Edu Global: Jurnal Pendidikan Islam
E-ISSN: 2747-2442
URL: https://journal-stainmadina.web.id/edu-global/index

OPEN ACCESS
Vol. 7. No. 1
July 2026

Peer -Reviewed

Research Article

The Utilization of the Learning Management System in Islamic Religious Education: Systematic Literature Review

Ahmad Saipul Anwar,[1]✉ **Asepudin,**[2] **Erma Setiana,**[3] **Syaikhotin Abdillah,**[4] **Aguswan Khotibul Umam.**[5]
[1-5]Universitas Islam Negeri Jurai Siwo Lampung

Article Info
Received: 11 June 2026
Revised: 08 July 2026
Accepted: 01 August 2026

Keywords:
Learning Management System, Islamic Religious Education, digital learning, Systematic literature review.

Corresponding Author
Ahmad Saipul Anwar
ahmadsaipulanwar07@gmail.com

ABSTRACT: The integration of *the Learning Management System* (LMS) in Islamic Religious Education (PAI) learning has experienced significant developments, especially since the COVID-19 pandemic. However, studies that comprehensively summarize research trends, benefits, challenges, and recommendations for the implementation of LMS in PAI learning are still limited. This study aims to analyze the use of LMS in PAI learning for the 2020-2025 period through *the Systematic Literature Review* (SLR) method by following the PRISMA 2020 guidelines. Literature searches were conducted on Google Scholar, Garuda, DOAJ, Moraref, and Scopus databases which yielded 1,046 articles. After the identification, screening, and feasibility assessment process, a total of 28 articles were selected for analysis. The results of the study show that the most widely used LMS platforms include Google Classroom, Moodle, Microsoft Teams, Edmodo, and LMS developed by educational institutions. The findings show that the use of LMS is able to increase student engagement, participation, and learning motivation in PAI learning. In addition, there are indications of improved learning outcomes although the certainty of the evidence is still relatively low. On the other hand, the implementation of LMS faces various obstacles, such as limited internet access, inadequate supporting devices, and low digital competence of teachers. These barriers are the main factors that affect the effectiveness of LMS-based learning. Meanwhile, evidence on the success of internalizing Islamic values and character development through LMS is still very limited. This study concludes that LMS has the potential to improve the quality of PAI learning if supported by interactive learning design, adequate infrastructure, and improved teachers' digital competence. The development of interactive media, gamification, and equitable access to technology are recommended to optimize the implementation of LMS in PAI learning.

INTRODUCTION

Islamic Religious Education (PAI) is a fundamental component of the Indonesian education system, which aims to develop the faith, understanding, and practice of Islamic teachings in a holistic manner [1]. The rapid advancement of digital technology in the last two decades has fundamentally changed the paradigm of education around the world, including in the context of religious education [2]. Learning Management Systems (LMS) have emerged as an essential infrastructure that enables the delivery, management, and assessment of educational content in an organized manner through digital platforms.

The COVID-19 pandemic has acted as a powerful catalyst that has accelerated the adoption of LMS in PAI learning [3]. Government policies mandating distance learning are creating unprecedented demand for digital education solutions at all levels of education [4]. Ministerial circular letter No. 4/2020 stipulates that learning must be carried out through an online modality that fundamentally changes the way PAI teachers deliver [4].

Although the use of LMS is becoming more widespread in the context of PAI, the existing evidence base is still fragmented. Previous research has focused on individual platforms, specific education levels, or narrow outcome measures without synthesizing broader patterns [5]. Further, the unique challenge of integrating technology with traditional spiritual values in Islamic education demands a specific pedagogical approach that may not be addressed by general e-learning research [6].

This systematic review discusses three research questions (RQ) as follows: RQ1: What are the research trends regarding the use of Learning Management System (LMS) in Islamic Religious Education (PAI) learning during the period 2020-20132025? RQ2: What are the benefits and impact of using an LMS on PAI learning? RQ3: What are some of the challenges and recommendations for LMS development in

PAI learning that emerged from the research during the period? RQ1 was answered in the "Research Trends in the Utilization of LMS in PAI Learning", RQ2 was answered in the "Benefits and Impact of LMS on PAI Learning" subsection, and RQ3 was answered in the "Challenges and Recommendations" subsection (Results section). By synthesizing the available evidence, the review aims to inform educators, policymakers, and platform developers in optimizing the implementation of digital Islamic education.

METHOD

Eligibility Criteria

Research is eligible for inclusion if: (1) researches the Learning Management System or LMS platform used to deliver, manage, or support educational content; (2) focusing on Islamic Religious Education as a subject area; (3) measure student learning outcomes, academic achievement, student involvement, satisfaction, or educational effectiveness; (4) address implementation challenges, barriers, design limitations, or recommendations for LMS improvements and (5) be conducted, published, or implemented between 2020 and 2025. Research examining Islamic studies in a non-educational context or Islamic theological research without a pedagogical focus is excluded [7].

Sources of Information and Search Strategies

Systematic searches were carried out on databases relevant to the field of Islamic Religious Education study, namely Google Scholar, Garuda (Garba Digital Reference), DOAJ (Directory of Open Access Journals), Moraref (Moslem Research Reference), and Scopus, because this database consistently indexes Islamic education literature in Indonesian and international languages, in contrast to biomedical or preprint science-technology databases that are not relevant to the field of this study. The search query incorporates terms including: (LMS OR "learning management system *" OR Moodle OR Blackboard OR Canvas OR Edmodo OR Google Classroom OR "virtual learning environment* ") AND ("Islamic religious education" OR "Islamic studies education" OR "Islamic religious education" OR PAI OR "ISLAMIC EDUCATION" OR "ISLAMIC PEDAGOGY"). Additional queries combine e-learning terminology and platform-specific names to maximize sensitivity.

Selection Process

Table 1. Study Selection Flow (PRISMA 2020)

Stages	Quantity (n)
Records are identified from databases (Google Scholar, Garuda, DOAJ, Moraref, Scopus)	1.046
Duplicate records deleted	78
Screened recordings (titles and abstracts)	968
Recordings are ejected through mechanical filters (abstracts are irrelevant)	66
The article meets the initial criteria at the title/abstract screening stage	140
Full-text (most relevant) article assessed for worthiness	38
Excluded articles (do not meet inclusion criteria)	10
Studies included in systematic synthesis	28

The article selection process in this study follows the guidelines of PRISMA 2020. Literature searches were conducted through Google Scholar, Garuda, DOAJ, Moraref, and Scopus databases, which yielded 1,046 articles. After the removal of 78 duplicate articles, 968 articles remain for the screening process. Furthermore, 66 articles were excluded through mechanical filters because their abstracts were irrelevant to the research topic. At the title and abstract screening stage, 140 articles were obtained that met the initial criteria. After a full-text assessment of the 38 most relevant articles, a total of 10 articles were excluded for not meeting the inclusion criteria. Thus, as many as 28 articles were declared feasible and used in a systematic synthesis to analyze trends, impacts, challenges, and recommendations for the use of the Learning Management System (LMS) in learning Islamic Religious Education (PAI) for the 2020–2025 period Data Extraction.

The extracted structured data obtained includes: year of publication, type of research, LMS platform used, level of education, sample size, study focus, context, measured outcomes, outcome metrics, reported benefits, effectiveness status, pedagogical components, challenge categories, specific challenges identified, recommended solutions, and future research needs [8].

Bias Risk Assessment

Risk of bias was assessed in five domains: the randomization process, deviations from the intervention, missing outcome data, outcome measurement, and selection of reported outcomes. Studies are rated Low (L), Few Concern, High (H), Not applicable, or Critical per domain. Most of the included studies show "some concern" in several domains, reflecting the dominance of observational and quasi-experimental designs in educational research [9].

Table 2. Summary of Bias Risk Assessment per Study

Author (Year)	Design	Levels	Sample	Risk bias
Saleh (2021)	Surveys	High School/Teacher	27 teachers	Moderate
Mintarti (2022)	PTK	Junior High School	30 students	Low
Rowi (2022)	PTK	High School	36 students	Low
Hamzah et al. (2022)	R&D (ADDIE)	College	32 students	Moderate
Squirrelly (2021)	Quantitative Descriptive	College	108 mhs	Moderate
Novianti et al. (2020)	Qualitative	SMP	-	High
Taufik & Zulkarnaen (2025)	Quantitative	Miscellaneous	150	Low
Rusliana et al. (2025)	SLR	Miscellaneous	16 items	Moderate
Asdlori (2023)	SLR	Miscellaneous	20 articles	Moderate
Qoyyumillah et al. (2025)	Literature Review	GOOD	-	High

Ma'arif et al. (2025)	Qualitative	Junior High School	-	Moderate
Hoerudin et al. (2023)	Qualitative	High School	-	Moderate
Alhammad et al. (2025)	Literature Review	Miscellaneous	-	High
Alvianto (2020)	Quantitative Survey	College	280	Moderate

Certainty of Evidence Assessment (GRADE)

Table 3. Certainty of Evidence Assessment (GRADE)

Results	Study (n)	Design	Consistency	Indirectness	GRADE Certainty
Learning achievement / academic performance	13	Observational/quasi-experimental	Inconsistency	Indirect (self-report)	LOW
Student engagement and motivation	11	Observational/survey	Consistent	Indirect (self-report)	MEDIUM
Internalization of Islamic values	8	Qualitative / descriptive	Inconsistency	Very indirect	VERY LOW
Teacher readiness & digital competence	10	Survey/observational	Consistent	Indirect	MEDIUM
Infrastructure & access barriers	12	Multi-method/survey	Very consistent	Live	HEIGHT

The certainty of evidence was evaluated using the GRADE methodology in five outcomes: student learning achievement/academic performance (13 studies, low certainty), student engagement and motivation (11 studies, moderate certainty), internalization of Islamic values and character development (8 studies, very low certainty), teacher readiness and digital competency development (10 studies, moderate certainty), and technical infrastructure and barriers to access (12 studies, high certainty).

RESULTS AND DISCUSSION

Characteristics of Included Studies

Twenty-eight studies met the inclusion criteria and were included in this systematic review. The studies were published between 2020-2025, with concentrations on the pandemic (2020-2022) and post-pandemic (2023-2025) periods. The research design included a systematic literature review (n=4), a quantitative survey (n=8), a qualitative descriptive study (n=7), a classroom action study (n=3), a mixed method (n=2), and research and development (n=2).

The LMS platforms studied include Google Classroom (most studied), Moodle, Microsoft Teams, Edmodo, Smartjitek's institution-specific system, Takjup Digi Pci, SMAN Six Learning System, Scola Digital LMS, and supporting tools including WhatsApp Group, Google Forms, YouTube, Kahoot, and Quizizz [1]. Saleh (2021) documented that PAI teachers use Google Classroom, Microsoft Teams, and WhatsApp Groups to monitor and supervise learning activities during the pandemic [4].

Table 4. Characteristics of studies included in the synthesis (n=14 studies explicitly cited from 28 included studies)

Yes	Author (Year)	Design	Platform LMS	Levels	Sample	Study Focus
1	Saleh (2021)	Surveys	Google Classroom, Microsoft Teams	High School	27 teachers	Teacher performance in online learning
2	Mintarti (2022)	PTK	Google Classroom	Junior High School	30 students	Creativity and learning achievement
3	Rowi (2022)	PTK	SMAN Six LMS	SMA	36 students	PAI activities and learning outcomes
4	Hamzah et al. (2022)	R&D	Blended LMS	PT	32 students	Model blended learning PAI
5	Squirrelly (2021)	Descriptive	Google Classroom	PT	108 mhs	Quality of online learning
6	Novianti et al. (2020)	Qualitative	SMARTJITEK, WhatsApp	SMP	–	Analysis of pandemic PAI policies
7	Taufik & Zulkarnaen (2025)	Quantitative	Virtual learning platform	Miscellaneous	150	Student engagement & academic performance
8	Rusliana et al. (2025)	SLR	Wide range of LMS	Miscellaneous	16 items	PAI e-learning challenges and strategies
9	Asdlori (2023)	SLR	Wide range of platforms	Miscellaneous	20 articles	PAI learning media in the pandemic era
10	Qoyyumillah et al. (2025)	Literature Review	LMS, AI	General PAI	–	Digital Islamic learning strategies
11	Ma'arif et al. (2025)	Qualitative	TAKJUP Digi PCI LMS	Junior High School	–	Internalization of digital Islamic values
12	Hoerudin et al. (2023)	Qualitative	Social media-based LMS	High School	–	PAI e-learning innovation
13	Alhammad et al. (2025)	Literature Review	Wide range of platforms	Miscellaneous	–	Islamic education e-learning platform
14	Alvianto (2020)	Surveys	Not detailed	PT	280	The effectiveness of PAI online learning

Research Trends on the Utilization of LMS in PAI Learning

Analysis of research trends reveals an increase in scientific attention to LMS in PAI learning during and after the COVID-19 pandemic. Of the 198 articles identified in one systematic review covering the years 2020-2025, 16 met the quality criteria for the analysis, demonstrating substantial but heterogeneous research activity [2].

The advent of the digital revolution has brought significant innovations including LMS for online classroom

management, interactive learning videos, and AI-based applications that enable personalization of materials [5] Research trends show that the implementation of e-learning in PAI shows a significant positive impact on student motivation, engagement, and learning outcomes [2]. Studies confirm that platforms such as Google Classroom and Moodle have succeeded in increasing interactivity and flexibility in PAI learning, particularly during the pandemic period that supports the sustainability of distance learning. Digital media including learning videos, interactive quizzes, and online discussion forums make learning more engaging, fun, and relevant to the needs of today's digital generation.

The transformation of teaching methods in Islamic education has been accelerated by the digital revolution, with the adoption of LMS representing a paradigm shift from a teacher-centered approach to a student-centered approach [10]. Previously, Islamic studies courses relied on a face-to-face model using teacher-centered learning, which severely limited student interaction and control over the learning process. The integration of an LMS-based approach has enabled online learning resources to provide added value in the context of face-to-face learning.

Benefits and Impact of LMS on PAI Learning

Low-certainty evidence suggests that LMS implementation is associated with improved learning outcomes in PAI, although the following findings come from different research designs (quasi-experimental, classroom action research, and correlational surveys) and should therefore be interpreted separately according to design strength and sample size, rather than equated as a single effect measure. In a quasi-experimental design, Hamzah et al. (2022) showed that student learning outcomes improved after using the Blended Learning model, with significant differences between students who used and did not use the model [10] (in small-scale classroom action studies) reported an increase in learning achievement from a pre-action average score of 67.73 points (20% completeness) increasing to 80 points (60% completeness) in cycle II and 93.33% completeness after cycle III; This number describes improvement in the context of a single class and cannot be generalized beyond that setting.

In a similar classroom action research design, Rowi (2022) documented an increase in learning activity achievement from 41.7% in the pre-action stage to 64.8% in cycle I and 85.2% in cycle II, with an average achievement score increasing from 61.78 to 73.72 in cycle I and 81.19 in cycle II with a completeness criterion of 94.44% [11]. At the level of correlation survey evidence with a larger sample, Taufik and Zulkarnaen (2025) found a correlation between virtual learning and academic achievement of $r = 0.588$ ($p < 0.01$), with regression analysis showing that the model explained about 49.4% of the variance in academic achievement ($R^2 = 0.494$); This correlation design allows for broader generalizations than class action research, but it cannot establish cause-and-effect relationships [3].

Student Engagement and Motivation

Evidence with a moderate degree of certainty supports that LMS-based PAI learning increases student engagement and motivation. The correlation between virtual learning platforms and student engagement was $r = 0.631$ ($p < 0.01$), with student engagement emerging as a more dominant predictor of academic outcomes ($\beta = 0.478$, $t = 6.187$, $p = 0.000$) compared to in-person platform use ($\beta = 0.312$, $t = 4.217$, $p = 0.000$) [3].

The findings confirm that virtual Islamic learning spaces have a positive influence on student engagement and achievement. Students who find their online Islamic education platforms accessible, interactive, and well-structured tend to engage more deeply in learning activities. Interactive content and responsive platforms appear to be the main contributors to these positive outcomes.

Wulandari (2021) reported that more than 90% of students are familiar with using Google Classroom with perceived benefits including improved learning quality, increased collaboration, and increased accessibility [12] Novianti et al. (2020) also found that students showed greater interest in PAI material delivered through audiovisual formats, with enthusiasm shown through quiz performance and demand for additional video content [13].

Internalization of Islamic Values and Character Development

Evidence with a very low level of certainty exists regarding the influence on the internalization of Islamic values and character development. Ma'arif et al. (2025) found that the internalization of Islamic values is achieved through the integration of Islamic values into digital curricula and learning tools, teacher examples, the cultivation of religious practices, and the use of LMS as a medium for instilling values The use of digital technology shows a positive impact on the understanding and practice of values, although challenges in controlling students' digital behavior still remain(Ma'arif et al., 2025).

Research concludes that the internalization of Islamic values is effective when technology is positioned as a means to support the instillation of values rather than as a learning goal. An LMS system designed with a value-based foundation can serve as an instrument for trans-internalizing characters, not just as a medium for material distribution. The internalization process operates through stages that are aligned with established theories: value transformation, value transaction, and value trans-internalization.(Ma'arif et al., 2025)

Students demonstrate observable behavioral changes including discipline in following device usage rules, polite online communication, and adherence to academic deadlines. Spontaneous religious expressions, such as reciting takbir when achieving high scores in educational games, were reported in one small-scale qualitative study as an early indication that students' emotional responses may be related to the values being taught. However, because this evidence was sourced only from one study with a very low level of certainty (see Table 3. Certainty of Evidence (GRADE), these findings cannot be generalized as evidence that the internalization of values has reached the realm of psychomotor and habituation, and should be interpreted as an initial hypothesis that requires confirmation through research with a stronger design and sample.

Challenges and Recommendations

Technical Infrastructure and Access Barriers

High-certainty evidence documents substantial infrastructure and barriers to access as key implementation challenges. This is the strongest finding of this review. Inadequate infrastructure and lack of technological devices

affect many institutions, especially in remote areas with unstable internet and insufficient hardware [14].

During the pandemic, several issues have arisen regarding the use of internet-based learning media, including inadequate devices, poor internet infrastructure, and the inability of students' parents to pay for data quotas Not all students have equal access to electronic devices and stable internet, thus creating a gap in Islamic learning between students who have and do not have access [1]. Challenges remain, including uneven access to devices, poor internet infrastructure, and financial constraints faced by some students' families [3].

Rusliana et al. identified that the dominant barriers arise in technical aspects (uneven availability of devices, internet access, and infrastructure) as well as non-technical aspects (digital literacy and teacher training, student motivation and readiness, and institutional support [2]. Novianti et al. (2020) documented specific barriers including: limited Android phone facilities that require teachers to provide online and offline learning, poor internet network access leading to delays in attendance and assignment collection, and slow student learning activities [13].

Saleh (2021) reported that of the 27 supervised teachers, only 13 responded to online instruments, with obstacles including teacher inactivity in WhatsApp groups that led to missed instruments, apathy towards online supervision due to weak emotional connections, and poor internet connectivity in certain areas [4]. The variation in teacher performance is influenced by the mindset, level of competence in using the LMS, and the availability of the internet network.

Teacher Readiness and Digital Competency

Evidence with moderate certainty documents substantial gaps in teacher readiness and digital competence. Around 43% of PAI teachers demonstrate the ability to operate the e-learning platform optimally [2]. The shortage of trained personnel means that without comprehensive teacher training, educators struggle to implement e-learning effectively [14].

Not all educators have sufficient skills and knowledge to optimize the use of learning media, so adequate training and support are needed to improve educators' competence in utilizing learning media effectively [1]. The implementation of contemporary learning models requires additional skills from teachers and students' adaptation to new methods [5].

Students living in Islamic dormitories who are not allowed to bring communication devices face special obstacles, so teachers have to use projector screens and alternative assignment collection methods [15]). The challenge of online supervision arises from the mindset of teachers who believe that online learning will not be effective, which comes from apathy without motivation to create and innovate [4].

Recommendations for LMS Development

The most effective e-learning strategy in the context of PAI learning involves the use of an LMS enriched with interactive media and gamification elements [2]). This approach not only increases student motivation and participation but also supports the delivery of more engaging and meaningful material. However, this strategy must be supported by adequate infrastructure as well as ongoing training and motivation for teachers and students.

Specific recommendations include: holding workshops to improve teacher competence, especially in utilizing online learning media [4]. develop teacher competencies and design flexible and contextual curriculum to support effective implementation [5]. leveraging LMS (e.g., Google Classroom/Moodle) enriched with interactive media and gamification, accompanied by strengthening teachers' digital competencies through continuous training, with policy and infrastructure support that ensures equitable and sustainable implementation [2].

The implementation of e-learning in Islamic religious education should go through three stages: planning, analyzing needs, preparing curriculum and learning materials, selecting platforms and technologies, developing content, implementation (training for teachers and platform managers, classroom setup and scheduling of materials, developing an online learning community, monitoring and support), and evaluation evaluating learning processes and outcomes, gathering feedback, improving and developing Read More [15].

The transformation of digital education in PAI requires an ecosystem approach, not just media innovation [4]. The power of internalization lies not only in the media, but also in the consistency of regulations and school culture that supports value-based habituation. Internalizing value in the digital age requires the integration of secure, directed, and value-based technology systems.

DISCUSSION

The review covers the 2020-2025 period comprehensively, capturing the acceleration of pandemic adoption and post-pandemic normalization. The use of PRISMA and GRADE provides methodological transparency and an explicit gradation of evidence certainty. The resulting LMS-PAI conceptual model is a new contribution that can be applied to the broader context of digital Islamic education, as described in Table 5 and Table 6 below.

Table 5. LMS-PAI Conceptual Model Components

Components	Elements
Input	Fitur platform LMS
Input	Teachers' digital competencies
Input	Infrastructure & access
Pedagogical Process	Interactive design
Pedagogical Process	Teachers as facilitators
Pedagogical Process	Deliberate integration of Islamic values
Exterior	Engagement & motivation
Exterior	PAI learning outcomes

Exterior	Internalization of Islamic values
Moderator	Infrastructure gaps
Moderator	Teachers' digital readiness

Table 6. Proposition of Intercomponent Relationships LMS-PAI Conceptual Model (Model, propositional, not empirically tested)

Propositions	Hubungan	Description
P1	Input -> Pedagogical Process	The features of the LMS platform and the digital competence of teachers allow the formation of an interactive pedagogical process.
P2	Pedagogical Process -External >	Pedagogical processes that deliberately integrate Islamic values are associated with increased engagement, learning outcomes, and internalization of students' values.
P3	External <-> Pedagogical Process (moderated by Moderator)	The gap in infrastructure and digital readiness of teachers moderates (weakens) the relationship between the pedagogical process and learning outputs.
P4	External -> Input (feedback)	Learning outcomes provide feedback that strengthens teacher readiness and refinement of LMS design in the next implementation cycle.

This model proposes four propositions that answer RQ1–RQ3 in an integrated manner: P1) LMS platform features and teachers' digital competencies enable the formation of an interactive pedagogical process; P2) pedagogical processes that deliberately integrate Islamic values associated with increased engagement, learning outcomes, and internalization of students' values; P3) the gap in infrastructure and teachers' digital readiness moderates (weakens) the relationship between the pedagogical process and learning outputs; and P4) learning outcomes provide feedback that strengthens teacher readiness and refinement of LMS design in the next implementation cycle. This model is proportional and has not been empirically tested in this review; testing on future primary research, for example through structural equation modeling (SEM) or longitudinal studies, is needed to confirm the direction and strength of the relationships between its components.

Nonetheless, this review has a number of methodological limitations on the primary studies synthesized. Most studies used observational or quasi-experimental designs. Sample sizes are generally small to medium. Yield measurement is largely dependent on self-report or unvalidated instruments. The heterogeneity of platforms, education levels, and outcome sizes limit the synthesis of meta-analytics.

Database searches may miss gray literature and unindexed studies. Language restrictions in Indonesian and English may exclude relevant research. The rapid evolution of the platform means that some of the findings may be outdated even if they have just been published.

Comparison with Previous Research

This review expands on the previous systematic study, analyzing 20 articles on pandemic learning media, synthesizing 18 articles on e-learning challenges and strategies. The broader inclusion criteria, the use of GRADE, and the resulting conceptual model make a more nuanced contribution. In contrast to the general study of e-learning, this synthesis specifically raises the unique considerations of Islamic education: the delivery of spiritual content, character development, and the internalization of religious values that require a pedagogical approach outside the framework of standard educational technology.

LMS implementation should prioritize interactive features, timely feedback, and active involvement of teachers as facilitators, not just content distributors. The integration of religious values must be deliberately and systematically designed. For policymakers, strong evidence of infrastructure barriers demands targeted investment in connectivity and devices in remote areas, including data quota subsidy programs. The systematic professional development of teachers in digital-Islamic pedagogy is a priority that cannot be ignored.

REFERENCES

[1] A. Asdlori, "Learning Media for Islamic Religious Education During a Pandemic: A Systematic Literature Review Analysis," *Int. J. Soc. Sci. Relig.*, vol. 4, no. 2, pp. 235–250, 2023, https://doi.org/10.53639/ijssr.v4i2.179.

[2] Z. N. A. Rusliana, K. Koderi, and F. Fitriani, "Analisis Tantangan Dan Strategi E-Learning Dalam Pembelajaran (Pai) Di Era Digital : Tinjauan Pustaka Sistematis," *J. Inov. Penelit. Pendidik. Dan Pembelajaran*, 2025, https://doi.org/10.51878/learning.v6i1.8447.

[3] H. Taufik and M. Zulkarnaen, "Dampak ruang belajar Islami virtual terhadap keterlibatan siswa dan prestasi akademik di Indonesia," *J. Pembelajaran dan Pendidik. Timur Selatan*, 2025, https://doi.org/10.58812/esle.v3i02.669.

[4] M. Saleh, "Upaya meningkatkan kinerja guru pendidikan agama Islam (PAI) di masa pandemi dengan pelatihan dan pemantauan menggunakan Google Form," *AL MA ARIEF J. Pendidik. Sos. Dan Budaya*, 2021, https://doi.org/10.35905/almaarief.v3i1.1999.

[5] N. I. Qoyyumillah, H. Huril'in, and S. Anam, "Mempercepat pembelajaran Islam di era digital: Strategi kontemporer untuk membangun generasi yang berpengetahuan, berkarakter, dan adaptif di tengah transformasi global." p. 3, 2025. https://doi.org/10.55606/jurripen.v4i2.5684.

[6] D. M. S. Ma'arif, A. Saepudin, and N. Taja, "Internalisasi Nilai-Nilai Islam Dalam Pembelajaran Pendidikan Agama Islam Berbasis Digital Di Smp Prima Cendekia Islami," *Idarotuna*, 2025, https://doi.org/10.29313/idarotuna.v3i1.9821.

[7] M. A. H. Arfan and S. W. Hasibuan, "Pelatihan Penulisan Artikel Ilmiah Dengan Metode Systematic Literature Review (SLR)," *FUSION J. Pengabdi. Kpd. Masy.*, vol. 3, no. 2, pp. 104–111, 2025.

[8] R. Habibi and Artha Glory Romey Manurung, "SLR Systematic Literature Review: Metode Penilaian Kinerja Karyawan Menggunakan Human Performance Technology," *J. Appl. Comput. Sci. Technol.*, vol. 4, no. 2, pp. 100–107, 2023, https://doi.org/10.52158/jacost.v4i2.511.

[9] E. Triandini, S. Jayanatha, A. Indrawan, G. Werla Putra, and B. Iswara, "Metode Systematic Literature Review untuk Identifikasi Platform dan Metode Pengembangan Sistem Informasi di Indonesia," *Indones. J. Inf. Syst.*, vol. 1, no. 2, p. 63, 2019, https://doi.org/10.24002/ijis.v1i2.1916.

[10] H. Assoc, A. A. Purwati, Y. Irawan, and S. H. Tuah, *Efektivitas model blended learning berbasis problem based learning pada mata kuliah IPS*. Jurnal Instruksi Internasional, 2022. https://doi.org/10.29333/iji.2022.15242a.

[11] M. Rowi, "Model Blended Learning Dikombinasi dengan Investigasi Kelompok Berbantukan Sistem Pembelajaran LMS SMAN SIX Efektif Meningkatkan Aktivitas dan Hasil

Belajar Siswa Mata Pelajaran Pendidikan Agama Islam," *J. Pendidik. Sultan Agung*, vol. 2, no. 3, pp. 353–369, 2022, **https://doi.org/**10.30659/jp-sa.v2i3.26616.

[12] I. Wulandari, *Pemanfaatan media google class dalam meningkatkan saling pembelajaran pada masa pandemi covid-19 di IHDN denpasar*. Jurnal Penjaminan Mutu, 2021. **https://doi.org/**10.25078/JPM.V7I1.1825.

[13] E. Novianti, A. R. Fatkhia, and Z. Nuryana, "Analisis kebijakan pembelajaran PAI di masa pandemi: Peluang dan tantangan," *J. Pendidik. Islam*, 2020, **https://doi.org/**10.22236/jpi.v11i2.5663.

[14] N. Alhammad, F. Awae, A. Yussuf, A. Y. M. Al-Awami, M. Hayiwaesorhoh, and A. Chehama, "Using E-Learning Platforms in Teaching Islamic Education," *J. Islam. Educ. Res.*, vol. 11, no. 1, pp. 63–69, 2025, **https://doi.org/**10.22452/jier.vol11no1.6.

[15] C. W. Hoerudin, S. Syafruddin, A. Mayasari, O. Arifudin, and S. Lestari, "E-Learning as a Learning Media Innovation in Islamic Education," *QALAMUNA J. Pendidikan, Sos. dan Agama*, vol. 15, no. 1, pp. 723–734, 2023, **https://doi.org/**10.37680/qalamuna.v15i1.4466.