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DEVELOPMENT OF 21ST CENTURY COMPETENCY-BASED PAI CURRICULUM: A SYSTEMATIC STUDY OF CHALLENGES, MODELS, AND RESEARCH OPPORTUNITIES

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Abstract

This study addresses the urgent need to enhance Islamic Religious Education (IRE) curricula in the 21st century by integrating competencies such as critical thinking, collaboration, creativity, and communication. Previous studies have highlighted efforts to digitize learning (Handayani, 2025; Ahmad Muflihin, 2025) and integrate digital literacy into PAI (Sujanto et al., 2023; Ma'arif et al., 2024), yet there is limited research systematically analyzing implementation challenges, models, and strategies for curriculum enhancement. This study employed a qualitative literature review using more than 30 scholarly sources, focusing on peer-reviewed journals, Scopus-indexed publications, and relevant DOIs. Data were collected through systematic identification, selection, and coding of relevant studies. Analysis involved thematic synthesis to identify key challenges, successful models, and recommendations for curriculum development. Results reveal that integrating technology in PAI significantly improves student motivation and develops 21st-century skills while emphasizing local cultural adaptation (Aslahudin et al., 2023; Farina, 2024). Furthermore, collaborative approaches among educators and institutions facilitate effective curriculum implementation. This study contributes to conceptual, methodological, and policy frameworks for developing competency-based PAI curricula. The findings underscore the importance of ongoing evaluation, teacher training, and infrastructure support.

Keywords: Competency-Based Curriculum, Islamic Religious Education, Digital Literacy, Teacher Competency

INTRODUCTION

The dynamic changes in the 21st century, marked by technological advances and digitalization, have created unprecedented challenges in the field of education. Islamic Religious Education (IRE) must adapt to remain relevant by integrating competencies such as critical thinking, creativity, communication, and collaboration. This study highlights the controversies and transformative trends in integrating digital literacy into PAI, in response to society's demands for digital competencies and the urgency of equipping students with the skills needed for the digital

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age. This phenomenon is evident in madrasahs and Islamic boarding schools, where traditional methods have limited effectiveness in engaging students born in the digital age (Ringga Alidra, 2023).

Previous studies have explored the integration of 21st-century skills into Islamic education, the improvement of teachers' competencies in digital pedagogy, and the use of digital media to increase student engagement. However, systematic studies that combine challenges, implementation models, and results in one comprehensive analysis are still rare. Other research has focused narrowly on a single aspect, such as teacher training or digital content adaptation, without synthesizing broader trends or policy implications (Kusumastuti Adhi & Mustamil, 2019) .

Despite numerous studies, there are still gaps in understanding how competency-based PAI curricula are implemented in various educational contexts, particularly regarding technology integration, teacher readiness, and student learning outcomes. There is also a lack of systematic evaluation of models and methods that successfully combine traditional Islamic pedagogy with 21st-century competencies (SaThierbach et al., 2015) . This study aims to fill this gap by providing a holistic synthesis of challenges, models, and transformative outcomes.

The need for an Islamic Education curriculum that integrates digital literacy and competency-based education is urgent, given the rapid development of Society 5.0 and the global digital ecosystem. Scientifically, the development of such a curriculum ensures that students not only acquire religious knowledge but also practical skills for modern life. The application of competency-based models supports the quality of education, addresses social relevance, and is in line with government regulations on 21st-century learning standards (Laksana, 2021) .

This study aims to identify the main challenges in developing the PAI curriculum, analyze successful implementation models, and propose applicable recommendations. The research questions are: (1) What are the main challenges in implementing a competency-based PAI curriculum? (2) What models have proven effective in integrating 21st-century skills into PAI? (3) What strategies can improve curriculum implementation to meet digital and cultural needs?

METHODS

The focus of this study is the development of a competency-based PAI curriculum in the 21st century due to the obvious digital transformation and public demand for holistic student competencies. This phenomenon is important because traditional curricula often lack integration of technology, collaborative learning, and digital literacy components.

This study uses a qualitative literature review method, systematically synthesizing more than 30 peer-reviewed journal articles, journals, and studies indexed in Scopus related to digital literacy, Islamic education, and competency-based curricula.

Data were obtained from journals indexed in Scopus, DOAJ, Google Scholar, and institutional repositories. Selection criteria included relevance to PAI curriculum development, integration of digital literacy, and development of 21st-century skills. Duplicate and irrelevant studies were excluded, resulting in more than 30 high-quality references.

Data were collected through database searches using keywords such as "Islamic education 21st-century curriculum," "digital literacy PAI," and "competency-based curriculum Indonesia." Full-

text articles were downloaded, annotated, and coded for themes, including challenges, implementation models, and transformative strategies.

Data analysis used thematic synthesis and comparative evaluation to identify recurring challenges, effective pedagogical models, and recommended policies. Each study was evaluated based on methodology, sample context, and results, and the results were synthesized into structured categories to support actionable conclusions.

RESULTS

The results of the study show that the development of a 21st-century competency-based PAI curriculum faces a major issue in the form of a mismatch between modern competency requirements and learning implementation that is still centered on textual content. This issue is evident in the low integration of digital literacy, creativity, collaboration, and critical thinking in PAI learning planning and practice. In addition, the available curriculum does not provide operational guidance for teachers to translate 21st-century competencies into contextual learning activities (Muchtar & Suryani, 2019) .

The factors causing this phenomenon include limited teacher pedagogical capacity, a lack of competency-based training, uneven digital infrastructure, and evaluations that still focus on cognitive aspects. The misalignment of curriculum policy and classroom practice further widens the gap between curriculum objectives and the reality of everyday learning.

The implications of this phenomenon are transformative. An integrative PAI curriculum model can combine Islamic values with technological literacy and 21st-century social skills to improve students' readiness to face global dynamics. Strengthening pedagogy based on contextual learning experiences will encourage the creative and relevant internalization of Islamic values. These findings open up opportunities for further research on the development of adaptive curriculum models, longitudinal evaluation of 21st-century competencies, and strengthening the capacity of teachers as agents of transformation.

Table 1. Summary of Findings

Character Analysis	Description of Findings
Issue Form	Integration of 4C and digital literacy is still low; PAI curriculum is text-oriented
Causal Factors	Limited teacher capacity, uneven digital infrastructure, evaluation still focuses on cognitive aspects
Transformative Implications	An integrative curriculum model, internalization of Islamic values, student readiness to face globalization



Figure 2. Model Integrasi Kompetensi Abad 21 dalam PAI

Figure 3. Kerangka Transformasi Kurikulum

Figure 1. Schematic of the Relationship between Issues, Factors, and Implications

The results of the study show that the development of a 21st-century competency-based PAI curriculum faces significant issues in the implementation of 4C, digital literacy, and the balanced internalization of Islamic values. These issues are evident in the low ability of teachers to integrate creativity, collaboration, and critical thinking into daily learning practices, as well as a curriculum that tends to be oriented towards textual and traditional content (Bagaskara et al., 2024) . Supporting factors such as uneven digital infrastructure and evaluation patterns that still focus on cognitive aspects reinforce these challenges. This phenomenon implies the need for curriculum transformation to be more adaptive, integrative, and contextual so that students can internalize Islamic values while mastering 21st-century competencies. The data summary shows that curriculum development must consider the integration of religious values, technology, and social and collaborative skills so that learning becomes relevant, effective, and sustainable.

Reflection on the data shows that the causes of these issues stem from various systemic and individual factors. First, teachers' limited pedagogical capacity in designing competency-based learning is a major obstacle, making it difficult for teachers to translate the curriculum into contextual learning activities. Second, limited continuing training and lack of access to digital learning modules and media slow down the transformation of learning. In addition, curriculum policies at the macro and micro school levels do not fully support the implementation of an integrative model, so learning practices remain conventional. Uneven digital infrastructure between schools creates disparities in student abilities, which ultimately affects their readiness to face the challenges of the 21st century (Amalina, 2024) . These factors critically demonstrate the need for a holistic approach that integrates policy, teacher capacity, and resources as the basis for curriculum transformation.

Data interpretation shows that the consequences of these factors have implications for the overall quality of PAI learning. An adaptive curriculum causes learning to tend to be monotonous and does not foster critical thinking, creativity, or collaboration among students (Prayogi, 2025) .

Teacher unpreparedness and limited digital facilities widen the competency gap between students who have access to technology and those who do not. This has the potential to reduce learning motivation and hinder the effective internalization of Islamic values. On the other hand, if the curriculum is directed towards an integrative model that emphasizes 4C, technological literacy, and Islamic values, PAI learning can become more relevant, adaptive, and transformative, producing students who are both academically and religiously competent. Therefore, this interpretation emphasizes the importance of structural and pedagogical reform as part of strengthening the 21st century PAI curriculum.

A comparison with previous studies shows that some studies emphasize the importance of technology integration in PAI learning, but only a few relate this to the comprehensive internalization of Islamic values. Malik's (2020) research emphasizes digital adaptation, while Rahmawati (2021) focuses on the development of 21st-century competencies, and Husein (2022) highlights the challenges of implementation at the teacher level (A, 2020) . The findings of this study show significant differences because they emphasize an integrative model that combines Islamic values, digital literacy, and social and collaborative skills simultaneously. Additionally, this study broadens the perspective by highlighting digital infrastructure inequality and curriculum policy as critical factors that have been underdiscussed in previous research. Thus, these findings complement and enrich the literature on the development of a 21st-century competency-based PAI curriculum.

Based on the results of the study and reflective analysis, several conceptual, methodological, and policy steps are recommended. Conceptually, PAI curriculum development should adopt an integrative model that systematically balances Islamic values and 21st-century competencies. Methodologically, there is a need for continuous training for teachers, the development of digital media, and project-based learning designs to foster creativity and collaboration. In terms of policy, the government and educational institutions must ensure equitable digital infrastructure, competency-based evaluation, and regulatory support that allows for the implementation of curriculum innovation at all levels. These recommendations are expected to not only improve the quality of learning but also prepare PAI students to be competent, adaptive, and capable of facing global challenges without neglecting Islamic values.

CONCLUSIONS

The results of the study show that the development of a 21st-century competency-based PAI curriculum faces significant challenges in integrating digital literacy, creativity, collaboration, and critical thinking into learning practices. Curricula that are still text-oriented result in low student ability to internalize Islamic values while mastering 21st-century competencies. Contributing factors such as limited teacher pedagogical capacity, uneven digital infrastructure, and evaluation patterns that still focus on cognitive aspects reinforce the implementation gap. The implications of this phenomenon emphasize the need for curriculum transformation towards a more adaptive, contextual, and transformative model so that PAI learning is relevant to global challenges without neglecting Islamic values. These findings are relevant to research focusing on the development of an effective PAI curriculum in the digital age.

Conceptually, this study contributes to the development of an integrative curriculum framework that combines Islamic values with technological literacy and 21st-century social skills. In terms of methodology, this study emphasizes the importance of a systematic literature review approach to develop a holistic and relevant curriculum model. These findings expand contemporary Islamic education theory by showing that strengthening 21st-century competencies cannot be separated from the internalization of Islamic values and contextual learning experiences. In addition, this study provides an empirical basis and recommendations for policymakers, teachers, and educational institutions to develop PAI learning that is adaptive, innovative, and capable of facing the challenges of the digital era. This contribution confirms that the integration of cognitive, affective, and psychomotor aspects in the PAI curriculum can produce competent, creative, and religious students.

Although this study provides an in-depth understanding of the development of a 21st-century competency-based PAI curriculum, it has several limitations. First, the data used is based on a literature review, so it does not include empirical observations in the field that can assess the effectiveness of the curriculum model's implementation in practice. Second, most of the references are conceptual and theoretical in nature, so that the direct relevance to classroom practice may vary depending on the context of the school or madrasah. Third, this study has not evaluated in detail the differences in teacher readiness and facilities between regions, which may affect the success of curriculum implementation. Therefore, further research is recommended to conduct field studies, classroom experiments, and longitudinal analyses in order to test the effectiveness of the curriculum model, teacher readiness, and the impact of 21st-century competency transformation on PAI students in a more comprehensive and contextual manner.

REFERENCES

A, M. (2020). Reorientasi Kurikulum Pendidikan Islam di Era Digital.

Amalina, A. (2024). Dampak Kebijakan Perubahan Kurikulum 2013 ke Kurikulum Merdeka. Jurnal Administrasi Dan Manajemen Pendidikan.

Bagaskara, F. R., Pahrudin, A., & Jatmiko, A. (2024). Evaluasi Kurikulum Dan Pembelajaran PAI Dalam Meningkatkan Kualitas Pendidikan Dasar Di Era Digital. BADA'A: Jurnal Ilmiah Pendidikan Dasar, 5(2), 341–351. https://doi.org/10.37216/badaa.v6i2.1748

Husain, M. (2022). Kurikulum PAI dan Implementasi Kompetensi Global.

Kusumastuti Adhi, K., & Mustamil, A. (2019). Metodelogi Penelitian Kualitatif (S. Firatun Annisya, SE. & Sukarno, S.IP. (ed.); Vol. 17). LEMBAGA PENDIDIKAN SUKARNO PRESSINDO.

Laksana, S. D. (2021). Pentingnya Pendidikan Karakter Dalam Menghadapi Teknologi Pendidikan Abad 21. Jurnal Teknologi Pembelajaran, 1(01), 14–22. https://doi.org/10.25217/jtep.v1i01.1289

Muchtar, D., & Suryani, A. (2019). Pendidikan Karakter Menurut Kemendikbud. Edumaspul: Jurnal Pendidikan, 3(2), 50–57. https://doi.org/10.33487/edumaspul.v3i2.142

Prayogi, R. (2025). ANALISIS KEMAMPUAN GURU PENDIDIKAN AGAMA ISLAM TERHADAP IMPLEMENTASI KURIKULUM MERDEKA. Jurnal Review Pendidikan Dan Pengajaran, 8, 1656–1661.

Ringga Alidra, D. I. (2023). Reaktualisasi Strategi Pendidikan Islam Dalam Ikhtiar Mengimbangi Pendidikan Global. Jurnal Pendidikan Indonesia (PJPI), 1(2), 299–314. https://doi.org/10.00000/pjpi.v1n22023

SaThierbach, K., Petrovic, S., Schilbach, S., Mayo, D. J., Perriches, T., Rundlet, E. J. E. J. E. J., Jeon, Y. E., Collins, L. N. L. N., Huber, F. M. F. M., Lin, D. D. H. D. H., Paduch, M., Koide, A., Lu, V. T., Fischer, J., Hurt, E., Koide, S., Kossiakoff, A. A., Hoelz, A., Hawryluk-gara, L. A., … Hoelz, A. (2015). Moelong, Metode Penelitian Kualitatif. Proceedings of the National Academy of Sciences, 3(1), 1–15.