shang, 2024; Tsuma, 2023; Wu, 2024). Noteworthy initiatives, such as Malaysia's "STEM for Girls Program" and Vietnam's Gender-Responsive Education Policy, aim to reform educational structures by integrating gender sensitivity into curricula and providing mentorship for young female learners. These programs have evidenced positive effects on girls' interest and participation in STEM fields, fostering a more inclusive educational environment that aims to counteract implicit biases within traditional teaching practices (Wroblewski, 2021; Danomira & Safirah, 2022; Sukarno & Nurmandi, 2023; Susilo, 2020). To realize lasting changes, it is essential that educational institutions endorse inclusive pedagogical methods, conduct teacher training on gender awareness, and create supportive learning environments that challenge established norms. Moreover, engaging both male and female students in discussions concerning gender equality can cultivate greater empathy among peers, ultimately contributing to a societal shift towards enhanced respect for gender parity and upliftment in academic contexts (Djekourmane et al., 2025; Bharti & Kumari, 2024; Feng et al., 2021).

## CONCLUSION

The findings confirm that while Southeast Asia has made commendable progress toward gender parity in education, structural and cultural disparities persist. Primary education demonstrates equitable participation; however, gendered barriers remain evident in higher education access, field selection, and learning outcomes. Cultural expectations, socioeconomic constraints, and entrenched stereotypes continue to hinder the full realization of educational equality.

Countries implementing gender-responsive curricula, teacher sensitization programs, and community-based empowerment initiatives—such as Malaysia and Vietnam—demonstrate more tangible progress. Achieving full equality thus requires sustained collaboration between governments, educational institutions, and communities to ensure that both genders have equal opportunities for learning and personal growth.

## Recommendations

1. **Policy Integration:** Governments should mainstream gender equality principles across all educational policies, ensuring consistent monitoring and evaluation aligned with SDG indicators.
2. **Teacher Empowerment:** Develop mandatory teacher training programs emphasizing gender-sensitive pedagogy, bias recognition, and equitable classroom practices.
3. **Curricular Reform:** Revise educational materials to promote inclusivity, eliminate gender bias, and encourage female participation in STEM fields.
4. **Community Engagement:** Encourage local and religious leaders to advocate for girls' education, especially in rural areas, through awareness campaigns and scholarships.
5. **Technology Utilization:** Leverage digital learning platforms to expand access for girls in underserved regions, reducing geographic and economic barriers.

These strategies, when implemented collectively, will foster a transformative shift toward inclusive, equitable, and sustainable education systems that empower all genders and strengthen the region's long-term development.

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