Teacher Quality, Curriculum, and Assessment in Comparative Perspective: Explaining PISA Performance Gaps between Singapore and the Philippines

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Abstract

This study compares the education systems of Singapore and the Philippines to explain their divergent outcomes in the Programme for International Student Assessment (PISA). Using Bereday's Four-Stage Comparative Model, the analysis examines three interrelated dimensions: teacher quality, curriculum structures, and assessment practices. Evidence from policy documents, international reports, and secondary literature shows that Singapore's selective teacher recruitment, coherent curricula, and integrated assessment practices form a mutually reinforcing cycle that sustains high performance. By contrast, the Philippines' ambitious reforms, such as K to 12 and teacher professional standards, are constrained by uneven implementation, resource shortages, and limited systemic alignment. The study contributes to comparative education literature by moving beyond descriptive contrasts to demonstrate the central role of policy coherence in shaping student achievement. It advances knowledge by showing that fragmented reforms, no matter how progressive, cannot yield improved outcomes without integration across teacher preparation, curricular design, and assessment practices. The broader implication is that education systems thrive when reforms are coherent, equitable, and sustainable. Insights from this study provide guidance for the Philippines and similar contexts: strengthen teacher preparation and professional development, refine curricula for depth over breadth, and align assessments with 21st-century competencies. More generally, the findings offer a framework for developing countries to design reforms that translate intent into measurable learning outcomes.

Introduction

The Programme for International Student Assessment (PISA), developed by the OECD, has become a global benchmark for evaluating how effectively education systems prepare young people to apply knowledge and skills in real-world contexts. Beyond ranking, PISA highlights the extent to which learners acquire critical competencies such as problem-solving, adaptability, and critical thinking, which are essential for lifelong learning and active citizenship (Özer, 2020). Research shows that high-performing countries typically exhibit strong alignment across curriculum design, teacher quality, and assessment practices, resulting in better student

outcomes (Boman, 2024).

Despite this, wide disparities persist. In the 2018 and 2022 PISA cycles, Singapore consistently ranked among the highest performers worldwide, while the Philippines remained near the bottom (Mujiya et al., 2024). These contrasting results underscore the importance of examining systemic foundations such as teacher preparation, curricular coherence, and assessment alignment, as weaknesses in these areas can significantly hinder student achievement. Comparative education research provides a valuable lens to analyze such gaps, as it highlights how variations in teacher education, curriculum structures, and assessment practices contribute to different learning outcomes across national systems (Gómez & Suárez, 2020).

Guided by Bereday's Four-Stage Model of Comparative Education, this study explores the structural and policy differences between Singapore and the Philippines with a focus on three interrelated components: teacher quality, curriculum structures, and assessment practices. Literature emphasizes that teacher quality is one of the most critical school-related factors influencing student achievement (Reis, 2025; Wongmahesak et al., 2024), curriculum structures shape opportunities for meaningful and cumulative learning (Moss, 2019; Maton, 2009; Oakes, 2008), and assessment practices play a central role in ensuring instructional alignment and preparing learners for 21st-century competencies (Gardner, 2012; Darling-Hammond et al., 2013; Kellaghan & Greaney, 2001). By situating these dimensions within the PISA 2022 context, the study contributes to ongoing debates on how education reforms can better equip students for a knowledge-based global economy. Accordingly, this study addresses the central research question: How do teacher quality, curriculum structures, and assessment practices contribute to the differences in PISA performance outcomes between Singapore and the Philippines?

Literature Review

Teacher Quality

Teacher quality is widely regarded as one of the most critical factors in student achievement, often outweighing the effects of socioeconomic background (Reis, 2025; Wongmahesak et al., 2024). Effective teachers enhance student outcomes by combining strong pedagogical content knowledge (PCK) with reflective practice and continuous professional growth (She et al., 2025; Dilshad & Iqbal, 2010). Historically, quality has been measured through proxies such as exam scores, GPA, academic majors, and certification (Zumwalt & Craig, 2005), yet scholars stress that robust teacher education must integrate theory with practice and provide authentic classroom enactment (Hammerness & Klette, 2015).

Licensure systems, such as the Licensure Examination for Teachers (LET) in the Philippines, serve as gatekeeping mechanisms, while professional standards aim to raise competence levels (Goldhaber & Anthony, 2003; Elliott, 2021). Still, teaching quality is not static but context-dependent, shaped by evolving curricular demands and working conditions. Professional development programs, particularly in mathematics and science, have been shown to directly improve both instructional effectiveness and student learning (Lynch et al., 2025). Ultimately, sustained improvement requires policies that frame teachers not as "problems" but as central agents in achieving quality education (Towers et al., 2023).

Curriculum Structures

Curriculum structures provide the backbone for educational quality, influencing not only what students learn but also how knowledge is organized and applied across contexts (Moss, 2019; Maton, 2009; Oakes, 2008). While the public often equates quality education with higher test scores (Bacchus, 1995), scholars argue that a coherent curriculum is fundamental for fostering critical thinking, problem-solving, and intellectual curiosity (So, 2025). International assessments like TIMSS and PISA have further highlighted how curriculum reforms shape global education policy and practice (Kadijevich et al., 2023).

Despite reforms, many systems struggle with gaps between intended curricula and classroom realities. Teachers frequently face barriers such as insufficient training, limited monitoring, and inadequate resources, leading to reliance on teacher-centered practices (Ntereke & Mphunyane, 2025). Political pressures, time constraints, and systemic incentives also limit opportunities for inquiry-based approaches (Johnson & Fitzmaurice, 2025). Yet students actively seek coherence even when lessons are fragmented, demonstrating a dynamic interaction between learner agency and curricular design (Sikorski & Straus, 2025). Purposefully designed curricula, when aligned with cultural contexts and supported by teachers, can create engaging and human-centered learning environments (Riley & Mensah, 2025).

Assessment Practices

Assessment plays a dual role as both a measure of system quality and a driver of learning (Gardner, 2012; Kellaghan & Greaney, 2001). Traditionally seen as diagnostic and summative, assessment is increasingly recognized as essential to preparing students for 21st-century demands, requiring competencies in analysis, synthesis, collaboration, and communication (Darling-Hammond et al., 2013). High-quality systems balance formative and summative approaches to ensure alignment between instruction, curriculum goals, and learner needs.

However, reforms often falter when assessment is treated in isolation from curriculum and teacher development. Studies show that teachers need support to integrate formative strategies such as descriptive feedback, performance tasks, and peer/self-assessment into everyday practice (Francisco & Caingcoy, 2022). Without such alignment, national assessments risk emphasizing content recall rather than transferable skills, leading to persistent gaps in international benchmarks such as PISA (Lapinid et al., 2024). Sustainable improvement, therefore, requires assessment systems that both monitor equity and foster deeper learning outcomes.

Research Methodology

Study Design

This study employs a qualitative comparative research design grounded in documentary analysis and secondary data synthesis to explore how structural and policy-level factors influence student performance in the 2022 Programme for International Student Assessment (PISA). Focusing on teacher preparation, curriculum structure,

and assessment practices in Singapore and the Philippines, the study aims to generate evidence-based insights that can inform both national and cross-national education policy development.

Comparative Framework

The analysis in this study is guided by Bereday's (1964) Four-Stage Model of Comparative Education, which provides a systematic framework for examining and understanding educational systems across different contexts. The model begins with a description, involving the presentation of factual information about each country's education system. This is followed by interpretation, where these facts are analyzed within the specific socio-cultural and political contexts of the nations involved. The third stage, juxtaposition, places the data side-by-side to highlight similarities and differences, while the final stage, comparison, involves drawing analytical insights and inferences based on the observed contrasts and commonalities. Within this framework, the study focuses on three key variables: teacher quality, which includes qualifications, training, certification, and professional development; curriculum structure, encompassing the organization of educational levels, content, and academic tracking; and assessment practices, referring to the types, purposes, and alignment of student evaluations with instructional goals. These variables are examined to uncover how structural components within each system influence student learning outcomes, particularly as reflected in PISA 2022 results.

Data Collection and Analysis

Data for this study were collected through secondary analysis of credible and publicly available sources, including national education policy documents and peer-reviewed literature related to the education systems of Singapore and the Philippines. These sources provided both quantitative indicators and contextual insights. To ensure analytical rigor, the data were organized and interpreted using thematic analysis, focusing on three key dimensions: teacher quality, curriculum structure, and assessment practices. These themes were examined to determine their impact on the core competencies assessed by PISA, such as critical thinking, problem-solving, and the application of knowledge to real-world situations. The analysis was structured according to Bereday's Four-Stage Model to facilitate clarity, depth, and systematic comparison. By identifying recurring patterns and linking them to student performance, this approach aims to offer evidence-based insights into the factors driving high achievement and to highlight areas for potential policy improvement.

Results

Description

Following Bereday's framework, this section outlines the key features of teacher quality, curriculum structures, and assessment practices in the Philippines and Singapore.

Teacher Qualifications, Training, Certification, and Professional Development

In the Philippines, teachers are required to hold a bachelor's degree in education or a related field, with

secondary teachers majoring in their subject. Certification requires passing the Licensure Examination for Teachers (LET), and professional growth is supported by Continuing Professional Development (CPD), though access is uneven, especially in rural areas (Republic Act No. 9293, 2004; Republic Act No. 10533, 2013; Department of Education, 2007, 2015a, 2025). In Singapore, teacher preparation is centralized through the National Institute of Education (NIE), where candidates undergo selective entry, subject specialization, and a structured induction year. Certification is tied to NIE completion, probationary evaluation, and continuous professional development, which is systematically integrated into career progression (Singapore Statutes Online, 1957, 2024; Ministry of Education, 2025).

Curriculum Structures

The Philippines implements the K to 12 reform, adding senior high school and aligning with global standards. Its curriculum spans one year of kindergarten, six years of primary, four years of junior high, and two years of senior high, with academic and vocational tracks. However, implementation remains inconsistent due to resource shortages (Republic Act No. 9155, 2001; Republic Act No. 10533, 2013; Department of Education, 2019, 2024a, 2024b). In Singapore, education begins with non-mandatory kindergarten, followed by six years of primary, four years of secondary (with Express, Normal Academic, or Normal Technical tracks), and differentiated post-secondary pathways such as junior colleges, polytechnics, and Institutes of Technical Education (Goh, 1997; Ministry of Education, 2004, 2010; Singapore Statutes Online, 1987, 2000, 2003).

Assessment Practices

The Philippines employs multiple national assessments, such as the Early Language, Literacy, and Numeracy Assessment (ELLNA), the National Achievement Test (NAT), and the Basic Education Exit Assessment (BEEA). These are designed mainly for diagnostic and system-monitoring purposes, with limited impact on student progression (Department of Education, 2015a, 2015b, 2022, 2024a). By contrast, Singapore integrates high-stakes examinations directly into progression. The Primary School Leaving Examination (PSLE), O-Levels, N-Levels, and A-Levels determine student placement, pathways, and university eligibility, while formative practices within schools complement these exams (Constitution of Singapore, 1965; Singapore Examinations and Assessment Board Act, 2003; Ministry of Education, 2019).

Interpretation

The descriptive data, when viewed in context, reveal systemic challenges in the Philippines and institutional coherence in Singapore.

Teacher Quality

The Philippines faces inconsistencies in teacher preparation, as reflected in low LET passing rates and weak content mastery in mathematics and science (David et al., 2018; World Bank, 2016). Overestimation of teacher

competence and reliance on rote methods hinder alignment with PISA's emphasis on critical thinking (Manigbas et al., 2024; Bantillo & Ngag, 2024). Although reforms such as the Philippine Professional Standards for Teachers (PPST) and Learning Action Cells (Department of Education, 2016, 2017) aim to enhance practice, barriers in CPD access and difficult working conditions limit their reach (Bautista, 2023; PBEd, 2019; Bagapuro & Delos Santos, 2021; Ancho & Bongco, 2019). In contrast, Singapore's NIE system ensures selective recruitment, strong pedagogical grounding, and continuous professional learning supported by mentorship and peer networks (Loh & Hu, 2019; Goodwin et al., 2017; Chew, 2016). Professional growth is embedded into career structures, maintaining high standards and adaptability (Low, 2023; Mahat & Loh, 2024).

Curriculum Structures

The Philippine K to 12 reform was designed to foster 21st-century skills but has been criticized as overly ambitious, content-heavy, and poorly resourced (David et al., 2019; Mananghaya & Jacalan, 2022). These gaps result in a mismatch between intended competencies and classroom realities, weakening performance in higher-order skills measured by PISA (Alburo et al., 2021). Singapore, however, sustains coherence through centrally managed curricula emphasizing conceptual depth and 21st-century competencies (Ng, 2017; Tan & Deneen, 2021). Initiatives such as "Teach Less, Learn More" strengthen inquiry-based learning and problem-solving (Deng & Gopinathan, 2016; Tan, 2018). Teacher guides and resources reinforce alignment between curriculum policy and practice, ensuring consistency (Loh, 2022).

Assessment Practices

Philippine assessments remain largely summative and misaligned with global standards, often emphasizing factual recall (Alburo et al., 2021; Behiga, 2022). Although the K to 12 framework advocates for formative strategies, implementation is weak due to training and resource gaps (Francisco & Caingcoy, 2022; Punzalan et al., 2023). The misalignment between assessments such as NAT and PISA expectations contributes to low performance (Lapinid et al., 2024). Singapore, by contrast, integrates high-stakes exams with formative assessment, ensuring both accountability and learning (Tan & Deneen, 2021; Heng et al., 2021). Teachers are trained in assessment literacy, equipping them to use feedback, performance tasks, and peer/self-assessment to promote transferable skills (Koh, 2011; Loh, 2022).

Juxtaposition

This section presents the findings from both countries placed side by side to identify similarities, differences, and points of convergence or divergence. Placing the findings side by side highlights clear systemic contrasts. Singapore demonstrates policy coherence across teacher preparation, curriculum, and assessment, while the Philippines struggles with fragmented implementation and resource inequities. Table 1 shows the similarities and differences of the Philippines and Singapore.

Singapore employs a highly selective and centralized system of teacher preparation through the National

Institute of Education (NIE), ensuring consistent standards, rigorous mentorship, and strong links between theory and practice (Loh & Hu, 2019; Goodwin et al., 2017). Professional development is treated as an integral, lifelong process embedded in career progression, with the Ministry of Education providing structured opportunities such as action research, peer collaboration, and continuing education (Chew, 2016; Low, 2023). These systemic supports reflect Singapore's conceptualization of teachers as nation-builders, whose quality directly drives system excellence (Chong & Gopinathan, 2019; Ro, 2020).

Table 1. Comparison of Teacher Qualifications and Training

Variables	**Philippines**	**Singapore**
Teacher's qualifications	Bachelor's degree in education or a related field from an accredited institution. Secondary teachers must major in their subject area.	Bachelor's degree, typically from the National Institute of Education (NIE), Nanyang Technological University. Secondary teachers specialize in their subject
Training	Offered by accredited higher education institutions. Includes pedagogy, content knowledge, classroom management, and educational psychology. Includes internships/student-teaching; quality and duration may vary.	Centralized training through NIE. Focus on Pedagogical Content Knowledge. Includes an induction year with mentorship and practical classroom experience.
Certification	Licensure Examination for Teachers (LET) administered by the Professional Regulation Commission. Required for public school teachers; private school requirements may vary.	Completion of NIE training and a competitive selection process. Certified teachers undergo a probation period with performance evaluations.
Professional development	Mandatory Continuing Professional Development (CPD) aligned with the Philippine Professional Standards for Teachers. CPD includes workshops, seminars, and further study; rural access remains limited	Structured, ongoing professional development is integral to career progression. Includes courses, workshops, online modules, action research, and goal setting as part of performance reviews.

By contrast, the Philippines' teacher preparation system remains fragmented and uneven. While licensure through the LET sets a minimum benchmark, studies highlight persistently low passing rates and weak content mastery, particularly in mathematics and science (David et al., 2018; World Bank, 2016). Professional development under the CPD Act of 2016 is mandatory but hampered by unequal access in rural areas and criticisms of inequity (Bautista, 2023; PBEd, 2019). Moreover, challenging working conditions, such as large class sizes, heavy workloads, and inadequate resources, contribute to burnout, reducing teachers' effectiveness (Ancho & Bongco, 2019; Bagapuro & Delos Santos, 2021). The gap between policy design and implementation reality makes teacher quality an inconsistent driver of student learning outcomes. This demonstrates why Singaporean students benefit from instruction aligned with 21st-century competencies, while many Filipino students remain constrained by lecture-driven, rote approaches (Manigbas et al., 2024; Bantillo & Ngag, 2024). This gap between policy and practice highlights the importance of curriculum as the bridge that connects teacher quality with actual student learning experiences. To better illustrate these differences, Table 2 presents the curriculum structures of both countries.

Table 2. Comparison of Curriculum Structures

Level	Philippines	Singapore
Kindergarten	Age: 5 years Duration: 1 year Mandatory Focus: Foundational literacy and numeracy.	Age: 4–6 years Duration: 2 years (Kindergarten 1 and 2) Not mandatory Focus: School readiness and basic literacy.
Elementary/Primary	Grades 1–6 Age: 6–11 years Duration: 6 years Focus: Core subjects (Math, Science, Filipino, English, etc.)	Grades 1–6 Age: 7–12 years Duration: 6 years Focus: Core subjects (Math, Science, English, Mother Tongue).
Junior High School	Grades 7–10 Age: 12–15 years Duration: 4 years Focus: Broad academic foundation.	Lower Secondary (Grades 7–10) Age: 13–16 years Duration: 4 years Focus: Academic tracks (Express, Normal Academic, Normal Technical).
Senior High School	Grades 11–12 Age: 16–17 years Duration: 2 years Focus: Academic, Technical-Vocational, Sports, and Arts tracks.	Junior College 1 and 2 Age: 17–18+ years Duration: 2 years (Upper Secondary) Focus: University or career pathways via Polytechnics or ITEs.

The Singapore's curriculum is notable for its centralized coherence and responsiveness to global trends. From early education, students encounter a bilingual policy that fosters both local identity and international competitiveness (Ng, 2008; Tan & Deneen, 2021). Secondary-level tracking (Express, Normal Academic, Normal Technical) differentiates pathways to accommodate diverse learner profiles, aligning instruction with future workforce needs (Goh, 1997; Tan, 2018). Policy initiatives such as "Teach Less, Learn More" emphasize depth over breadth, supporting inquiry-based and problem-solving approaches (Deng & Gopinathan, 2016; Loh, 2022). Regular updates to curricula ensure responsiveness to societal changes, such as digital literacy and global citizenship (Kwek et al., 2023; Lee et al., 2025).

In the Philippines, the K to 12 reform extended basic education and introduced senior high school with multiple tracks to match global standards (Barrot, 2021; Campos, 2023). While progressive in intent, its implementation has faced persistent challenges, including shortages of teachers, classrooms, and instructional resources (Mananghaya & Jacalan, 2022). Critics argue that the curriculum is overloaded with content, limiting opportunities for deeper engagement and critical thinking (David et al., 2019; Abragan et al., 2022). This disconnect between intended curriculum and classroom realities weakens the reform's capacity to cultivate higher-order competencies, reflected in consistently low PISA outcomes (Alburo et al., 2021; Diano et al., 2023).

Thus, while both systems share aspirations for 21st-century readiness, Singapore's coherence and adaptability contrast sharply with the Philippines' fragmented implementation and resource gaps. This contrast becomes even more evident when examining how each system evaluates student learning. Table 3 compares the assessment strategies of both countries, showing how Singapore's alignment of assessments with 21st-century competencies differs from the Philippines' reliance on traditional, content-heavy testing.

Assessment practices provide the clearest divergence. In Singapore, assessments are tightly integrated with academic progression and serve as both accountability mechanisms and learning drivers. High-stakes exams such as the PSLE, O-Levels, and A-Levels regulate pathways while formative practices, peer/self-assessment, diagnostic feedback, and project-based evaluation are embedded in classrooms (Koh, 2011; Tan & Deneen, 2021; Heng et al., 2021). This balance ensures that assessments measure not only knowledge recall but also application, problem-solving, and adaptability, skills aligned with PISA benchmarks (OECD, 2023). Furthermore, the Ministry of Education invests in assessment literacy training, enabling teachers to design and interpret assessments effectively (Loh, 2022; Deneen & Brown, 2016).

In the Philippines, assessments are predominantly diagnostic and system-monitoring tools rather than gateways for student progression. The NAT and BEEA provide data for curriculum evaluation but exert limited influence on instructional planning or student motivation (Department of Education, 2015a; Behiga, 2022). Although the K to 12 framework encourages formative and performance-based assessments, implementation is inconsistent due to teacher workload, lack of training, and large class sizes (Francisco & Caingcoy, 2022; Punzalan et al., 2023). Studies show that Philippine assessments remain largely summative and recall-based, with little alignment to the competencies measured in PISA (Alburo et al., 2021; Lapinid et al., 2024). This divergence

highlights why Singaporean students develop the skills to excel in international assessments, while Filipino students often face an assessment system that neither fosters deep learning nor directly shapes progression.

Table 3. Comparison of Student Assessment Practices in the Philippines and Singapore

Educational Level	Philippines	Singapore
Early Primary/ Grade 1-3	Early Language, Literacy, and Numeracy Assessment (ELLNA), administered in Grade 3; measures foundational skills in English, Filipino, and Mother Tongue, and identifies early learning gaps	No equivalent national early assessment at this stage; classroom-based assessments are used.
End of Elementary/ Primary Education	National Achievement Test (NAT), taken by Grade 6, assesses core subject proficiency and informs curriculum development and system monitoring	Primary School Leaving Examination (PSLE), taken by primary 6 students, assesses English, Math, Science, Mother Tongue, and determines secondary school track placement
Lower Secondary / Junior High	National Achievement Test (NAT), taken by Grade 10, evaluates academic achievement in core areas	N-Level Examination, taken by Secondary 4 (Normal Academic/Technical); guides post-secondary options or further academic preparation
Upper Secondary / Senior High	Basic Education Exit Assessment (BEEA), taken by Grade 12; evaluates readiness for higher education, employment, or entrepreneurship; serves as a summative exit exam	O-Level Examination, taken for Secondary 4 (Express) / Secondary 5 (N-A); required for entry into post-secondary institutions A-Level Examination taken by Junior College Year 2; determines university eligibility and scholarship opportunities

Singapore's education system demonstrates strong policy coherence across teacher preparation, curriculum, and assessment. Teacher education is centralized through the National Institute of Education (NIE), ensuring selective entry, rigorous mentorship, and consistent professional standards (Goodwin & Low, 2021). Professional development is structured and embedded in career progression, reinforcing the view of teachers as key drivers of system excellence. The curriculum is nationally coherent and emphasizes depth over breadth, supported by initiatives such as *Teach Less, Learn More*, which promote inquiry-based learning and adaptability

to global trends (Deng & Gopinathan, 2016). Assessments are tightly integrated with progression through high-stakes exams and classroom-based formative practices, ensuring alignment between learning goals, instruction, and accountability (Koh, 2011). This coherence contributes to Singapore's consistently high performance in international benchmarks such as PISA.

By contrast, the Philippines faces challenges of uneven implementation and systemic fragmentation. Teacher education, while benchmarked by the LET, shows persistent disparities in quality and access, particularly in rural areas. The K to 12 curriculum, though globally aligned, suffers from resource shortages and overcrowding, weakening its impact on learning. Assessments remain largely diagnostic and summative, with limited integration into progression or instructional improvement. These gaps dilute the reform agenda and help explain the Philippines' weaker outcomes.

Comparison

The comparative evidence demonstrates that the differences in PISA performance outcomes between Singapore and the Philippines arise not from isolated factors, but from how teacher quality, curriculum structures, and assessment practices are aligned or fragmented within each system. On teacher quality, Singapore employs a centralized and selective preparation model through the National Institute of Education (NIE), where recruitment standards, rigorous pedagogical training, and structured mentorship ensure instructional consistency (Goodwin et al., 2017; Loh & Hu, 2019). Continuous professional development is embedded into career progression, sustaining teacher adaptability and excellence (Chew, 2016; Low, 2023). By contrast, the Philippines relies on licensure via the LET, but persistently low passing rates and uneven program quality undermine this benchmark (David et al., 2018). While the CPD framework is mandatory, inequitable access limits its effectiveness (Bautista, 2023; PBEd, 2019). These disparities weaken the Philippine teaching force's capacity to cultivate higher-order skills central to PISA success.

In terms of curriculum structures, Singapore sustains a coherent, centrally managed framework that emphasizes conceptual mastery, bilingualism, and 21st-century competencies (Ng, 2008; Tan & Deneen, 2021). Academic tracking differentiates pathways in alignment with student strengths and workforce demands (Goh, 1997; Tan, 2018). The Philippines' K to 12 reform was similarly designed to embed global competencies (Barrot, 2021; Diano et al., 2023), but chronic shortages of teachers, classrooms, and resources hinder its implementation (Mananghaya & Jacalan, 2022). An overloaded curriculum further reduces opportunities for deeper engagement, limiting the reform's impact (Abragan et al., 2022).

On assessment practices, Singapore combines high-stakes national exams (PSLE, O-Levels, A-Levels) with classroom-based formative assessments, ensuring that accountability mechanisms also promote deep learning (Koh, 2011; Heng et al., 2021; Tan & Deneen, 2021). These assessments measure problem-solving, adaptability, and conceptual application, skills aligned with PISA benchmarks. In contrast, Philippine assessments like the NAT and BEEA serve primarily as diagnostic tools with little influence on classroom practice or student progression (Department of Education, 2015a; Behiga, 2022). While the K to 12 framework encourages

formative strategies, large class sizes and limited teacher training constrain their effective use (Punzalan et al., 2023). These dimensions explain the performance gap: Singapore's education system demonstrates systemic alignment, where teacher quality, curriculum, and assessments reinforce one another to sustain excellence, while the Philippines' reforms remain fragmented, with gaps in implementation and resource provision weakening their impact on student outcomes (OECD, 2023; Alburo et al., 2021).

Conclusion

This study shows that the contrasting PISA outcomes of Singapore and the Philippines stem from differences in the alignment of teacher quality, curriculum, and assessment practices. Singapore's success lies in selective teacher recruitment, coherent curricula, and assessments that reinforce both accountability and deeper learning. In the Philippines, ambitious reforms such as K to 12 and professional standards have been undermined by uneven implementation, resource shortages, and weak integration across policies. The findings highlight that the challenge is not the absence of reform but the lack of systemic coherence. For the Philippines, progress requires strengthening teacher preparation and professional development, refining the curriculum to emphasize depth over breadth, and realigning assessments with competencies valued in international benchmarks. The comparison underscores that sustainable improvement depends on policy coherence. Singapore demonstrates the power of integrated reforms, while the Philippine case illustrates how fragmentation limits impact. Achieving better outcomes will require deliberate coordination, equity, and consistency across the education system.

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