

REVIEW ARTICLE

Open Access

Monitoring and evaluation of teacher competencies at the international level: A comparative study

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Abstract

Teachers' professional competencies are a fundamental factor that directly affects the quality of education systems and student achievement. This study comparatively examines the approaches of Germany, Australia, Finland, South Korea, Hong Kong, Canada, and Singapore to monitoring and evaluating teacher competencies. Designed as a qualitative review, the research analysed 58 studies selected from articles, reports, and official documents published between 2020 and 2025. The findings reveal that while all countries associate teacher competencies with entry into the profession, professional development, and career progression, their evaluation methods differ significantly. Standardized and development-oriented systems are emphasized in Australia and Singapore; autonomy and trust are prioritized in Finland; performance-based accountability is highlighted in South Korea; self-evaluation is advanced in Canada; legal inspection frameworks prevail in Germany; and career-ladder evaluations are applied in Hong Kong. The results provide important insights for Turkey, suggesting that competency-monitoring processes should be integrated with professional development, digital competencies, and cultural inclusivity.

Keywords: Teacher competencies, monitoring and evaluation, international comparison, professional development, education systems.

Introduction

Teachers, as practitioners of education, play a pivotal role in achieving the developmental goals of societies. They are not merely transmitters of knowledge but also guides who help students realize their potential, foster learning, and provide a safe and supportive environment (Caena, 2014). The multidimensional nature of the profession grants teachers high social status while simultaneously raising expectations regarding teacher quality (OECD, 2025). These rising expectations necessitate the continuous development of teachers' professional knowledge, skills, and dispositions. In OECD countries, teacher policies in recent years have centred on attracting talented candidates to the profession, retaining qualified teachers within the system, and improving teacher education and professional development processes (OECD, 2023). Similarly, in Turkey, the Teaching Profession Law (2024) legally enshrined teaching as “a specialized profession that requires preparation in terms of general culture, subject knowledge, and pedagogical competence” (Official Gazette, 2024). Accordingly, maintaining and enhancing teacher quality throughout the entire professional life cycle has become a priority of education policy.

At this point, the way teacher competencies are defined, as well as how they are monitored and

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Received 26.06.2025

Revised 15.10.2025

Accepted 16.10.2025

evaluated, has gained significant importance. Effective monitoring and evaluation processes reveal teachers' strengths, identify areas for improvement, and thus provide a roadmap for professional growth (Danielson, 2013). These processes also make visible the relationship between teacher performance and student learning outcomes while ensuring quality assurance in education systems (Goe, Bell, & Little, 2008; OECD, 2019). The evaluation models developed by different countries for these purposes offer valuable opportunities for comparison, particularly in terms of how they support teacher professional development.

Discussions on teacher competencies and standards reveal conceptual and institutional differences across countries. While the term "teacher competencies" is emphasized in official documents in Turkey, in Anglo-Saxon contexts the terms "standards," "competencies," and "qualifications" are often used interchangeably (Directorate General for Teacher Training and Development [ÖYGGM], 2017). These conceptual debates intensified during the 1990s, as critics argued that competency-based approaches risk fragmenting the holistic nature of teaching. As a result, countries such as the United States, Australia, and the United Kingdom increasingly adopted the terminology of "teacher standards" (Darling-Hammond, 2000).

Historically, the process of defining teacher standards began early, particularly in the United States. The report *A Nation at Risk* (National Commission on Excellence in Education, 1983) triggered a wave of educational reform and accelerated efforts to establish national standards in teacher education. Subsequently, many countries developed national frameworks of standards or competencies that clarified the knowledge, skills, and dispositions defining the teaching profession. This development positioned teaching as a dynamic profession requiring lifelong learning and laid the foundation for systems that ensure teachers' continuous professional development (Caena, 2014; Department for Education, 2024; OECD, 2025).

All these developments demonstrate that defining teacher competencies on paper alone is insufficient; instead, their systematic monitoring and evaluation directly determine the overall quality and effectiveness of education systems. Effective monitoring processes not only identify teachers' strengths and areas for improvement but also provide structured pathways for professional growth and accountability (Danielson, 2013; OECD, 2019). In this regard, countries have developed different policy mechanisms and evaluation frameworks to ensure that teacher competencies are continuously updated and aligned with contemporary educational demands.

However, despite the extensive policy discourse on teacher quality, the comparative research literature still lacks comprehensive analyses that explore how teacher competencies are monitored and evaluated across countries, and how these mechanisms interact with teachers' professional development cycles. Previous studies have generally focused on isolated national models rather than examining the systemic and structural diversity that shapes teacher evaluation practices at the international level. Addressing this gap is crucial for identifying effective models that can support continuous professional learning and inform evidence-based policymaking.

Against this backdrop, the present study aims to provide a comparative analysis of teacher competency monitoring and evaluation systems in Germany, Australia, Finland, South Korea, Hong Kong, Canada, and Singapore. These countries were selected because they represent distinct socio-educational contexts, have achieved notable success in international large-scale assessments such as PISA and TIMSS, and have implemented innovative teacher policy

frameworks emphasizing accountability, autonomy, and professional learning.

Accordingly, the study is guided by the following research questions:

RQ1: In what dimensions do the tools and mechanisms used to monitor and evaluate teacher competencies differ across the countries examined?

RQ2: How are these monitoring and evaluation tools linked to teachers' professional development cycles and continuous learning opportunities within each national context?

By addressing these questions, the study seeks to identify the key characteristics, strengths, and limitations of different national approaches, contribute to the comparative literature on teacher policy, and offer evidence-based insights that can inform the refinement of Türkiye's evolving teacher evaluation framework.

Method

Design

This study is designed as a qualitative scoping review that aims to examine international approaches to the monitoring and evaluation of teacher competencies. Unlike systematic reviews, the scoping review method does not aim to provide a narrow answer to a specific research question. Instead, it seeks to map the existing literature, offer a comprehensive framework, and identify research gaps (Arksey & O'Malley, 2005). The study was conducted in line with the PRISMA-ScR guidelines (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews), which provide internationally recognized standards for scoping reviews (Tricco et al., 2018).

Information sources and search strategy

The literature review was conducted across both international databases and institutional reports or legal documents. The databases used were Google Scholar, ERIC, Scopus, Web of Science, ULAKBİM TR Index, and the YÖK Thesis Database. In addition, reports, policy documents, and legal texts published by institutions such as OECD, Eurydice, the Turkish Ministry of National Education (MoNE), the Official Gazette, NBPTS, and AITSL were also included.

The following keywords were used in the search process:

- Turkish: öğretmen yeterlikleri, öğretmenlik mesleği, mesleki gelişim
- English: teacher competencies, teacher standards, teacher qualification frameworks, professional development of teachers

Keywords were searched in titles, abstracts, and keyword fields. The review primarily focused on studies published between 2020 and 2025, although seminal works guiding the field (e.g., Darling-Hammond, 2006; Caena, 2014; Sahlberg, 2015) were also included.

Study selection process

The inclusion of publications followed the methodological framework proposed by Arksey and O'Malley (2005) for scoping reviews and adhered to the PRISMA-ScR checklist developed by Tricco et al. (2018). To ensure transparency and replicability, a comprehensive literature search was conducted between January and March 2025 across major academic databases, including

Scopus, Web of Science, ERIC, EBSCO Education Source, and DergiPark Academic.

Boolean operators (AND, OR, NOT) were used to refine and combine search terms across databases, following the systematic review recommendations of Cooper (2010) as well as the methodological guidelines of Arksey and O'Malley (2005) and Tricco et al. (2018).

The following combinations of keywords were used:

("teacher competencies" OR "teacher standards" OR "teacher qualifications") AND ("monitoring" OR "evaluation" OR "assessment") AND ("professional development" OR "quality assurance" OR "policy").

These terms were also translated into Turkish to include national publications. Additional official policy documents, laws, and reports were identified through the websites of the OECD, UNESCO, European Commission, and relevant national ministries of education.

Inclusion criteria

- Studies published in 2020 or later (except for foundational works),
- Peer-reviewed original research articles and literature reviews,
- Publications directly related to teacher competencies, standards, and monitoring–evaluation processes,
- Sources published in Turkish or English,
- Official reports, laws, and regulations.

Exclusion criteria

- Studies focusing solely on general education reforms without addressing teacher competencies directly,
- Research limited only to teaching methods or student outcomes,
- Non-peer-reviewed or academically unreliable content.

Screening process

The search initially yielded 312 records from databases and 42 additional sources, totalling 354 publications. After removing 76 duplicates, 278 unique records were screened by title and abstract. Of these, 142 studies were excluded for not meeting the inclusion criteria. A full-text assessment of the remaining 136 studies led to the final inclusion of 58 studies that met all methodological requirements. The whole selection process is summarized in Figure 1.

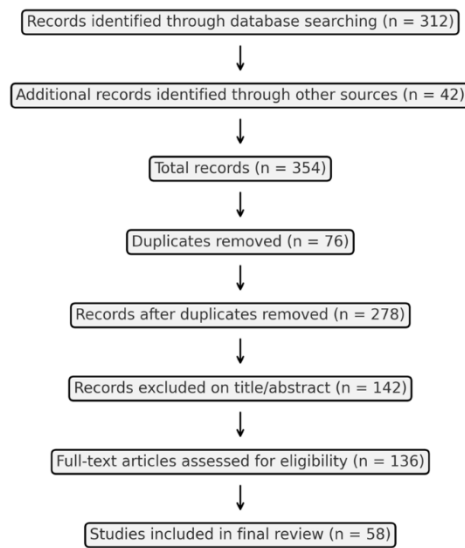


Figure 1 Flow diagram of the study selection process

Country selection rationale

The countries examined in this study — Germany, Australia, Finland, South Korea, Hong Kong, Canada, and Singapore — were selected based on three main criteria:

1. Demonstrated excellence in teacher policy and student outcomes, as reflected in international assessments such as PISA and TIMSS;
2. Comprehensive and publicly accessible teacher competency or professional standards frameworks, allowing for meaningful comparison;
3. Representation of diverse education governance models (centralized, semi-decentralized, and decentralized systems), ensuring both geographical diversity and policy variation.

This selection strategy enables a balanced comparison between Western and Asian high-performing education systems. It supports a cross-cultural understanding of how teacher competency monitoring and evaluation mechanisms are structured.

Data extraction and analysis

In order to systematically organize the evidence obtained from the selected studies, data were extracted using a data charting approach (Peters et al., 2015). For each study, the following information was recorded: year of publication, country of focus, type of research (empirical study, review, policy report, etc.), definition and scope of teacher competencies, monitoring and evaluation methods employed, relevant national or international policy documents, and professional development frameworks.

The extracted data were not only listed descriptively but also arranged in a comparative structure. To this end, similar contents were coded and grouped using a thematic analysis approach (Braun & Clarke, 2006). The coding process highlighted both commonalities and divergences across countries. For example:

- In Australia, portfolio-based evidence and continuous professional development goals;

- In Finland, trust- and autonomy-oriented evaluation;
- In South Korea, performance- and meritocracy-driven approaches;
- In Hong Kong, evaluations are linked to career progression through structured ladders.
- In Canada, self-evaluation and reflective practices are supported by digital tools;
- In Singapore, multidimensional evaluations are associated with leadership potential.

As a result of this thematic classification, findings were organized under five main categories:

- definitions and frameworks of teacher competencies,
- monitoring and evaluation methods,
- national policy documents,
- professional development strategies,
- cross-country comparative approaches.

Thus, the data extraction and analysis process not only systematized existing knowledge but also provided a solid foundation for the discussion section, enabling a nuanced analysis of similarities, differences, and best practices across countries.

Ethical considerations

As this study relied exclusively on secondary data (articles, reports, and official documents), it did not require approval from an ethics committee. All sources were appropriately cited, and the research process was conducted in accordance with established scientific and ethical standards.

Findings

This section provides a comprehensive analysis of teacher competency systems in Germany, Australia, Finland, South Korea, Hong Kong, Canada (Québec), and Singapore. The findings reveal both common trends and context-specific differences in how teacher competencies are defined, applied, and evaluated.

Development of teacher competency frameworks

The historical, cultural, and institutional contexts of each country shape the development of teacher competencies. In Germany, competencies are regulated at the state level as a natural outcome of the federal system. Laws enacted in states such as Bavaria and Saxony frame teaching as a public service responsibility within a strict legal structure. In Australia, the Australian Institute for Teaching and School Leadership (AITSL) plays a coordinating role at the national level, with the Australian Professional Standards for Teachers (APST) providing a unified vision of the profession.

In Finland, competencies are not organized as a mandatory list of standards but emerge through the autonomy of higher education institutions and the state's trust-based policies. The faculties of education design their programs in line with the national vision, with teachers expected to act as researchers, pedagogical leaders, and lifelong learners. In South Korea, the Ministry of Education has a central role, with competencies embedded in performance indicators and national evaluation programs.

In Hong Kong, the development of teacher competencies is guided by the Committee on Professional Development of Teachers and Principals (COTAP), with policy frameworks aligned

with the Education Bureau's strategic priorities. In Québec, Canada, competencies are defined through province-level professional frameworks that emphasize cultural diversity and multicultural pedagogy. In Singapore, competencies are centrally structured through the Education Personnel Management System (EPMS) and the V³SK model, requiring teachers to demonstrate not only academic competence but also personal and leadership growth.

Competency domains and standards

Countries generally conceptualize teacher competencies across knowledge, skills, and attitudes, though their specifics vary. In Germany, competencies are tied to constitutionally defined responsibilities, while in Australia, the APST framework specifies four career stages (Graduate, Proficient, Highly Accomplished, Lead) and seven standard domains, including pedagogical knowledge, classroom management, addressing student diversity, professional relationships, and ethical values.

In Finland, domains are defined less by rigid standards and more by school improvement and pedagogical autonomy, with expectations of strong research identities, critical thinking skills, and student-centred pedagogy. In South Korea, competencies are explicitly performance-driven, measured by student achievement, classroom management, teaching techniques, and parental satisfaction. Hong Kong outlines multidimensional criteria, including professional ethics, pedagogy, and collegial collaboration.

The Québec model enriches competencies with cultural awareness, social responsibility, and communication skills. In Singapore, the EPMS highlights three key dimensions: professional competence, personal growth, and leadership, positioning teachers as both classroom practitioners and contributors to the broader vision of the school.

Applications of competency frameworks

Teacher competencies serve different purposes across countries. In Germany, they define professional responsibilities and in-service obligations within the public service ethos. In Australia, competencies shape both entry into the profession and career advancement, with teacher portfolios and evidence-based documentation playing a critical role.

In Finland, competencies are applied not so much to evaluate individual performance as to improve teacher education programs and support school development. In South Korea, competencies directly influence career progression, appointments, and salary levels. In Hong Kong, competencies are embedded within career ladders, requiring teachers to demonstrate professional development regularly. In Canada, competencies foster professional accountability through self-assessment tools and digital platforms. In Singapore, competencies serve not only to measure current performance but also to identify leadership potential and structure career pathways.

Monitoring and evaluation methods

Monitoring and evaluation methods differ most prominently across contexts. In Germany, teachers are observed every four years by school principals and formally assessed through official reports. In Australia, evaluations draw on portfolios, classroom observations, student outcomes, and professional development records.

In Finland, evaluation is school-based, focusing on quality assurance rather than individual

teacher performance. In South Korea, teachers undergo annual performance evaluations, the results of which affect promotions, placements, and salaries. In Hong Kong, evaluations are conducted on five-year cycles, assessing pedagogy, ethics, and contributions to school life. In Canada, evaluation emphasizes self-assessment and peer feedback, with a particular focus on cultural competence. In Singapore, the EPMS requires teachers to submit annual performance reports and hold professional development dialogues with school leaders.

Comparative findings

Comparative analysis identifies three common trends in teacher competencies across countries. First, all systems define teaching not only in terms of pedagogical skills but also through ethics, professional responsibility, and societal contribution. Second, teacher competencies are closely integrated with professional development and career progression. Third, monitoring and evaluation are universally regarded as integral to quality assurance in education.

Nonetheless, significant differences remain. Germany and South Korea employ more performance- and inspection-oriented approaches, while Finland and Canada emphasize autonomy and self-reflection. Australia applies robust evidence-based evaluations, whereas Hong Kong and Singapore prioritize career ladders and leadership development. Notably, Asian systems (South Korea, Singapore, Hong Kong) highlight competitive and performance-driven structures, European contexts (Germany, Finland) emphasize legal assurance and autonomy, and Anglo-Saxon contexts (Australia, Canada) focus on evidence-based and participatory practices.

A consolidated overview of these findings is presented in Table 1, which compares the frameworks, applications, evaluation methods, and strengths of teacher competency systems across the seven countries.

Table 1 Frameworks, applications, evaluation methods, and strengths of teacher competencies across countries

Country	Competency Framework / Standards	Applications	Monitoring and Evaluation Methods	Strengths
Germany	State-level frameworks grounded in laws and regulations	Entry into profession, job descriptions, public service obligations	Principal observations, official reports, periodic inspections	Legal assurance, strong public service ethos
Australia	APST – four career stages, seven domains	Entry, career progression, professional development	Portfolios, classroom observations, student outcomes, and evidence documents	Evidence-based approach, national standardization
Finland	No mandatory standards; autonomy of universities, trust-based culture	Teacher education programs, school improvement, research-oriented teacher identity	School-based quality reviews, faculty autonomy	Trust-based model, research-oriented and autonomous teachers
South Korea	Ministry-defined national performance standards	Career progression, salaries, and teacher placements	Annual performance evaluations, student achievement, and parental satisfaction	High accountability, performance-driven advancement
Hong Kong	COTAP and Education Bureau frameworks (T-Standard+, PD frameworks)	Career ladders, professional development, and school contribution	Five-year evaluation cycles: pedagogy, ethics, and school involvement	Structured professional development, alignment with school vision
Canada (Québec)	Provincial frameworks emphasizing cultural and social responsibility	Professional accountability, self-assessment, cultural competence	Self-assessment, peer feedback, digital portfolios	Emphasis on multiculturalism and social responsibility

Country	Competency Framework / Standards	Applications	Monitoring and Evaluation Methods	Strengths
Singapore	EPMS and V ³ SK model – professional, personal, leadership dimensions	Performance evaluation, leadership development, career pathways	Annual performance reports, development dialogues with leaders	Leadership-oriented, continuous growth culture

Note - Sources: Australian Institute for Teaching and School Leadership (AITSL, 2011); Committee on Professional Development of Teachers and Principals (COTAP, 2020); Finnish National Agency for Education (2016); Kultusministerkonferenz (KMK, 2019); Ministry of Education Singapore (2015); Ministry of Education Korea (2022); Ministère de l'Éducation et de l'Enseignement Supérieur [MEES], Québec (2020).

Abbreviations: APST = Australian Professional Standards for Teachers; COTAP = Committee on Professional Development of Teachers and Principals; EPMS = Enhanced Performance Management System; V³SK = Values–Skills–Knowledge Framework.

The comparative overview demonstrates that there is no universal model for monitoring and evaluating teacher competencies; instead, country-specific policy preferences shape the design and implementation of these systems.

Conclusion and discussion

This study examined the systems for monitoring and evaluating teacher competencies in Germany, Australia, Finland, South Korea, Hong Kong, Canada, and Singapore. The findings demonstrate that while countries differ considerably in their approaches, several common trends also emerge.

The review highlights that international practices can provide valuable insights for Turkey. A hybrid model that combines teacher autonomy with data-driven professional development planning could strengthen instructional quality. Moreover, aligning these processes with the innovative, skills-based, and student-centred vision of the “Türkiye Yüzyılı Maarif Modeli” would contribute significantly to improving teacher quality (MoNE, 2023; OECD, 2021).

Across the cases reviewed, teacher evaluation has been used not only as a mechanism to monitor performance but also as a policy tool to enhance professional development, improve educational quality, and shape the teaching profession (Darling-Hammond et al., 2017; OECD, 2020). Finland and Canada exemplify evaluation systems built on teacher autonomy, trust-based governance, and professional learning communities, where the emphasis is on supporting teacher growth and fostering teacher–student interaction (Sahlberg, 2015; Canadian Teachers’ Federation, 2023). In contrast, South Korea and Singapore have adopted performance-based and meritocratic systems directly tied to career progression and salary scales (NCEE, 2016; Kim & Han, 2021). While these systems can boost motivation and competitiveness, the literature also notes potential negative effects on teachers’ job satisfaction and intrinsic motivation (Day, 2002; Hargreaves, 2010).

Australia, Hong Kong, and parts of Canada employ systematic observation of teacher competencies, integrating evaluation outcomes into professional development processes (AITSL, 2022; Education Bureau, 2023). These systems often incorporate reflective and self-evaluation tools that allow teachers to manage their professional growth actively. In contrast, Germany and South Korea rely more heavily on bureaucratic and top-down inspection models, where evaluation is embedded in legal frameworks or performance scores (NCEE, 2025). This contrast raises a fundamental question: should teacher evaluation primarily serve professional growth or administrative control? (Mockler, 2013).

In many countries, teacher evaluation is increasingly supported by evidence-based mechanisms.

Examples include portfolios documenting practice in Australia, digital self-assessment systems in Canada, and individualized development plans in Singapore (AITSL, 2025; Bautista et al., 2015). Such approaches can enhance objectivity and promote teacher ownership of learning (Darling-Hammond & Snyder, 2000). However, they also carry risks of excessive paperwork and procedural formalism that may undermine authenticity (Hargreaves, 2001; Fullan, 2007).

In East Asian systems such as Singapore, Hong Kong, and South Korea, teacher evaluation not only monitors professional practice but also shapes career pathways. Teacher leadership roles, specialization, and advancement are closely tied to evaluation results (Bautista et al., 2015; NCEE, 2025). These frameworks can make teaching more dynamic and attractive, while helping retain high-performing teachers. However, they may also create pressure through high-performance expectations and the imposition of standardized criteria that overlook individual differences (Day, 2002; Hargreaves & Fullan, 2012).

In Turkey, although the Ministry of National Education (MoNE) defined a teacher competency framework in 2017, comprehensive evaluation systems remain underdeveloped. Initiatives such as the 2023 Education Vision and the Teacher Profession Law aim to strengthen competency-based teacher development (MoNE, 2017; MoNE, 2023). Nonetheless, challenges remain, including the absence of systematic evaluation, limited individualization of professional growth plans, and insufficient school-based feedback mechanisms (Çolak et al., 2022). In light of international practices, Turkey should design evaluation systems that prioritize teacher growth, preserve professional autonomy, and position teachers as active agents responsible for their own development. Additionally, clarifying career pathways, linking evaluation processes to measurable outcomes, and supporting them with digital platforms stand out as critical strategic directions for the Turkish context.

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