



Research Article

Preparing ASEAN-Ready Teachers: Alignment of Teacher Education Program Outcomes with PPST and SEA-TCF

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Abstract. Teacher education programs must prepare graduates for national professional practice while responding to educational contexts across Southeast Asia. This study examined the alignment of eight Bachelor of Secondary Education (BSEd) Program Outcomes adopted by one Philippine higher education institution with the Philippine Professional Standards for Teachers (PPST) and the Southeast Asia Teachers Competency Framework (SEA-TCF). A qualitative descriptive design integrated document analysis, deductive content analysis, and curriculum alignment mapping. The outcomes were mapped against seven PPST domains and four SEA-TCF essential competencies using four predefined alignment categories. All seven PPST domains were represented across the program outcomes. Alignment with the mapped SEA-TCF competencies was explicit for five outcomes, strong/conceptual for two, and partial for one. “Help my students learn” showed the broadest representation, spanning four outcomes. “Engage the community” was partially represented, as the corresponding outcome lacked explicit expectations for family and community partnerships. References to Southeast Asian educational contexts, intercultural applications, reflective practice, and regional professional collaboration were also inconsistent. These findings indicate correspondence between nationally grounded program outcomes and regional teacher competencies, alongside gaps in the explicit articulation of community engagement and regional preparation. The study provides an evidence base for targeted curriculum review, particularly the integration of community partnerships, intercultural competence, reflective practice, and Southeast Asian perspectives into program outcomes and associated assessments.

Keywords: ASEAN readiness; Bachelor of Secondary Education; Curriculum alignment; Philippine Professional Standards for Teachers; Southeast Asia Teachers Competency Framework.

The preparation of a secondary school teacher in the Philippines begins with national expectations, but the work awaiting that teacher is shaped by concerns that reach beyond national borders. Digital technologies are changing how knowledge is accessed and taught; classrooms bring together learners with varied experiences; and educational issues across Southeast Asia increasingly call for professional exchange. Parmigiani et al. (2022) emphasized that teacher education must deliberately develop global competence, while Zhang et al. (2024a) found that teacher-training programs have moderate-to-large positive effects on teachers’ global competence, particularly their knowledge and skills. The projected shortage of approximately 44 million primary and secondary teachers worldwide by 2030 adds urgency to questions of teacher preparation and support

(UNESCO & International Task Force on Teachers for Education 2030, 2024). Aksin (2023) associated intercultural sensitivity with both professional knowledge and dispositions toward diversity, and Chen (2024) found that structured engagement with culturally diverse communities can strengthen multicultural competence. These concerns warrant attention in teacher education without allowing regional or global frameworks to obscure local knowledge, cultural identity, or the professional judgment needed in Philippine classrooms.

The Southeast Asia Teachers Competency Framework (SEA-TCF) offers one reference for examining the regional dimensions of teacher preparation. Its four essential competencies are knowing and understanding what to teach, helping students learn, engaging the community, and becoming a better teacher every day (SEAMEO INNOTECH, 2017). These competencies go beyond a teacher's familiarity with subject content or technology. Wang and Ko (2022) found that familiarity with digital technologies did not automatically translate into pedagogically appropriate use, while Yang et al. (2022) identified individual, institutional, and contextual influences on digital competence. Yang et al. (2023) further highlighted the roles of supportive environments, relevant training, and appropriate pedagogical strategies. Similarly, Tomczyk (2024), Göttl et al. (2024), and Tondeur et al. (2025) highlighted curriculum adaptation, authentic experiences, collaboration, reflection, institutional support, and the practices modeled by teacher educators. Taken together, these studies suggest that a broadly worded program outcome may signal a valued competence without showing clearly how that competence is understood or developed.

This distinction is important in the Philippine Bachelor of Secondary Education (BSEd) program. Commission on Higher Education (CHED) Memorandum Order No. 75, series of 2017, prescribes teacher education outcomes that include articulating the foundations of education and demonstrating mastery of subject matter (Commission on Higher Education, 2017). The eight BSEd Program Outcomes examined in this study closely follow the CHED-prescribed outcomes and appear in the college's program documents. They are therefore treated as CHED-derived outcomes adopted by the college, rather than as outcomes independently authored by the institution. This provenance matters when comparing them with the Philippine Professional Standards for Teachers (PPST) and the SEA-TCF. Alonzo et al. (2023) found that unclear learning outcomes and limited assessment strategies can weaken the connection between intended and assessed competencies, even where outcomes-based education has formally been adopted. Alvero et al. (2026) showed how graduate-based assessment can inform judgments about the attainment and continuing relevance of program outcomes, while Madrideo and Alvero (2026) demonstrated the value of teacher education program evaluation for targeted improvement. The present inquiry addresses an earlier question in that process: what competencies are represented in the adopted outcome statements?

To examine that question, the study uses an Institutional-National-Regional Competency Alignment Model. The institutional layer refers to the eight outcomes as they appear in the college's BSEd documents; the national layer comprises the CHED requirements and the PPST; and the regional layer is represented by the SEA-TCF. The model recognizes that these layers are related but serve different purposes. Because the outcomes are CHED-derived, stronger correspondence with the PPST than with the SEA-TCF should be interpreted in light of their national policy origin. It would not, on its own, demonstrate that the college has neglected regional preparation. SEA-TCF competencies may also be addressed in course outcomes, learning activities, field experiences, or assessment tasks that the eight program statements do not describe. Document analysis can establish the pattern of alignment among the selected texts; explaining how that pattern arose or how competencies are enacted would require additional curriculum and stakeholder evidence.

Accordingly, this study asks to what extent the PPST and SEA-TCF competencies are explicitly, partially, implicitly, or not represented in the eight BSEd Program Outcomes adopted by the college. It also identifies the competencies most and least visible in those statements, compares their correspondence with national and regional expectations, and considers the implications for curriculum mapping and program review. This inquiry relates to Sustainable Development Goal 4, particularly Target 4.c, which calls for strengthening the supply of qualified teachers through international cooperation in teacher training (UNESCO & International Task Force on Teachers for Education 2030, 2024). As Alvero (2025a, 2025b) argued, sustainable-development commitments in higher education require deliberate alignment between stated priorities, competencies, and instructional support. The study thus examines how ASEAN readiness can be expressed alongside nationally grounded professional competence, while limiting its conclusions to what the analyzed documents can substantiate.

Methodology

Research Design and Documentary Sources

This study used a qualitative descriptive design combining document analysis, deductive content analysis, and curriculum alignment mapping. It examined how eight Bachelor of Secondary Education (BSEd) Program Outcomes (POs) adopted in the College of Education documents of one private HEI in Laguna, Philippines, correspond to the Philippine Professional Standards for Teachers (PPST) and the Southeast Asia Teachers Competency Framework (SEA-TCF). Because the institutional outcomes closely follow those in Commission on Higher Education (CHED) Memorandum Order No. 75, series of 2017, they were treated as CHED-derived outcomes adopted by the institution. This provenance informed the interpretation of their alignment with national and regional frameworks.

The documentary corpus comprised the institution's adopted BSEd outcomes, the PPST issued under Department of Education Order No. 42, series of 2017, and the SEA-TCF issued by SEAMEO INNOTECH. The eight POs, designated PO1-PO8 without altering their wording, served as the principal units of analysis. The seven PPST domains, together with relevant strands and indicators, provided the national reference. The four SEA-TCF essential competencies provided the regional comparison level reported in the findings. The framework's general and enabling competencies and success descriptors were consulted to interpret the scope of individual correspondences. The 31 enabling competencies were not coded as a separate set of units; therefore, the study does not report counts of enabling competencies by alignment category.

Documents were included in the primary analysis when they stated formally issued or institutionally adopted BSEd outcomes or teacher competencies and provided sufficient detail for comparison. Unofficial summaries, promotional materials, commentaries, and secondary accounts were excluded from coding decisions. Scholarly literature was used to contextualize the findings after the documentary classifications had been made.

Alignment Procedure and Coding Criteria

The researchers constructed a BSEd-PPST-SEA-TCF alignment matrix to document each proposed correspondence. For every PO, the matrix recorded its operative verb, object of competence, and stated context; the relevant PPST domain and, where applicable, strand or indicator; the corresponding SEA-TCF essential competency and clarifying provisions; the documentary evidence; the assigned classification; and the rationale for the judgment. The matrix also recorded specific competency dimensions that were not expressed in the PO. Multiple mappings were allowed because a single outcome could address more than one competency, while several outcomes could contribute to the same competency.

Correspondences were classified using four categories. Explicitly Aligned indicated that the PO directly expressed substantially the same professional action or competence as the reference provision. Strongly/Conceptually Aligned indicated a clear correspondence in meaning despite differences in wording. Partially Aligned indicated that the PO expressed a consequential component of the reference competency but did not encompass its broader professional scope. Not Evident indicated that the PO statements provided insufficient textual or conceptual basis for the competency under examination. Classification required attention to the action, object, and context of each provision; lexical similarity alone was insufficient. The coding distinguished the overall correspondence of a PO with a mapped competency from the presence of a particular dimension within that PO. Thus, an outcome could be explicitly aligned with an essential competency while a regional or intercultural dimension remained Not Evident in its wording. Classifications were used to characterize the nature of documentary correspondence, not to calculate a numerical compliance or performance score.

Analytical Process

The researchers transcribed the adopted POs into the matrix and extracted the relevant PPST and SEA-TCF provisions. Each outcome was read in full before proposed matches were identified. The researchers then compared its stated professional action and scope with the PPST provisions and the SEA-TCF essential competencies. General and enabling competencies and success descriptors were examined when they clarified the meaning or limits of a proposed match.

For each mapping, the researchers documented the source wording and the reason for the assigned category. Preliminary classifications were reconsidered when the surrounding framework text showed that a seemingly

similar phrase referred to a different or broader professional expectation. The mappings were subsequently reviewed across all eight POs to identify recurring areas of correspondence and dimensions that were only partially expressed or not evident. Findings were synthesized under the four SEA-TCF essential competencies to describe the distribution of alignment across the program outcomes. The policy origin of the POs was considered throughout interpretation. We did not attribute their correspondence with national standards solely to independent institutional curriculum design. Conversely, the absence of a competency from program-level wording was not interpreted as evidence that it was absent from course instruction, assessment, or field experience.

Analytical Transparency

The study supported analytical transparency by documenting the basis for the alignment decisions. The study involved three researchers, and the completed alignment matrix served as an audit trail linking each program outcome to the relevant documentary provisions, mapped competencies, alignment classifications, and decision rationales. Interpretations considered the meaning and professional scope of the provisions rather than relying solely on similarities in terminology. Potential counterexamples were examined to identify instances in which apparently comparable statements differed in their intended application.

The wording of the program outcomes and corresponding competencies was presented alongside the classifications to enable readers to scrutinize the interpretations. Attention was given to the distinction between conceptual and partial alignment, with the rationale for each judgment recorded in the matrix. This documentation makes the analytical decisions traceable to the selected sources and supports critical examination of the findings. Independent coding, inter-rater agreement calculations, and external expert validation were not undertaken. The classifications therefore represent reasoned, document-based interpretations whose credibility rests on the explicitness of the analytical criteria, the supporting evidence, and the traceability of the decision process. They should be understood as assessments of documentary alignment rather than evidence of actual curriculum implementation or graduates' demonstrated competencies.

Ethical Considerations and Delimitations

The study analyzed institutional and publicly available policy documents and involved no human participants. Documentary statements were attributed to their issuing bodies, and the researchers' interpretations were distinguished from the official wording of the sources. The mapping was undertaken for curriculum analysis, not as an accreditation judgment or a determination of regulatory compliance. The analysis was limited to the intended curriculum represented by eight program-level outcomes from one BSEd program at one institution. It did not examine course syllabi, learning activities, assessment tasks, practicum records, or graduates' performance. Consequently, it cannot establish whether the mapped competencies were implemented or attained. The single-institution, single-program, and single-analyst design also limits the transferability of the classifications to other teacher education settings.

Results and Discussion

Alignment of BSEd Program Outcomes with the Philippine Professional Standards for Teachers and the Southeast Asia Teachers Competency Framework

The eight Bachelor of Secondary Education (BSEd) Program Outcomes (POs) were mapped against the seven domains of the Philippine Professional Standards for Teachers (PPST) and the four essential competencies of the Southeast Asia Teachers Competency Framework (SEA-TCF). As shown in Table 1, five outcomes were classified as Explicitly Aligned (PO2, PO3, PO4, PO6, and PO8), two as Strongly/Conceptually Aligned (PO1 and PO5), and one as Partially Aligned (PO7), with the mapped competencies shown. No entire PO was classified as Not Evident because each had an identifiable relationship with at least one mapped competency. The Not Evident findings in the gap column refer to specific elements absent from the wording of an otherwise aligned outcome.

All seven PPST domains have a corresponding BSEd outcome in the mapping. At the level of the four SEA-TCF essential competencies, Help my students learn has the broadest coverage, through PO3–PO6. Engage the community has the least explicit coverage: PO7 relates to professional practice in social contexts but does not require working with families or communities. These findings concern stated program outcomes. They do not establish whether graduates are taught, assessed, or attain the competencies. Although the SEA-TCF also contains 12 general competencies, 31 enabling competencies, and 136 success descriptors, Table 1 reports alignment at the

essential-competency level; conclusions about the coverage of individual enabling competencies require a separate mapping.

Table 1. *Alignment of BSEd Program Outcomes with the PPST and SEA-TCF*

BSEd Program Outcome	PPST Alignment	SEA-TCF Alignment	Level/Nature of Alignment	Identified Gap
PO1. Apply the rootedness of education in philosophical, socio-cultural, historical, psychological, and political contexts.	D1 Content Knowledge and Pedagogy; D6 Community Linkages and Professional Engagement	EC1 Know and understand what I teach	Strongly/Conceptually Aligned	Southeast Asian educational contexts are Not Evident in the outcome wording.
PO2. Demonstrate mastery of subject matter/discipline.	D1 Content Knowledge and Pedagogy	EC1 Know and understand what I teach	Explicitly Aligned	Connections between disciplinary knowledge and regional or global developments are Not Evident.
PO3. Facilitate learning using a wide range of teaching methodologies and delivery modes appropriate to specific learners and their environments.	D2 Learning Environment; D3 Diversity of Learners; D4 Curriculum and Planning	EC2 Help my students learn	Explicitly Aligned	Intercultural and cross-regional teaching contexts are Not Evident.
PO4. Develop innovative curricula, instructional plans, teaching approaches and resources for diverse learners.	D3 Diversity of Learners; D4 Curriculum and Planning	EC2 Help my students learn	Explicitly Aligned	ASEAN-responsive curricular perspectives are Not Evident.
PO5. Apply skills in the development and utilization of ICT to promote quality, relevant and sustainable educational practices.	D1 Content Knowledge and Pedagogy; D4 Curriculum and Planning	EC2 Help my students learn; supportive of EC4 Become a better teacher every day	Strongly/Conceptually Aligned	Regional digital collaboration and cross-cultural digital teaching are Not Evident; the connection to EC4 is indirect.
PO6. Demonstrate a variety of thinking skills in planning, monitoring, assessing and reporting learning processes and outcomes.	D4 Curriculum and Planning; D5 Assessment and Reporting	EC2 Help my students learn	Explicitly Aligned	Culturally responsive assessment is Not Evident.
PO7. Practice professional and ethical teaching standards sensitive to local, national, and global realities.	D6 Community Linkages and Professional Engagement; D7 Personal Growth and Professional Development	EC3 Engage the community; EC4 Become a better teacher every day	Partially Aligned	The outcome addresses professional standards and broad social contexts, but family and community partnerships and Southeast Asian contexts are Not Evident.
PO8. Pursue lifelong learning for personal and professional growth through varied experiential and field-based opportunities.	D7 Personal Growth and Professional Development	EC4 Become a better teacher every day	Explicitly Aligned	Regional professional networks, mobility, and intercultural professional learning are Not Evident.

Note. D = PPST Domain; EC = SEA-TCF Essential Competency

National Alignment with the PPST

The BSEd outcomes collectively address the seven PPST domains. PO1 and PO2 relate to Content Knowledge and Pedagogy; PO3 addresses the Learning Environment and Diversity of Learners; PO4 addresses learner diversity and Curriculum and Planning; PO5 concerns the use of ICT in educational practice; PO6 addresses planning and Assessment and Reporting; and PO7 and PO8 relate to Community Linkages and Professional Engagement and Personal Growth and Professional Development. This breadth is consistent with Bacus and Tagalog's (2023) emphasis on embedding professional standards in teacher education curricula and quality-assurance processes. Studies by Maloloy-On and Arnado (2023) and Serrano and Fallado (2025) also reported generally high levels of teacher proficiency or implementation across PPST domains. Cabradilla (2025) reported high ratings across several domains but identified comparatively lower competence in addressing learner diversity. Together, these studies underscore the value of preparing teachers across the full range of professional responsibilities.

The mapping nevertheless identifies alignment in intended outcomes, rather than evidence of classroom performance. Alonzo et al. (2023) found that teachers' knowledge of outcomes-based assessment did not always translate into aligned assessment practice. Ormilla (2025) similarly reported that practice teachers showed

foundational PPST awareness and strengths in content mastery and curriculum planning but encountered difficulties with lesson adaptation, inclusive teaching, classroom management, and authentic assessment. These findings suggest that the mapped outcomes need support through coursework, field experiences, mentoring, and assessments that demonstrate what pre-service teachers can do. Further, while the PPST responds to developments such as globalization, technological change, and ASEAN integration, correspondence with national standards does not, by itself, establish explicit preparation for Southeast Asian educational contexts (Department of Education, 2017).

Knowing and Understanding What to Teach

PO1 and PO2 correspond to the SEA-TCF competency Know and understand what I teach, but at different levels of directness. PO2 is Explicitly Aligned because it requires mastery of subject matter or discipline. PO1 is Strongly/Conceptually Aligned because its emphasis on the philosophical, sociocultural, historical, psychological, and political foundations of education supports contextual understanding without directly stating the full scope of the mapped competency. Galih et al. (2022) identified content knowledge, pedagogy, contextual understanding, technological competence, and continuous learning as recurring dimensions of teacher competence. Parmigiani et al. (2022) likewise connected globally competent teaching with knowledge of educational systems, cultural contexts, and global issues. Zhang et al. (2024b) found that structured teacher education interventions can strengthen global knowledge and skills. These studies support the value of combining disciplinary mastery with an understanding of the contexts in which teaching takes place.

Neither PO1 nor PO2 explicitly identifies Southeast Asian educational systems or developments. PO7 mentions local, national, and global realities, but omits the regional level. This is a specific gap in the wording, rather than evidence that students receive no regional content elsewhere in the program. Tomczyk (2024) argued for regularly updating teacher education curricula in response to technological, informational, and societal change, while Yang et al. (2023) showed that professional competence is shaped by preparation, institutional support, pedagogical training, and policy context. Explicit reference to Southeast Asian contexts in the outcomes or their supporting curriculum would make this aspect of teacher preparation easier to trace and assess.

Helping Students Learn

Help my students learn is represented across PO3, PO4, PO5, and PO6. PO3 and PO4 are Explicitly Aligned through their direct requirements concerning teaching methods, delivery modes, diverse learners, instructional planning, and learning resources. PO6 is also Explicitly Aligned through planning, monitoring, assessing, and reporting learning. PO5 is Strongly/Conceptually Aligned: it specifies ICT development and use to promote educational practice, which supports student learning, but does not directly state how technology will be applied to learners' needs. Its connection to Become a better teacher every day is more indirect and should not be treated as an explicit match.

The literature supports the importance of these related competencies while also showing why stated outcomes require opportunities for application. Obrovská et al. (2023) found that teacher education courses supported positive orientations toward learner diversity, although differentiated instruction during practicum remained uneven. Gheysens et al. (2022) described differentiated instruction as both a professional orientation and an enacted practice. Magaji and Ade-Ojo (2023) emphasized classroom assessment as part of preservice teachers' learning to evaluate progress and adjust instruction. Institutional studies likewise point to the relationship among technological, pedagogical, and content knowledge and the role of faculty and institutional support in meaningful technology integration (Alvero, 2025c, 2025d).

PO5 provides an explicit basis for developing ICT skills, but its wording leaves the pedagogical uses of technology open to interpretation. Çebi et al. (2022) found that targeted training could help preservice teachers move beyond basic digital skills toward pedagogical integration. Lu et al. (2025) reported positive perceptions of digital technology's benefits alongside difficulties translating those perceptions into consistent practice. The BSEd outcomes therefore offer a basis for technology-supported teaching, while the curriculum and assessments would need to show how students apply ICT to instructional purposes.

Table 1 also identifies elements that are Not Evident in these PO statements: intercultural teaching contexts in PO3, ASEAN-responsive curricular perspectives in PO4, regional digital collaboration in PO5, and culturally

responsive assessment in PO6. Chang and Viesca (2022) emphasized the need for explicit preparation to understand learners' cultural identities and apply culturally responsive practices. Adding these elements to suitable outcomes or documenting them clearly in course-level outcomes could make the intended regional and intercultural preparation more visible.

Engaging the Community

PO7 is Partially Aligned with the mapped SEA-TCF competencies. Its requirement to practice professional and ethical teaching standards sensitive to local, national, and global realities relates to teachers' responsibilities beyond the classroom. It does not, however, explicitly require graduates to establish partnerships with parents or caregivers, involve communities in learning, or collaborate with educational stakeholders. For that reason, Table 1 identifies Engage the community as the least explicitly represented SEA-TCF essential competency, while recognizing that PO7 is conceptually connected to it.

Research illustrates why this distinction matters. Hannon and O'Donnell (2022) found that teachers' and parents' experiences and mutual perceptions affect family-school partnerships. In the Philippine context, Licup (2024) identified communication, volunteering, home-based learning support, participation in decision-making, and community collaboration as dimensions of parental engagement, alongside constraints on participation. Pansé-Barone et al. (2024) found that purposeful preparation can strengthen preservice educators' knowledge, beliefs, and practices concerning collaboration with families. Antony-Newman (2025) reported that parent engagement was regarded as an essential competence by teacher educators but was difficult to secure as an explicit part of teacher education curricula. Alarabi et al. (2025) also linked community engagement with the development of communication, collaboration, critical thinking, and creativity. These studies support a focused revision to PO7: state the expected work with families, schools, communities, and other educational stakeholders, and connect that expectation to assessable learning experiences. Community-related activities may already occur in courses or fieldwork, but Table 1 alone cannot establish their presence or extent.

Becoming a Better Teacher Every Day

PO8 is Explicitly Aligned with Become a Better Teacher Every Day because it directly requires lifelong learning for personal and professional growth through experiential and field-based opportunities. PO7 contributes a related expectation of professional and ethical practice, although its relationship to continuous professional improvement is less direct. Both outcomes relate to PPST Domain 7. Bell et al. (2022) found that mentoring and coaching helped beginning teachers examine instructional decisions and identify areas for improvement. Cheng and Zhao (2023) associated professional learning communities with collaboration, reflective dialogue, and professional commitment. Chea (2024) showed how mentoring during Cambodian teaching practicums connected field experience and professional relationships with the development of teacher identity.

PO8 does not explicitly name systematic reflection, professional learning communities, intercultural exchange, or regional professional networks. Sánchez-García (2023) found that a transnational teacher education program exposed educators to new pedagogical perspectives and collaborative experiences beyond their national setting. Zhang et al. (2024a) linked professional identity with teachers' continuing development and engagement. Research involving education students also suggests that inquiry-based learning can strengthen research engagement and critical reflection (Alvero & Makatangay, 2026). These findings provide a rationale for specifying reflection, inquiry, mentoring, and collaborative professional learning in the curriculum supporting PO8, and for considering an explicit regional dimension if ASEAN readiness is an intended graduate attribute.

From Global Awareness to Explicit ASEAN Readiness

A key distinction in the mapping is that global awareness appears in PO7, whereas Southeast Asian or ASEAN contexts are not stated in any of the eight POs. The omission does not negate the outcomes' correspondence with PPST domains or SEA-TCF essential competencies. It does limit what can be concluded from the program-outcome statements alone about preparation for regional educational contexts. SEAMEO RIHED (2022) treated internationalization and regionalization as related but distinct concerns in Southeast Asian higher education. UNESCO (2023) documented differences among Southeast Asian education systems in access, capacity, policy implementation, and teacher preparation. These sources help explain why a general reference to global realities may be insufficient to specify the regional knowledge graduates are expected to develop.

At the preservice level, Choompunuch et al. (2024) identified cultural awareness, cultural knowledge, and interpersonal skills as components of multicultural competence. Kılıçoğlu et al. (2023) linked preservice teachers' cultural competence with social-justice and self-efficacy beliefs across national settings. Philippine higher education studies have also argued for intentionally integrating global citizenship competencies into curricular outcomes and learning experiences (Alvero, 2023, 2025a, 2025b). Saenghong (2026) found substantial correspondence between SEA-TCF and national teacher standards in five ASEAN countries, alongside uneven institutionalization of multicultural competence. Taken together, this literature supports making regional preparation explicit where it is a program goal.

The document analysis therefore points to two priorities for reviewing the BSEd outcomes: making state family and community partnership a graduate expectation, and specifying the intended Southeast Asian dimensions of teaching and professional learning. Proposed additions could address comparative knowledge of ASEAN education, intercultural teaching, regionally relevant resources, and collaboration with educators across Southeast Asia. Whether these additions are needed at the program-outcome level, course-outcome level, or both should be determined by examining syllabi, assessment tasks, and fieldwork requirements. That further examination would also test whether the gaps identified in PO wording represent gaps in the taught and assessed curriculum.

Convergence, Partial Alignment, and Areas for Enhancement

Table 2 shows the broadest coverage by number of POs under Help my students learn: PO3–PO6 address instructional methods, learner diversity, planning, ICT, and assessment. This count reflects breadth of representation in the outcome statements, not a higher measured level of competence or more complete coverage of every SEA-TCF enabling competency. Know and understand what I teach combines PO2's explicit requirement for disciplinary mastery with PO1's contextual foundations. Becoming a better teacher every day is explicitly represented through PO8's commitment to lifelong learning. The comparatively limited area is Engage the community, for which PO7 provides a related expectation of socially responsive professional practice but does not specify work with families or communities.

Table 2. Summary of Alignment with the Four SEA-TCF Competency Domains

SEA-TCF Competency Domain	Principal BSEd POs	Overall alignment	Strength evident in the POs	Area for enhancement
1. Know and understand what I teach	PO1, PO2	Strongly/ Conceptually Aligned	Subject-matter mastery is explicit in PO2; PO1 provides educational and contextual foundations.	State the expected knowledge of Southeast Asian educational contexts and developments.
2. Help my students learn	PO3, PO4, PO5, PO6	Explicitly Aligned	Teaching methods, learner diversity, curriculum and instructional planning, ICT use, and assessment are directly represented across the four POs.	Specify intercultural teaching, ASEAN-responsive resources, and culturally responsive assessment where these are intended competencies.
3. Engage the community	PO7	Partially Aligned	PO7 requires ethical professional practice sensitive to local, national, and global realities.	Explicitly require partnerships with families, caregivers, communities, and other educational stakeholders.
4. Become a better teacher every day	PO7, PO8	Explicitly Aligned	PO8 directly requires lifelong learning and professional growth; PO7 adds an expectation of ethical practice.	Make reflective inquiry and collaborative professional learning explicit, including regional collaboration if ASEAN readiness is a program goal.

Note. Overall alignment is a qualitative judgment about the wording of the principal POs in relation to each essential competency, using the four categories defined in the Methodology. It is not a count or rating of the SEA-TCF's general competencies, enabling competencies, or success descriptors. A specific element can be Not Evident in an otherwise aligned domain; these elements appear under "Area for enhancement." For the first domain, the overall judgment reflects the combination of PO2's explicit subject-matter requirement and PO1's conceptual contribution. For the fourth, it rests primarily on PO8.

The prominence of instructional and professional competencies is relevant to teacher preparation. López-Martín et al. (2023) found, through a meta-analysis, that teachers' instructional, pedagogical, and professional characteristics contribute to student achievement. Osorio Vanegas et al. (2025) identified technological-pedagogical knowledge, digital-resource use, assessment, learner empowerment, and professional engagement as components of contemporary teacher competence. Using the SEA-TCF to assess 179 teachers in Thailand, Mhunpiew and Asavisanu (2023) found variation across its four essential competencies. Their findings support

examining the distribution of competencies, but this document analysis is limited to how those competencies appear in stated program outcomes; it does not assess graduates' proficiency.

The less explicit treatment of community engagement also warrants attention. Oliver-Barceló et al. (2025) found in a scoping review that psychopedagogical competencies received more attention in teacher-competency research than collaborative competencies. Li (2025) emphasized reflection, feedback, collaboration, and adaptation to diverse educational contexts in professional development. In this mapping, these studies provide context for considering additions to the BSEd outcomes on family and community partnerships, reflective inquiry, intercultural pedagogy, and Southeast Asian professional collaboration. Whether these competencies are already developed through courses or field experiences requires examining those curriculum components; their limited visibility in Table 2 indicates a gap in outcome wording, not necessarily in all aspects of program implementation.

Toward ASEAN-Responsive BSEd Program Outcomes

The alignment analysis supports a targeted review of the existing BSEd Program Outcomes (POs). Table 1 shows correspondence with all seven PPST domains and links every PO to at least one SEA-TCF essential competency. The principal gaps concern what the outcomes state explicitly: Southeast Asian educational contexts, intercultural applications, family and community partnerships, and reflective or regional professional collaboration. These findings provide grounds to refine the outcome wording and examine how the intended competencies are taught and assessed. Evidence-based outcome assessment can inform continuous quality improvement in Philippine higher education (Alvero et al., 2026), while systematic program evaluation can help teacher education programs focus improvement plans on identified needs (Madrideo & Alvero, 2026).

Table 3. *Proposed Enhancement of BSEd Program Outcomes for ASEAN Readiness*

Existing PO and area	Need identified from the PO wording	Proposed enhancement for curriculum review
PO1: Educational foundations	Southeast Asian educational contexts are not specified.	Include Philippine, Southeast Asian, and global educational contexts and developments when describing the foundations of teaching.
PO2: Subject-matter mastery	Disciplinary mastery is explicit, but its application to regional issues is not.	Connect disciplinary knowledge, where relevant, to contemporary Philippine and Southeast Asian issues.
PO3: Teaching methods and learner responsiveness	Intercultural teaching applications are not specified.	Include culturally and linguistically responsive teaching for learners in diverse contexts.
PO4: Curriculum and instructional resources	ASEAN-responsive curricular perspectives are not specified.	Include the design of resources that address relevant Southeast Asian contexts and intercultural learning.
PO5: ICT use	Regional digital collaboration and cross-cultural digital teaching are not specified.	Include responsible digital collaboration and the use of technology for learning across cultural contexts.
PO6: Assessment	Culturally responsive assessment is not specified.	Include inclusive, culturally responsive approaches to monitoring and assessing learning.
PO7: Professional and ethical practice	Family and community partnerships are not explicitly required; the regional level is omitted.	State an expectation to collaborate ethically with families, communities, and other stakeholders, with attention to relevant Southeast Asian contexts.
PO8: Lifelong learning	Systematic reflection and regional professional collaboration are not specified.	Include reflective inquiry and collaborative professional learning, including regional opportunities where feasible.

Note. The proposals address gaps identified in the wording of the eight POs. They should be reviewed against syllabi, assessments, and fieldwork requirements before being adopted. A missing phrase in a PO does not establish that the corresponding learning experience is absent from the program.

These enhancements would make regional expectations more visible within a program grounded in Philippine teacher education. Akcaoglu and Aarsal (2022) found that purposeful multicultural content in teacher preparation improved preservice teachers' multicultural attitudes and efficacy. Feng et al. (2025) associated multicultural awareness, emotional engagement, and behavioral intention with teachers' implementation of differentiated instruction in culturally diverse classrooms. Ikeda and Ahmad (2022) showed that virtual exchange can provide opportunities for intercultural interaction and educational collaboration across ASEAN. Together, these studies offer a rationale for integrating Southeast Asian content, culturally responsive pedagogy, and regional collaboration into existing areas of teacher preparation.

For curriculum review, the relationship among the frameworks can be expressed as follows: the institutional BSEd POs state the program's intended graduate capabilities; the PPST provides the national professional standard; and the SEA-TCF provides a regional reference for examining and extending those capabilities. "ASEAN-ready teacher" is the proposed graduate aspiration arising from that alignment, rather than an additional competency

domain measured in this study. Romli et al. (2022) found that technology-supported learning across Southeast Asian contexts offered opportunities for flexibility, interaction, and access, while depending on instructional design, digital readiness, and responsiveness to context. Kurtuluş and Aarsal (2023) likewise found benefits from integrating critical multicultural content into pre-service preparation. These findings support considering regional applications across the POs, particularly in pedagogy, ICT, and professional learning.

Integrative Discussion

The document analysis found broad correspondence between the BSEd POs and the PPST domains and identified SEA-TCF alignment in content knowledge, instruction, curriculum planning, assessment, and continuing professional development. Community engagement was Partially Aligned at the essential-competency level because PO7 refers to ethical practice in social contexts but does not explicitly require partnerships with families or communities. Across the POs, Southeast Asian educational knowledge and regional professional collaboration were also not stated. The analysis therefore supports a conclusion about the visibility of competencies in program-outcome wording, rather than graduates' demonstrated ASEAN readiness.

The regional dimension merits explicit consideration because educational contexts differ across Southeast Asia. Cahya et al. (2024) identified differences between Philippine and Indonesian curricula in purposes, values, approaches, competency priorities, and assessment. Rusydiyah et al. (2023) found distinct literacy-policy orientations in Singapore, Malaysia, and Indonesia. Qin (2024) emphasized collaborative inquiry, reflection, exposure to diverse perspectives, and examining cultural assumptions to develop intercultural teaching competence. These studies suggest that general teaching capabilities can be strengthened through opportunities to study neighboring education systems and apply intercultural knowledge in practice.

The proposed revisions are also consistent with regional policy directions. The ASEAN Secretariat (2025) emphasized responsive teacher training, cross-border professional development, digital competence, regional cooperation, and mobility. Its subsequent policy brief addressed internationalization of teacher education, recognition of qualifications, multicultural preparation, and professional development and mobility pathways (ASEAN Secretariat, 2026). For the BSEd program, the next step is to examine existing courses and assessments, then decide which expectations need clearer expression in the POs and which can be made explicit at course level. The resulting ASEAN-Responsive BSEd Program Outcomes Alignment Framework would retain the program's national professional foundation while stating its intended community and regional competencies in terms that can be taught and assessed.

Conclusion

This document analysis found that the eight Bachelor of Secondary Education (BSEd) Program Outcomes collectively correspond with all seven domains of the Philippine Professional Standards for Teachers (PPST) and align, to varying degrees, with the four essential competencies of the Southeast Asia Teachers Competency Framework (SEA-TCF). The outcomes most clearly express expectations for subject-matter knowledge, teaching and learning, curriculum planning, assessment, and continuing professional development. Community engagement is less explicit: although PO7 addresses ethical practice in social contexts, it does not directly require partnerships with families and communities. Southeast Asian educational contexts, intercultural applications, and regional professional collaboration are also not expressly stated.

These findings support a focused review of existing outcomes to clarify the intended community and regional competencies. The proposed ASEAN-Responsive BSEd Program Outcomes Alignment Framework offers a basis for that review by connecting institutional outcomes with national standards and regional expectations. Because the study examined program-outcome statements, its conclusions concern the intended curriculum. Further examination of courses, assessments, field experiences, and graduates' demonstrated practice is needed to establish how these competencies are taught and attained.

Contributions of Authors

Author 1: John Clifford M. Alvero, conceptualized and designed the study, developed the research proposal and analytical framework, led document collection and analysis, interpreted the findings, and drafted and revised the manuscript.

Author 2: Edgardo C. Garingan Jr., contributed to the refinement of the research methodology, reviewed and analyzed relevant documents, assisted in interpreting the findings, and critically revised the manuscript for intellectual content.

Author 3: Ansherina Natalio-Comia, contributed to the literature review, organization and analysis of documentary evidence, interpretation of the findings, and refinement of the proposed framework, and reviewed and revised the manuscript.

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Conflict of Interests

The authors declare no conflict of interest.

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References

- Aksin, A. (2023). Five-factor personality traits as predictors of intercultural sensitivity among preservice teachers. *Heliyon*, 9(7), Article e17667. <https://doi.org/10.1016/j.heliyon.2023.e17667>
- Akcaoglu, M.O., & Arsal, Z. (2022). The effect of multicultural education on preservice teachers' attitude and efficacy: Testing Banks' content integration dimension. *Participatory Educational Research*, 9(2), 343–357. <https://doi.org/10.17275/per.22.44.9.2>
- Alarabi, K., AlSadrani, B., Tairab, H., Abu Khurma, O., & Kasasbeh, N. (2025). Does community engagement boost pre- and in-service teachers' 21st-century skills? A mixed-method study. *Social Sciences*, 14(7), Article 410. <https://doi.org/10.3390/socsci14070410>
- Alonzo, D., Bejano, J., & Labad, V. (2023). Alignment between teachers' assessment practices and principles of outcomes-based education in the context of Philippine education reform. *International Journal of Instruction*, 16(1), 489–506. <https://doi.org/10.29333/iji.2023.16127a>
- Alvero, J.C. (2023). Integration of global citizenship competencies in general education courses in a higher education institution in Laguna, Philippines: Basis for curriculum innovation. *Education & Learning in Developing Nations*, 1(2), 112–119. <https://doi.org/10.26480/eldn.02.2023.112.119>
- Alvero, J.C. (2025a). Catalyzing educational transformation: Integrating Sustainable Development Goals (SDGs) into higher education curricula in one private higher educational institution in Laguna, Philippines. *LIBERALES: A Research Journal and Creative Works Folio*, 1(1), 18–27. <https://ejournals.ph/article.php?id=25479>
- Alvero, J.C. (2025b). Empowering future global citizens: An integrated GCED framework for enhancing cognitive, socio-emotional, and behavioral domains in Philippine higher education. *Journal of Interdisciplinary Perspectives*, 3(9), 383–390. <https://doi.org/10.69569/jip.2025.564>
- Alvero, J.C. (2025c). Integrating global citizenship competencies into general education: A basis for an enhanced curriculum guide in Philippine higher education. *Journal of Interdisciplinary Perspectives*, 3(5), 613–620. <https://doi.org/10.69569/jip.2024.677>
- Alvero, J.C. (2025d). TPAC-based assessment of faculty integration of artificial intelligence in general education courses toward advancing SDG 4: Basis for a faculty capacity development program. *Cognizance Journal of Multidisciplinary Studies*, 5(10), 472–485. <https://doi.org/10.47760/cognizance.2025.v05i10.043>
- Alvero, J.C., Malalad, C.E., & Lumangaya, Y.J. (2026a). Graduate-based assessment of liberal arts program outcomes in a private higher education institution in CALABARZON, Philippines: Basis for a continuous quality improvement framework. *Cognizance Journal of Multidisciplinary Studies*, 6(2), 18–42. <https://doi.org/10.47760/cognizance.2026.v06i02.003>
- Alvero, J.C., & Makatangay, M.L. (2026). Scientia in the research culture: Strengthening inquiry-based learning among education students. *Pantao (The International Journal of the Humanities and Social Sciences)*, 5(2), 551–566. <https://doi.org/10.69651/PIJHSS0502925>
- Antony-Newman, M. (2025). Preparing teachers for parent engagement: Role of teacher educators in Canada. *Educational Review*, 77(5), 1422–1438. <https://doi.org/10.1080/00131911.2024.2324154>
- ASEAN Secretariat. (2025). ASEAN teacher professional development and mobility. ASEAN Socio-Cultural Community Research and Development Platform. <https://knowasc.asean.org/publication/asean-teacher-development-mobility/>
- ASEAN Secretariat. (2026). Rethinking teacher mobility and the internationalisation of teacher education in ASEAN. ASEAN Socio-Cultural Community Research and Development Platform. <https://tinyurl.com/4m8nx842>
- Bacus, R., & Tagalog, R.M. (2023). Articulation and implementation of professional standards for teachers in teacher education institutions. *Journal of Research, Policy & Practice of Teachers and Teacher Education*, 13(2), 111–121. <https://doi.org/10.37134/jrppite.vol13.2.8.2023>
- Bell, J., Wilcoxon, C., & Steiner, A. (2022). Mentoring and coaching through induction to develop reflective practices in beginning teachers. *The New Educator*, 18(4), 281–305. <https://doi.org/10.1080/1547688X.2022.2104982>
- Cabradilla, M. (2025). Teachers' competency based on the Philippine Professional Standards for Teachers I-III: Basis for a training program. *International Journal of Multidisciplinary Research and Analysis*, 8(4), 2083–2099. <https://doi.org/10.47191/ijmra/v8-i04-64>
- Cahya, A.I., Elizari, E., Badawi, B., Masitoh, M., Rachmatia, M., & Apriza, B. (2024). Primary education in Southeast Asia: A comparative analysis between Indonesia and Philippines school curriculum. *AL-ISHLAH: Jurnal Pendidikan*, 16(2). <https://doi.org/10.35445/alishlah.v16i2.4817>
- Çebi, A., Bağçekapılı Özdemir, T., Reisoglu, İ., & Çolak, C. (2022). From digital competences to technology integration: Re-formation of pre-service teachers' knowledge and understanding. *International Journal of Educational Research*, 113, Article 101965. <https://doi.org/10.1016/j.ijer.2022.101965>
- Chang, W.-C., & Viesca, K.M. (2022). Preparing teachers for culturally responsive/relevant pedagogy: A critical review of research. *Teachers College Record*, 124(2), 197–224. <https://doi.org/10.1177/01614681221086676>
- Chea, C. (2024). Mentorship's role in shaping professional identity: Insights from Cambodian teaching practicums. *Cogent Education*, 11(1), Article 2419710. <https://doi.org/10.1080/2331186X.2024.2419710>
- Chen, A.S. (2024). Study on teaching practices of multicultural competences: Fostering a cultural connection between new immigrant females and undergraduate students. *International Journal of Intercultural Relations*, 100, Article 101968. <https://doi.org/10.1016/j.ijintrel.2024.101968>
- Cheng, C., & Zhao, J. (2023). The impact of professional learning communities on pre-service teachers' professional commitment. *Frontiers in Psychology*, 14, Article 1153016. <https://doi.org/10.3389/fpsyg.2023.1153016>
- Choompunuch, B., Kamdee, K., & Taksino, P. (2024). Exploring the components of multicultural competence among pre-service teacher students in Thailand: An approach utilizing confirmatory factor analysis. *European Journal of Investigation in Health, Psychology and Education*, 14(9), 2476–2490. <https://doi.org/10.3390/ejihpe14090164>
- Department of Education. (2017). National adoption and implementation of the Philippine Professional Standards for Teachers (DepEd Order No. 42, s. 2017). https://www.deped.gov.ph/wp-content/uploads/2017/08/DO_s2017_042-1.pdf
- Feng, X., Zhang, N., Yang, D., Lin, W., & Maulana, R. (2025). From awareness to action: Multicultural attitudes and differentiated instruction of teachers in Chinese teacher education programmes. *Learning Environments Research*, 28(2), 345–386. <https://doi.org/10.1007/s10984-024-09518-9>
- Galih, A., Promkaew, S., & Faikhamta, C. (2022). Trends of competencies in teacher education from 2015 to 2020: A systematic review analysis. *Kasetsart Journal of Social Sciences*, 43(1), 257–264. <https://doi.org/10.34044/j.kjss.2022.43.1.35>
- Gheysens, E., Grifol-Freixenet, J., Struyven, K., Donche, V., Geraerts, M., & Cools, W. (2022). Differentiated instruction: The diversity of teachers' philosophy and praxis to adapt teaching to students' interests, readiness and learning profiles. *International Journal of Inclusive Education*, 26(14), 1383–1400. <https://doi.org/10.1080/13603116.2020.1812739>
- Götl, K., Ambros, R., Dolezal, D., & Motschnig, R. (2024). Pre-service teachers' perceptions of their digital competencies and ways to acquire those through their studies and self-organized learning. *Education Sciences*, 14(9), Article 951. <https://doi.org/10.3390/educsci14090951>
- Hannon, L., & O'Donnell, G.M. (2022). Teachers, parents, and family-school partnerships: Emotions, experiences, and advocacy. *Journal of Education for Teaching*, 48(2), 241–255. <https://doi.org/10.1080/02607476.2021.1989981>
- Ikeda, K., & Ahmad, A.L. (2022). COIL/virtual exchange as a driver for high-performance international partnership building beyond the response to COVID-19. *The HEAD Foundation Digest*. <https://tinyurl.com/bdhvnsfc>
- Kılıçoğlu, G., Kılıçoğlu, D.Y., & Cho, Y.H. (2023). Effects of pre-service teachers' cultural competence on their social justice and self-efficacy beliefs: A cross-cultural comparison between Turkey, South Korea, and the United States. *Teachers and Teaching*. Advance online publication. <https://doi.org/10.1080/13540602.2023.2191187>
- Kurtuluş, F., & Arsal, Z. (2023). Effects of critical multicultural education on preservice teachers' multicultural attitudes and efficacy. *Bolu Abant İzzet Baysal University Journal of Faculty of Education*, 23(1), 360–378. <https://doi.org/10.17240/aibuefd.2023.-1104858>
- Li, H. (2025). Reflective practice for pre-service teachers' professional development. *SAGE Open*, 15(3). <https://doi.org/10.1177/21582440251363136>
- Licup, R. (2024). Parental engagement practices in early childhood learning at kindergarten. *World Education Connect Multidisciplinary E-Publication*, 4(9). <https://www.ejournals.ph/article.php?id=26704>
- López-Martín, E., Gutiérrez-de-Rozas, B., González-Benito, A.M., & Expósito-Casas, E. (2023). Why do teachers matter? A meta-analytic review of how teacher characteristics and competencies affect students' academic achievement. *International Journal of Educational Research*, 120, Article 102199. <https://doi.org/10.1016/j.ijer.2023.102199>
- Lu, C., Lee, J. C.-K., & Gu, M.M. (2025). Integrating digital technologies into teaching: A study on pre-service language teachers' perceptions and practice. *Education and Information*

- Technologies, 30, 19537–19557. <https://doi.org/10.1007/s10639-025-13511-x>
- Magaji, A., & Ade-Ojo, G. (2023). Trainee teachers' classroom assessment practices: Towards evaluating trainee teachers' learning experience in a teacher education program. *Social Sciences & Humanities Open*, 7(1), Article 100467. <https://doi.org/10.1016/j.ssoho.2023.100467>
- Madrideo, J., & Alvero, J.C. (2026). Development and evaluation of proposed continuous improvement plans for the Bachelor of Technical and Vocational Teacher Education of Laguna State Polytechnic University System. *Multidisciplinary International Journal of Research and Development*, 5(5), 220–228. <https://tinyurl.com/t8hxjuej>
- Maloloy-On, M.C., & Arnado, A.A. (2023). Elementary school teachers' proficiency: Philippine Professional Standards under flexible teaching modality. *International Journal of Membrane Science and Technology*, 10(2), 857–865. <https://doi.org/10.15379/ijmst.v10i2.1286>
- Mhunpiew, N., & Asavisanu, P. (2023). A study of teacher's competency for conducting a professional development program at a Catholic school in Thailand using the Southeast Asia Teachers Competency Framework. *Journal of Humanities and Social Sciences Nakhon Phanom University*, 13(3).
- Obrovská, J., Svojanovský, P., Kratochvílová, J., Lojďová, K., Tůma, F., & Vlčková, K. (2023). Promises and challenges of differentiated instruction as pre-service teachers learn to address pupil diversity. *Journal of Education for Teaching. Advance online publication*. <https://doi.org/10.1080/02607476.2023.2247356>
- Oliver-Barceló, M., Morcillo, V., Ferrer-Ribot, M., & Pinya, C. (2025). Competencies of early childhood teachers: A scoping review. *Review of Educational Research. Advance online publication*. <https://doi.org/10.3102/00346543251376355>
- Ormilla, R.C.G. (2025). Bridging the gap: A qualitative analysis of the Philippine Professional Standards for Teachers and teaching internship experiences of practice teachers. *International Journal of Learning, Teaching and Educational Research*, 24(9). <https://doi.org/10.26803/ijlter.24.9.25>
- Osorio Vanegas, H.D., Segovia Cifuentes, Y. de M., & Sobrino Morras, A. (2025). Educational technology in teacher training: A systematic review of competencies, skills, models, and methods. *Education Sciences*, 15(8), Article 1036. <https://doi.org/10.3390/educsci15081036>
- Pansé-Barone, C., VanLone, J., Ziegler, L., & George-Puskar, A. (2024). Preservice preparation practices to increase family-professional collaboration: A mixed-methods systematic review. *HS Dialog*, 27(1), 117–141. <https://journals.charlotte.edu/dialog/article/download/1808/1522/9864>
- Parmigiani, D., Jones, S.-L., Silvaggio, C., Nicchia, E., Ambrosini, A., Pario, M., Pedevilla, A., & Sardi, I. (2022). Assessing global competence within teacher education programs: How to design and create a set of rubrics with a modified Delphi method. *SAGE Open*, 12(4). <https://doi.org/10.1177/21582440221128794>
- Qin, X. (2024). Collaborative inquiry in action: A case study of lesson study for intercultural education. *Asian-Pacific Journal of Second and Foreign Language Education*, 9, Article 66. <https://doi.org/10.1186/s40862-024-00294-w>
- Romli, M.H., Wan Yunus, F., Cheema, M.S., Abdul Hamid, H., Mehat, M.Z., Hashim, N.F.M., Foong, C.C., Hong, W.-H., & Jaafar, M.H. (2022). A meta-synthesis on technology-based learning among healthcare students in Southeast Asia. *Medical Science Educator*, 32(3), 657–677. <https://doi.org/10.1007/s40670-022-01564-3>
- Rusydiah, E.F., Tamin AR, Z., & Rahman, M.R. (2023). Literacy policy in Southeast Asia: A comparative study between Singapore, Malaysia, and Indonesia. *Center for Educational Policy Studies Journal*, 13(2), 79–96. <https://doi.org/10.26529/cepsj.1214>
- Saenghong, N. (2026). Framing multicultural competence in ASEAN teacher preparation policies: A critical discourse analysis. *rEFLections*, 33(1), 98–122. <https://doi.org/10.61508/refl.v33i1.287699>
- Sánchez-García, D. (2023). Potential professional growth of English-medium education teachers in a transnational teacher education program. *International Journal of Instruction*, 16(3), 1–24. <https://doi.org/10.29333/iji.2023.1631a>
- SEAMEO INNOTECH. (2017). Southeast Asia Teachers Competency Framework (SEA-TCF). SEAMEO Regional Center for Educational Innovation and Technology. <https://tinyurl.com/3u8z9zfr>
- SEAMEO RIHED. (2022). The state of higher education in Southeast Asia. Southeast Asian Ministers of Education Organization Regional Centre for Higher Education and Development. <https://tinyurl.com/2ad62xmw>
- Serrano, D.M., & Fallado, J. (2025). Assessing the extent of PPST implementation and teacher challenges in elementary schools. *International Journal of Scientific Research and Management*, 13(5), 4113–4125. <https://doi.org/10.18535/ijrm/v13i05.el06>
- Tomczyk, Ł. (2024). Digital competence among pre-service teachers: A global perspective on curriculum change as viewed by experts from 33 countries. *Evaluation and Program Planning*, 105, Article 102449. <https://doi.org/10.1016/j.evalprogplan.2024.102449>
- Tondeur, J., Trevisan, O., Howard, S., & van Braak, J. (2025). Preparing preservice teachers to teach with digital technologies: An update of effective SQD-strategies. *Computers & Education*, 232, Article 105262. <https://doi.org/10.1016/j.compedu.2025.105262>
- UNESCO, & International Task Force on Teachers for Education 2030. (2024). Global report on teachers: Addressing teacher shortages and transforming the profession. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000387400>
- UNESCO. (2023). Global education monitoring report 2023, Southeast Asia: Technology in education – A tool on whose terms? UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000387214>
- Wang, P., & Ko, J. (2022). ICT competency and practicum of preservice teachers as digital natives: A mixed-method study. *Asia Pacific Journal of Education*, 44(4), 901–916. <https://doi.org/10.1080/02188791.2022.2083581>
- Yang, L., García-Holgado, A., & Martínez-Abad, F. (2023). Digital competence of K–12 pre-service and in-service teachers in China: A systematic literature review. *Asia Pacific Education Review*, 25, 679–693. <https://doi.org/10.1007/s12564-023-09888-4>
- Yang, L., Martínez-Abad, F., & García-Holgado, A. (2022). Exploring factors influencing preservice and in-service teachers' perceptions of digital competencies in the Chinese region of Anhui. *Education and Information Technologies*, 27(9), 12469–12494. <https://doi.org/10.1007/s10639-022-11085-6>
- Zhang, J., Liu, P., & Zhang, X. (2024a). Exploring the mediating role of teacher identity between perceived organizational support and teacher professional development. *Humanities and Social Sciences Communications*, 11, Article 1407. <https://doi.org/10.1057/s41599-024-03800-0>
- Zhang, Y., Zhou, S., Wu, X., & Cheung, A.C.K. (2024b). The effect of teacher training programs on pre-service and in-service teachers' global competence: A meta-analysis. *Educational Research Review*, 45, Article 100627. <https://doi.org/10.1016/j.edurev.2024.100627>