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## Psychological Literacy in Pre-Service Teacher Education: A Narrative Review of Concepts, Barriers and Implications for Practice

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**Abstract.** Within the rapidly evolving educational landscape, psychological literacy has emerged as an increasingly vital component of pre-service teacher education, integrating psychological domain knowledge, applied skills, and reflective capacities that underpin effective pedagogical practice. Despite its growing significance, research in this domain remains conceptually fragmented and limited in scope, which makes its systematic integration into teacher education programs challenging. Distinguishing itself from prior reviews that addressed isolated facets of psychological literacy or broader higher education contexts, this study offers a context-specific synthesis focused exclusively on pre-service teacher education. It presents a narrative review of international literature published primarily between 2010 and 2025. Based on a synthesis of 55 studies, the review clarifies contemporary conceptualizations and core dimensions of psychological literacy within pre-service teacher education. Building on this synthesis, it identifies recurring structural barriers to its systematic development, including curricular fragmentation, limited practical integration, and the absence of standardized measurement frameworks. At the same time, the study offers practical implications for curriculum design, institutional collaboration, and the structured integration of applied psychological components within pre-service teacher programs. Strengthening psychological literacy thus emerges as a pivotal step towards equipping 21st-century educators to navigate an increasingly complex educational landscape.

**Keywords:** psychological literacy; pre-service teachers; teacher education; pedagogical practice

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## 1. Introduction

In the light of contemporary developmental and societal shifts, the educational environment has undergone profound transformations that are reshaping expectations placed on educators and teacher education systems. There is a growing emphasis on flexibility, adaptability, and the capacity to address the multifaceted needs of students. In their daily practice, educators face a variety of challenges, including managing classroom heterogeneity, resolving sensitive interpersonal situations, and fostering students' socio-emotional development. Such escalating demands highlight the necessity of acquiring professional competencies that extend beyond subject-specific expertise (Darling-Hammond et al., 2024).

Analyses of higher education curricula suggest that while pre-service teacher education typically prioritizes pedagogical and didactic skills, psychological literacy is insufficiently developed (Horn et al., 2024; Sokolová et al., 2014). This discrepancy between teacher education content and the professional demands of pedagogical practice reveals a structural gap in teacher preparation programs. A systematic integration of psychological expertise and applied competencies is therefore critical if teachers are to not only manage classroom situations but also to understand and thoughtfully address the psychological aspects of learning, behavior, and well-being (Hollenstein & Brühwiler, 2024).

Although psychological literacy is recognized as a vital professional competence, the empirical and theoretical evidence base within pre-service teacher education remains relatively sparse. Existing studies vary in their definitions, conceptualizations, and methodological frameworks, which complicates the development of a coherent understanding of the construct. The current lack of comprehensive synthetic reviews not only limits systematic progression within pre-service teacher education but also prevents such knowledge from being effectively integrated into curricula.

In response to this gap, the present study employs a narrative review approach to synthesize current knowledge concerning psychological literacy in pre-service teacher education, providing an overview of contemporary definitions and core components of psychological literacy and evaluating its significance in pedagogical practice. Furthermore, the review identifies structural barriers to its systematic integration and presents recommendations aimed at strengthening the implementation of psychological knowledge at the curriculum, faculty, student, and institutional levels. Through this synthesis, the review seeks to clarify the theoretical anchoring and practical applicability of psychological literacy as a core professional competency in pre-service teacher preparation.

Current research tends to focus on isolated dimensions of psychological literacy or addresses the concept within broader higher education contexts without providing a structured synthesis focused specifically on pre-service teacher education. Given the growing demands placed on teacher preparation and the increasing emphasis on socio-emotional and psychological competencies, a coherent and context-specific synthesis is particularly timely. By consolidating

these diverse areas of research, the present review offers a more clearly formulated conceptual perspective on psychological literacy in pre-service teacher education and clarifies its multi-level relevance for teacher preparation. In doing so, it moves beyond prior descriptive approaches and provides an analytically grounded foundation for subsequent discussion and implementation-oriented recommendations.

## **2. Methodology**

The present study employs a narrative literature review approach aimed at synthesis and critical interpretation of prior research on psychological literacy within the context of pre-service teacher education. The narrative design was adopted with a view to extending the present study beyond a mere aggregation of empirical findings to include clarification of relevant concepts, an identification of major barriers to the development of psychological literacy, and a formulation of practice-oriented implications. Given the conceptual heterogeneity of psychological literacy, the absence of a unified definition, and the diversity of theoretical and methodological approaches in this field, a strictly systematic review methodology was deemed less appropriate. The narrative approach, however, enables a more comprehensive and interpretive synthesis of conceptual, empirical, and implementation perspectives.

The review in the present study focuses on international literature published primarily in peer-reviewed journals between 2010 and 2025. Earlier publications were selectively included to clarify key conceptual and theoretical foundations. Relevant sources were identified via structured searches in major academic databases, including Scopus, Web of Science, and Google Scholar. Search queries combined keywords such as “psychological literacy,” “teacher education,” “pre-service teacher education,” and “educational psychology.” Reference lists of key publications were also examined to identify additional relevant sources. This multi-stage search strategy was designed to enhance the comprehensiveness of the review.

The initial search yielded a relatively broad pool of publications, which were assessed based on their titles and abstracts for relevance to psychological literacy in pre-service teacher education. The full texts of potentially relevant studies were subsequently examined to assess their conceptual or empirical contributions to the topic. The final shortlist comprised 55 publications, including theoretical analyses, empirical studies, and prior reviews. The inclusion criteria required that publications: (1) were originally published in English or, if directly relevant to the research focus, in Slovak; (2) explicitly addressed psychological literacy or closely related constructs; and (3) examined the concept within educational or pedagogical contexts. Any non-scientific sources or publications focusing exclusively on undergraduate psychology studies with no relevance to teacher preparation were excluded from further analysis.

The synthesis of the shortlisted studies was conducted using a narrative approach. Instead of a quantitative aggregation of findings, the review sought to identify recurring conceptual patterns, theoretical frameworks, implementation

challenges, and proposed strategies across the selected studies. Following a rigorous reading and comparison of the selected studies, all identified recurring dimensions were organized into a coherent conceptual structure that shaped all subsequent sections of this narrative review. This approach allowed for an integration of heterogeneous theoretical and empirical insights into a unified analytical perspective.

### **3. Literature Review**

#### **3.1 The Concept of Psychological Literacy**

The concept of psychological literacy has been defined and interpreted in diverse ways, resulting in considerable variation across the literature, including various approaches, definitions, and conceptual frameworks proposing different components and attributes (Cranney & Dunn, 2011; McGovern et al., 2010; Newell et al., 2020; Roberts et al., 2015). Boneau's (1990) original formulation defined psychological literacy primarily as a set of essential fields of knowledge and skills acquired through a formal study of psychology. Subsequent studies expanded this understanding and situated psychological literacy within broader applied and professional contexts (Hulme et al., 2015). One of the most frequently cited definitions comes from Cranney et al. (2012), who define psychological literacy as an individual's ability to apply psychological knowledge in personal, social, and professional contexts, thereby bridging psychological education with practical functioning and the needs of contemporary society.

Beyond these foundational definitions, scholarship has proposed more differentiated component-based models. McGovern et al. (2010) identify nine core components of psychological literacy, namely knowledge of key psychological concepts, critical and scientific thinking, problem-solving skills, the capacity to reflect on one's own and others' behavior, ethical awareness, effective communication skills, and the capacity to apply psychological knowledge in daily and professional life. In contrast, Newell et al. (2020) offer a more concise operationalization with only four primary indicators: knowledge and application of psychological principles, critical analysis of psychological phenomena, trust in scientific evidence, and the use of scientific terminology. Simultaneously, Newstead (2015) and Roberts et al. (2015) emphasize the complex nature of the construct, stressing the absence of a unified conceptual framework and validated psychometric instruments.

Although these conceptualizations vary in scope and emphasis, they all clearly demonstrate the multidimensional nature of psychological literacy, integrating knowledge, application, reflection, and evaluative capacities. Together, these perspectives highlight the complexity of the construct and the diversity of approaches used to conceptualize it in the literature. For better clarity, Table 1 shows a summary of the major conceptualizations and core components identified in the literature.

**Table 1: Selected conceptualizations of psychological literacy**

Author	Conceptual Focus	Key Components
Boneau (1990)	Foundational disciplinary knowledge	Essential psychological knowledge and skills acquired through formal study
McGovern et al. (2010)	Multidimensional competence model	Knowledge, critical thinking, scientific reasoning, problem-solving, reflection, ethics, communication, daily and professional application
Cranney et al. (2012)	Applied literacy perspective	Ability to apply psychological knowledge in personal, social, and professional contexts
Newell et al. (2020)	Measurement-oriented framework	Knowledge application, critical analysis, trust in scientific evidence, use of psychological terminology
Newstead (2015)	Conceptual critique	Emphasis on the lack of a unified framework, definition and measurement-related challenges
Roberts et al. (2015)	Multidimensional construct perspective	Psychological literacy as a system of interconnected components

The literature increasingly emphasizes the applied dimension of psychological literacy, underscoring its broader practical significance. Murdoch (2016) conceptualizes it as a higher-order form or meta-literacy that integrates core areas such as scientific, information, cultural, and emotional literacy. Within this line of scholarship, psychological literacy is linked to competencies that facilitate effective functioning in complex and changing environments, including critical thinking, self-reflection, interpersonal understanding, stress regulation, and adaptive problem-solving (Dabrowski et al., 2025). Thus, the construct extends beyond disciplinary knowledge and encompasses transferable professional capacities that enable individuals to interpret, evaluate, and respond to psychologically relevant situations in both personal and professional contexts.

This expanded understanding also projects psychological literacy beyond the confines of psychology as a pure academic discipline. Research emphasizes its relevance in professions characterized by intensive interpersonal interaction, including healthcare, social work, human resource management, and education (Heritage et al., 2016). In educational settings, psychological competencies are associated with effective pedagogical practice, sophisticated interpersonal competencies, and supportive classroom climates (Hulme, 2014). Accordingly, psychology courses have become a standard component of teacher preparation programs in many educational systems (Hakim, 2015). Recent post-pandemic discussions further underscore the significance of psychological competencies, given that this period was associated with increased emotional and social challenges, a higher incidence of mental health problems, and a growing need to prepare more flexible and psychologically competent university graduates, including pre-service teachers (Reimers, 2022).

Beyond summarizing individual definitions, a review of the literature reveals several recurring dimensions that structure current understandings of psychological literacy in teacher education. Across the reviewed studies,

psychological literacy consistently encompasses: 1) essential psychological knowledge; 2) the application of this knowledge in pedagogical contexts; 3) reflective capacities; 4) critical evaluation of psychological insights and scientific evidence; and 5) socio-emotional competencies relevant to professional practice. For analytical purposes, these dimensions may be treated as interrelated domains forming a coherent interpretive framework for examining psychological literacy within pre-service teacher education. This synthesis does not propose a separate theoretical model; rather, it clarifies recurring dimensions identified in prior scholarship and provides a structured conceptual basis for the subsequent discussion of barriers and implementation strategies.

### **3.2 Teachers as Central Agents of Psychological Literacy**

Contemporary society is characterized by rapid social, technological, and cultural shifts that impact the way children develop, learn, and interact. Accelerated technological development, growing exposure to digital information, and transformations in social relationships are reshaping the expectations placed on both schools and teachers (OECD, 2025). These shifting conditions are expanding the scope of teachers' responsibilities. Consequently, their role extends beyond the mere transfer of subject-specific knowledge, requiring the capacity to utilize psychological insights to navigate diverse classroom situations. In practice, this may include, for instance, identifying students' emotional and behavioral responses, adapting instruction to developmental differences, and responding constructively to complex interpersonal dynamics in the classroom. Within this broader professional framework, psychological literacy becomes directly relevant to teachers' daily decision-making (Dix et al., 2020).

Higher education standards emphasize that pre-service teachers should acquire comprehensive knowledge of learning processes, motivation, development, and student diversity (Pollmeier et al., 2024). Within teacher education programs, psychology courses provide theoretical foundations for understanding these domains and interpreting classroom situations with respect to students' age, motivation, and learning profiles. Such knowledge is practically meaningful as it guides teachers' instructional choices, communication strategies, and support for diverse learners. In this context, psychological literacy overlaps with professional domains such as interpersonal competencies, inclusive pedagogical practice, and students' mental health support (Horn et al., 2021).

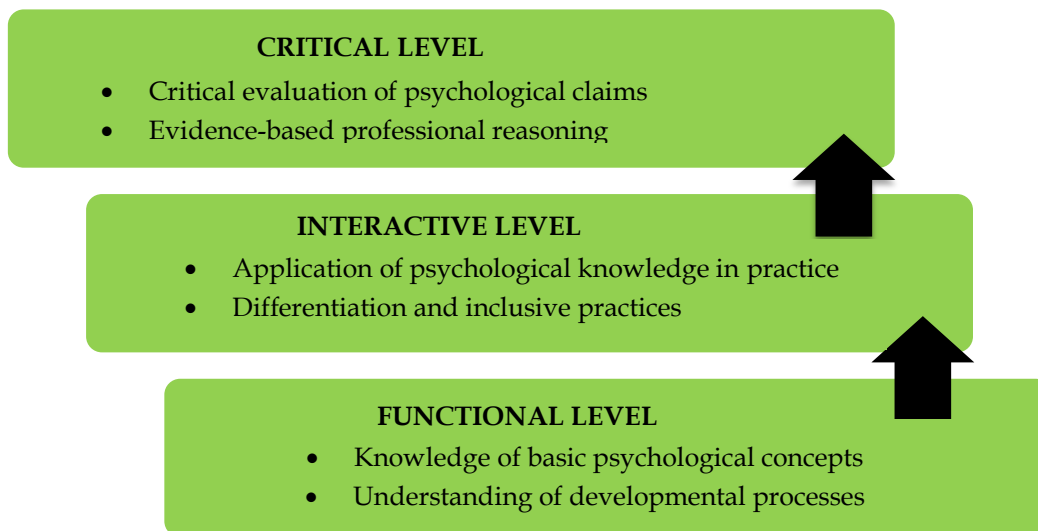
Empirical research further clarifies the mechanisms through which psychological literacy is applied within educational environments. Studies suggest that the social and emotional components of teachers' psychological literacy, such as emotion regulation, empathy, and relationship building, contribute significantly to a positive classroom climate characterized by safety, mutual respect, and social connectedness (Bølstad et al., 2023; Savina et al., 2025). Such classroom conditions constitute vital prerequisites for student engagement, motivation, and learning quality.

Furthermore, psychological knowledge contributes to the professional resilience and adaptability of educators in dynamic educational environments. Capacities such as stress regulation, adaptive coping, and flexibility in responding to changing demands are linked with more effective workload management and reduced susceptibility to burnout (Baatz & Wirzberger, 2025). Collectively, these findings illustrate specific mechanisms by which psychological literacy shapes classroom processes and teachers' professional practice.

Taken together, this body of evidence positions psychological literacy as a significant component of teachers' professional competence. In the context of globalization, technological progress, and escalating social-emotional challenges, it can be considered the bedrock of inclusive, supportive, and effective instruction (Hulme, 2014). When applied systematically and supported at the institutional level, it enables teachers to adapt instructional processes to students' developmental, emotional, and cognitive characteristics, aligning both content and delivery with individual needs (Rapsová, 2024).

To further conceptualize this role, the model proposed by Sokolová et al. (2014) offers a structured framework for analyzing psychological literacy within the teaching profession. This model provides a coherent analytical perspective for understanding the multidimensional nature of psychological literacy within teacher education. Grounded in Nutbeam's (2000) health literacy model, this framework distinguishes three interconnected levels: functional, interactive, and critical psychological literacy, all of which are applicable to pre-service teacher preparation (see Figure 1).

The functional level refers to mastery of basic psychological concepts related to learning, development, motivation, and cognitive and emotional functioning. The interactive level encompasses the practical application of this knowledge in pedagogical contexts, including classroom management, instructional differentiation, inclusive practices, and professional vision. The highest, critical literacy, involves the capacity to reflect on the contributions of psychological insights, critically analyze information, and evaluate psychological claims based on evidence. By structuring psychological literacy into progressive levels, the model clarifies how foundational knowledge develops into applied and critical professional reasoning within the context of teacher education.



**Figure 1: Three-level model of psychological literacy in pre-service teacher education**

### **3.3 Developing Psychological Literacy in Pre-Service Teachers: Barriers and Recommendations**

The psychological component of teacher education should integrate theoretical knowledge, practical experience, self-reflection, and personal development to establish the foundation for teachers' comprehensive professional readiness. Despite the persistent emphasis in the literature on the importance of psychological literacy for high-quality pedagogical practice (e.g., Pownall et al., 2022; Taylor, 2019), its systematic development within teacher education programs frequently faces multiple barriers. Existing research highlights various weaknesses, limitations, and structural gaps in pre-service teacher education that diminish students' ability to effectively apply psychological insights in daily school contexts.

#### *3.3.1 Barriers in Contemporary Teacher Education*

One of the most frequently cited barriers in university-based teacher education is the limited scope and quality of teaching practice, as well as the insufficient integration of psychological knowledge into pre-service teacher education curricula. Teaching practicums are frequently short, insufficiently intensive, and provide limited exposure to authentic classroom challenges (Kinshuk et al., 2016).

At the same time, psychology courses are often constrained by time, fragmented in content, and primarily focused on acquiring theoretical knowledge, thereby providing few opportunities for applied reflection in school contexts (Sokolová et al., 2014; Taylor, 2019). Consequently, although students acquire basic psychological knowledge, they frequently struggle to apply it effectively in managing diverse classrooms, addressing student motivation, resolving conflicts, or regulating classroom dynamics (Rasmussen & Rash-Christensen, 2015). This dissonance between theory and practice prevents psychological competencies from being internalized and transferred on a deeper level.

Research also indicates considerable variability in the scope and organization of psychological training across different institutions and national contexts (Darling-

Hammond, 2017). Such variability is further complicated by the broad spectrum of relevant psychological domains, such as development, motivation, emotions, and social interaction, which complicates the establishment of a coherent framework for developing psychological literacy in pre-service teacher preparation (Narciss & Zumbach, 2022). This may result in superficial understanding or lower student motivation to engage more deeply with these topics. Consequently, certain areas that teachers identify as particularly demanding in practice, such as bullying, stress management, burnout syndrome, or difficult communication, may not be receiving sufficient attention (Fuchsová et al., 2017).

Faculty-level factors represent another significant barrier. University instructors may be insufficiently prepared for a systematic integration of applied psychological knowledge into their teaching. This limitation may stem from the fact that some instructors of psychology-related courses operate primarily in research-intensive environments and maintain a strong theoretical orientation, leaving less room for applied and reflective components in teacher preparation. As a result, psychological content may remain fragmented and insufficiently connected to real pedagogical situations. Furthermore, the absence of clear methodological guidelines for fostering psychological literacy limits its coherent and consistent implementation (Valle et al., 2025).

Individual-level barriers among pre-service teachers also affect the development of psychological literacy. These factors may include lower interest in psychological issues and seeing psychology as an “add-on” rather than a fundamental component of teacher education. This issue is exacerbated by the fact that pre-service teachers often study multiple subject combinations at the same time, which increases their academic workload. The rigorous nature of subject-specific courses can lead to the psychological component of teacher preparation being perceived as secondary, which ultimately results in a superficial knowledge of psychology (Havia et al., 2023). Furthermore, when psychology is taught in a predominantly theoretical manner without explicit links to practical challenges, such as stress management, student motivation, or conflict resolution, students may perceive it as insufficiently relevant, which limits its practical impact (Hulme et al., 2015).

Another challenge concerns the measurement of psychological literacy. This construct is typically assessed using various instruments that differ in their emphasis on cognitive, affective, and behavioral components. The current absence of unified and standardized measurement methodologies makes reliable assessments difficult, complicates the comparison of results across studies, limits the possibility of monitoring the development of psychological literacy over time, and hinders the formulation of broadly applicable recommendations for its targeted strengthening in teacher education (Roberts et al., 2015). This lack of standardization weakens the empirical foundation necessary for informed policy and curriculum decisions.

The development of psychological literacy is also shaped by broader structural and policy conditions. Teacher education programs often operate within strict accreditation requirements and overcrowded curricula, which leave only limited space for the inclusion of additional competencies. The integration of psychological literacy is further shaped by institutional resources, limited funding, and national education policies. In many contexts, reforms are driven by policy priorities rather than research evidence (Cochran-Smith, 2021), with curriculum reform research pointing to a persistent gap between policy intentions and classroom practice, particularly when time, resources, and professional support are lacking (Gouédard et al., 2020).

Consequently, even well-designed initiatives may result in only partial implementation, as workload pressures, institutional priorities, limited autonomy, and insufficient mentoring limit teachers' ability to apply psychological insights in practice systematically. Taken together, these barriers illustrate that the development of psychological literacy is constrained not only by curricular design but also by institutional, structural, and policy-level factors that require coordinated systemic responses.

### *3.3.2 Recommendations for Improving Psychological Education of Pre-Service Teachers*

A systematic development of psychological literacy in pre-service teacher education requires a coordinated, multi-level strategy that reflects the barriers identified above in both theoretical and practical training at the curriculum, faculty, student, and institutional levels. It is critical to maintain continuity and a logical progression of psychological education across all phases of pre-service teacher education, enabling the cumulative development of psychological concepts and their deeper integration into professional training. Such an approach conceptualizes psychological literacy as a longitudinal and integrative dimension of teacher preparation rather than as a standalone curricular component.

At the curriculum level, short-term measures may include strengthening the application layer of psychology courses through authentic learning tasks, such as case study analyses, classroom simulations, and structured reflective assignments (Bastian et al., 2024; Wu et al., 2023). Such approaches help prevent psychological knowledge from remaining purely theoretical, allowing it to be translated into real pedagogical contexts (Heinonen et al., 2023). Technological innovations, such as video analysis, virtual reality, and other digital tools, can further support the applied dimension of psychological literacy (Richter et al., 2022). In the long term, curriculum redesign should ensure progression across study phases, enabling a seamless transition from foundational psychological concepts to their practical application. Rather than isolating within standalone courses, psychological literacy should be systematically integrated into pedagogical, didactic, and subject-oriented disciplines (Harr et al., 2015).

At the faculty level, implementation depends on instructors' capacity to model and facilitate reflective and practice-oriented learning. Short-term strategies may include structured supervisory guidance during teaching practice and professional development of instructors aimed at linking psychological theory

with classroom reality (Horn et al., 2024; Mulryan-Kyne, 2021). In the long term, institutions can support sustainable implementation through clearer curriculum planning, shared instructional guidelines, and mentoring structures that reinforce the consistent development of psychological literacy across the program. Providing instructors with more direct opportunities to engage in school practice may further enhance their understanding of how psychological concepts operate in real classroom contexts (Orland-Barak & Wang, 2021).

At the student level, recommendations focus on strengthening socio-psychological competencies. Short-term interventions may include targeted training in communication, conflict management, and inclusive classroom practices. The use of video-based training, classroom simulations, model situations, and case analyses plays a significant role, as these approaches enable students to engage with authentic pedagogical situations and analyze them from a psychological perspective (Caires et al., 2023; Coulson & Homewood, 2016). In the long term, psychological literacy is cultivated through continuous reflective practice and supervised teaching experiences (Horn et al., 2024; Li, 2025). Psychological education should simultaneously emphasize pre-service teachers' personal development, including empathy, stress resilience, and adaptive coping strategies, as these competencies contribute to long-term professional well-being and reduce the risk of burnout (Braun & Hooper, 2024).

At the institutional level, close collaboration between universities and schools is imperative. In the short term, high-quality partnerships can create coherent systems of teaching practice within which pre-service teachers are guided by experienced teachers and engage in structured, reflective classroom experiences (Allen & Wright, 2014; Maras et al., 2025). Such collaboration fosters links between theoretical preparation and authentic school environments, helping train "classroom-ready" teachers equipped with both psychological and pedagogical competencies (Kenny et al., 2018). In the long term, psychological education should extend beyond graduation. During the initial years of practice, continuous professional development and structured support through workshops, mentoring, and supervision, are key to maintain psychological literacy, strengthening professional adaptation, increasing job satisfaction, and reducing burnout risk (Cefai et al., 2025).

The implementation of these recommendations may vary across educational systems, particularly depending on accreditation frameworks, curriculum limitations, and the availability of financial and human resources. Educational reforms aimed at strengthening teacher preparation should therefore explicitly recognize psychological literacy as a strategic priority and allocate adequate structural and financial support for its development. Sustainable integration requires not only curriculum adjustments but also institutional commitment, investment in faculty development, and stable policy frameworks that enable long-term planning (Hulme & Cranney, 2023). When supported by coherent policy measures and sufficient resources, psychological literacy can become a consistent and sustainable component of teacher education, thereby

strengthening the connection between theoretical knowledge and its practical application.

Taken together, these multi-level strategies illustrate that strengthening psychological literacy in pre-service teacher education requires coordinated action across curriculum design, faculty development, student training, and institutional support rather than isolated interventions. Such an integrated approach increases the likelihood that psychological knowledge will be meaningfully translated into everyday pedagogical practice. Without such coordinated support, efforts to strengthen psychological literacy may remain fragmented and fail to produce sustainable change in teacher preparation.

#### **4. Discussion**

The analysis of the reviewed literature has confirmed the growing relevance of psychological literacy in pre-service teacher education. Across the studies, psychological literacy is defined as a competency that supports a deeper understanding of students' emotional, cognitive, and social needs, enhances communication, and promotes sensitivity toward diversity in the classroom. Simultaneously, it is associated with the professional well-being of educators, primarily through its links with self-reflection, stress regulation, and socio-emotional resilience (Horn et al., 2024; Molina-Moreno et al., 2024). At the same time, the literature indicates persistent barriers to developing psychological literacy, including fragmented psychological education, limited opportunities for applied practice (Kinshuk et al., 2016), and the absence of standardized measurement tools (Roberts et al., 2015). Consequently, psychological insights often remain isolated from daily pedagogical decision-making, which limits their effective transfer into practice.

In response to these findings, the literature emphasizes the importance of a systematic and longitudinal approach to developing psychological literacy in teacher education programs. Psychological literacy appears to be most effectively developed when integrated into pedagogical, didactic, and subject-oriented disciplines and supported through applied, reflective, and practice-based forms of learning, including supervision and authentic classroom engagement (Allen & Wright, 2014; Coulson & Homewood, 2016). Psychological literacy is therefore unlikely to be achieved solely through the completion of isolated psychology courses; instead, it requires sustained and integrated engagement across the pre-service teacher preparation curriculum. Such an approach facilitates a deeper transfer of psychological insights into real pedagogical situations, fostering professional reasoning in pre-service teachers.

From a theoretical perspective, this review contributes by synthesizing various conceptualizations of psychological literacy into a more clearly structured analytical perspective tailored to pre-service teacher education. Rather than viewing psychological literacy as a broad collection of desirable skills, the present review emphasizes the relationship between foundational knowledge, applied pedagogical practice, and reflective engagement. This synthesis contributes to

greater conceptual clarity, providing a more coherent basis for further research and curriculum development.

From an analytical standpoint, the concept of psychological literacy needs further scrutiny. Appealing though its broad scope may be, the construct encompasses a wide range of cognitive, emotional, behavioral, and ethical dimensions, which can make it difficult to define precisely. If the construct becomes too broad, there is a risk of losing analytical clarity and facing the difficulty of distinguishing it from related professional competencies. Furthermore, the absence of universally agreed-upon definitions and standardized measurement tools complicates its systematic development in teacher preparation programs. Without such conceptual and methodological clarity, efforts to implement psychological literacy may remain superficial and fail to produce meaningful or sustainable change. As a narrative review, the present analysis remains interpretive and does not aim to provide exhaustive coverage of all relevant studies.

In addition, the implementation of psychological literacy is strongly influenced by broader policy and structural conditions. Its development depends on accreditation frameworks, reform priorities, available funding, and sufficient human resources within teacher education programs. When curricula are already overloaded or institutional priorities shift, there may be limited space and capacity to introduce new components. Even well-designed reforms may remain only partially implemented if financial support, time allocation, and professional development structures are insufficient. As a result, progress may depend more on individual initiative than on coordinated systemic support. For psychological literacy to be developed sustainably, these policy and resource-related factors must be explicitly considered.

### **5. Limits of the Review**

Despite efforts to incorporate all relevant information on the issue in question, the present narrative review is subject to several limitations. The selection of included studies was not structured according to the formal criteria of a systematic review, which may have resulted in incomplete coverage of all relevant approaches and empirical findings. Another limitation is the uneven representation of empirical studies focusing on specific aspects of psychological literacy, as well as the generally limited number of studies explicitly addressing psychological literacy among pre-service teachers, which may have affected the balance of the presented conclusions. Furthermore, this narrative review did not focus on analysing psychological literacy in the context of specific countries or educational systems, so it does not account for potential cultural and systemic differences that may influence the implementation and transfer of psychological insights into practice. These limitations may restrict the generalizability of the findings and should be considered when planning future research in this field.

### **6. Recommendations for Future Research**

Although interest in psychological literacy in teacher education has been gradually increasing, research in this field remains limited. Future research should focus primarily on longitudinal examination of psychological literacy

development throughout the entire teacher preparation process, from early university studies to the initial years of pedagogical practice, to achieve a better understanding of the dynamics of its development. It is also necessary to develop and validate standardized measurement tools for the construct in question to facilitate more reliable comparisons of findings across studies and cultural contexts.

Furthermore, existing studies indicate a lack of research focusing on the perspectives of students enrolled in teacher education programs. Attention should therefore be paid to the subjective perceptions of psychological literacy among students in teacher training programs, the barriers they identify in the development, and individual learning strategies they employ in the process. Qualitative research approaches, such as interviews, focus groups, or narrative methods, may provide deeper insight into the mechanisms supporting or, conversely, limiting the development of psychological literacy. A promising direction also lies in research on the use of digital technologies, including virtual reality and interactive online environments, as these tools can support the development of reflective and decision-making reasoning in complex pedagogical scenarios.

## **7. Conclusion**

Psychological literacy represents a vital component of pre-service teacher education and contributes significantly to the quality of pedagogical practice. It goes beyond a mere acquisition of theoretical psychological knowledge to encompass a broad range of competencies, including understanding students' cognitive processes, critical evaluation of information, and socio-emotional skills relevant to the classroom environment. Despite its significance, the systematic development of psychological literacy within teacher education remains constrained by barriers such as curricular fragmentation, insufficient practical integration, variability across programs, broader structural and policy-related limitations, and the general absence of standardized assessment tools. These limitations reduce students' opportunities to internalize psychological insights and apply them meaningfully in authentic pedagogical situations, which underscores the pressing need to perceive psychological literacy as a longitudinal and integrated dimension of teacher preparation rather than an isolated course component.

From a theoretical standpoint, this narrative review contributes by offering a structured conceptual definition of psychological literacy tailored to the context of pre-service teacher education, linking various conceptualizations with the functional-interactive-critical model. From a practical perspective, the findings suggest implications for curriculum design, including the need to sequence psychological content progressively, the integration of applied and reflective components into pedagogical practice, and the strengthening of collaboration between universities and schools. As a narrative review, this study is interpretive in nature and does not seek to provide an exhaustive review of existing literature. Consequently, the findings should be interpreted carefully, as this approach may involve a degree of interpretive selectivity and does not follow the strict

procedures of systematic reviews. In the context of accelerating educational shifts and increasing socio-emotional demands on schools, psychological literacy can be understood as a core professional competency essential for 21st-century teachers rather than just a supplementary component of teacher education.

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