

Education for Sustainable Development in Higher Education in Southeast Asian Countries: A Systematic Literature Review

Dewi Suryanti, Muhammad Fadli* and Refdi Akmal

Politeknik Negeri Lampung, Lampung, Indonesia

Alwi Irsha Fadilla

University Malaysia of Computer Science and Engineering, Selangor, Malaysia

Ayu Triria Puspita Devi

Universitas Sam Ratulangi, North Sulawesi, Indonesia

E-mail: dewisuryanti@polinela.ac.id, muhammadfadliofficial@polinela.ac.id*,
refdiakmal@polinela.ac.id, alwiirshafadilla@gmail.com and ayutriria@unsrat.ac.id

*Corresponding author

(Received: 30 May 2026, Revised: 8 August 2026, Accepted: 9 August 2026)

<https://doi.org/10.57260/csdj.2026.289772>

Abstract

This study is a Systematic Literature Review (SLR) that examines the state of Sustainability in Higher Education (SHE) research across Southeast Asia. Guided by the PRISMA framework, the review systematically analyzed peer-reviewed articles published between 2022 and 2026 retrieved from the Education Resources Information Center (ERIC) database. From an initial pool of 6,120 articles, 69 studies met the inclusion criteria, drawn from five countries: Indonesia (n=21), Thailand (n=17), Malaysia (n=12), Vietnam (n=10), and the Philippines (n=9). The study was guided by three research questions addressing the characteristics, dominant themes, and educational development contributions of SHE in the region. Thematic analysis identified five dominant themes: Digital Transformation, Pedagogical Innovation, Sustainability Values and Character Development, SDGs Integration, and Educational Development Research Trends. Digital Transformation emerged as the most pervasive theme, present across all five countries and encompassing AI adoption, blended learning, Learning Management Systems (LMS), and MOOCs. The reviewed studies report potential contributions of SHE at three interconnected levels: individually, through practices associated with critical thinking, ethical awareness, and resilience among students and educators; institutionally, through curriculum reform, governance improvement, and green campus initiatives; and systemically, through their relevance to national educational policies and Southeast Asia's emerging role as a contributor to global sustainability discourse. A recurring pattern across the reviewed literature is that implementation responsive to local cultural, social, and historical contexts is more frequently associated with positive outcomes, suggesting a distinctive characteristic of the Southeast Asian approach. These findings carry potential implications for communities and societies across the region, as the reviewed studies suggest that universities embedding sustainability principles may better prepare graduates to address social, environmental, and economic challenges.

Keywords: Sustainability in higher education (SHE), Higher education, Southeast asia, Systematic literature review, SDGs, Digital transformation

Introduction

Sustainable development has become one of the most pressing global agendas of the twenty-first century. Across sectors, from economy and technology to environment and education, there is a growing recognition that the systems that have been built must be fundamentally rethought if they are to serve both present and future generations. In education, this recognition has taken on particular urgency. As UNESCO (2017) has consistently argued, education is not merely a response to sustainable development, it is one of its most powerful enablers. When education is designed well, it does more than transmit knowledge; it cultivates the values, dispositions, and capacities that make sustainable living possible. For the purposes of this review, Sustainability in Higher Education (SHE) is operationalized as any curricular, pedagogical, institutional, or policy practice within higher education that explicitly integrates the principles of environmental, social, or economic sustainability, encompassing but not limited to Education for Sustainable Development (ESD) as formally defined by UNESCO.

This understanding is not new. Dewey (2004) long argued that education is fundamentally a social process, one through which individuals are initiated into the values and practices that a society needs in order to sustain and renew itself. What is new, however, is the scale and urgency of the challenge. The intersecting crises of climate change, social inequality, technological disruption, and global uncertainty have placed unprecedented demands on educational institutions at every level. Higher education, in particular, finds itself at a crossroads: expected to produce economically productive graduates while simultaneously cultivating the ethical awareness, ecological literacy, and civic responsibility that sustainable societies require. As Rimanoczy (2021) has noted, what is ultimately needed is a sustainability mindset, a set of values and orientations that positions individuals as active, responsible participants in the co-creation of a better world.

Within this global momentum, Southeast Asia represents a region with its own distinctive educational histories, cultural frameworks, and development priorities. As member states pursue national education reforms alongside their commitments to the Sustainable Development Goals (SDGs), higher education institutions across the region, from Indonesia and Thailand to Malaysia, Vietnam, and the Philippines, have increasingly engaged with sustainability agendas through curriculum reform, institutional policy, and pedagogical innovation.

Despite this growing engagement, understanding of SHE research in Southeast Asian higher education remains fragmented. Existing studies tend to be single-country investigations or institution-specific case studies, published across a wide range of disciplinary outlets. Prior efforts to synthesize this field have largely taken the form of global bibliometric reviews. Hallinger & Chatpinyakoo (2019) for instance, mapped the growth trajectory and geographic distribution of higher education for sustainable development research across nearly 1,500 Scopus-indexed publications, finding that the field's knowledge base remains dominated by scholars based in developed regions. Similarly, Grosseck et al. (2019) traced the evolution of Education for Sustainable Development scholarship through a bibliometric analysis of over 1,800 Web of Science-indexed papers, identifying landmark studies, emerging trends, and transformative ideas that have shaped the field over nearly three decades. Both reviews, however, operate at a global scale: neither disaggregates its findings by region, and neither distinguishes how SHE research contributes at the individual, institutional, and system levels within a specific geographic context. This leaves a gap that is twofold. First, at the regional level, no synthesis currently exists that brings together the fragmented, country-specific findings on SHE in Southeast Asian higher education into a coherent, region-wide picture. Second, at the analytical level, the multi-level lens through which SHE contributes to

individuals, institutions, and systems, so far applied only implicitly across scattered single-country studies, has yet to be systematically examined within a dedicated regional synthesis. The present study addresses both dimensions of this gap. Focusing on the 2022–2026 period further addresses a temporal gap: both Hallinger and Chatpinyakoo (2019) and Grosseck et al. (2019) capture scholarship only up to the late 2010s, leaving the most recent, post-pandemic wave of research on SHE in the region synthesized.

To address this gap, the present study adopts a Systematic Literature Review (SLR) as its methodological framework. SLR is particularly well-suited to this kind of inquiry because it goes beyond the simple accumulation of existing studies; it subjects them to systematic scrutiny. By applying explicit, transparent, and replicable criteria for identifying, selecting, and analyzing published research, SLR allows researchers to construct a coherent and evidence-based picture of what a field knows, how it has developed, and where its significant gaps remain (Page et al., 2021). For a study concerned with mapping a geographically dispersed, thematically diverse, and still-emerging field of research, SLR is not simply one methodological option among many; it is the approach best equipped to deliver the kind of regional, synthetic understanding this gap requires.

Through this process, a total of 69 peer-reviewed articles were identified and analyzed, drawn from five Southeast Asian countries: Indonesia (n=21), Thailand (n=17), Malaysia (n=12), Vietnam (n=10), and the Philippines (n=9). Together, these studies offer a substantive and varied body of evidence about how SHE is being understood, practiced, and developed across the region's higher education institutions. To structure our analysis and ensure that the review addressed both descriptive and interpretive dimensions of the literature, the study was guided by three research questions:

1. What are the key characteristics of SHE research in Southeast Asia?
2. What themes dominate SHE research in Southeast Asia?
3. How does SHE contribute to educational development in Southeast Asia?

The first question establishes the empirical foundation of the study, mapping who is researching SHE in this region, how they are doing it, and from what institutional and disciplinary vantage points. The second question moves from description to analysis, identifying the thematic clusters that give the field its intellectual shape and tracing the directions in which it is developing. The third question addresses the most consequential dimension of the inquiry: what difference SHE is actually making, to individuals, to institutions, and to the broader educational systems of the region. Taken together, these questions are designed not merely to summarize the field, but to understand it and in doing so, to offer insights that are useful not only to researchers, but to the educators, institutional leaders, and policymakers who are working to make higher education in Southeast Asia more equitable, more forward-looking, and more genuinely sustainable.

Objectives

Guided by the research questions above, this study aims to: 1) characterize the key features of SHE research conducted in Southeast Asian higher education between 2022 and 2026, in relation to RQ1; 2) identify the dominant thematic patterns emerging across this body of research, in relation to RQ2; and (3) examine the contributions of SHE to educational development at the individual, institutional, and systemic levels within the region, in relation to RQ3. Theoretically, this review contributes a regionally grounded, multi-level (individual, institutional, systemic) framework for understanding how SHE is enacted in Southeast Asian higher education, extending existing global bibliometric accounts of the field.

Methodology

Search Strategies

This study employed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) method to identify, screen, and select relevant studies related to sustainable development in higher education. PRISMA is a systematic review framework designed to ensure transparency, rigor, and systematic reporting throughout the review process, including the stages of identification, screening, eligibility assessment, and article inclusion (Page et al., 2021). We collected the data specifically from the Education Resources Information Center (ERIC) database because it provides extensive scholarly publications in the field of education. The search was conducted between 1–15 May 2026, using the term “Education for Sustainable Development,” matched against ERIC’s controlled vocabulary (descriptor) terms and refined using the database’s built-in filters for publication type (peer-reviewed journal articles), publication date (2022–2026), and geographic/location scope. To ensure the quality and reliability of the sources, we limited the inclusion criteria to peer-reviewed journal articles with full-text availability. Articles that did not meet the inclusion criteria, such as non-peer-reviewed publications, incomplete texts, or studies unrelated to higher education contexts, were excluded from the review process.

Inclusion and Exclusion Criteria

The inclusion criteria in this study were determined to ensure the relevance and quality of the selected articles. We conducted the search process in the Education Resources Information Center (ERIC) database using the keyword “sustainable development” along with several filters, including peer-reviewed publications, full-text availability, and publication dates ranging from 2022 to 2026. The initial search yielded 6,120 articles. Following the identification stage, we screened the articles based on their titles and abstracts, excluding those outside the scope of higher education ($n = 3,107$) or outside the Southeast Asian context ($n = 2,596$), which resulted in 417 articles retained for full-text eligibility review. During the eligibility assessment, a further 348 articles were excluded for not focusing on universities or other higher education institutions. As a result, 69 articles met all inclusion criteria and were selected for the final analysis in this systematic literature review. These studies served as the primary data for examining characteristics, trends, themes, and contributions of sustainable development research in higher education within the Southeast Asian context.

Data Coding and Analysis

After selecting 69 eligible articles, we conducted a data coding process to organize and analyze the information relevant to the research questions. The coding process was carried out by systematically recording important information from each article to identify patterns and thematic trends in sustainable development research within higher education using Excel. To ensure the quality of the included studies, we assessed each of the 69 articles against a self-developed checklist covering study relevance, methodological clarity, and reporting completeness. The data coding process was conducted by one author and independently verified by a second author to reduce individual bias in categorization. We used thematic categories as the primary framework for coding the data. The thematic categories were developed based on the recurring themes and dominant topics that frequently appeared across the selected studies. These categories included sustainability education, curriculum integration, environmental awareness, sustainable campus practices, policy implementation, student engagement, and other themes related to sustainable development in higher education contexts. In addition to identifying the thematic categories, we also recorded the number of

articles within each theme to determine the most dominant research trends. This process enabled us to examine which topics were most frequently discussed and which areas received less scholarly attention in sustainable development research within Southeast Asian higher education institutions.

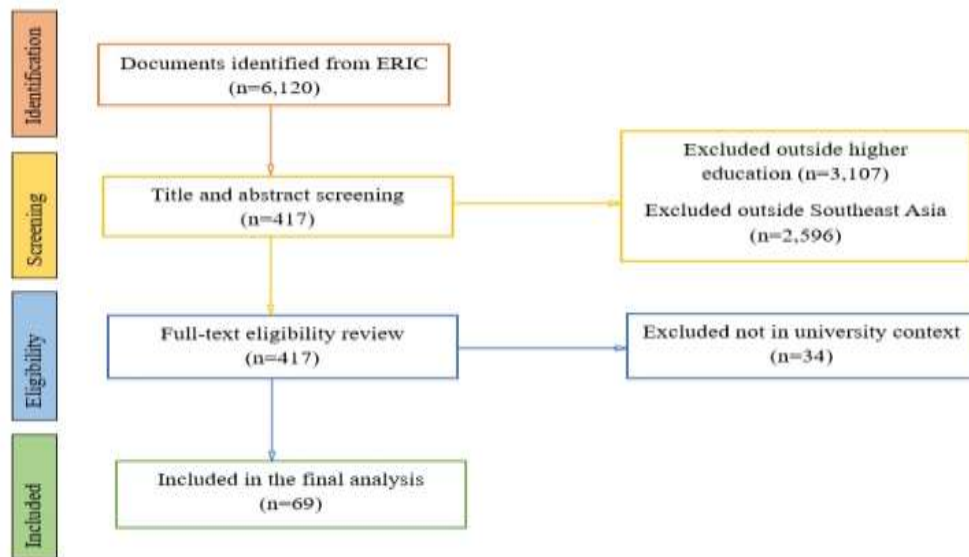


Figure 1 Flow diagram of the systematic review paper selections process

Results

RQ 1: What are the key characteristics of SHE research in Southeast Asia?

The final selection consisted of 69 articles related to sustainable development in higher education within the Southeast Asian context. To identify the geographical distribution of the studies, we categorized the articles based on the countries where the research was conducted.

The findings showed that Indonesia contributed the highest number of publications, with 21 articles focusing on sustainable development in higher education. This indicates that the field has become an increasingly significant topic within Indonesian universities, particularly in relation to educational transformation, sustainability awareness, and institutional practices. The second highest number of studies came from Thailand with 17 articles, followed by Malaysia with 12 articles. Meanwhile, Vietnam contributed 10 articles, and the Philippines contributed 9 articles. These findings demonstrate that research on sustainable development in higher education has gained considerable attention across Southeast Asian countries, although the distribution of publications varies among countries. The dominance of Indonesia and Thailand suggests a growing academic interest in integrating sustainability principles into higher education systems and university practices within these countries.

It is important to clarify the geographic scope of these findings. Although the review targeted Southeast Asia as a whole, eligible articles were retrieved from only five of the eleven countries in the region: Indonesia, Thailand, Malaysia, Vietnam, and the Philippines. No peer-reviewed articles meeting the inclusion criteria were retrieved from Singapore, Brunei Darussalam, Myanmar, Laos, Cambodia, or Timor-Leste within the ERIC database using the study's search strategy for the 2022–2026 period. The findings reported below should therefore be read as characterizing SHE research in Southeast Asian higher education as represented in ERIC, rather than as a complete regional picture. This limitation, along with the study's reliance on a single database, is revisited in the Limitations section.

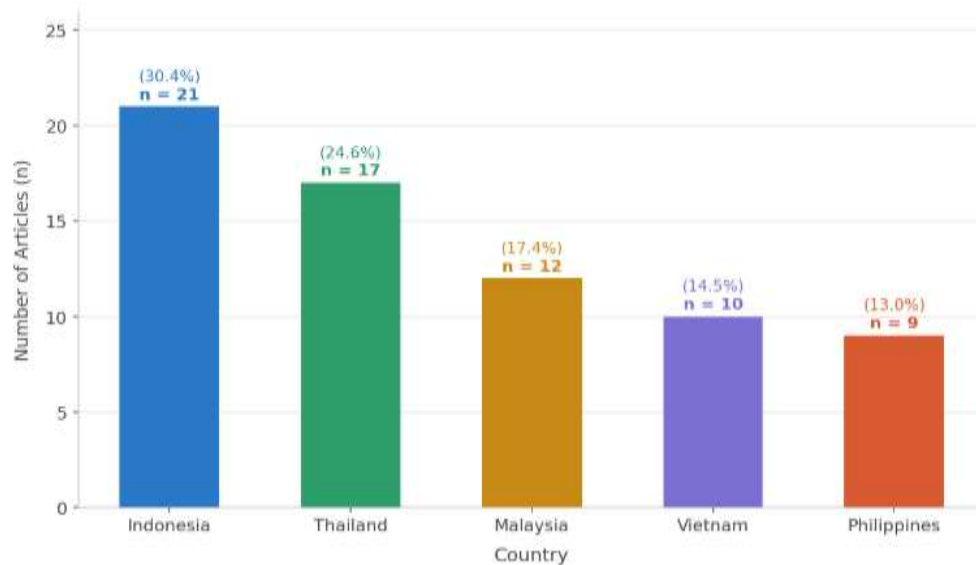


Figure 2 Distribution of Publication by Country

In addition to geographic distribution, several further characteristics were examined among the 69 included studies to fully characterize this body of research (see Table 2). The reference list includes only those studies directly cited in the narrative discussion; the descriptive statistics reported in Table 2 are computed from the full set of 69 coded studies. Publication output shows a distribution weighted toward the more recent years of the search period: 30.40% of the studies were published in 2025, followed by 26.10% in 2022 and 24.60% in 2024, while 2023 (13.00%) and 2026 (5.80%, reflecting the partial year at the time of search) accounted for the smallest shares. In terms of methodology, mixed-methods designs were the most common approach (24.60%), followed by qualitative (21.70%) and quantitative (15.90%) designs, with systematic-review/bibliometric studies (11.60%), research-and-development studies (10.10%), and experimental or quasi-experimental designs (7.20%) also well represented; conceptual or non-empirical literature reviews made up a smaller share (7.20%). Regarding sample composition, most studies drew on multi-stakeholder samples combining students with lecturers or other staff (27.50%) or on students alone (23.20%), while a further 15.90% took published articles themselves as the unit of analysis (systematic reviews and bibliometric studies), 14.50% sampled lecturers, staff, or experts only, and 10.10% relied on documents or other secondary data with no primary human sample. Disciplinary spread confirms that language education and applied linguistics (29.00%) and educational technology or AI in education (21.70%) were the dominant fields, with smaller but consistent clusters in business, economics and management education (10.10%), teacher education (7.20%), and other fields including STEM/health, educational management and policy, and religious education. In terms of institution type, 47.80% of studies were conducted across multiple institutions or did not specify a single institutional sector, 42.00% were based in public institutions, and 10.10% in private institutions. Finally, the great majority of studies (84.01%) were grounded in an explicitly named theory or conceptual model, while 11.60% did not draw on an explicit theoretical framework and 4.30% relied on a framework synthesized by the authors themselves. Taken together, these characteristics indicate that SHE research in Southeast Asian higher education is methodologically diverse, increasingly recent, concentrated in language education and educational technology, and predominantly theory-driven.

Table 1 Summary of Study Characteristics (n = 69)

Characteristic	Category	n	%
Publication Year	2022	18	26.10%
	2023	9	13.00%
	2024	17	24.60%
	2025	21	30.40%
	2026	4	5.80%
Methodology	Mixed Methods	17	24.60%
	Qualitative	15	21.70%
	Quantitative	11	15.90%
	Systematic Review / Bibliometric	8	11.60%
	R&D / Design & Development	7	10.10%
	Experimental / Quasi-Experimental	5	7.20%
	Conceptual / Literature Review (non-empirical)	5	7.20%
	Other / Unclassified	1	1.40%
Sample	Students + Lecturers/Staff (multi-stakeholder)	19	27.50%
	Students only	16	23.20%
	Article/document corpus (unit of analysis = publications)	11	15.90%
	Lecturers/Staff/Experts only	10	14.50%
	Documents / Secondary data (no human sample)	7	10.10%
	Other / Mixed	6	8.70%
Discipline	Language Education / Applied Linguistics	20	29.00%
	Educational Technology / ICT / AI in Education	15	21.70%
	Other / Interdisciplinary	9	13.00%
	Business, Economics & Management Education	7	10.10%
	Teacher Education / Pedagogy	5	7.20%
	Sustainability / Other Discipline-Specific	4	5.80%
	STEM / Health & Medical Education	4	5.80%
	Educational Management, Policy & Governance	3	4.30%
Institution Type	Religious / Islamic Education	2	2.90%
	Public & Private (multiple institutions)	33	47.80%
	Public institution	29	42.00%
Theoretical Framework	Private institution	7	10.10%
	Explicit named theory/model cited	58	84.10%
	No explicit theory (atheoretical/descriptive)	8	11.60%
	Author-developed / synthesized framework	3	4.30%

RQ2: What themes dominate SHE research in Southeast Asia?

Based on a systematic analysis of 69 articles drawn from five Southeast Asian countries, Indonesia (n=21), Thailand (n=17), Malaysia (n=12), Vietnam (n=10), and the Philippines (n=9), five dominant themes were identified across the literature. These themes reflect the overarching priorities and trajectories of SHE research in the region's higher education institutions.

Digital Transformation

Digital Transformation emerged as the most pervasive theme across all five countries, representing the broadest cluster of studies in the reviewed literature. This theme encompasses the adoption and integration of digital technologies, including Learning Management Systems (LMS), Massive Open Online Courses (MOOCs), Artificial Intelligence (AI), blended learning models, and ICT-based instruction, into higher education practice. In Indonesia, studies such as *Digital-Based Smart Campus at Telkom University* (Qurtubi, 2022) and *AI Implementation as Support for Successful Green Campus Implementation* (Rokhmah et al., 2025) illustrate how digital infrastructure is being developed not only for pedagogical purposes but also for institutional sustainability. In Vietnam, research on *Digitalization of Higher Education* (Thu, 2024) and *Innovation in Vietnamese Higher Education for Society 5.0* (Nguyen, 2024)

positions digital transformation as a national strategy aligned with future societal demands. Malaysia's literature similarly addresses digital readiness through studies on MOOCs acceptance (Albelbisi et al., 2022) and digital literacy for the 21st-century workforce (Khan et al., 2022). Thailand and the Philippines round out this theme with research on virtual exchange programs (Higgins, 2024), AI-assisted learning (Peungcharoenkun & Waluyo, 2023); (Meepung, 2025), and technology-supported flexible delivery modalities (Molina, 2025).

Across the region, digital transformation is consistently framed not merely as a technological upgrade, but as a fundamental restructuring of how education is delivered, accessed, and sustained, making it the most dominant theme in the Southeast Asian SHE landscape.

Pedagogical Innovation

The second dominant theme reflects a regional shift away from teacher-centered instruction toward pedagogical models that prioritize student agency, active learning, and contextual relevance. Studies under this theme feature approaches such as Project-Based Learning (PBL), experiential learning, problem-based learning, collaborative learning, peer assessment, and learner autonomy frameworks. Indonesia's research highlights the use of simulation-based learning in cultural subjects (Zulfa et al., 2022) and contextual e-learning design (Alfiriani et al., 2022; Firmansah, 2022; Hermawan et al., 2025), while Thailand's literature examines self-regulated learning (Suphabwongsakul et al., 2025), learner needs analysis (Kanokpermpoon, 2023), and problem-based self-development among teacher education students (Polyiem & Nuangchalerm, 2022). Vietnam contributes research on peer review systems powered by AI that facilitate reflective and collaborative learning (Nguyen et al., 2025), while the Philippines presents evidence on critical thinking enhancement through computer-aided assessment across multiple learning modalities (Molina, 2025). Across these accounts, a consistent pattern emerges despite differences in specific pedagogical models: all four countries represented in this theme, Indonesia, Thailand, Vietnam, and the Philippines, frame pedagogical innovation as a vehicle for cultivating student agency and critical engagement, even as the particular instructional strategies through which this is pursued diverge by national context.

Sustainability Values and Character Development

The third theme addresses the integration of values, ethics, resilience, and character development into higher education curricula and institutional cultures. Unlike the first two themes, which are largely methodological or technological in nature, this theme is fundamentally normative, concerned with *what kind of graduate's* higher education institutions aspire to produce. In Indonesia, studies explore the role of counselors in building adversity quotient (Kusmanto et al., 2024; Tohirin & Mardiana, 2025), the embedding of moderation and legal literacy into digital pedagogy (Dewi et al., 2024; Iskandar et al., 2022; Manu et al., 2025), and the alignment of the Indonesian language curriculum with resilient values derived from the SDGs (Astawa et al., 2024; Roestamy et al., 2025; Rokhmah et al., 2025). In Thailand, research examines multicultural literature (Tangkitjaroenkun et al., 2022) and intercultural sensitivity development (Nattheeraphong et al., 2025). Vietnam's literature emphasizes ESG (Environmental, Social, and Governance) integration into the accounting curriculum as a form of responsible education (Vu, 2025), while the Philippines focuses on resilience and adversity quotient in educational leadership (Dayagbil, 2023; Jose & Cabual, 2025), particularly among institutional leaders navigating post-pandemic challenges. This theme underscores a growing regional consensus that SHE must go beyond knowledge transmission to actively cultivate ethical citizenship, cultural sensitivity, and personal resilience in students and educators alike.

SDGs Integration

The fourth theme captures explicit efforts to align higher education practices with the United Nations Sustainable Development Goals (SDGs), particularly SDG 4 (Quality Education), SDG 8 (Decent Work and Economic Growth), SDG 10 (Reduced Inequalities), and SDG 17 (Partnerships for the Goals). Malaysia leads this theme with a comprehensive study on *Sustainability in Malaysian Higher Education* that maps institutional sustainability practices and recommends future directions (Kumaran & Idris, 2025; Muftahu, 2023), alongside research on micro-credentials as a tool for human capital development (Raghavan et al., 2025) and inclusive access through indigenous community outreach (*Bei Muij Universiti*) (Awang et al., 2023). Vietnam explicitly connects sustainability to curriculum reform through *Integrating ESG and Sustainability Reporting into Accounting Curriculum* (Vu, 2025), while Indonesia's literature documents the presence of SDGs-aligned values within EFL learning (Astawa et al., 2024; Roestamy et al., 2025) and the Indonesian language curriculum (Iskandar et al., 2022). The Philippines addresses SDGs integration through the lens of educational continuity and graduate employability (Pentang et al., 2022), and Thailand situates global citizenship and lifelong learning within SDGs-related discourses (Piriyaachagul & Nanthawong, 2025; Suphabwongsakul et al., 2025). This theme reflects an emerging institutionalization of sustainability within Southeast Asian higher education, moving from isolated initiatives to systemic curricular and governance-level commitments.

Educational Development Research Trends

The fifth theme encompasses macro-level research focused on governance reform, institutional policy, quality assurance, internationalization, curriculum review, and the emergence of new educational credentials such as micro-credentials. This theme is distinguished by its systems-level perspective, examining how higher education institutions in Southeast Asia are evolving in response to global pressures and regional development agendas. In Vietnam, studies on *Factors Determining Governance Effectiveness in Vietnamese Universities* and the implementation of Decree No. 86/2018 on internationalization reveal the structural dimensions of educational reform (Nguyen et al., 2025). Malaysia and Thailand contribute research on quality assurance frameworks, CEFR-aligned language assessment, work-integrated education, and cooperative learning management (Cheewasukthaworn, 2022; Jaroensombut et al., 2023; Khan et al., 2022). The Philippines documents curriculum revision grounded in tracer study data (Pentang et al., 2022), while Indonesia maps two decades of STEM education research and EMI practices through bibliometric and systematic review methodologies (Lubis et al., 2025). This theme reflects the growing sophistication of educational research in the region, as scholars move from individual classroom studies toward systemic analyses of institutional effectiveness and policy impact.

Table 2 Summary of Research Theme Distribution

Theme	Key Focus	Countries Most Active
Digital Transformation	LMS, AI, MOOCs, blended learning, ICT	All 5 countries
Pedagogical Innovation	PBL, learner autonomy, critical thinking	Indonesia, Thailand, Vietnam, Philippines
Sustainability Values & Character	Resilience, ethics, ESG, intercultural	Indonesia, Thailand, Vietnam, Philippines
SDGs Integration	SDG alignment, inclusion, employability	Malaysia, Vietnam, Indonesia
Educational Development Trends	Governance, QA, internationalization, micro-credentials	Vietnam, Malaysia, Thailand

The analysis reveals that Digital Transformation is the most dominant theme in SHE research across Southeast Asian higher education, present in all five countries and across diverse institutional contexts. This is closely followed by Pedagogical Innovation and Sustainability Values and Character Development, which together indicate a regional move toward holistic, values-driven education. SDGs Integration and Educational Development Trends, while less numerically prominent, represent the most structurally significant themes, as they operate at the policy and institutional levels that ultimately shape the direction of SHE across the region.

Taken together, these five themes reveal both consistency and divergence across the region. A consistent pattern is that Indonesia, Thailand, Vietnam, and the Philippines each pursue SHE through some combination of technological and pedagogical innovation at the classroom level, while Malaysia and Vietnam more often anchor their contributions at the policy and governance level, suggesting a regional division of emphasis rather than a single uniform model of SHE. A further divergence is that while Digital Transformation and Pedagogical Innovation are reported across nearly all five countries, Sustainability Values and Character Development and SDGs Integration are more unevenly distributed, appearing prominently in some national literatures (Indonesia, Vietnam) and only marginally in others (Malaysia), pointing to uneven regional attention to the normative and policy dimensions of sustainability relative to its technological and pedagogical dimensions.

Discussions

What distinguishes this review from prior scholarship is not merely its regional focus, but its attempt to trace how SHE operates simultaneously at the individual, institutional, and systemic levels within a single analytical frame, rather than treating these as separate strands of inquiry. This multi-level synthesis is the review's central contribution: it allows patterns that would otherwise appear as isolated, country-specific findings, a classroom pedagogy here, a governance reform there, to be read instead as part of an interconnected regional phenomenon.

RQ 3 How does SHE contribute to educational development in Southeast Asia?

When we look closely at the 69 articles we reviewed from five Southeast Asian countries, several patterns suggest that SHE is not just an academic concept, but is reported to be reshaping how universities in this region think, teach, and operate. The reviewed literature suggests that these contributions unfold at three levels: the individual, the institutional, and the systemic. These contributions appear notable in part because they seem interconnected: what happens in a classroom is described as rippling outward to shape entire institutions and national policies.

Growing Individuals

Perhaps the most immediate contribution reported for SHE is its effect on the people inside the classroom: students, teachers, and educational leaders alike. A recurring pattern in the literature is that SHE is associated with building critical thinking and real-world problem-solving skills. In the Philippines, research reported that when students were given non-routine problems through computer-aided assessment across blended, online, and face-to-face settings, their higher-order thinking was observed to improve. In Thailand, teacher education students who went through problem-based learning were described as growing into reflective practitioners who could think on their feet. These are the kinds of graduate outcomes that the reviewed literature associates with a sustainable society.

The literature also reports associations between SHE and the cultivation of sustainability literacy and ethical awareness: the capacity to understand one's responsibilities

toward society and the environment. Vietnam's work on integrating ESG (Environmental, Social, and Governance) reporting into accounting education is one example. Students were reported to be learning not only accounting content but also to think like responsible professionals. Similarly, Indonesia's efforts to embed SDG-related values into the language curriculum suggest that sustainability does not have to be confined to science or policy courses; when it is woven into other disciplines, students are described as beginning to see themselves as part of a larger global story.

The literature further reports associations between SHE and resilience and emotional intelligence. The Philippines' research on adversity quotient among university deans found that leaders with stronger resilience frameworks were associated with navigating institutional crises more effectively. Thailand's work on multicultural literature and intercultural sensitivity development points to a similar pattern: students exposed to values-driven education are described as developing a richer emotional and social vocabulary. In a region as diverse as Southeast Asia, this pattern is noted as particularly relevant.

Transforming Institutions

Moving from individuals to institutions, the reviewed literature suggests that SHE is described as an important lever for curriculum reform across the region. In Indonesia, several studies report universities redesigning curricula to embed SDG-aligned values, not as an add-on but as a structural feature of what students are expected to learn. The Philippines' research takes an evidence-based approach, using tracer study data to identify gaps between what graduates can do and what the labor market needs, and revising curricula accordingly. Malaysia's studies describe institutions going further still, challenging conventional degree structures by developing micro-credential frameworks within Open Distance Learning institutions. The literature frames this as reflecting a broader rethinking of what universities are for.

The reviewed literature also reports SHE as associated with quality assurance and governance reforms at the institutional level. Both Thailand and Malaysia have produced research examining how lecturers perceive course quality and how institutions might build more accountable pedagogical systems. Vietnam's investigation into governance effectiveness in universities points to something notable: SHE outcomes are described as depending not only on classroom practice but also on the quality of leadership, the strength of institutional culture, and openness to international collaboration. In other words, the literature suggests that SHE prompts institutions to examine how they are run.

Another contribution reported in the literature is the greening of the campus itself. Indonesia's research on AI-powered green campus implementation at Telkom University is presented as an example of a university aligning sustainability not only in its curriculum but also in the systems that run the campus. This kind of institutional coherence, where what is taught aligns with how the institution operates, is described in the literature as characteristic of genuine educational sustainability.

Shaping Systems and Policies

At the broadest level, the reviewed literature suggests that SHE is beginning to leave a mark on national education policy and regional governance across Southeast Asia. Vietnam offers perhaps the most direct evidence of this. The analysis of Decree No. 86/2018 on the internationalization of Vietnamese higher education is presented as documenting a government's effort to translate sustainability principles, equity, access, quality, into law. The research does not only highlight successes; it also examines where the decree has fallen short, offering policymakers across the region lessons to consider. Vietnam's engagement with

Society 5.0 as an educational framework is presented as a further example of a country seeking to future-proof its education system against technological and social disruption.

Malaysia contributes a different kind of macro-level insight. The comprehensive analysis of sustainability in Malaysian higher education offers a national-level snapshot of where universities stand and where they may need to go. The *Bei Muij Universiti* study is presented as a reminder that macro-level sustainability is not only about policy frameworks; it is also about reaching people who have historically been left behind. Its account of outreach programs bringing higher education awareness to indigenous communities is offered as an illustration that SHE, at its most meaningful, is connected to justice and inclusion.

One pattern worth noting is that, across the region, Southeast Asian researchers and institutions are described as not merely implementing sustainability frameworks designed elsewhere, but generating their own. The governance and management literature, shared between Vietnam and Malaysia within the Commonwealth of Asia framework, is presented as positioning this region as a knowledge producer in its own right, with distinctive insights to offer the global education community.

Local Roots, Global Vision

A recurring pattern across the literature is how SHE in Southeast Asia consistently finds ways to honor local context while reaching toward global standards. Indonesia brings Islamic values into sustainability pedagogy. Thailand uses regional and healing literature to build social consciousness. Malaysia reaches toward indigenous communities to ensure that no one is left behind. The Philippines grounds curriculum reform in the real employment outcomes of its graduates. Vietnam aligns its educational vision with both national development goals and global technological transitions.

The design of the present review was inspired by the global bibliometric work of Hallinger and Chatpinyakoo (2019) and Grosseck et al. (2019), which mapped the growth and evolution of sustainability-in-education scholarship at a worldwide scale. Rather than replicating their global scope, this study applies a comparable systematic lens to a single, geographically bounded region, Southeast Asia, to examine how SHE research manifests when studied on its own terms rather than as a subset of a larger global dataset. In this sense, the present SLR is best understood as a regionally focused counterpart to these earlier global reviews, undertaken in the same spirit of systematic synthesis but with a deliberately narrower and more contextually grounded scope.

Conclusion and suggestions

The analysis of 69 articles across five Southeast Asian countries indicates that SHE within this region is associated with contributions across multiple levels; this claim should be used cautiously, however, as the present study did not conduct a meta-analysis or systematically assess the quality of evidence across the included articles. The reviewed literature consistently reports potential contributions of SHE at the individual, institutional, and policy levels. At the individual level, students and educators engaging with sustainability-oriented curricula and pedagogy are described in the literature as more capable, ethically grounded, and resilient in the face of complex challenges. At the institutional level, SHE is associated with greater accountability, pedagogical innovation, and social equity in university operations and curricula. At the national and regional level, several studies suggest that SHE enables Southeast Asian countries to articulate and assert their own contributions to the global sustainability discourse, rather than merely adopting frameworks developed elsewhere. The evidence further suggests that these reported contributions tend to be most pronounced when

implementation is sensitive to the cultural, social, and historical specificities of each national context. The diversity that characterizes Southeast Asia, far from being reported as an obstacle to regional coherence, is instead portrayed in the literature as a condition that supports the legitimacy and relevance of SHE initiatives in the region. This contextual responsiveness is what several authors identify as distinguishing Southeast Asian SHE as a model worthy of broader scholarly and policy attention.

In light of these findings, several directions warrant serious consideration for researchers, practitioners, and policymakers alike. Future research should prioritize longitudinal and comparative studies that track the sustained impact of SHE initiatives across institutional and national boundaries, moving beyond the predominantly descriptive and cross-sectional designs that currently characterize the field. There is a particular need for studies that examine the long-term outcomes of sustainability-oriented curricula on graduate behavior, professional practice, and civic engagement, dimensions that the existing literature has yet to address with adequate depth. At the institutional level, universities across the region are encouraged to develop more coherent and integrated sustainability frameworks that align pedagogical innovation, governance reform, and campus operations within a unified strategic vision, rather than treating these as separate institutional agendas. Policymakers, for their part, should invest in creating regional platforms for knowledge exchange that enable Southeast Asian institutions to learn from one another's sustainability experiences, recognizing that the most relevant models for any given country are likely to be found within the region itself, rather than imported from Western higher education contexts. Finally, given the underrepresentation of the Philippines and Vietnam in the current literature relative to their population size and higher education scale, targeted research capacity-building initiatives in these countries would contribute meaningfully to a more balanced and representative body of knowledge on SHE in Southeast Asia.

Limitations

This study is subject to several limitations. First, the review relied exclusively on the ERIC database; relevant studies indexed in Scopus, Web of Science, or other regional databases may therefore have been omitted, and the findings should be read as characterizing SHE research as represented in ERIC rather than the field as a whole. Second, as noted earlier, eligible articles were retrieved from only five of the eleven Southeast Asian countries, leaving the experiences of Singapore, Brunei Darussalam, Myanmar, Laos, Cambodia, and Timor-Leste unrepresented in this synthesis. Third, this review did not conduct a meta-analysis or a formal, tool-based quality appraisal beyond the self-developed checklist described in the Methodology; consequently, claims about the reported contributions of SHE should be read as patterns observed across the literature rather than as effects established with statistical rigor. Finally, because data coding was conducted by one author and verified by a second rather than through fully independent double-coding with a calculated reliability statistic, some degree of subjective judgment in thematic categorization cannot be ruled out.

Policy Implications

These findings carry several actionable implications for higher education ministries and institutional policymakers across Southeast Asia. First, given the pervasiveness of Digital Transformation as a theme across all five countries reviewed, ministries are encouraged to formalize national or institutional digital-sustainability strategies, ones that treat AI adoption, blended learning, and LMS infrastructure not as isolated IT initiatives but as integral components of sustainability policy. Second, because SDGs Integration was most often reported as embedded through curriculum reform rather than standalone policy mandates, ministries may consider incentivizing curriculum-level SDG integration directly, for example

through accreditation criteria or funding schemes that reward interdisciplinary sustainability content. Third, the evidence that contextually grounded models, such as Indonesia's integration of Islamic values or Malaysia's indigenous outreach programs, are associated with more durable outcomes suggests that regional policy frameworks should avoid one-size-fits-all mandates and instead allow institutions flexibility to adapt sustainability initiatives to local cultural and social contexts. Finally, given the underrepresentation of some countries in the current evidence base, regional bodies such as ASEAN's education sector could play a role in supporting research capacity-building so that policy decisions across the region are informed by a more balanced body of evidence.

New knowledge and the effects on society and communities

This study contributes new knowledge through a comprehensive, multi-country systematic mapping of SHE research in Southeast Asian from 2022 to 2026. A key finding is that Digital Transformation, encompassing AI adoption, blended learning, LMS, and MOOCs, emerged as the most prominent theme across all five countries reviewed, suggesting a close relationship between sustainability efforts and digital restructuring in higher education. Also notable is the finding that Southeast Asian institutions are described in the literature as not merely adopting externally produced sustainability frameworks but as generating contextually grounded models that integrate local cultural values, indigenous outreach, and nationally specific governance reforms into SHE practices. This is presented as positioning the region as a knowledge producer in the global sustainability discourse, offering a counter-narrative to the uncritical importation of Western higher education models and suggesting that contextual sensitivity may be less a limitation than a condition associated with more durable SHE initiatives.

The central novelty of this review lies in its multi-level (individual, institutional, systemic) lens for reading SHE research. To the authors' knowledge, based on the literature search conducted for this review, no prior study has applied this same multi-level analytical approach to SHE research in Southeast Asian.

The effects of these findings may extend meaningfully to society, local communities, and higher education institutions across the region, although these connections are inferred from the reviewed studies rather than directly tested. At the societal level, universities that embed sustainability principles are reported to produce graduates described as having stronger critical thinking, ethical awareness, and resilience, competencies that the literature associates with workforce quality, social cohesion, and community capacity to address environmental and economic challenges. Marginalized communities may benefit particularly from inclusion-oriented initiatives such as indigenous outreach programs and employability-driven curriculum reform, which the reviewed studies associate with more equitable pathways into higher education and productive employment. For higher education institutions specifically, this study suggests a need to move beyond isolated sustainability initiatives and toward integrated institutional strategies that align curriculum design, pedagogical innovation, governance reform, and campus operations within a unified sustainability vision. Institutions that do so may be better positioned to fulfill their academic mission and to strengthen their relationship with the communities they serve, as agents of equitable and sustainable regional development.

References

- Albelbisi, N. A., Al-Adwan, A. S., & Habibi, A. (2022). A Swot Analysis on Acceptance of Mooc in Malaysian Higher Education: The Learners' Perspective. *Turkish Online Journal of Distance Education-TOJDE*, 23(1), 74–85. <https://dergipark.org.tr/en/pub/tojde/article/1048955>
- Alfiriani, A., Setyosari, P., Ulfa, S., & Praherdhiono, H. (2022). Developing Networked Online Learning Designs and its Effectiveness on the Works of Students in Higher Education: Case Studies in Indonesia. *Journal of Technology and Science Education*, 12(1), 4–20. <https://doi.org/10.3926/jotse.1189>
- Astawa, N. L. P. N. S. P., Santosa, M. H., Artini, L. P., & Nitiasih, P. K. (2024). Sustainable Development Goals in EFL Students' Learning: A Systematic Review. *Pegem Journal of Education and Instruction*, 14(2), 1–11. <https://doi.org/10.47750/pegegog.14.02.01>
- Awang, H., Mansor, N. S., Natrah, S., Anis, F., Azwar, P. Y., Huda, N., & Mustapha, R. (2023). Bei Muij Universiti: Disseminating Higher Education Awareness to Indigenous Youngsters. *Journal of Contemporary Social Science and Education Studies*, 3(1), 105–110. <https://jocss.com/index.php/multidiscipline/article/view/150>
- Cheewasukthaworn, K. (2022). Developing a Standardized English Proficiency Test in Alignment with the CEFR. *PASAA*, 63(1), 66-92. <https://digital.car.chula.ac.th/pasaa/vol63/iss1/3>
- Dayagbil, F. T. (2023). Anticipation, coping and adaptation practices for teaching and learning continuity of higher education institutions. *International Journal of Education and Practice*, 11(1), 106–119. <https://doi.org/10.18488/61.v11i1.3267>
- Dewey, J. (2004). *Democracy and Education (Indian Edi)*. New Delhi: Aakar Books.
- Dewi, R. M., Umi, S., Widjaja, M., Haryono, A., & Wahyono, H. (2024). Development of Learning Material in Behavioral Economics for Higher Education. *Pegem Journal of Education and Instruction*, 14(3), 192–199. <https://www.pegegog.net/index.php/pegegog/article/view/2927>
- Firmansah, M. L. H. (2022). Curriculum development and message design in E-learning based contextual using animation for Determinant Matrix Course. *International Journal of Curriculum and Instruction*, 14(3), 1813–1830. <https://ijci.net/index.php/IJCI/article/view/1011>
- Grossek, G., Bran, R. A., & Tiru, L. G. (2019). Education for Sustainable Development: Evolution and Perspectives: A Bibliometric Review of Research , 1992-2018. *Sustainability*, 11(21), 6136. <https://doi.org/10.3390/su11216136>
- Hallinger, P., & Chatpinyakoo, C. (2019). A Bibliometric Review of Research on Higher Education for Sustainable Development, 1998–2018. *Sustainability*, 11(8), 2401. <https://doi.org/10.3390/su11082401>
- Hermawan, W., Supriyadi, T., & Kurniawan, C. S. (2025). Designing a Pedagogical Model for Islamic Legal Literacy and Religious Moderation in Contemporary Digital Contexts. *Journal of Social Studies Education Research*, 16(3), 209–237. <https://jsser.org/index.php/jsser/article/view/6582/0>
- Higgins, J. (2024). Virtual Bridges to Global Competence: Cultivating Undergraduates' English Communication and Intercultural Skills Through Online Exchange. *Journal of International Students*, 14(4), 862–882. <https://doi.org/10.32674/jis.v14i4.6545>

- Iskandar, I., Sumarni, S., Dewanti, R., & Asnur, M. N. A. (2022). Infusing Digital Literacy in Authentic Academic Digital Practices of English Language Teaching at Universities. *International Journal of Language Education*, 6(1), 75–90. <https://doi.org/10.26858/ijole.v6i1.31574>
- Jaroensombut, L., Chuaboon, W., Sakolnakorn, P. N. T., Luengalongkot, P., Auiwong, K., Boonkawin, S., Yekpiewpong, S., Dhammasaccakarn, W., Saiyasopon, S., Pakittawichit, T., & Chaipayong, A. (2023). The management of cooperative and work-integrated education for academic institutions of higher education in Thailand. *Asian Journal of Education and Training*, 9(4), 136–141. <https://doi.org/10.20448/edu.v9i4.5220>
- Jose, L. S., & Cabual, R. A. (2025). Adversity Quotient and Resilience in Educational Leadership: A Mixed- Methods Study of Deans in Teacher Education Institutions in Central Luzon, Philippines. *European Journal of Educational Management*, 8(3), 143–150. <https://doi.org/10.12973/eujem.8.2.143>
- Kanokpermpoon, M. (2023). Foundation English Course Development for Thai Tertiary Education: Learners' Perceived Needs and Factor Analysis. *REFlections*, 30(3), 671–694. <https://doi.org/10.61508/refl.v30i3.267999>
- Khan, N., Sarwar, A., Chen, T. B., & Khan, S. (2022). Connecting digital literacy in higher education to the 21st century workforce. *Knowledge Management & E-Learning*, 14(1), 46–61. <https://doi.org/10.34105/j.kmel.2022.14.004>
- Kumaran, S., & Idris, I. (2025). Sustainability in Malaysian Higher Education: A Comprehensive Analysis with Suggestions for Malaysian Universities' Future. *Educational Process: International Journal*, 18(1), e2025469. <https://doi.org/10.22521/edupij.2025.18.469>
- Kusmanto, H., Zamzani, Z., & Suryaman, M. (2024). Unleashing the secrets of academic writing: exploring Indonesian language courses in higher education. *Journal of Education and Learning (EduLearn)*, 18(4), 1166–1172. <https://doi.org/10.11591/edulearn.v18i4.21662>
- Lubis, A. H., Indonesia, U. P., & Adara, R. A. (2025). A Mapping Analysis and Systematic Review of Studies (2012- 2023) on English Medium Instruction in an EFL-Adopting Asian Country : Insights and Implications. *The Electronic Journal for English as a Second Language*, 29(3), 1–23. <https://doi.org/10.55593/ej.29115a8>
- Manu, G. A., Setyosari, P., Ulfa, S., & Praherdhiono, H. (2025). Development and Evaluation of a Real-Time Emotion Detection System. *Journal of Educators Online*.
- Meepung, T. (2025). Fostering Innovator Skills through Integration of Creative Learning and Generative AI. *International Education Studies*, 18(6), 80–99. <https://doi.org/10.5539/ies.v18n6p80>
- Molina, M. G. (2025). Enhancing Critical Thinking Skills through Computer-Aided Assessment on Non-Routine Problem Solving across Three Distinct Learning Delivery Modalities. *Journal of Practical Studies in Education*, 6(2), 23–32. <https://doi.org/10.46809/jpse.v6i2.98>
- Muftahu, M. (2023). The Governance and Management of Higher Education in the Commonwealth of Asia: Sharing the Asian Experience for the Common Good in the Commonwealth of Africa. *Journal of Comparative & International Higher Education*, 15(3), 48–62. <https://doi.org/10.32674/jcihe.v15i3.3984>
- Nattheeraphong, A., Ünlü, Z., & Wattanavorakijkul, N. (2025). Navigating the Complexities of Intercultural Sensitivity: A Qualitative Study of Thai Undergraduate Students' Developmental Journeys. *LEARN Journal: Language Education and Acquisition Research Network*, 18(2), 288–316. <https://doi.org/10.70730/DOYR9347>

- Nguyen, A. Q. (2024). Innovation in Vietnamese Higher Education for Society 5.0: Opportunities, Challenges, and Strategies. *International Journal of Research in Education and Science (IJRES)*, 10(4), 750–760. <https://doi.org/10.46328/ijres.3491>
- Nguyen, H. T. T., Van, L. H., Ly, P. T. K., & Hanh, M. T. C. H. (2025). Exploring the Transformative Potential of Blended Learning with MOOCs: A Case Study in Vietnamese Higher Education Amidst the COVID-19 Pandemic. *REFlections*, 32(2), 1219–1242. <https://files.eric.ed.gov/fulltext/EJ1482964.pdf>
- Nguyen, P. T., Thi, T., Le, H., & Hoai, L. T. (2025). Effects and Obstacles of Decree No. 86/2018/ND-CP on the Internationalization of Vietnamese Higher Education : Prospects and Hindrances. *Educational Process: International Journal*, 18, e2025417. <https://doi.org/10.22521/edupij.2025.18.417>
- Page, M. J., Mckenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-wilson, E., Mcdonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*, 372, 71. <https://doi.org/10.1136/bmj.n71>
- Pentang, J. T., Perez, D. R., Cuanan, K. H., Recla, M. B., Romelyn, T., Bober, R. M., Cruz, C. E. Dela, Egger, S. P., Herrera, R. L., Illescas, C. M., Salmo, J. M., Bucad, M. L., & Agasa, J. V. (2022). Tracer Study of Teacher Education Graduates of Western Philippines University - Puerto Princesa Campus: Basis for Curriculum Review and Revision. *International Journal of Multidisciplinary: Applied Business and Education Research*, 3(3), 418–431. <https://doi.org/10.11594/ijmaber.03.03.12>
- Peungcharoenkun, T., & Waluyo, B. (2023). Writing pedagogy in higher education: The efficacy of mediating feedback with technology. *Reading & Writing - Journal of the Literacy Association of South Africa*, 15(1), 487. <https://doi.org/10.4102/rw.v15i1.487>
- Piriyatachagul, G., & Nanthawong, N. (2025). New Religious Studies: Innovations in Higher Education Learning Management for the 21st Century, Learning from Foreign Religious Studies Methods. *Higher Education Studies*, 15(4), 284–297. <https://doi.org/10.5539/hes.v15n4p284>
- Polyiem, T., & Nuangchalerm, P. (2022). Self-development of Teacher Students through Problem-Based Learning. *Journal of Educational Issues*, 8(1), 747–756. <https://doi.org/10.5296/jei.v8i1.19880>
- Qurtubi, A. (2022). Digital-Based Smart Campus at Telkom University, Indonesia. *Education Quarterly Reviews*, 5(3), 259–269. <https://www.asianinstituteofresearch.org/EQRarchives/digital-based-smart-campus-at-telkom-university%2C-indonesia>
- Raghavan, S., Subramaniam, N. K., & Awang, A. I. (2025). Unboxing Micro-Credentials for Odl Universities: Competency Development for Human Capital. *TOJDE Turkish Online Journal of Distance Education*, 26(1), 1–15. <https://dergipark.org.tr/en/pub/tojde/article/1408308>
- Rimanoczy, I. (2021). *The Sustainability Mindset Principles*. Abingdon: Routledge.
- Roestamy, M., Martin, A. Y., Rusli, R. K., Humaira, M. A., Suherman, I., & Nita, K. R. (2025). Resilient Values of SDGs in the Indonesian Language Curriculum (CCS). *International Journal of Language Education*, 9(3), 579–598. <https://doi.org/10.26858/ijole.v1i1.77398>
- Rokhmah, S., Permana, D., Elmi, F., Sugiyono, & Ansori, A. (2025). AI Implementation as Support for Successful Green Campus Implementation. *Educational Process: International Journal*, 19(1), e2025569. <https://doi.org/10.22521/edupij.2025.19.569>

- Suphabwongsakul, S., Ueangchokchai, C., & Nopas, D. (2025). “I Learn, But They Say It Doesn’t Count”: Academic Support Staff and the Struggle for Recognition in Lifelong Learning. *International Education Studies*, 18(3), 21–37. <https://doi.org/10.5539/ies.v18n3p21>
- Tangkitjaroenkun, T., Nawarat, N., & Jatuporn, O. (2022). Multicultural Literature for Multicultural Education: Idealism, Reality and Practicality in a Thai Tertiary Education Context. *LEARN Journal: Language Education and Acquisition Research Network*, 15(1), 548–564. <https://so04.tci-thaijo.org/index.php/LEARN/article/view/256737>
- Thu, L. T. T. (2024). Digitalization of Higher Education in Vietnam. *Journal of Comparative & International Higher Education*, 16(2), 23. <https://doi.org/10.32674/jcihe.v16i2.5710>
- Tohirin, T., & Mardiana, D. (2025). The Role of Counselors and University Students’ Adversity Quotient in Enhancing Islamic Education (PAI) Online Learning: Insights from the COVID-19 Experience. *Educational Process: International Journal*, 14(1), e2025030. <https://doi.org/10.22521/edupij.2025.14.30>
- UNESCO. (2017). *Education for Sustainable Development Goals*. United Nations Educational. <https://doi.org/10.54675/CGBA9153>
- Vu, T. M. T. (2025). Integrating ESG and Sustainability Reporting into Accounting Curriculum: A Step Toward Responsible Education. *Educational Process: International Journal*, 17, e2025400. <https://doi.org/10.22521/edupij.2025.17.400>
- Zulfa, Nusi, A., Ananda, A., Efi, A., & Pernantah, P. S. (2022). Using Simulation on Project Based Learning in Minangkabau Culture Subject. *International Journal of Instruction*, 15(1), 311–326. <https://e-iji.net/ats/index.php/pub/article/view/448>