



Assessment of Pedagogical Competence of Islamic Religious Education (PAI) Teachers: A Literature Review

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ABSTRACT

Pedagogical competence is a key aspect in the professionalism of Islamic Religious Education (PAI) teachers, especially at the elementary and secondary school levels. This study systematically reviews the literature related to competency standards, measurement methods, and the effectiveness of measuring instruments used to assess the pedagogical competence of PAI teachers. The Systematic Literature Review (SLR) method was used with sources from ERIC, ScienceDirect, and DOAJ. From more than 450 articles, 12 articles were selected based on inclusion and exclusion criteria. The results of the analysis show that the pedagogical competence standards of PAI teachers include planning, implementation, evaluation, and development of students, which are influenced by local religious and cultural values. Most measurement instruments have not been able to optimally capture the affective dimension. The novelty of this study lies in its focus on the assessment of PAI teacher pedagogical competence based on values and context, which has not been widely discussed in previous studies. This study recommends the development of holistic measuring instruments that follow the characteristics of religious learning.

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1. INTRODUCTION

Pedagogical competence is one of the fundamental aspects that must be possessed by teachers, including Islamic Religious Education (PAI) teachers, to create an effective and meaningful learning process. This competence includes the ability to design, implement, and evaluate learning processes that follow the characteristics of students, socio-cultural contexts, and developments in the era. In the context of Islamic Religious Education in elementary and secondary schools, the existence of good pedagogical competence becomes increasingly important because teachers are not only tasked with transferring religious knowledge but also forming the character and morals of students through an approach that is by Islamic values and student development.

Various studies have shown that teachers, including Islamic Religious Education teachers, face challenges in meeting the established pedagogical competency standards. For example, research by [Mahler et al. \(2024\)](#) showed that in the context of biology teacher education in Germany, pedagogical competency developed non-linearly with a significant spike in the first year of teacher education, indicating the importance of structured early intervention in the teacher training curriculum. In the Indonesian context, the achievement of teacher professional standards, including pedagogical aspects, was greatly influenced by religious cultural values and the mentoring system in the school environment.

However, one of the main challenges in developing pedagogical competence is the limited availability of valid and reliable measuring instruments to assess the extent to which Islamic Religious Education teachers have met these standards. Research by [Erviana et al. \(2023\)](#) developed the Instrument of Job Embedded Pedagogical Development (IoJEPD) and proved its validity and reliability in measuring the pedagogical and professional competence of elementary school teachers, with Cronbach's Alpha values reaching 0.901 for pedagogical and 0.810 for professional. Content validity is also strengthened through the involvement of experts in the evaluation of each instrument item.

Furthermore, according to [Herut \(2024\)](#), a bibliometric approach confirms that measuring pedagogical competence is one of the topics that continues to develop globally. There is an increasing need for teacher training that focuses not only on content but also on holistic and 21st-century-based pedagogical skills ([Depaepe et al., 2013](#)).

On the other hand, measurement instruments used in research are often not specific to the context of Islamic Religious Education. Vietnam proposed a three-step model in developing teacher professional capacity but emphasized the need for local adaptation to specific competency needs, including in the field of religion. In the context of instrument development, validation of measurement tools such as that conducted by Retnawati is important to ensure the effectiveness of assessment in the local context.

Along with the complexity of the role of Islamic Religious Education teachers in elementary and secondary schools, there is an urgent need to compile a systematic review of how this pedagogical competence is defined, how it is measured, and how effective the measuring instruments used are. For this reason, this article conducts a systematic literature review that aims to answer three main questions: (1) What are the standards for Islamic Religious Education teachers' pedagogical competence at elementary and junior high school levels? (2) How to measure this competence? and (3) How effective are the measuring instruments that have been developed in the context of Islamic education? (see **Table 1**).

This review presents scientific novelty through a systematic review approach to the assessment of Islamic Religious Education (PAI) teachers' pedagogical competence at the elementary and secondary school levels—a domain that has rarely been studied specifically

in academic literature, both nationally and internationally. Unlike previous review articles that were general (Kim & Graham, 2022) or focused on higher education (Moreira *et al.*, 2023) and did not explicitly touch on religious-based competence, this study emphasizes the importance of the context of Islamic values and local culture in understanding and measuring Islamic Religious Education teachers' pedagogical competence.

In addition, this study highlights the limitations of existing assessment instruments, such as Erviana *et al.* (2023), which, although statistically valid, are not optimal in capturing the essential affective and spiritual dimensions in Islamic Religious Education learning. While studies such as Scortescu & Sava (2024) review more collaboration on practices and the quality of teacher training in general, this study contributes by recommending the development of contextual assessment instruments, based on Islamic values, and capable of conducting holistic assessments of the cognitive, affective, and psychomotor dimensions in the practice of religious education in primary and secondary schools.

Table 1. Summary of Review Questions

Review Questions	Main Focus	Main Contributions
Competency standards	Dimensions of competence, the role of religious and cultural values	Contextualizing standards through PAI practices
Measurement	Quantitative and qualitative instruments	The importance of validation, triangulation, and contextualization
Effectiveness of Measuring Instruments	Validity, reliability, and field applicability	Need for measuring tools based on local values and culture

2. METHODS

2.1. Method

This study was conducted using the Systematic Literature Review (SLR) approach, which is a systematic, explicit, and replicable literature review method that aims to identify, evaluate, and synthesize research results that are relevant to a particular question or problem. In this context, SLR is applied to comprehensively and critically review various scientific literature that discusses the pedagogical competence of Islamic Religious Education (PAI) teachers at the elementary and secondary school levels.

This article is the result of a Systematic Literature Review (SLR) conducted based on the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) method. Each stage, from identifying literature sources, screening process, and feasibility assessment, to data synthesis, follows the principles of transparency and systematics established by PRISMA, thus strengthening the credibility and replicability of the results of this study.

PRISMA is a reporting guideline that aims to help researchers conduct, report, and ensure transparency in SLRs and meta-analyses. PRISMA was developed to improve the quality of reporting so that readers can easily understand the methods, results, and validity of a systematic review (Page *et al.*, 2021).

PRISMA does not regulate how reviews should be conducted but focuses on how to report them clearly and completely. In addition, this review also focuses on methods for measuring pedagogical competence, both qualitatively and quantitatively, including the validity, reliability, and applicability of these measuring instruments. This study also assesses the effectiveness of these assessment instruments in assessing teacher competence fairly and accurately, taking into account the complexity of religious education pedagogy in elementary and secondary school environments.

With this approach, it is hoped that the research can provide theoretical contributions in the form of a solid synthesis of scientific literature, as well as practical contributions in the form of recommendations for the development of evidence-based Islamic Religious Education teacher policies and training.

2.2. Literature Search Strategy

The literature search strategy in this study was systematically arranged to ensure that all sources reviewed had strong relevance to the formulation of the problem related to the pedagogical competence of Islamic Religious Education (PAI) teachers at the elementary and secondary school levels. This process was carried out in several stages to ensure traceability, validity, and transparency of the article selection process.

Three scientific databases were used in the literature search process, namely:

- (i) ERIC (Education Resources Information Center) – a specialized database in the field of education.
- (ii) ScienceDirect (SC) – a multidisciplinary international journal provider with a strong focus on science and education.
- (iii) Directory of Open Access Journals (DOAJ) – a widely used open journal database for global academic literature.

The selection of these three databases was based on open access, multidisciplinary coverage, and the number of peer-reviewed publications available. The search was conducted using a combination of primary keywords and key phrases relevant to the topic of study.

The literature search process produced a large number of articles from the three databases used, namely ERIC, ScienceDirect (SC), and DOAJ. The search was conducted on April 20, 2025, at 13.30 - 16.57 WITA using four main keyword combinations, namely: (i) "pedagogical competence"; (ii) "standard of pedagogical competence"; (iii) "pedagogical competence" and "religious teacher"; and (iv) "assessment of pedagogic competence" and "religious studies teachers".

3. RESULTS AND DISCUSSION

The stage is *screening* the title and abstract. At this stage, articles that contain topics outside the context of teacher education, or do not explicitly touch on pedagogical aspects (for example, only focusing on social or professional competence), are immediately eliminated. There are more than 450 initial articles, and around 90 articles have passed to the next stage.

In Stage 2, a complete content check was carried out. Articles that passed the first stage were then read in their entirety to assess whether they a) focused on pedagogical competence, not just other competency domains; b) were Relevant to the context of primary and secondary education; c) included dimensions of evaluation, measurement, or competency standards. The results of this stage filtered the articles back into 35 that truly met the requirements for academic substance and focus.

In stage 3, a final selection was carried out based on inclusion criteria, namely: in Indonesian or English, focusing on teacher pedagogical competence (especially Islamic Religious Education teachers), articles discussing measurement, standards, or evaluation of competence, and data up-to-dateness (published between 2021–2025). This process left 12 main articles, which were finally analyzed in depth in this study. The number of articles returned from the search is as **Table 2**.

From all these results, an initial total of 450 articles was obtained. This number reflects the broad scope of literature available in the last 5 years related to the topic of pedagogical competence, both in general and specifically targeting religious education teachers.

However, not all articles found met the quality and relevance standards for inclusion in this systematic review. Therefore, a multi-stage screening process was carried out to identify truly suitable articles (see **Figure 1**).

Table 1. Filtering process with keywords.

No.	Keywords	ERIC	ScienceDirect	DOAJ
1.	pedagogical competence	14	160	206
2.	standard of "pedagogical competence"	14	16	4
3.	pedagogic competence of "religious teacher"	15	10	1
4.	Assessment of pedagogic competence of religious studies teachers	7	4	1

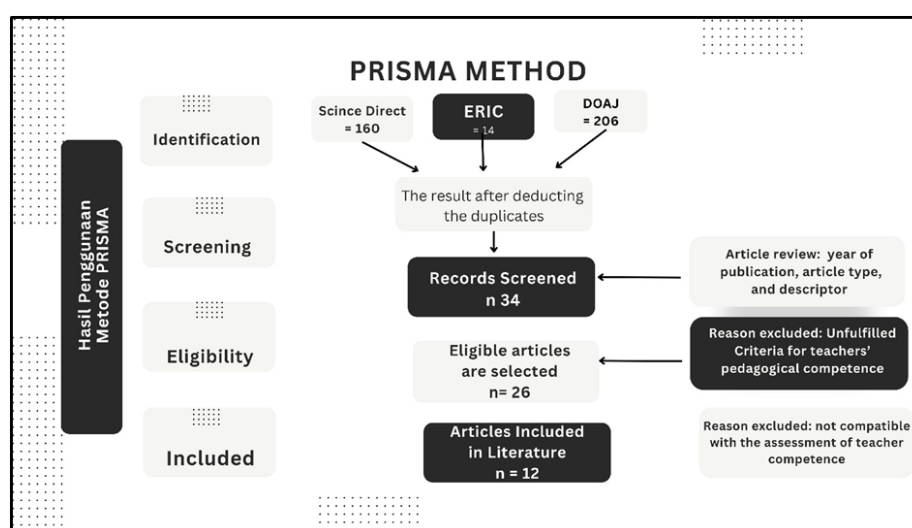


Figure 1. Article search with the PRISMA method.

Table 2 is a summary table of the articles analyzed. The following table presents a summary of the 12 articles analyzed in this study. Each article was analyzed based on several main aspects, such as title, year, main focus, contribution to pedagogical competence, and relevance to Islamic Religious Education teachers. By presenting information concisely and systematically, this table makes it easier for readers to understand the various perspectives and approaches used in the related literature and becomes the basis for formulating further research directions.

Table 2. Main points of the analyzed articles.

No	Title	Year	Main Focus	Contribution to Pedagogical Competence	Relevance for Islamic Religious Education Teachers
1	Application Of Teacher Competences In Educational Practice	2023	Implementation of teacher competencies in educational practice	Explaining teacher competencies in practical terms	Medium – General educational context

Table 2 (continue). Main points of the analyzed articles.

No	Title	Year	Main Focus	Contribution to Pedagogical Competence	Relevance for Islamic Religious Education Teachers
2	Disentangling Pre-service History Teachers' Pedagogical Content Knowledge	2024	Pedagogical content knowledge of prospective history teachers	PCK separation in history learning	Low – Non-Islamic focus
3	Exploring Factors Influencing Indonesian Novice Teachers' Achievement of Teacher Professional Standards During Induction: A Cultural-Historical Activity Theory Perspective	2025	Professional standards for novice teachers in Indonesia	Demonstrates the influence of culture on the achievement of standards	Height – Indonesian context and early career
4	Global Trends of Research on Advancing the Pedagogical Competence of Preschool Teachers: A Bibliometric Analysis	2024	Global trends in preschool teacher pedagogical research	Mapping pedagogical research trends	Medium – Use for study justification
5	Navigating Times of Change Through Communities of Practice: A Focus on Teacher Educators' Realities and Professional Learning	2025	Professional learning through communities of practice	Demonstrating the influence of communities of practice	Medium – Can be used in the context of improving competence
6	Pedagogical Competence Towards Technology-driven Instruction on Basic Education	2023	Pedagogical competence in technology-based teaching	The influence of technology on pedagogy	Highly relevant for PAI digital assessment
7	Relationship between Professionalism Levels and Pedagogical Digital Competences of Pre-Service Elementary School Teachers	2024	Professionalism & digital pedagogical competence of prospective teachers	Correlation between professionalism & digital pedagogy	Highly relevant in the context of modern PAI
8	The Process of Developing Professional Capacity for Teachers	2023	The process of developing teacher professional capacity	Explaining the stages of developing pedagogical capacity	Currently- Useful in a professional context
9	Using Longitudinal Models to Describe Preservice Science Teachers' Development of Content Knowledge and Pedagogical Content Knowledge	2024	Development of PCK of science teachers	PCK development model design	Medium-Low: Useful in the context of assessment models
10	Validity and Reliability of IoJEPD Model Instruments to Improve Elementary School Teacher Competence	2023	Elementary school teacher competency development instruments	Provide valid measuring tools	High – Can be used for PAI teacher assessment

Table 2 (continue). Main points of the analyzed articles.

No	Title	Year	Main Focus	Contribution to Pedagogical Competence	Relevance for Islamic Religious Education Teachers
11	The Competence of Islamic Education Lecturers in the Elementary School Teacher Education Study Program.	2023	Competence of PAI lecturers in the PGSD study program	Directly discussing the pedagogical competence of PAI lecturers	Very High – PAI immediate context
12	Impact of SDGs Retraining Workshops on Pedagogical Competencies of Primary School Teachers	2023	SDGs training and pedagogical competence of elementary school teachers	SDGs training improves competency	Medium – General educational context

3.1. Pedagogical Competency Standards for Islamic Religious Education (PAI) Teachers

The pedagogical competency standards of Islamic Religious Education (PAI) teachers at the Elementary School (SD) and Junior High School (SMP) levels do not only focus on mastery of teaching materials, but also on the teacher's ability to design meaningful learning and shape students' characters by Islamic values. From the results of the literature review, it was found that the pedagogical competency standards of teachers, including PAI teachers, generally refer to four main dimensions as reflected in national regulations such as Permendiknas No. 16 of 2007 and reinforced by international literature, namely:

- (i) Ability to design learning,
- (ii) Ability to carry out learning,
- (iii) Ability to evaluate learning, and
- (iv) Ability to develop students' potential.

Based on the findings of [Erviana et al. \(2023\)](#), pedagogical competence includes eight important indicators, such as learning planning, use of appropriate methods and media, assessment of learning processes and outcomes, and management of a conducive learning climate. This study shows that in the context of elementary school teachers, this pedagogical competence must be aligned with the context of the character of early childhood learners, including in religious education. Meanwhile, [Mahler et al. \(2024\)](#) emphasized the importance of integration between content knowledge (CK) and pedagogical content knowledge (PCK), especially in initial teacher training.

Meanwhile, strengthen this view by emphasizing the importance of teacher role models and emotional maturity as an integral part of Islamic Religious Education learning. This approach shows that pedagogical competence in the context of Islamic Religious Education is not only technical-instructional, but also moral and spiritual.

Furthermore, the implementation of teacher pedagogical competency standards in Indonesia is greatly influenced by religious values, collective culture, and school leadership structures. This shows that the competence of Islamic Religious Education teachers cannot be separated from the socio-cultural context in which the teacher teaches. The results of this study highlight that the dimensions of Islamic Religious Education teachers' pedagogical competencies are often shaped not only by formal regulations, but also by cultural and religious values inherent in teaching practices, so that the mentoring process and field practice experience have a significant role in shaping understanding of these standards.

Meanwhile, from a global perspective, [Herut \(2024\)](#) emphasized that 21st-century teacher competencies also involve aspects of collaboration, critical thinking, digital literacy, and global empathy that are relevant to enrich Islamic religious teaching in a more contextual and relevant way.

3.2. Methods for Measuring Pedagogical Competence of Islamic Education Teachers

The measurement of Islamic Religious Education teachers' pedagogical competence is carried out through a multi-methodological approach that combines quantitative and qualitative methods to obtain a comprehensive picture of the teacher's professional capacity. One of the widely used instruments is the IoJEPD model as developed by [Erviana et al. \(2023\)](#), which contains questionnaires, interviews, and observations that have been tested for validity and reliability. This instrument not only measures the cognitive and technical aspects of teachers but also facilitates reflection on learning practices. On the other hand, [Aeni et al. \(2023\)](#) used a case study approach with data triangulation from observations, interviews, and academic documents, which was considered effective in examining the affective and spiritual aspects that are characteristic of Islamic education.

In the international context, AAA (Annotation, Analysis, Alteration) model as an evaluative tool that allows teachers to evaluate their practice systematically and reflectively. Meanwhile, "thinking-out-loud" method to explore how teachers design learning and connect pedagogical content knowledge (PCK) with their teaching practice. This approach is very useful in identifying teachers' internal strengths and weaknesses, especially in designing value-based learning.

In addition, the importance of using instruments that are not only statistically valid but also culturally and locally contextual. In Islamic Religious Education teaching, for example, many pedagogical aspects are affective and value-based, which are difficult to reach by conventional quantitative measurement tools.

Thus, the method of measuring the pedagogical competence of Islamic Religious Education teachers must consider the dimensions of values, context, and objectives of Islamic education as a whole. Various approaches have been used in measuring the pedagogical competence of teachers, ranging from portfolio-based assessments, classroom observations, to scale-based quantitative instruments. One of the empirically validated instruments is the IoJEPD Model Instrument developed by [Erviana et al. \(2023\)](#). This tool has a high reliability value (Cronbach's Alpha 0.901 for pedagogy) and has been proven effective in measuring the dimensions of learning planning, implementation, and evaluation. Several studies also highlight the importance of data triangulation in measuring competence, such as combining the results of observations, interviews, and self-assessments to form a comprehensive picture of teacher performance.

3.3 Effectiveness of Measuring Instruments in Assessing the Pedagogical Competence of Islamic Religious Education Teachers

The effectiveness of pedagogical competence measurement tools is not only determined by the validity and reliability of the instrument, but also by its suitability to the field context. Pedagogical competence measurement tools in the context of Islamic education are highly dependent on the suitability of the instrument to Islamic values, the integrity of the competency aspects being measured, and the ability of the instrument to provide a real picture of the quality of learning provided. Research by [Erviana et al. \(2023\)](#) shows that the IoJEPD instrument has a high level of validity and reliability and can be used to comprehensively measure teacher competence in the era of the Industrial Revolution 4.0. The

advantage of this instrument lies in its ability to measure professional and pedagogical aspects at the same time, which is very relevant for Islamic Education teachers who are expected to be able to combine science with Islamic values.

Instruments that can measure the affective and spiritual aspects of teachers explicitly, such as role models, integrity, and emotional maturity, have proven effective in assessing the quality of Islamic Religious Education teachers. However, the effectiveness of teacher training and evaluation is also influenced by the availability of resources and institutional support, which are often challenges in implementing value-based education.

Therefore, the effectiveness of measuring instruments in Islamic education is not only determined by their technical validity, but also by systemic support that allows teachers to develop holistically. This is in line with the views of [Mahler et al. \(2024\)](#), who suggest the integration of technology and sustainability of training as an effort to strengthen the teacher competency evaluation system adaptively and contextually. Meanwhile, gradual professional development model that can also be adapted as a framework for continuous assessment of teacher pedagogical competence, especially in the context of religious education.

From the synthesis results, it can be concluded that effective measuring instruments must:

- (i) Have strong content and construct validity.
- (ii) be adapted to local cultural, spiritual, and social contexts.
- (iii) Be Able to measure affective and value aspects holistically, not just cognitive or mechanistic aspects.

4. CONCLUSION

This study aims to systematically and critically examine scientific literature that discusses the pedagogical competence of Islamic Religious Education (PAI) teachers at the elementary and secondary school levels. Based on the results of the synthesis of 12 articles that have been analyzed thematically, several important things can be concluded as follows:

The standards of Islamic Religious Education teacher pedagogical competency generally refer to four main dimensions, namely the ability to design, implement, evaluate learning, and develop student potential. However, in practice, the meaning of these standards is greatly influenced by local religious, social, and cultural values. The studies analyzed show that the formation of Islamic Religious Education teacher pedagogical competency is not only technical-instructional, but also ideological and moral-spiritual, which requires a continuous coaching process through mentoring and reflection on practice.

Measuring the pedagogical competence of Islamic Religious Education teachers still faces serious challenges, especially in terms of selecting valid, reliable, and relevant instruments for the context of religious learning. Although standardized instruments such as IoJEPD and portfolio assessment models are available, many affective and value aspects have not been fully accommodated in conventional measuring instruments. Therefore, a combinative approach, which combines classroom observation, self-assessment, and qualitative evaluation, is considered a more comprehensive approach.

The effectiveness of Islamic Religious Education teacher pedagogical competency measurement tools is determined by two main factors: technical validity and contextual suitability. Instruments that are too generic risk failing to capture the pedagogical complexity of Islamic religious learning that is oriented towards values and character. Thus, the development of contextual, value-based instruments that can assess holistic aspects (cognitive, affective, and psychomotor) is an urgent need in the practice of Islamic Religious Education teacher assessment in elementary and secondary schools.

Overall, the findings of this review emphasize the importance of an integrative and contextual approach in defining, measuring, and evaluating the pedagogical competence of Islamic Religious Education teachers. Further research is recommended to develop instruments that are more adaptive to Islamic values, local conditions, and developments in educational technology, while empirically testing their effectiveness in the context of formal education.

5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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