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Comparative analysis of pedagogical and professional competencies of elementary school teachers in Indonesia and Finland

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ABSTRACT

This article presents a comparative literature review examining pedagogical and professional competence among elementary school teachers in Indonesia and Finland, with the aim of generating policy-relevant insights for teacher development in Indonesia. Existing studies on teacher competence often emphasize isolated components, such as certification, curriculum compliance, or professional development, without sufficiently addressing how these elements interact within broader education systems. Drawing on recent international literature published between 2023 and 2025, this review adopts a multidimensional analytical framework that encompasses pedagogical practice, professional preparation, institutional support, and systemic coherence. The findings indicate that teacher competence is not solely determined by individual capability or formal qualifications but by the alignment between teacher education, professional autonomy, assessment practices, and ongoing professional learning structures. Finland has a coherent competence ecosystem characterized by research-based teacher education, strong professional trust, and reflective pedagogical practice. Although Indonesia is supported by national standards and certification systems, it continues to face challenges related to implementation consistency, administrative burden, and uneven professional learning opportunities. This article argues that strengthening teacher competence requires systemic integration rather than incremental reform and offers strategic directions for enhancing elementary teacher professionalism in Indonesia.

Keywords: comparative education; elementary school teachers; Finland; Indonesia; pedagogical competence; professional competence

1. INTRODUCTION

Technological teacher competence is widely recognized as a central determinant of educational quality, particularly at the elementary level, where foundational cognitive, social, and emotional capacities are formed. At this stage of schooling, teachers play a critical role in transmitting basic knowledge and skills and shaping students' learning dispositions, attitudes toward education, and long-term academic trajectories. Consequently, the quality of elementary education is closely linked to how teachers are prepared, supported, and positioned within their professional environments.

Comparative education research consistently demonstrates that variations in student learning outcomes across countries are strongly associated with differences in teacher-education systems, professional expectations, and institutional support structures. High-performing educational systems tend to invest heavily in the development of teacher competence through coherent policies that integrate initial teacher education, ongoing professional development, and professional autonomy. Conversely, systems characterized by fragmented preparation pathways or compliance-oriented accountability mechanisms often struggle to translate formal standards into consistent classroom practices.

Despite this growing body of comparative evidence, many policy discussions, particularly in developing and transitional contexts, continue to conceptualize teacher competence as a checklist of measurable standards, certifications, or training hours. This narrow conceptualization is increasingly problematic, given recent real-world educational phenomena. In Indonesia, for instance, the recent nationwide transition to the *Kurikulum Merdeka* (Emancipated Curriculum) has documented an observable struggle: while policy developments demand flexible, student-centered learning, classroom realities reveal that administrative workloads and policy-driven evaluation mechanisms continue to constrain teachers' capacity for pedagogical innovation. Conversely, in Finland, recent public debates and institutional changes have focused on sustaining a high-trust, autonomous teaching model amid evolving global challenges. These contrasting realities underscore that teacher competence is not merely an individual attribute but a product of broader systemic arrangements.

While the existing literature frequently discusses teacher standards, a distinct contextual and theoretical gap remains in comparative studies. Most prior research evaluates teacher competence either through isolated indicators or focuses exclusively on high-performing contexts without addressing how these competencies translate across fundamentally different systemic arrangements. Recent 2024 studies likewise tend to examine competence through specific pedagogical or policy dimensions, for example, inclusive pedagogical practice and professional-competence policy, rather than through an integrated cross-system lens (Azizah et al., 2024; Farleni et al., 2024). Furthermore, there is a methodological gap; few literature reviews directly contrast a regulation-driven system (Indonesia) with a trust-based ecosystem (Finland) through the specific lens of professional agency and compliance. To address these gaps, this study explicitly contributes a new contextual synthesis and new mechanism of comparison. Rather than focusing on isolated components such as certification status, this study maps the interaction between teacher education, professional autonomy, and policy coherence. By synthesizing international and national literature published between 2023 and 2025, the central research question is: how do pedagogical and professional competencies of elementary school teachers in Indonesia and Finland differ in terms of their development, implementation, and systemic support? Addressing this question allows the study to provide policy-relevant insights that contribute to stronger systemic identification, identifying principles such as coherence and research orientation that can be adapted to local conditions rather than transplanted wholesale into the local context.

Beyond the immediate comparative focus, this study contributes to a broader understanding of how educational systems evolve under different governance logics. In many developing contexts, including Indonesia, educational reform is often characterized by incremental adjustments to standards, curriculum frameworks, and evaluation systems. While such reforms are necessary to ensure minimum quality, they may not always produce deep transformations in teaching practices. This is because improvements in formal policy structures do not automatically translate into changes in classroom

behaviors. Thus, examining teacher competence through a systemic and comparative lens allows for a more nuanced understanding of how structural reforms interact with institutional realities.

Furthermore, the increasing complexity of modern education systems demands a shift from viewing teachers as implementers of policy to recognizing them as active agents within dynamic professional ecosystems. This shift is particularly relevant in the context of global educational change, where teachers are expected to respond to diverse student needs, technological advancements, and evolving pedagogical paradigms. In this regard, competence is not a static attribute but a continuously developing capacity shaped by the interaction between professional knowledge, institutional support, and contextual demands. The comparative perspective adopted in this study enables a clearer identification of how such capacities are facilitated or constrained within different national systems.

Another important dimension is the role of institutional trust in shaping professional behavior. While regulatory mechanisms aim to ensure accountability, excessive reliance on compliance-based evaluations may unintentionally reduce professional autonomy and discourage innovation. In contrast, systems that emphasize trust, such as Finland, demonstrate that high levels of professional responsibility can coexist with minimal external control when supported by strong preparation and coherent institutional structures. This contrast highlights the importance of balancing accountability and professional agency, particularly in systems undergoing rapid reform.

In addition, this study responds to the growing need for policy-relevant research that does not merely describe differences between countries but also identifies transferable principles. Rather than proposing the direct replication of one system into another, the analysis emphasizes contextual adaptation. For instance, while Indonesia cannot simply adopt Finland's trust-based model, elements such as research-oriented teacher education, collaborative professional learning, and systemic coherence may offer valuable insights. This approach aligns with contemporary comparative education perspectives that prioritize contextual sensitivity over the normative benchmarking.

The significance of this study lies in its potential to inform long-term educational-development strategies. Strengthening teacher competence requires more than isolated interventions; it requires sustained alignment across policies, institutional practices, and professional cultures. By situating teacher competence within a broader ecosystem, this study provides a foundation for rethinking how educational reforms can be designed to produce meaningful and lasting improvements in the quality of teaching. This study contributes to academic discourse and practical efforts aimed at enhancing the effectiveness of elementary education systems.

2. THEORETICAL REVIEW

This study is grounded in contemporary theories of teacher professionalism and competence, which conceptualize teaching as a complex, research-informed, and context-sensitive practice. Recent literature emphasizes that pedagogical competence involves more than instructional techniques; it includes teachers' capacity to understand learners, design inclusive learning environments, apply formative assessments, and engage in continuous reflection. Professional competence encompasses subject mastery, ethical responsibility, research literacy, and sustained professional learning. These dimensions are increasingly understood as being interdependent rather than as discrete attributes.

From a systemic perspective, teacher competence is shaped not only by individual attributes but also by the alignment between teacher education, curriculum policy, assessment regimes, leadership practices and institutional trust. The [OECD \(2024\)](#) highlights that high-performing education systems tend to conceptualize teacher competence as an ecosystem in which initial preparation, induction, and in-service professional development are coherently connected. Within such ecosystems, competence develops over time through structured opportunities for inquiry, collaboration, and reflection rather than through isolated training or compliance-based evaluation.

Recent empirical research has further strengthened this systemic view by emphasizing the role of professional agency. [Hökkä et al. \(2025\)](#), in a multi-country quantitative study involving teachers from three national contexts, conceptualize professional agency as comprising the capacity to influence one's

work, participate meaningfully in professional communities, and negotiate professional identity. Their findings demonstrated significant cross-national differences in professional agency levels, with systemic and institutional factors exerting a stronger influence than individual teacher characteristics. This evidence supports the argument that teacher competence cannot be adequately explained by personal capability alone, but must be understood as an emergent outcome of broader educational ecosystems.

Within this framework, it is important to distinguish between the concepts of autonomy and agency, which are often used interchangeably in policy discourses. Chung (2023) offers a comprehensive theoretical analysis of teacher competence in Finland by tracing the historical evolution of the education system since the 1971 Teacher Education Act. Chung (2023) argues that Finnish teacher professionalism is sustained by an ecosystem composed of research-based teacher education, high levels of professional trust, decentralization, and strong institutional coherence. In this model, autonomy refers to the formal scope of decision-making authority granted to teachers, whereas agency reflects how teachers actively exercise this autonomy through informed judgment, collaboration, and reflective practice. Recent empirical work on Finnish teachers' professional agency and experienced autonomy further reinforces this distinction by showing how curriculum reform and professional community shape teachers' room for judgment in practice (Laijuori et al., 2024). This distinction provides a critical conceptual lens for comparative analysis, particularly when contrasting Finland's trust-based model with more regulation-driven systems in other countries.

The Finnish context exemplifies how research-based teacher education contributes to the development of professional competence and agency. Teachers are systematically prepared to engage with educational research, inquire into their own practice, and use evidence to inform pedagogical decisions. This orientation strengthens professional identity and supports adaptive teaching in diverse classroom contexts. Recent work on Finnish teacher education highlights the role of research workshops, evidence-oriented professional learning, and the continuing dialogue between pre-service and in-service phases in sustaining this model (Mikkilä-Erdmann et al., 2024). Studies of first-year preservice teachers likewise show that self-regulation, self-efficacy, and academically oriented learning strategies form an important part of the professional learning continuum that underpins long-term competence development (Vilppu et al., 2024). The continuum of professional development in Finland, described by Niemi and Kousa (2020), further reinforces this coherence by linking pre-service education, induction, and in-service learning within a unified professional framework. In this context, professional autonomy is not understood as freedom from oversight but as autonomy supported by shared norms, collective responsibility, and institutional trust.

Conversely, in systems where teacher competence development is primarily driven by standards, certification requirements, and external accountability, professional growth may become more fragmented. In Indonesia, teacher competence is formally defined through national standards encompassing pedagogical and professional dimensions, which have contributed to greater formalization and accountability. However, when competence development is closely tied to compliance-oriented evaluation and administrative reporting, opportunities for deep reflection, inquiry, and collaborative learning may be limited. This suggests that while the regulatory framework aims for quality assurance, it inadvertently prioritizes 'paperwork competence' over the actual pedagogical agency required for classroom innovation. This contrast highlights how differing policy logics and institutional arrangements shape not only what teachers are expected to know and do, but also how they experience their professional roles in the classroom.

Taken together, these theoretical perspectives position pedagogical and professional competence as systemically embedded constructs that emerge from the interaction between individual teachers and the institutional environments in which they work in. This framework provides an analytical foundation for the comparative analysis of Indonesia and Finland by emphasizing coherence, professional agency, and ecosystem alignment as key determinants of sustainable teacher competence development.

3. RESEARCH METHODOLOGY

This study employs a qualitative comparative literature review to examine the pedagogical and professional competencies of elementary school teachers in Indonesia and Finland. To ensure a transparent and replicable process, the research design followed a structured protocol for synthesizing the literature.

3.1. Unit of Analysis, Setting, and Population

The primary units of analysis were scholarly articles, peer-reviewed journals, and official educational policy documents focusing on elementary education ecosystems in Indonesia and Finland. The literature encompasses contemporary studies addressing teacher education, professional development, and educational autonomy.

3.2. Data Collection Procedures, Timeline, and Sampling Technique

Data collection will be systematically conducted between January and March 2026. The literature was selected using a purposive sampling technique, targeting key academic databases, including Scopus, Web of Science, and Google Scholar. Boolean search strings such as (“teacher competence” OR “pedagogical competence”) AND (“elementary school” OR “primary education”) AND (“Indonesia” OR “Finland”) were used.

3.3. Inclusion and Exclusion Criteria

To maintain rigor and address research gaps, strict inclusion criteria were applied: (1) publications dated between 2023 and 2025 to capture recent educational reforms (such as Indonesia’s *Merdeka* Curriculum), (2) peer-reviewed academic journals or reputable institutional reports, and (3) an explicit focus on the defined pedagogical and professional variables. The exclusion criteria involved omitting non-scholarly websites, opinion pieces, purely theoretical textbooks lacking empirical backing, and studies outside the elementary school context.

3.4. Sample Size Justification

Following the screening process, a final sample size of **14** core articles was selected for analysis. This size was justified as it provided theoretical saturation for the targeted comparative themes, allowing for a deep qualitative thematic analysis without sacrificing contextual detail.

3.5. Data Analysis and Bias Minimization

Data were analyzed using thematic analysis. The literature was iteratively coded to identify recurring themes, such as professional agency, institutional support, and systemic coherence. To minimize researcher bias and ensure analytical reliability, source triangulation was applied by cross-referencing the qualitative empirical findings with official policy frameworks. Additionally, independent coding checks were conducted among the authors, and all secondary data were interpreted strictly within their original cultural and institutional contexts to prevent forced equivalencies.

4. RESULTS AND DISCUSSION

4.1. Pedagogical Competence in Elementary Education

The reviewed literature indicates that pedagogical competence among Indonesian elementary school teachers is strongly shaped by the national curriculum frameworks, competency standards, and assessment requirements. These regulatory instruments provide a formal structure intended to ensure minimum quality and consistency across diverse educational contexts. In practice, however, several studies suggest that pedagogical implementation remains uneven, with teaching practices frequently oriented toward curriculum compliance, administrative reporting, and the fulfillment of externally defined indicators rather than toward adaptive and learner-centered instruction.

Empirical evidence from Indonesia highlights how systemic and institutional factors mediate the enactment of teachers' competence. Darwis et al. (2025), in a study involving 174 elementary school teachers, developed and validated an assessment tool for leadership competence using the Hinkins model, demonstrating strong construct validity through confirmatory factor analysis. Beyond its methodological contribution, this study offers important insights into the contextual challenges faced by Indonesian teachers, including political influence at the school level, heavy administrative workloads, and inconsistent policy implementation. This interpretation is consistent with policy-oriented evidence showing that efforts to strengthen elementary teachers' professional competence depend not only on formal standards but also on how educational policies are designed and translated into practice (Farleni et al., 2024). These factors shape professional practice by constraining teachers' capacity to exercise pedagogical judgment and engage in reflective or innovative teaching. From a systemic perspective, this suggests that professional competence in Indonesia is not limited by teachers' individual skills but by the regulatory and organizational environments in which they work.

The emphasis on compliance-oriented evaluation mechanisms further influences the perception and development of pedagogical competence. While certification and professional development programs are intended to standardize quality, they often prioritize documentation and formal participation over meaningful professional learning. Consequently, professional development may become fragmented and episodic rather than forming part of a coherent developmental continuum. This pattern aligns with broader critiques of regulatory-driven models of teacher competence, in which accountability structures dominate at the expense of professional agencies.

At the same time, the literature cautions against overly pessimistic interpretations of Indonesian teacher competence. Amir et al. (2024), in a qualitative case study conducted at a well-resourced Muhammadiyah elementary school, documents strong pedagogical competence across multiple dimensions, including lesson planning, classroom management, assessment practices, and teacher-student interaction. Teachers in this context demonstrate reflective practice and adaptive instruction, suggesting that pedagogical excellence is attainable in the Indonesian system. Related evidence from inclusive elementary schools also shows that teachers' pedagogical competence is strengthened when classroom accommodations, collegial support, and contextual responsiveness are available (Azizah et al., 2024). However, the study also revealed that such competence is closely linked to favorable institutional conditions, including leadership support, adequate resources, and a strong professional culture. This finding reinforces the argument that teacher competence in Indonesia is highly contextual and dependent on institutional ecosystems rather than solely on individual efforts.

Recent reform initiatives further illustrate the potential and limitations of current approaches to competence development. Ruhimat (2025), examining pedagogical enhancement strategies within the *Merdeka Belajar* framework, identified various efforts to promote student-centered learning, flexibility, and innovation. While these initiatives signal a positive policy direction, the study concludes that many interventions remain piecemeal and insufficiently integrated into a broader, systemic framework. Without alignment between curriculum reform, teacher education, assessment systems, and professional development, such initiatives risk producing localized improvements without a sustained impact.

Taken together, the Indonesian findings suggest that pedagogical and professional competence is shaped by a regulatory-driven model characterized by strong formal standards but limited coherence. Teachers operate within a system that emphasizes accountability and compliance, often at the expense of professional agency and reflective practice. Although examples of high-quality teaching exist, they tend to emerge in contexts with strong institutional support, highlighting persistent inequities in competence development across regions and school types.

4.2. Professional Competence and Teacher Preparation

In contrast to the Indonesian case, Finnish literature consistently portrays teacher competence as an outcome of a coherent and trust-based professional ecosystem. Pedagogical competence in Finland is characterized by inquiry-oriented teaching, formative assessment, and sustained reflection, all of which

are embedded within a system that grants teachers substantial autonomy. However, this autonomy is not individualistic but relational and institutionally supported.

Qualitative and curriculum-oriented evidence from recent Finnish studies provides important insights into how teachers experience professional autonomy. Research on professional agency in curriculum reform shows that autonomy in Finland is exercised through professional communities, shared responsibility, and meaningful participation in reform processes rather than through isolated individual discretion (Laivuori et al., 2024). This relational form of autonomy enables teachers to exercise professional agency while remaining accountable to collective goals, reinforcing the idea that competence develops through social and institutional interactions.

The systemic foundations of Finnish teacher competence are further illustrated by literature on research-based teacher education and professional learning. Lavonen (2020) offers an insider perspective on curriculum reforms and systemic integration, describing a collaborative process in which curriculum development is closely aligned with teacher education, continuous professional development, and institutional support. This line of argument is reinforced by Mikkilä-Erdmann et al. (2024), who explain how Finnish research-based teacher education cultivates reflective practice through structured inquiry and research-oriented learning environments. In addition, Vilppu et al. (2024) demonstrate that first-year preservice teachers' learning strategies and self-efficacy are closely related to successful adjustment within Finnish teacher education, further indicating that competence development is scaffolded early and systematically. Together, these studies show that pedagogical competence is not treated as an abstract ideal but as a practical outcome of coordinated policy and professional processes.

Official documentation from Eurydice (2024) provides additional factual grounding for understanding Finland's competence-based education ecosystem. Finnish elementary teachers are required to complete a five-year research-based master's degree totaling 300 ECTS, which includes extensive pedagogical studies and early integration of research training. Teacher education follows a concurrent model in which subject knowledge and pedagogical preparation are developed simultaneously, supported by rigorous selection processes and high levels of institutional autonomy. These structural features create a strong foundation for professional competence and reinforce a professional identity centered on inquiry, responsibility, and trust.

Importantly, Finnish teacher competence is sustained through a holistic continuum of professional development rather than through compliance-based evaluations. Ongoing professional learning is largely school-based and collaborative, enabling teachers to engage in reflective practices and continuous improvement throughout their careers. External accountability mechanisms are minimal, as professional trust is reinforced by strong preparation, shared norms, and institutional coherence. This contrasts sharply with systems that rely heavily on external monitoring and standardized evaluations to regulate teacher performance.

Overall, the Finnish findings demonstrate how pedagogical and professional competence can be cultivated through systemic integration, relational autonomy and research-based professional education. Rather than focusing on isolated competencies or formal indicators, the Finnish model emphasizes coherence across policies, institutions, and professional practices, enabling teachers to exercise their agency in ways that support sustained pedagogical quality.

4.3. Implications for Teacher Development Policy

The comparative findings of this review suggest that strengthening teacher competence requires a shift from isolated, compliance-oriented interventions to a more coherent and systemically integrated approach to teacher development. In Indonesia, policy efforts have largely focused on defining standards, certification mechanisms, and training requirements. While these instruments provide the necessary structure, the findings indicate that their impact on pedagogical practice remains uneven due to the misalignment between policy expectations and the institutional conditions in which teachers operate.

One key implication is the need to reduce administrative burdens and recalibrate accountability mechanisms. Excessive documentation and compliance-oriented evaluations limit teachers' capacity to

engage in reflective practice and instructional improvement. Drawing on the Finnish experience, policy reforms in Indonesia should prioritize trust-based accountability by strengthening initial teacher preparation and institutional support rather than expanding external monitoring. This does not imply the removal of standards but a rebalancing in which professional judgment and school-based evaluation play a more central role.

The second implication relates to integrating research-based approaches into teacher education and professional development. The Finnish model demonstrates how research literacy and inquiry-oriented practice can be embedded throughout the professional continuum from pre-service preparation to in-service learning. For Indonesia, this suggests the importance of strengthening research components in teacher education programmes and fostering professional learning communities that emphasize collaborative inquiry rather than one-off training activities. Such an approach would support the development of professional agency and enable teachers to adapt their pedagogical strategies to diverse classroom contexts.

Third, the findings highlight the importance of systemic coherence across teacher education, curriculum policy, assessment practices, and professional development. Fragmented reforms, such as curriculum changes implemented without corresponding adjustments in teacher preparation or assessment, are unlikely to produce sustained improvements in competence. Policy initiatives, including the *Merdeka Belajar* framework, could be strengthened by ensuring alignment across these domains and providing long-term institutional support rather than short-term project-based interventions.

Finally, the comparative analysis underscores that effective teacher competence development depends on institutional commitment and sustained investment. The Finnish case illustrates how long-term policy consistency, resource allocation, and multi-stakeholder collaboration contribute to a stable competence-ecosystem. For Indonesia, this implies that meaningful reform requires not only policy innovation but also continuity, coordination, and cultivation of professional cultures that value collaboration, trust, and collective responsibility.

Building on the empirical findings, it is important to interpret the results within a broader systemic context rather than as isolated, statistical relationships. The patterns observed in the Indonesian setting indicate that teacher competence is strongly influenced by structural conditions, particularly those related to regulations, administrative workloads, and institutional support. While formal standards provide clarity and direction, their effectiveness depends on their implementation at the school level. The findings suggest that when implementation is heavily oriented toward compliance, the potential for meaningful pedagogical improvement may be limited.

The contrast with Finland further reinforces this interpretation: the Finnish model demonstrates that competence development is most effective when supported by coherent institutional arrangements that integrate teacher education, curriculum design, and professional development. In such systems, teachers are not merely evaluated based on predefined indicators but are actively engaged in shaping their professional practice. This reinforces the idea that competence is not simply measured but cultivated through sustained engagement with professional communities and reflective practice.

Another key insight from the findings is the role of professional agency as a mediating factor between systemic structure and classroom practice. In Indonesia, limitations in agency appear to arise not from a lack of teacher capability but from constraints imposed by administrative requirements and policy-driven expectations. This suggests that improving teacher competence cannot be achieved solely by increasing the training or certification requirements. Instead, it requires creating conditions that allow teachers to exercise their judgment, adapt instruction, and engage in continuous learning.

The findings also highlight the importance of institutional support for enabling competence development. Schools that provide supportive leadership, access to resources, and collaborative professional environments are more likely to foster high levels of pedagogical competence among teachers. This aligns with previous research indicating that teacher effectiveness is closely linked to the organizational climate and leadership practices. In the absence of such support, even well-designed policies may fail to achieve the intended outcomes.

In relation to curriculum reform, the results suggest that policy innovations such as the Merdeka Belajar initiative have the potential to enhance pedagogical flexibility and student-centered learning in teacher education. However, their impact is contingent on their alignment with other elements of the education system. Without corresponding changes in assessment practices, teacher preparation, and institutional support, such reforms may remain superficial and ineffective. This highlights the need for systemic coherence rather than isolated policy intervention.

From a comparative perspective, the differences between Indonesia and Finland illustrate how varying policy logics shape the professional practice. While Indonesia's approach emphasizes standardization and accountability, Finland's model prioritizes trust and professional autonomy in the teaching profession. These differences are not merely administrative but reflect deeper philosophical orientations toward education and the role of teachers in it. Understanding these underlying logics is essential for interpreting the observed differences in competence development in the study.

The findings also suggest that teacher competence should be understood as a dynamic, context-dependent construct. Rather than being fixed or universally defined, competence evolves in response to changing educational demands and institutional circumstances. This perspective challenges traditional approaches that treat competence as a set of static indicators and emphasizes the importance of adaptability and continuous learning.

Another implication concerns the role of research in supporting the professional development of teachers. The Finnish model demonstrates how integrating research into teacher education strengthens both pedagogical competence and professional identity. In contrast, Indonesia has not yet fully integrated research-based approaches into its professional development framework. Strengthening this dimension could enhance teachers' ability to reflect on their practices and respond to complex classroom challenges.

The discussion also highlights the need for more nuanced approaches to evaluation and accountability. While accountability remains important, it should be designed to support rather than constrain professional growth. This may involve shifting from purely quantitative performance indicators to more holistic evaluation methods that recognize the complexity of teaching. This approach would align more closely with the goal of fostering meaningful competence rather than mere compliance.

The overall findings reinforce the importance of long-term, system-wide strategies for improving teachers' competence. Short-term interventions and fragmented reforms are unlikely to produce sustainable changes. Instead, policymakers should focus on building coherent systems that integrate teacher education, professional development, curriculum design, and institutional support. By doing so, education systems can create the conditions necessary for teachers to develop and sustain high levels of pedagogical and professional competence over time.

5. CONCLUSION

This comparative literature review demonstrates that pedagogical and professional competence among elementary school teachers is shaped not only by individual capability but also by the systemic conditions within which teachers are educated, supported, and governed. By examining recent literature on Indonesia and Finland, this study highlights how different policy logics and institutional arrangements influence the development and enactment of teacher competence in practice. The findings suggest that competence should be understood as a systemically embedded construct that emerges from the interaction between teacher education, professional agency, autonomy, and institutional coherence.

The comparison reveals a clear contrast between Indonesia's regulation-driven model and Finland's trust-based competence ecosystem. In Indonesia, formal standards, certification mechanisms, and curriculum frameworks provide the necessary structure but are often accompanied by administrative burdens and fragmented professional development. These conditions may constrain professional agency and limit opportunities for reflective and adaptive pedagogical practices. In contrast, Finland's approach emphasizes research-based teacher education, relational autonomy, and coherent alignment across

curricula, assessments, and professional learning structures. This alignment enables teachers to exercise their professional judgment in a supportive institutional environment.

Importantly, these findings do not suggest that the Finnish model should be adopted wholesale in the Indonesian context. Rather, the comparative analysis identifies transferable principles, such as systemic coherence, research-oriented professional learning, and trust-based accountability, that can inform context-sensitive policy development. Therefore, strengthening elementary teacher competence in Indonesia requires moving beyond incremental and compliance-oriented reforms toward an integrated professional development framework that supports sustained pedagogical growth. Future research could build on this review by examining how these principles are operationalized in diverse Indonesian school contexts and by incorporating empirical data to further explore the relationship between systemic conditions and teacher competence.

Ethical Approval

Not Applicable

Informed Consent Statement

Not Applicable

Contributions of Authors

AW conceptualized the study, designed the review framework, conducted the literature analysis, and drafted the manuscript. NAN, AN, and MR contributed to the collection, screening, and organization of relevant literature, as well as to the comparative analysis of teacher competencies in Indonesia and Finland. SH supervised the study, strengthened the conceptual and policy analysis, and critically reviewed and edited the manuscript. All authors contributed to the interpretation of the findings, revised the manuscript, and approved the final version.

Disclosure Statement

The Authors declare that they have no conflicts of interest.

Data Availability Statement

The data presented in this study are available upon request from the corresponding author.

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Notes on Contributors

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