

Digital Transformation of Pesantren Curriculum: Islamic Texts, Arabic-English, and Research Culture

Fikri Alfadani^{1*}, Zidnia Nuron Imanan Umami Hajar²

¹Universitas Islam Negeri Sunan Kalijaga, Yogyakarta, Indonesia

²Universitas Islam Negeri Maulana Malik Ibrahim Malang, Indonesia

Email: fikrialfadani2@gmail.com

Abstrak

This study aims to analyze the transformation of the pesantren-based Islamic Religious Education curriculum in the digital era through the integration of classical Islamic text studies, Arabic-English bilingual learning, and a research-oriented culture among students at Al-Khoirrot Islamic Boarding School, Malang. Employing a qualitative case study approach, the study collected data through observations, interviews, documentation, and an analysis of curriculum implementation and educational programs within the pesantren. Data were analyzed through data reduction, data display, and conclusion drawing, with triangulation employed to ensure the credibility of the findings. The findings indicate that curriculum transformation does not diminish the scholarly identity of the pesantren; rather, it strengthens this identity by integrating classical Islamic text studies with digital technology, developing hybrid learning practices, and optimizing digital library resources. The use of Arabic and English as languages of instruction and communication broadens students' access to both classical Islamic literature and global academic resources. Meanwhile, a research-oriented culture is fostered through regular academic writing, scholarly discussions, and research supervision, thereby developing students' critical, analytical, and adaptive thinking skills. The study concludes that pesantren-based curriculum transformation can sustainably integrate classical Islamic values with the demands of digital education without compromising the distinctive characteristics of pesantren education.

Article History

Received : July 2026

Revised : August 2026

Accepted : September 2026

Keywords:

Pesantren-Based Curriculum, Islamic Religious Education, Curriculum Transformation, Digital Education, Bilingual Learning

How to Cite:

Fikri, Alfadani., Umami Hajar, Z. N.I. (2026). Digital Transformation of Pesantren Curriculum: Islamic Texts, Arabic-English, and Research Culture. *JIWO: Journal of Islamic Worldview*, 1 (3), 186-206

INTRODUCTION

Digital transformation has brought fundamental changes to educational systems worldwide, including Islamic education institutions rooted in the pesantren tradition (Suradji & Faridi, 2025; Warisno et al., 2025). These changes involve not only the use of information technology as a learning medium but also the reconstruction of curricula to address the increasingly dynamic needs of society without compromising the scholarly identity that underpins these institutions. In this context, pesantren face the challenge of preserving the traditional transmission of classical Islamic knowledge while simultaneously developing 21st-century competencies (Ningsih et al., 2026; Suradji & Faridi, 2025), including digital literacy (Fakhriddana, Azizah, & Annisa,

Annisa, 2026; Zaironi & Hilar, 2026; Zaironi & Rohman, 2026), critical thinking (Fakhridana, Azizah, & Annisa, Annisa, 2026; Fakhridana, Azizah, & Zaironi, 2026; Maqfiroh & Zaironi, 2026; Rohanita et al., 2026; Tirta & Zaironi, 2025; Zaironi & Rohman, 2026), intercultural communication, and proficiency in international languages (Zaironi, 2026; Zulfan Syahansyah, 2026). These competencies have become increasingly important because pesantren graduates are expected not only to possess spiritual depth and mastery of *kitab turats* (classical Islamic texts) but also to adapt to developments in science, technology, and contemporary knowledge (Mujahid, 2021; Sofi et al., 2025). Therefore, the transformation of the pesantren-based Islamic Religious Education curriculum has become a strategic issue in determining the continued role of pesantren as centers of Islamic education that remain relevant, adaptive, and firmly rooted in the Islamic scholarly tradition.

Despite the rapid advancement of digital transformation, its implementation in pesantren-based educational institutions continues to face various challenges. Some pesantren still perceive digitalization primarily as the provision of technological devices (Aprilianto & Baharun, 2026; Zafi et al., 2021), while more fundamental changes in curriculum structures, pedagogical approaches, and academic ecosystems have yet to be fully realized. Consequently, the integration of classical Islamic text studies, which constitute the core of pesantren education, with global competencies often remains fragmented (Zaironi, 2026; Zaironi & Husni, 2026; Zaironi & Rohman, 2026), creating a gap between Islamic scholarly proficiency and the capacity to respond to the demands of an increasingly digital society. This condition indicates that the primary challenge does not lie in the availability of technology itself, but rather in the capacity of educational institutions to undertake comprehensive curriculum transformation while maintaining the continuity of the values, traditions, and distinctive characteristics of pesantren education (Halimah et al., 2024; Sofi et al., 2025; Taqiyuddin et al., 2025). This issue warrants further investigation because the success of curriculum transformation will significantly influence the capacity of pesantren graduates to respond to educational, social, and professional demands in the digital era.

An interesting example of such curriculum transformation can be observed at Al-Khoirot Islamic Boarding School, Malang. The pesantren has demonstrated systematic efforts to transform its Islamic Religious Education curriculum by integrating classical Islamic text studies as the foundation of learning with the use of digital technology, the development of hybrid learning, and the provision of digital library resources that expand access to Islamic literature (Muhlis et al., 2025). This transformation is also reflected in the use of Arabic and English as languages of instruction and communication across various educational programs, enabling students to engage with both classical Islamic literature and international academic references. In addition, the pesantren has fostered a research-oriented culture through

regular academic writing, scholarly discussions, and other academic activities designed to strengthen students' intellectual capacities. This phenomenon demonstrates that curriculum transformation at Al-Khoirot is not merely a matter of technology adoption; rather, it represents an effort to integrate the Islamic scholarly tradition with the demands of digital education in a comprehensive manner, thereby developing an adaptive educational system without compromising the fundamental characteristics of pesantren education.

Previous studies have demonstrated that pesantren are increasingly responding to digital developments through adjustments to their curricula, learning practices, and educational governance (Abidin, 2020; Anggraeni et al., 2024; Halimah et al., 2024). Several studies have reported that curriculum transformation can be achieved by integrating Islamic values, digital literacy, and modern knowledge without eliminating the distinctive characteristics of education based on *kitab turats* (Maskuro & Abrori, 2026; Sari, 2025). Other studies have emphasized the importance of digital learning, hybrid learning, and strengthened pesantren leadership in responding to social change and technological development (Halimah et al., 2024; Jamil et al., 2025; Warisno et al., 2025). Research on pesantren curriculum reconstruction has likewise indicated that adaptation to the digital era is not intended to replace established Islamic educational traditions but rather to enhance the relevance of pesantren by integrating technology with existing learning systems (Rohim et al., 2026; Taqiyuddin et al., 2025). Nevertheless, much of the existing research remains focused on digital learning, curriculum management strategies, or technology integration in general (Andrean & Zaironi, 2026; Pudjiono et al., 2026; Sholih & , Muhammad Jazuli, 2026). Relatively limited attention has been given to curriculum transformation as a systemic process that simultaneously connects classical Islamic text studies, Arabic-English bilingual learning, and the development of a research culture among pesantren students. Consequently, the existing literature has yet to provide a comprehensive account of how these dimensions interact within the broader transformation of pesantren education.

Similarly, research on bilingual learning in pesantren has generally focused on improving Arabic or English proficiency as a means of communication and strengthening international literacy (Ahmadi, 2025; Subair et al., 2024). Studies of the academic culture of pesantren have also tended to examine scholarly activities, literacy practices, or human resource development separately from curriculum transformation (Ali & Halim, 2023; Halimah et al., 2024; Najib et al., 2026; Qorib, 2025). As a result, the interrelationship among these components has rarely been examined within a comprehensive framework for transforming the Islamic Religious Education curriculum. Based on this review, a research gap can be identified concerning the integration of classical Islamic text studies, bilingual learning, digital technology, and research culture as interconnected elements that shape curriculum transformation in

pesantren. This study addresses this gap by examining curriculum transformation at Al-Khoirot Islamic Boarding School, Malang, as a process of institutional change that preserves the epistemological identity of pesantren while expanding students' academic capacities through the integration of learning systems, international languages, and a research-oriented culture. Accordingly, this study contributes to the development of policies for transforming Islamic Religious Education curricula that are responsive to the digital era while remaining grounded in the classical Islamic scholarly tradition.

Based on the conceptual framework and previous research, the novelty of this study lies in examining the transformation of the pesantren-based Islamic Religious Education curriculum as a systemic process of change that integrates three principal dimensions: strengthening classical Islamic text studies, implementing Arabic-English bilingual learning, and fostering a research culture among pesantren students within a curriculum framework adapted to the digital era. Unlike previous studies, which have generally examined digital learning, technology implementation, or language competency development separately, this study conceptualizes these three dimensions as interconnected components of curriculum transformation that can occur without undermining the epistemological identity of pesantren. Curriculum transformation is therefore understood not merely as a change in teaching methods or the adoption of technology, but as a broader paradigm shift in education that retains *kitab turats* as the foundation of Islamic scholarship while creating opportunities for international language proficiency and the development of an academic culture. This perspective offers a more comprehensive understanding of pesantren curriculum transformation by demonstrating that its effectiveness depends on the ability to harmonize the continuity of the Islamic scholarly tradition with the demands of digital education in a balanced and sustainable manner.

Building on this novelty, the study seeks to answer how the pesantren-based Islamic Religious Education curriculum is transformed through the integration of classical Islamic text studies, Arabic-English bilingual learning, and a research culture among students at Al-Khoirot Islamic Boarding School, Malang, and how this transformation preserves the distinctive characteristics of pesantren education amid the development of the digital era. The central argument of this study is that successful curriculum transformation is determined not merely by the extent of technology adoption but by the capacity to harmonize Islamic educational traditions with global competency demands through systematic and sustainable curriculum change. On this basis, the study is expected to make an academic contribution by expanding the scholarship on Islamic Religious Education curriculum transformation and a practical contribution to the formulation of pesantren educational policies that promote digital literacy, international language proficiency, and a research-oriented culture without diminishing the central authority of classical Islamic text studies as the foundation of

pesantren-based Islamic education.

RESEARCH METHOD

This study employed a qualitative approach using a case study design (Creswell & Creswell, 2017; Gammelgaard, 2017; Priya, 2021) to gain an in-depth understanding of the transformation of the pesantren-based Islamic Religious Education curriculum in the digital era. This design was selected because it enables the researchers to examine curriculum transformation holistically within its real-life context, including the interrelationship among classical Islamic text studies, Arabic-English bilingual learning, and a research-oriented culture as interconnected components of the educational system.

The study was conducted at Al-Khoirot Islamic Boarding School, Malang. The site was purposively selected because it possesses characteristics directly relevant to the research focus, particularly the integration of classical Islamic text studies, Arabic-English bilingual learning, digital technology, and the development of a research-oriented culture within the Islamic Religious Education curriculum. These characteristics make the pesantren a relevant case for examining curriculum transformation in a pesantren-based educational context.

Data were collected through observations, in-depth interviews, and document analysis (Eppich et al., 2019; Khan et al., 2025). Observations focused on learning activities, the use of digital technology, and students' academic activities. In-depth interviews were conducted with the pesantren caretaker, institutional leaders, teachers, and students to obtain detailed information concerning the process of curriculum transformation. The documentary data included curriculum documents, educational programs, learning guidelines, and records of academic activities within the pesantren. Data analysis was conducted interactively through data condensation, data display, and verification or conclusion drawing (Im et al., 2023; Mezmur, 2020). Data condensation was used to organize and refine information according to the research focus, while data were displayed through narrative descriptions and thematic matrices. Data credibility was established through source triangulation, methodological triangulation, prolonged and persistent observation, and member checking with selected informants. These procedures were employed to strengthen the credibility, dependability, and confirmability of the research findings.

Table 1. Characteristics and Roles of Research Informants

Code	Informant	Rationale for Selection
IF-01	Pesantren Caretaker	Responsible for determining policies related to curriculum transformation.
IF-02	Director of Education / Head of Curriculum	Responsible for curriculum planning and implementation.

IF-03	Head of Madrasah Diniyah	Possesses comprehensive knowledge of the implementation of classical Islamic text studies within the curriculum.
IF-04	Coordinator of the Arabic-English Language Program	Responsible for managing bilingual learning programs.
IF-05	Classical Islamic Text Studies Teacher	Directly implements classical Islamic text-based instruction.
IF-06	Arabic Language Teacher	Develops students' Arabic language competencies.
IF-07	English Language Teacher	Develops students' English language competencies.
IF-08	Research Culture Coordinator / Digital Library Manager	Develops students' research culture and digital literacy.
IF-09	Bilingual Program Student	Directly experiences the implementation of the transformed curriculum.
IF-10	Classical Islamic Text Studies Program Student	Provides firsthand learning experiences related to classical Islamic text studies.

Source: Data Collection, 2026

RESULT AND DISCUSSION

RESULTS

Digital-Era Transformation of the Pesantren-Based Islamic Religious Education Curriculum: Integrating Classical Islamic Text Studies, Arabic-English Bilingual Learning, and Students' Research Culture

In this study, the transformation of the pesantren-based Islamic Religious Education curriculum is understood as a systemic process of change that maintains classical Islamic text studies as the primary foundation of education while integrating digital technology, Arabic-English bilingual learning, and a research-oriented culture throughout the educational process. This transformation is not understood as a replacement of the traditional *salaf* system with a modern educational system, but rather as an effort to strengthen the Islamic scholarly tradition through approaches that are more responsive to developments in science and technology. At Al-Khoirot Islamic Boarding School, Malang, this transformation is reflected in the integration of curriculum policies, instructional strategies, the language environment, the use of digital library resources, and the continuous development of academic activities. These elements collectively form an educational ecosystem that remains grounded in pesantren values while responding to the demands of the digital era.

Table 2. Findings on the Transformation of the Pesantren-Based Islamic Religious Education Curriculum

Interview Excerpt	Indicator	Informant
"Our principle is not to replace the pesantren tradition, but to develop the curriculum so that classical Islamic text studies remain at the core of learning while being supported by digital technology in accordance with contemporary developments."	Curriculum transformation based on the preservation of tradition	IF-01 (Pesantren Caretaker)
"Curriculum changes are implemented by integrating classical Islamic text studies, digital learning, and the	Curriculum integration	IF-02 (Director of Education/Head of Curriculum)

development of Arabic and English competencies within a single educational system."		
"Classical Islamic texts are still taught using pesantren-based methods, but learning resources have been expanded through digital libraries and electronic learning media."	Digitalization of learning resources	IF-03 (Head of Madrasah Diniyah)
"Arabic and English are used in instruction and daily communication so that students can access both classical literature and international academic references."	Bilingual learning environment	IF-04 (Language Program Coordinator)
"We do not only teach the content of classical texts; we also train students to discuss, write, and search for scholarly references as part of the learning process."	Strengthening research culture	IF-08 (Research Culture Coordinator)
"Learning has become more varied because classical texts are studied directly and then supported by digital references and academic discussions."	Transformation of students' learning experiences	IF-09 (Bilingual Program Student)

The data presented in Table 2 indicate that curriculum transformation at Al-Khoirot Islamic Boarding School is a comprehensive process rather than merely the addition of digital devices to classroom instruction. The informants consistently emphasized that the identity of the pesantren remains the primary foundation of the curriculum through the continued strengthening of classical Islamic text studies. At the same time, this foundation is expanded through the integration of digital technology, bilingual learning, and the development of an academic culture, resulting in a learning system that is more responsive to developments in knowledge and technology. These findings suggest that curriculum transformation occurs gradually through adjustments to curriculum structures, instructional strategies, and the academic environment without eliminating the deeply rooted characteristics of pesantren education.

Further interpretation indicates that curriculum transformation extends beyond changes in instructional practices and encompasses a broader transformation in the educational paradigm. Classical Islamic text studies are no longer positioned as an isolated educational activity but serve as a central component around which various supporting competencies are integrated, including Arabic-English proficiency, digital literacy, and research skills. The relationship among these components indicates a shift from a predominantly knowledge-transmission model toward a more comprehensive approach to developing students' intellectual capacities. Thus, the transformation does not represent a shift in the identity of the pesantren toward modern education; rather, it constitutes a process of curriculum reconstruction that preserves the values of classical Islamic scholarship while expanding graduates' capacity to adapt to social developments and educational challenges in the digital era.

The observational findings reinforce the interview data, demonstrating that curriculum transformation at Al-Khoirot Islamic Boarding School is evident in students' everyday academic activities. The researcher observed that classical Islamic

texts continue to be taught using distinctive pesantren methods, including *bandongan*, *sorogan*, and *musyawarah*, while these practices are supported by digital media, digital library resources, and various electronic references. At the same time, Arabic and English were used in instructional activities and communication within particular programs, creating a bilingual learning environment. The researcher also observed regular scholarly discussions, academic writing assignments, and the use of digital references, indicating that a research-oriented culture has become an integral component of curriculum transformation rather than merely an extracurricular activity outside the learning process.

Taken as a whole, the data indicate that the transformation of the pesantren-based Islamic Religious Education curriculum represents a process of educational change that integrates continuity of tradition with adaptation to contemporary developments. Interview, documentary, and observational data demonstrate that the transformation is not intended to replace the established pesantren educational system but to strengthen its effectiveness through the integration of digital technology, Arabic-English bilingual learning, and the development of a research-oriented culture. Accordingly, curriculum transformation in this study constitutes a planned, comprehensive, and sustainable process of change that produces an educational ecosystem capable of preserving the Islamic scholarly identity of the pesantren while enhancing students' academic capacities, global literacy, and readiness to navigate the dynamics of digital society.

Table 3. Synthesis of Curriculum Transformation Findings by Informant Role

Informant Role	Interview Excerpt	Indicator
Pesantren Caretaker	"Curriculum transformation must preserve the spirit of the pesantren, so technology should serve as a means of strengthening classical Islamic text studies rather than replacing them."	Preservation of pesantren identity in curriculum transformation
Director of Education/Head of Curriculum	"All programs are developed under a unified policy direction so that classical Islamic text studies, language learning, and technology mutually reinforce one another."	Integration of curriculum policies
Head of Madrasah Diniyah	"Classical Islamic text studies remain at the core, but instructional strategies have become increasingly adaptive with the support of digital media."	Transformation of instructional strategies
Arabic-English Language Program Coordinator	"A bilingual environment is developed to broaden students' access to classical Islamic literature and international academic references."	Strengthening bilingual competencies
Classical Islamic Text Studies Teacher	"Pesantren-based methods are maintained, while learning resources have become more diverse through digital references."	Integration of classical texts and technology
Research Culture Coordinator	"Students are encouraged to write, engage in discussions, and search for scholarly references as part of the learning process."	Strengthening research culture

Bilingual Program Student	"We study classical texts directly, but we also use digital references and foreign languages to deepen our understanding."	Impact of curriculum transformation on students' learning experiences
---------------------------	--	---

The data in Table 3 demonstrate that curriculum transformation at Al-Khoirot Islamic Boarding School is constructed through interconnected institutional policies, instructional practices, and students' learning experiences. The pesantren caretaker and director of education position transformation as a strategic institutional policy grounded in pesantren values, while the head of the madrasah, teachers, and language program coordinator translate these policies into instructional practices that integrate classical Islamic text studies, digital technology, and a bilingual learning environment. At the same time, the research culture coordinator and students demonstrate that curriculum transformation affects not only learning processes but also the development of more critical, collaborative, and literacy-oriented academic habits. The interconnected perspectives of these informants indicate that transformation takes place both vertically and horizontally, creating alignment among policy direction, curriculum implementation, and students' learning experiences.

A deeper interpretation reveals that each curriculum component performs a complementary function in supporting the transformation process. Classical Islamic text studies remain at the center of learning, ensuring continuity with the Islamic scholarly tradition, while digital technology expands access to learning resources and enriches instructional strategies. The use of Arabic and English strengthens students' capacity to engage with classical literature while providing broader access to global academic references. Meanwhile, the research-oriented culture develops analytical abilities through academic writing, scholarly discussions, and literature searching. The integration of these four elements demonstrates that curriculum transformation does not occur in isolation but constitutes a systemic change in the educational structure that brings together religious, academic, digital, and global dimensions within a unified pesantren educational framework.

The findings reveal a consistent relationship between the direction of curriculum policy and its implementation at the operational level. The transformation begins with an institutional commitment to maintain classical Islamic text studies as the foundation of the curriculum, followed by the integration of digital technology as a learning support, the strengthening of an Arabic-English bilingual environment to broaden students' literacy, and the development of a research-oriented culture as a means of cultivating students' academic capacities. These four components do not function independently; rather, they mutually reinforce one another in establishing an educational system that is responsive to the demands of the digital era. Thus, the emerging pattern demonstrates a gradual, integrated, and sustainable process of

transformation that preserves the fundamental characteristics of pesantren education as a center for the transmission of Islamic scholarship.

Based on the overall findings, the transformation of the Islamic Religious Education curriculum at Al-Khoirot Islamic Boarding School can be characterized as a systemic process of change that integrates continuity of tradition with adaptation to developments in digital education. The transformation is manifested through the strengthening of classical Islamic text studies as the foundation of the curriculum, the use of digital technology to expand access to learning resources, the establishment of an Arabic-English bilingual environment to enhance global literacy, and the development of a research-oriented culture as an integral component of the pesantren's academic ecosystem. These findings demonstrate that successful curriculum transformation is determined not merely by technology adoption but by the capacity to harmonize the Islamic scholarly tradition with the competency demands of the 21st century through planned, integrated, and sustainable curriculum change. In this way, pesantren education can preserve its distinctive scholarly identity while simultaneously strengthening students' academic capacities, global literacy, and readiness to respond to the evolving demands of digital society.

DISCUSSION

Transformation of Classical Islamic Text Studies in the Pesantren-Based Islamic Religious Education Curriculum in the Digital Era

The findings demonstrate that the transformation of the Islamic Religious Education curriculum at Al-Khoirot Islamic Boarding School, Malang, constitutes a systemic process of change that integrates the tradition of classical Islamic text studies with developments in digital technology without compromising the epistemological identity of the pesantren. This transformation is manifested through the strengthening of classical Islamic text studies as the core of the curriculum, the implementation of hybrid learning, the development of digital library resources, the adoption of Arabic-English bilingual learning, and the cultivation of a research-oriented culture among students. These findings indicate that curriculum transformation extends beyond the technical dimensions of teaching and learning and encompasses a shift in educational orientation from the transmission of knowledge toward the integrated development of religious, academic, digital, and global competencies. Accordingly, curriculum transformation can be understood as a process of institutional adaptation that preserves the continuity of the Islamic scholarly tradition while responding to the dynamics of education in the digital era.

These findings are consistent with previous studies suggesting that the digital transformation of pesantren should not be equated with modernization that eliminates their distinctive characteristics (Istiyani et al., 2026; Ratnasari et al., 2026; Sofi et al., 2025). Rather, it represents a process of adaptation to technological developments while preserving the fundamental values of Islamic education.

Research on the digital transformation of pesantren indicates that digitalization can enhance learning effectiveness, educational governance, and access to learning resources when implemented within the framework of Islamic values and pesantren traditions (Abidin et al., 2025; Halimah et al., 2024; Sugito, 2024; Warisno et al., 2025). However, the present study extends these findings by demonstrating that transformation involves more than the digitalization of learning. It also encompasses the integration of a bilingual environment and a research-oriented culture as interconnected elements of comprehensive curriculum change. This perspective suggests that curriculum transformation constitutes a multidimensional transformation of the educational system.

The findings further demonstrate that classical Islamic text studies remain at the center of learning, while digital technology functions as an instrument for strengthening the learning process. This finding is consistent with studies of hybrid pesantren education, which indicate that digital transformation does not replace the intellectual traditions of pesantren but creates new spaces that connect classical learning methods with digital media (Halimah et al., 2024; Mustofa et al., 2023; Warisno et al., 2025). Nevertheless, the present study reveals a broader dimension of transformation because curriculum change does not stop at instructional methods but also reshapes patterns of academic interaction through the integration of bilingual learning, digital literacy, and scholarly culture. Thus, the transformation is not merely pedagogical but also encompasses institutional structures and the academic culture of pesantren in a sustainable manner.

From the perspective of curriculum transformation theory, the findings reinforce the view that curriculum change involves the reorganization of educational objectives, content, instructional strategies, and learning environments to remain relevant to social change and developments in knowledge (González-Salamanca et al., 2020; Kandiko Howson & Kingsbury, 2023; T. Wang, 2019). Within Islamic education, however, such transformation must continue to preserve the normative values that constitute the foundation of educational practice. The findings indicate that Al-Khoirot Islamic Boarding School is able to integrate these two dimensions by maintaining classical Islamic text studies as the core of the curriculum while utilizing digital technology to enrich learning. This finding is consistent with scholarship on Islamic education curriculum transformation, which emphasizes the importance of integrating Islamic values with technological literacy in response to the educational demands of the 21st century (Malizal, 2025; Mustafidin et al., 2024; Ubaedullah & Suryono, 2025).

Transformation of Arabic-English Bilingual Learning as a Means of Strengthening Students' Global Competencies

The findings have theoretical implications suggesting that curriculum transformation in pesantren should not be understood as a transition from a traditional system to a modern one. Rather, it should be viewed as an integrative process that combines continuity of tradition with adaptation to changes in the educational environment. This perspective contributes to the broader scholarship on Islamic education curriculum transformation by positioning classical Islamic text studies, Arabic-English bilingual learning, digital technology, and research culture as mutually interacting components in the formation of a pesantren educational ecosystem. Practically, these findings provide a basis for Islamic education policymakers to formulate curriculum transformation policies that extend beyond infrastructure-oriented digitalization toward strengthening academic capacity, global literacy, and scholarly culture while preserving the distinctive characteristics of pesantren as centers of Islamic scholarship.

The findings are also related to international scholarship on the transformation of faith-based education, which demonstrates that traditional educational institutions can preserve their identities while adapting to technological developments (Alsaleh, 2024; Folabit & Jita, 2024; Poddar, 2025; Sato et al., 2024; Singun, 2025). Previous studies have shown that digitalization does not necessarily imply a transformation of fundamental educational values; rather, it can serve to improve learning effectiveness, broaden access to knowledge, and enhance the quality of academic governance (Alenezi, 2023; Bygstad et al., 2022; Education, 2024; Singun, 2025). The findings from Al-Khoirot demonstrate a similar tendency but offer a distinctive perspective because curriculum transformation is achieved not only through technology integration but also through the simultaneous strengthening of classical Islamic text studies, Arabic-English bilingual learning, and research culture as components of a systemic process of change. Curriculum transformation can therefore be understood as a comprehensive shift in educational paradigms.

Further analysis demonstrates that the success of curriculum transformation is strongly influenced by the pesantren's ability to maintain a balance between continuity of tradition and pedagogical innovation. International scholarship on Islamic education has emphasized the importance of developing global competencies through digital literacy, intercultural communication skills, and technology-enhanced learning (Dooly & Darvin, 2022; Li, 2025; Mohammad Hamad Al-khresheh, Suheyla Demirkol Orak, 2025; Sun, 2025; M. (Sebrina) Wang et al., 2023; Xu et al., 2025). However, much of this scholarship focuses primarily on developing 21st-century competencies without examining in depth how classical scholarly traditions can remain the foundation of curriculum transformation. The present study demonstrates that classical Islamic text studies constitute the central point of transformation, with digitalization, bilingual learning, and academic culture being developed to strengthen students' mastery of Islamic knowledge rather than replace it. This finding expands

the international discourse on the transformation of pesantren-based Islamic education by highlighting the importance of epistemological continuity alongside educational innovation (Ratnasari et al., 2026; Warisno et al., 2025; Widodo et al., 2026).

Transformation of Students' Research Culture as a Means of Strengthening the Pesantren Academic Ecosystem

The integration of classical Islamic text studies, Arabic-English bilingual learning, and research culture identified in this study reveals functional relationships among the major components of the curriculum. Classical Islamic text studies serve as the epistemological foundation that establishes the authority of Islamic scholarship, while bilingual learning expands students' capacity to access both classical sources and international academic literature. At the same time, a research-oriented culture develops students' critical, analytical, argumentative, and evidence-based thinking through regular academic writing, scholarly discussions, and systematic literature searches. These relationships demonstrate that curriculum transformation is not simply a matter of adding new subjects or educational programs; rather, it involves integrating multiple educational components into a mutually reinforcing system. Consequently, curriculum transformation strengthens religious competencies while simultaneously developing students' academic and global competencies in a balanced manner.

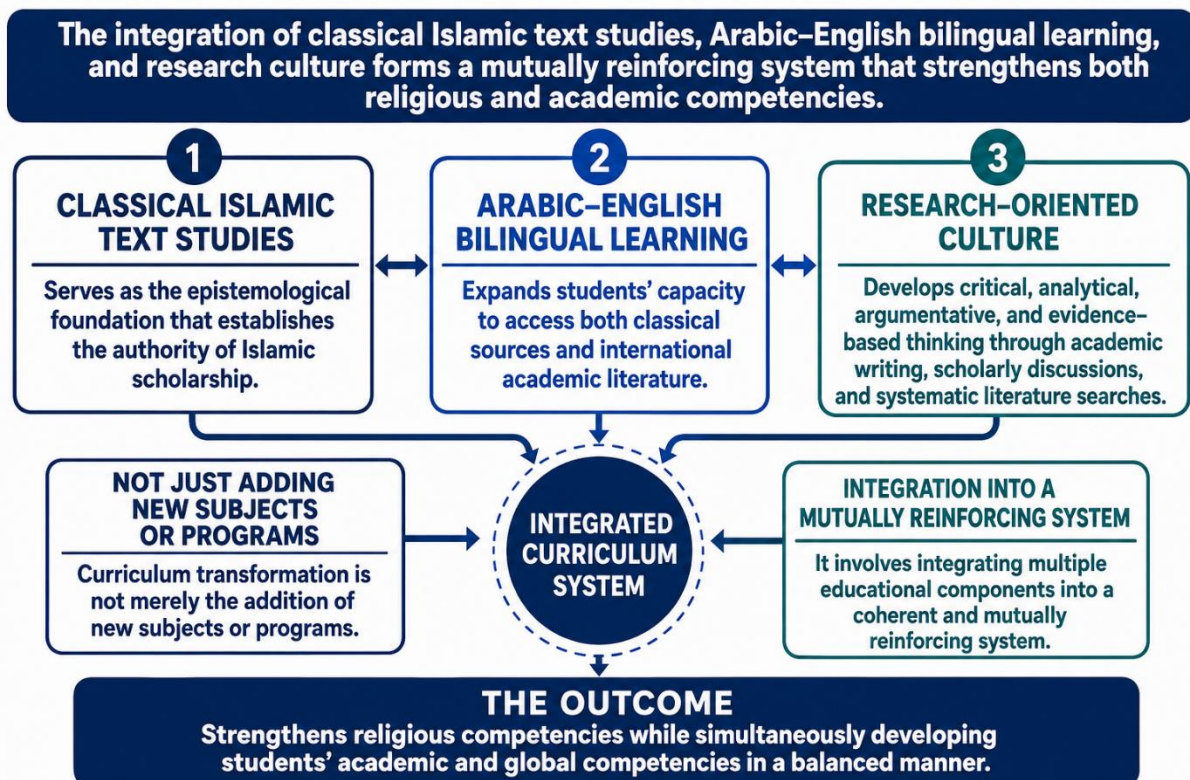


Figure 1. Integrated Curriculum Transformation Model

The practical implications of these findings suggest that policies for developing pesantren curricula in the digital era should focus on comprehensive transformation rather than merely providing technological infrastructure. Educational policies should create opportunities for the integration of classical Islamic text-based learning, the development of bilingual environments, the strengthening of digital literacy, and the cultivation of a research-oriented culture as interconnected components of the curriculum. Such an approach enables pesantren to preserve their distinctive scholarly identity while enhancing graduates' competitiveness in responding to social, educational, and professional changes. For pesantren administrators, the findings indicate that successful curriculum transformation requires visionary leadership, institutional support, continuous professional development for educators, and systematic evaluation to ensure that the transformation process remains consistent and sustainable.

Conceptually, this study contributes to the development of scholarship on pesantren-based Islamic Religious Education curriculum transformation by conceptualizing transformation as an integrative process that connects the continuity of the Islamic scholarly tradition with the demands of digital education. Unlike approaches that view transformation as a partial change in instructional methods or technology adoption, this study demonstrates that transformation occurs through the integration of classical Islamic text studies, Arabic-English bilingual learning, research culture, and digitalization within a unified curriculum framework. This synthesis enriches Islamic education scholarship by proposing that the success of curriculum transformation depends on an institution's ability to maintain a balance between preserving the identity of pesantren and adapting to developments in knowledge and technology. This perspective also provides an academic foundation for further research into pesantren curriculum transformation across diverse institutional and educational contexts.

CONCLUSION

This study demonstrates that the transformation of the pesantren-based Islamic Religious Education curriculum at Al-Khoiroh Islamic Boarding School, Malang, constitutes a systemic process of change that integrates classical Islamic text studies, Arabic-English bilingual learning, and a research-oriented culture within an educational framework responsive to the demands of the digital era. The most significant finding is that successful curriculum transformation is determined not merely by technology adoption but by the ability to preserve the Islamic scholarly tradition as the foundation of the curriculum while integrating it with digital literacy, international language competencies, and academic culture. The central insight of this study is that pesantren can preserve their epistemological identity while responding to contemporary developments through planned, sustainable, and quality-oriented

curriculum transformation that seeks to develop graduates who are religiously grounded, critical, adaptive, and globally competitive.

The scholarly contribution of this study lies in strengthening the perspective that pesantren-based Islamic Religious Education curriculum transformation should be understood as a systemic process rather than merely the digitalization of learning. The study enriches Islamic education scholarship by demonstrating the interconnectedness of classical Islamic text studies, Arabic-English bilingual learning, and research culture as complementary foundations for curriculum development that responds to the educational demands of the 21st century.

This study is limited to a single research site and employs a case study approach; therefore, its findings cannot be generalized to all types of pesantren in Indonesia. Future research should involve multiple pesantren with diverse institutional characteristics, employ comparative or mixed-methods approaches, and examine the effectiveness of curriculum transformation in relation to students' academic achievement, global competencies, and the long-term sustainability of institutional development in the digital era.

ACKNOWLEDGEMENTS

The authors would like to express their sincere gratitude to the leadership and academic community of Al-Khoirot Islamic Boarding School, Malang, for granting access to the research site and providing valuable support throughout the study. Special appreciation is extended to the pesantren caretakers, educational administrators, teachers, and students who generously contributed their time, experiences, and insights during the data collection process. The authors also acknowledge the contributions of colleagues and academic peers who provided constructive feedback and intellectual support during the development of this research. Finally, sincere appreciation is extended to all individuals who contributed directly or indirectly to the completion of this study and the preparation of this manuscript.

REFERENCE

- Abidin, Z. (2020). Educational management of pesantren in digital era 4.0. *Jurnal Pendidikan Agama Islam*, 17(2), 203–216.
- Abidin, Z., Qusairi, A., Hanifansyah, N., & Mubarak, F. (2025). Learning innovation in Islamic boarding schools in East Java: Technology's role in enhancing teaching effectiveness. *TARBIYA: Journal of Education in Muslim Society*, 63–76.
- Ahmadi, A. (2025). Ethnography of Code-Switching: A Classroom-Based Study in Bilingual (English-Arabic) Islamic Boarding Schools. *Tarling: Journal of Language Education*, 9(1), 153–178.
- Alenezi, M. (2023). Digital Learning and Digital Institution in Higher Education.

Education Sciences.

- Ali, A. M., & Halim, F. (2023). The role of pesantren and its literacy culture in strengthening moderate Islam in Indonesia. *Edukasia Islamika*, 8(2), 205–226.
- Alsaleh, A. (2024). The impact of technological advancement on culture and society. *Scientific Reports*, 14(1), 32140.
- Andrean, F. A., & Zaironi, M. (2026). Studi Literatur: Persepsi Guru terhadap Implementasi Pendidikan Inklusif di Daerah Tertinggal Indonesia: Indonesia. *Jurnal IHSAN: Jurnal Pendidikan Islam*, 4(4), 1338–1348.
- Anggraeni, D., Afroni, A., Zubaidah, A., & Irfanullah, G. (2024). Adaptation and transformation of pesantren education in facing the era of Muslim society 5.0. *Nazhruna: Jurnal Pendidikan Islam*, 7(3), 705–726.
- Aprilianto, M. R., & Baharun, H. (2026). Digital Adaptation of Islamic Boarding School Services: A Sustainable Business Model Based on Local Wisdom. *Tadris: Jurnal Keguruan Dan Ilmu Tarbiyah*, 11(2), 504–516.
- Bygstad, B., Egil, Ø., Ludvigsen, S., & Dæhlen, M. (2022). From dual digitalization to digital learning space: Exploring the digital transformation of higher education. *Computers & Education*, 182(February). <https://doi.org/10.1016/j.compedu.2022.104463>
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.
- Dooly, M., & Darwin, R. (2022). Intercultural communicative competence in the digital age: critical digital literacy and inquiry-based pedagogy. *Language and Intercultural Communication*, 22(3), 354–366. <https://doi.org/10.1080/14708477.2022.2063304>
- Education, Q. (2024). COVID-19 and Digital Transformation in Higher Education Institutions: Towards Inclusive and Equitable Access to Quality Education. *Education Sciences*.
- Eppich, W. J., Gormley, G. J., & Teunissen, P. W. (2019). In-depth interviews. In *Healthcare simulation research: A practical guide* (pp. 85–91). Springer.
- Fakhridana, F. M., Azizah, S. N., & Annisa, Annisa, M. (2026). Integrasi Artificial Intelligence dalam Pembelajaran Pendidikan Agama Islam untuk Meningkatkan Literasi Anak Sekolah Dasar. *Jurnal Alwatzikhoebillah: Kajian Islam, Pendidikan, Ekonomi, Humaniora*, 12(1), 208–220.
- Fakhridana, F. M., Azizah, S. N., & Zaironi, M. (2026). Integrasi Technological Pedagogical Content Knowledge (TPACK) dalam Pembelajaran Iqro'di Madrasah Diniyah. *Jurnal Alwatzikhoebillah: Kajian Islam, Pendidikan, Ekonomi, Humaniora*, 12(2), 807–820.
- Folabit, N. L., & Jita, L. C. (2024). Are academics adapting to students' technology learning preferences?: A South African study of teaching identities. *Issues in Educational Research*, 34(4), 1241–1259.

<https://search.informit.org/doi/10.3316/informit.T2025030400006802061741745>

- Gammelgaard, B. (2017). The qualitative case study. In *The International Journal of Logistics Management* (Vol. 28, Issue 4, pp. 910–913). Emerald Publishing Limited. <https://doi.org/10.1108/IJLM-09-2017-0231>
- González-Salamanca, J. C., Agudelo, O. L., & Salinas, J. (2020). Key competences, education for sustainable development and strategies for the development of 21st century skills. A systematic literature review. *Sustainability*, 12(24), 10366.
- Halimah, S., Yusuf, A., & Safiudin, K. (2024). Pesantren education management: The transformation of religious learning culture in the age of disruption. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam*, 9(3), 648–666.
- Im, D., Pyo, J., Lee, H., Jung, H., & Ock, M. (2023). Qualitative research in healthcare: data analysis. *Journal of Preventive Medicine and Public Health*, 56(2), 100.
- Istiyani, D., Wibowo, A. M., Sarasati, R., Nugroho, M. A., & Masfiah, U. (2026). Modernising without westernising: The educational transformation of pesantren traditional into KMI Mu'adalah. *Pertanika Journal of Social Sciences and Humanities*, 34(2), 945–970.
- Jamil, Z. A., Ulfah, S. M., & Youssef, A. (2025). Program evaluation study on Islamic religious education in pesantren: Addressing educational degradation in the digital era. *Jurnal Pendidikan Agama Islam*, 22(1), 122–139.
- Kandiko Howson, C., & Kingsbury, M. (2023). Curriculum change as transformational learning. *Teaching in Higher Education*, 28(8), 1847–1866.
- Khan, N., Khalique, F., & Saini, K. (2025). Qualitative research methods: harnessing interviews, focus groups, observations, and document analysis. In *Qualitative research methods in air transport management* (pp. 27–56). IGI Global Scientific Publishing.
- Li, X. (2025). Cultural competence in technology-assisted language teaching: insights from higher education. *Education and Information Technologies*, 30(13), 18921–18953. <https://doi.org/10.1007/s10639-025-13495-8>
- Malizal, Z. Z. (2025). Islamic Education and Globalization: Curriculum, Identity, and Digital Integration. *Sinergi International Journal of Islamic Studies*, 2, 70–82.
- Maqfiroh, F., & Zaironi, M. (2026). Pemanfaatan AI Untuk Personalisasi Pembelajaran PAI, Bot Tanya Jawab Fikih, Dan Pembuatan Konten Otomatis. *Jurnal Al-Fatih*, 9(1), 329–346.
- Maskuro, V. L., & Abrori, A. M. (2026). Implementation of the Curriculum in Integrative Education at Al-Khoirot Islamic Boarding School: Synergy Between Islam and Contemporary Era Competence. *MUMTAZ: Jurnal Pendidikan Agama Islam*, 6(1), 1–31.
- Mezmir, E. A. (2020). Qualitative data analysis: An overview of data reduction, data display, and interpretation. *Research on Humanities and Social Sciences*, 10(21),

15-27.

- Mohammad Hamad Al-khresheh, Suheyla Demirkol Orak, S. F. A. (2025). The development of language proficiency through global skills enhancement using web 2.0 tools in university EFL contexts: a mixed methods quasi- experimental study. *Humanities And Social Sciences Communications*, 2025.
- Muhlis, N. K., Imawan, Y., & Afifi, A. N. A. (2025). *Strengthening Mahārah al - Qirā ' ah through the Sorogan Strategy : A Study of Kitab Turāt s Learning at Pondok Pesantren Al-Khoirot Malang*. 17(2), 119-133.
<https://doi.org/10.15408/alittijah.v17i2.12147>
- Mujahid, I. (2021). Islamic orthodoxy-based character education: creating moderate Muslim in a modern pesantren in Indonesia. *Indonesian Journal of Islam and Muslim Societies*, 11(2), 185-212.
- Mustafidin, A., Fahsin, M., Hakim, A., & Hidayatullah, M. A. (2024). Integrative curriculum innovation in responding to globalization : A case study of darul amanah islamic boarding school. *At Turots : Jurnal Pendidikan Islam*, 6(1), 473-483.
- Mustofa, M. Y., Mas' ud, A., & Elizabeth, M. Z. (2023). Hybrid Pesantren in Indonesia; Analyzing the Transformation of Islamic Religious Education in the Digital Age. *Al-Tadzkiyyah: Jurnal Pendidikan Islam*, 14(1), 79-104.
- Najib, M., Maskuri, M., & Sa'id, M. M. ud. (2026). Curriculum Management and Power Relations: Strategies for Multicultural Character Development of Santri in Traditional Pesantren. *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 7(1), 109-124.
- Ningsih, S. R. J., Patimah, S., & Murtafiah, N. H. (2026). Management of improving the quality of Islamic boarding school education in the era of Society 5.0 in facing global competition. *Scaffolding: Jurnal Pendidikan Islam Dan Multikulturalisme*, 8(1), 245-265.
- Poddar, A. K. (2025). Impact of Global Digitalization on Traditional Cultures. *The International Journal of Interdisciplinary Social and Community Studies*, 20(1), 18848.
- Priya, A. (2021). Case study methodology of qualitative research: Key attributes and navigating the conundrums in its application. *Sociological Bulletin*, 70(1), 94-110.
- Pudjiono, C., Himmah, F., & Zaironi, M. (2026). Tradisi Penyalinan Naskah di Pesantren:: Sebuah Studi Kodikologi terhadap Manuskrip Keagamaan. *Al-Zayn: Jurnal Ilmu Sosial & Hukum*, 4(4), 11750-11760.
- Qorib, M. (2025). Socio-cultural transformation within Indonesian academics: cases in Muhammadiyah and Nahdlatul Ulama universities. *Asian Education and Development Studies*, 14(4), 856-875.
- Ratnasari, D., Putri, L. A., Abrori, M. S., & Alsulami, N. D. (2026). 200 Years of Pesantren: Tradition, Reform, and the Institutional Trajectory of Pesantren

- Tremas. *Nazhruna: Jurnal Pendidikan Islam*, 9(1), 109–128.
- Rohanita, L., Hilar, H., & Zaironi, M. (2026). Analisis Efektivitas Model Pembelajaran PAI Berbasis Teknologi terhadap Pengembangan Holistik Anak Usia Dini di TK MNU 16 Mayor Damar Turen. *AS-SABIQUN*, 8(1), 23–45.
- Rohim, F., Jamaludin, M., & Hidayat, M. R. (2026). Reconstructing Pesantren Curriculum in The Digital Era: Integrating Islamic Values and Modern Knowledge. *Sunan Kalijaga International Journal on Islamic Educational Research*, 10(1), 307–325.
- Sari, W. D. (2025). Transforming the Islamic Education Curriculum for the Society 5.0 Era: Integrating Technology, Ethics, and Pedagogy. *Al-Ishlah: Jurnal Pendidikan*, 17(3), 5635–5643.
- Sato, S. N., Moreno, E. C., Rubio-zarapuz, A., Dalamitros, A. A., Yañez-sepulveda, R., Tornero-aguilera, J. F., & Javier, V. (2024). Navigating the New Normal : Adapting Online and Distance Learning in the Post-Pandemic Era. *Education Sciences*.
- Sholih, P. N. M., & , Muhammad Jazuli, M. Z. (2026). *Wawacan Layang Syekh Abdul Qodir Jaelani dan Manaqib Jawahirul Ma ' ani : Kajian Filologis-Komparatif Pesantren*. 08(02).
- Singun, A. J. (2025). Unveiling the barriers to digital transformation in higher education institutions : a systematic literature review. In *Discover Education* (Issue MI). Springer International Publishing. <https://doi.org/10.1007/s44217-025-00430-9>
- Sofi, M. J., Manaf, S., & Ali, J. (2025). Pesantren In Dynamic Transformation: Harmonizing Classical Roots and Modern Practices. *MIQOT: Jurnal Ilmu-Ilmu Keislaman*, 49(2), 333–353. <https://doi.org/http://dx.doi.org/10.30821/miqot.v50i1.1566>
- Subair, M., Muslim, A., & Nur, M. (2024). Multilingualism, Technology, and Religious Moderation in Indonesian Islamic Boarding Schools. *International Journal of Language Education*, 8(3), 550–563.
- Sugito, S. (2024). Hybrid learning in pesantren: Integrating digital pedagogy and Islamic values to enhance 21st-century competencies. *Tafkir: Interdisciplinary Journal of Islamic Education*, 5(4), 749–764.
- Sun, L. (2025). Enhancing intercultural competence of Chinese English majors through AI-enabled Collaborative Online International Learning (COIL) in the digital era. *Education and Information Technologies*, 30(6), 7995–8027. <https://doi.org/10.1007/s10639-024-13143-7>
- Suradji, M., & Faridi, F. (2025). Transformation Of Islamic Boarding School Education In The Digital Era: A Critical Analysis Of The Internalization Of Qur'anic Values. *Benchmarking*, 9(2), 429–435.
- Taqiyuddin, T., Iwan, I., & Aspandi, A. (2025). The transformation of traditional

- Islamic boarding schools into integrated pesantren: Curriculum, governance, and technological adaptation. *PEDAGOGIK: Jurnal Pendidikan*, 12(1), 160–177.
- Tirta, W. D., & Zaironi, M. (2025). Efektivitas Pembelajaran Pendidikan Agama Islam (PAI) dalam Meningkatkan Pola Pikir Siswa Kelas VIII di SMA An-Nur II Bululawang Malang. *Jurnal Pendidikan Tambusai*, 9, 34785–34792.
- Ubaedullah, D., & Suryono, F. (2025). Technology in Islamic Education Curriculum : Challenges and Opportunities. *Jurnal Al Burhan*, 5(2), 369–391.
- Wang, M. (Sebrina), Yang, L.-Z., & Chen, T. (Charline). (2023). The effectiveness of ICT-enhanced learning on raising intercultural competencies and class interaction in a hospitality course. *Interactive Learning Environments*, 31(2), 994–1006. <https://doi.org/10.1080/10494820.2020.1815223>
- Wang, T. (2019). Competence for students' future: Curriculum change and policy redesign in China. *ECNU Review of Education*, 2(2), 234–245.
- Warisno, A., Anshori, A., Hidayah, N., & Dwianto, A. (2025). Transformative Islamic education management in madrasah and pesantren integrating tradition and digital innovation. *Journal of Cultural Analysis and Social Change*, 276–289.
- Widodo, S. A., Mubin, M. N., Sabarudin, & Pransiska, T. (2026). Reproducing Islamic knowledge in Indonesian pesantren: Turāt, textual tradition, and epistemic continuity. *British Journal of Religious Education*, 1–19. <https://doi.org/10.1080/01416200.2026.2659837>
- Xu, H., Wang, Y., & Ma, J. (2025). A comprehensive review of intercultural communicative competence in EFL education and global business. *Cogent Education*, 12(1), 2557608. <https://doi.org/10.1080/2331186X.2025.2557608>
- Zafi, A. A., Jamaluddin, D., Partono, P., Fuadi, S. I., & Chamadi, M. R. (2021). The existence of pesantren based technology: Digitalization of learning in Pondok Pesantren Darul Ulum Kudus. *Jurnal Pendidikan Agama Islam*, 18(2), 493–510.
- Zaironi, M. (2026). Pengembangan Kurikulum Pembelajaran Kitab Kuning Berbasis Bahasa Inggris Dan Implikasinya Terhadap Kompetensi Keilmuan Santri. *Kabillah*, 11(1), 160–177.
- Zaironi, M., & Hilar, H. (2026). Pendampingan Penulisan Karya Tulis Ilmiah Untuk Meningkatkan Kemampuan Literasi Siswa Di Mts Al-Khoiroh Malang. *Communnity Development Journal*, 7(3), 1259–1267.
- Zaironi, M., & Husni, M. (2026). Pendampingan penguatan kemampuan membaca kitab kuning melalui metode sorogan. *Communnity Development Journal*, 7(3), 1251–1258.
- Zaironi, M., & Rohman, F. (2026). Implikasi Budaya Literasi Kitab Kuning Terhadap Kemampuan Berfikir Kritis Santri: Studi Etnografi. *An-Nahdlat: Jurnal Pendidikan Islam*, 6(1), 83–94.
- Zulfan Syahansyah, M. Z. (2026). A Tiered Arabic Language Boarding Program in an Indonesian Pesantren : Curriculum Design , Vocabulary Mastery , and Learning

Outcomes. 45–69.