

# SYMPHONIA

## Journal of Theory and Research Output

Volume 1, Issue 1, January 2026



### Implementation of a Competency-Based Curriculum and Outcome-Based Education in PAI Learning in the Era of Artificial Intelligence from the Perspective of Bloom's Taxonomy

*Implementasi Kurikulum Berbasis Kompetensi dan Outcome Based Education dalam Pembelajaran PAI di Era Artificial Intelligence Perspektif Taksonomi Bloom*

Muhammad Khoiril Anam\*<sup>1</sup> Achmad Luthfi Imroni<sup>2</sup> Auliatus Syifa<sup>3</sup> Anggun Luthfiya Tsani<sup>4</sup> Muhammad Uchaida Sabillil Matin<sup>5</sup> Amir Awaludin<sup>6</sup>

Universitas Islam Negeri Sunan Kudus, Kudus, Indonesia <sup>1 2 3 4 5 6</sup>

\*Corresponding Author: [KhoirilAnam@ms.iainkudus.ac.id](mailto:KhoirilAnam@ms.iainkudus.ac.id)

Submitted : 27 January 2026

Revision : 28 January 2026

Accepted : 29 January 2026

#### Abstract

Learning of Islamic Religious Education (PAI) in the digital era faces challenges in maintaining relevance, effectiveness, and its role in developing students' knowledge, attitudes, and skills. The Competency-Based Curriculum and Outcome-Based Education are considered effective approaches to direct learning toward measurable and meaningful learning outcomes. This study aims to examine the implementation of the Competency-Based Curriculum and Outcome-Based Education in Islamic Religious Education from the perspective of Bloom's Taxonomy with the support of Artificial Intelligence. This research employs a qualitative approach using library research. Data sources consist of scholarly articles, national and international journals, and academic books related to CBC, OBE, Bloom's Taxonomy, and the use of AI in education. The findings indicate that the integration of CBC and OBE with Bloom's Taxonomy provides a systematic learning framework that balances cognitive, affective, and psychomotor domains in PAI learning. Furthermore, Artificial Intelligence functions as a supportive tool that enhances adaptive learning, outcome-based assessment, and the comprehensive development of students' competencies.

**Keywords:** Artificial Intelligence; Bloom's Taxonomy; Competency-Based Curriculum; Islamic Religious Education; Outcome-Based Education

#### Abstrak

Pembelajaran Pendidikan Agama Islam (PAI) di era digital menghadapi tantangan untuk tetap relevan, efektif, dan mampu membentuk peserta didik yang kompeten secara pengetahuan, sikap, dan keterampilan. Pendekatan Kurikulum Berbasis Kompetensi dan Outcome Based Education dipandang sebagai solusi untuk mengarahkan pembelajaran pada capaian hasil belajar yang terukur dan bermakna. Penelitian ini bertujuan untuk mengkaji implementasi Kurikulum Berbasis Kompetensi dan Outcome Based Education dalam pembelajaran PAI dari perspektif Taksonomi Bloom dengan dukungan Artificial Intelligence. Penelitian ini menggunakan pendekatan kualitatif dengan jenis penelitian kepustakaan. Sumber data diperoleh dari artikel ilmiah, jurnal nasional dan internasional, serta buku akademik yang relevan dengan KBK, OBE, Taksonomi Bloom, dan pemanfaatan AI dalam pendidikan. Hasil penelitian menunjukkan bahwa integrasi KBK dan OBE dengan Taksonomi Bloom mampu memberikan kerangka pembelajaran PAI yang sistematis dan seimbang pada ranah kognitif, afektif, dan psikomotorik. Pemanfaatan Artificial Intelligence berperan sebagai alat pendukung yang memperkuat pembelajaran adaptif, evaluasi berbasis outcome, dan pengembangan kompetensi peserta didik secara komprehensif.

**Kata Kunci:** Artificial Intelligence; Taksonomi Bloom; Outcome Based Education; Pendidikan Agama Islam; Kurikulum Berbasis Kompetensi



Creative Commons Attribution-ShareAlikeBY-SA: This work is licensed under a Contemporary Quran Creative Commons Attribution-ShareAlike 4.0 International License (<https://creativecommons.org/licenses/by-sa/4.0/>). If you remix, transform, or build upon the material, you must contribute under the same license as the original

### INTRODUCTION

Islamic Religious Education (PAI) plays a strategic role in shaping students who not only possess cognitive understanding of religious teachings but are also able to internalize Islamic values in their attitudes and daily behavior.<sup>1</sup> In the modern era, PAI learning is required to adapt to ongoing developments marked by shifts in educational paradigms, rapid technological advancement, and the demand for graduates who are competent and adaptable.<sup>2</sup> Therefore, PAI learning approaches can no longer rely on traditional methods that emphasize rote memorization; instead, they must be directed toward the development of competencies and measurable, meaningful learning outcomes.

Developments in the educational landscape reveal significant challenges in the implementation of PAI learning, particularly with regard to instructional effectiveness and relevance to students' real-life experiences. Learning practices that remain focused on content delivery often fail to foster higher-order thinking skills, consistent religious character formation, and applicable religious practices.<sup>3</sup> At the same time, the demands of the digital era require educators to use technology wisely so that learning processes become more adaptive, interactive, and aligned with the characteristics of contemporary learners.<sup>4</sup>

Competency-Based Curriculum and Outcome-Based Education approaches have strong potential to improve the quality of learning.<sup>5</sup> These approaches emphasize the alignment between learning objectives, instructional processes, and intended learning outcomes, ensuring that education is not merely evaluated based on content delivery but on the attainment of student competencies. In the context of PAI, these approaches are considered effective because they align with the goals of Islamic education, which stress a balanced development of knowledge, attitudes, and religious skills.

Bloom's Taxonomy is one of the theoretical frameworks widely used to support competency- and outcome-based learning.<sup>6</sup> By categorizing learning objectives into cognitive, affective, and psychomotor domains, Bloom's Taxonomy assists educators in formulating learning goals in a systematic and progressive manner.<sup>7</sup> This framework is particularly relevant to PAI learning, as it enables the development of comprehensive Islamic understanding, sustainable religious

- 
- 1 Niskaromah, Anna Christina Abdullah, and Putri Amalia, "The Effectiveness of Islamic Religious Education in Shaping the Religious Character of Elementary School Students," *Zabags International Journal of Education* 3, no. 1 (April 30, 2025): 41–51, <https://doi.org/10.61233/zijed.v3i1.27>.
  - 2 Ahmad Asron Mundofi, "Integration of Deep Learning Approach in Transforming Islamic Religious Education Learning in Schools: A Pedagogical and Technological Study," *Journal of Asian Primary Education (JoAPE)* 2, no. 1 (March 30, 2025): 79–90, <https://doi.org/10.59966/joape.v2i1.1787>.
  - 3 Shahazwan Mat Yusoff, Hao Lijie, and Mohd Helme Basal, "Investigating the Influence of Pedagogical Content Knowledge on Formative Assessment Practices in Islamic Religious Education of Malaysian Secondary Schools," *International Journal of Asia Pacific Studies* 21, no. 2 (2025): 89–113, <https://doi.org/10.21315/ijaps2025.21.2.5>.
  - 4 Mayengbam Nandakishwor Singh, "Inroad of Digital Technology in Education: Age of Digital Classroom," *Higher Education for the Future* 8, no. 1 (January 30, 2021): 20–30, <https://doi.org/10.1177/2347631120980272>.
  - 5 Richa Khanna and Divya Mehrotra, "The Roadmap for Quality Improvement from Traditional through Competency Based (CBE) towards Outcome Based Education (OBE) in Dentistry," *Journal of Oral Biology and Craniofacial Research* 9, no. 2 (April 2019): 139–42, <https://doi.org/10.1016/j.jobcr.2019.02.004>.
  - 6 N. J. Rao, "Outcome-Based Education: An Outline," *Higher Education for the Future* 7, no. 1 (January 7, 2020): 5–21, <https://doi.org/10.1177/2347631119886418>.
  - 7 Made Aryawan Adijaya et al., "Bloom's Taxonomy Revision-Oriented Learning Activities to Improve Procedural Capabilities and Learning Outcomes," *International Journal of Educational Methodology* 9, no. 1 (February 15, 2023): 261–70, <https://doi.org/10.12973/ijem.9.1.261>.

attitudes, and mastery of practical religious and social skills. Consequently, Bloom's Taxonomy serves as an important foundation for designing more structured and measurable PAI learning.

Alongside rapid digital transformation, Artificial Intelligence (AI) has increasingly been utilized across various educational fields as a tool to support learning.<sup>8</sup> AI enables more personalized and adaptive learning experiences while also supporting outcome-based assessment. In PAI learning, the use of AI has the potential to assist educators in designing competency-based instruction, monitoring students' progress, and providing more effective feedback.<sup>9</sup> Nevertheless, the integration of AI in PAI learning requires a clear pedagogical framework to ensure that its use remains aligned with the values and principles of Islamic education.

Several previous studies have examined the application of Outcome-Based Education and Bloom's Taxonomy in education. Research by Mehta et al. indicates that integrating OBE with Bloom's Taxonomy enhances the clarity of learning outcomes and the quality of assessment, while also highlighting the role of technology in supporting outcome-based learning.<sup>10</sup> Another study by Shaikh emphasizes the importance of integrating Bloom's Taxonomy with innovative learning approaches to improve student engagement and learning achievement.<sup>11</sup> Meanwhile, Kurukwar explores the application of Bloom's Taxonomy in OBE as a tool for formulating effective learning objectives.<sup>12</sup> However, these studies have not specifically addressed the integrated application of the Competency-Based Curriculum, Outcome-Based Education, and Bloom's Taxonomy in PAI learning supported by the systematic use of Artificial Intelligence.

Based on this research gap, the present study aims to examine the implementation of the Competency-Based Curriculum and Outcome-Based Education in Islamic Religious Education from the perspective of Bloom's Taxonomy with the support of Artificial Intelligence. This study is expected to contribute theoretically to the development of PAI learning that is relevant to the digital era and to serve as a reference for educators and educational administrators in designing PAI learning that is oriented toward competencies, learning outcomes, and the responsible use of technology.

## Method

This study employs a qualitative approach using library research as its primary research design.<sup>13</sup> This approach was selected because the study aims to examine and analyze the concepts of the Competency-Based Curriculum, Outcome-Based Education, Bloom's Taxonomy, and the use of Artificial Intelligence in Islamic Religious Education from a theoretical and conceptual perspective. Library research enables a systematic review of ideas, theories, and scholarly findings relevant to the integration of CBC, OBE, and Bloom's Taxonomy within the context of PAI learning in the digital era.

---

8 Lijia Chen, Pingping Chen, and Zhijian Lin, "Artificial Intelligence in Education: A Review," *IEEE Access* 8 (2020): 75264–78, <https://doi.org/10.1109/ACCESS.2020.2988510>.

9 Wafa Naif Alwakid et al., "Exploring the Role of AI and Teacher Competencies on Instructional Planning and Student Performance in an Outcome-Based Education System," *Systems* 13, no. 7 (June 27, 2025): 517, <https://doi.org/10.3390/systems13070517>.

10 Milan Mehta et al., "Impact of Artificial Intelligence on Outcome-Based Education," *International Journal of Scientific Research in Computer Science, Engineering and Information Technology* 10, no. 1 (January 18, 2024): 85–108, <https://doi.org/10.32628/CSEIT228619>.

11 Farah Shaikh, "Triangulating Effective Teaching: Flipped Learning, Bloom's Taxonomy and Outcome Based Education in Review," *International Journal of Psychological Science* 5, no. 1 (May 9, 2025): 8–17, <https://doi.org/10.11648/j.ijps.20250501.12>.

12 Amardip Kurukwar, *An Overview of Bloom's Taxonomy Applied in Outcome Based Education for Effective Learning* (Royal Book Publishing, 2022), <https://doi.org/10.26524/royal.134>.

13 Mestika Zed, *Metode Penelitian Kepustakaan* (Yayasan Pustaka Obor Indonesia, 2008).

## **Implementation of a Competency-Based Curriculum and Outcome-Based Education**

The data sources in this study consist of primary and secondary data. Primary data include scholarly articles, national and international academic journals, and books that discuss competency-based curriculum, outcome-based education, Bloom's Taxonomy, and Islamic Religious Education. Secondary data are obtained from supporting documents such as research reports, educational policy documents, and other relevant academic sources. Data collection was conducted through documentation techniques by identifying, selecting, and classifying relevant literature based on its relevance to the research focus and alignment with the research objectives.

Data analysis was carried out using descriptive qualitative analysis through the stages of data reduction, data presentation, and conclusion drawing. The collected data were analyzed by comparing, synthesizing, and interpreting various theoretical perspectives to obtain a comprehensive understanding of the integration of CBC, OBE, and Bloom's Taxonomy in PAI learning. This analysis also examined the role of Artificial Intelligence as a supporting tool for competency- and outcome-oriented learning. The results of the analysis are presented in a systematic narrative form to provide clear and structured insights in accordance with the objectives of the study.

## **RESULTS AND DISCUSSION**

### **Bloom's Taxonomy as a Theoretical Foundation for Learning**

Bloom's Taxonomy is a theoretical framework in education that classifies learning objectives according to levels of students' abilities. Developed by Benjamin Samuel Bloom in 1956, this taxonomy emerged as a response to educational practices that focused excessively on memorization. Bloom emphasized that learning should foster structured and hierarchical thinking skills, enabling learners not only to acquire information but also to understand, apply, and evaluate knowledge meaningfully. Within the learning process, Bloom's Taxonomy serves as a conceptual guide for educators in formulating learning objectives, organizing instructional activities, and designing assessment strategies in a systematic and coherent manner. As such, Bloom's Taxonomy functions not merely as an abstract theory, but as a practical foundation for developing meaningful learning experiences oriented toward clear and measurable learning outcomes.<sup>14</sup>

Conceptually, Bloom's Taxonomy aims to organize learning outcomes within a hierarchical structure so that the learning process progresses logically and sequentially. This framework is based on the assumption that higher-order thinking skills cannot be achieved without mastering more basic cognitive abilities. Therefore, learning activities should be designed to move gradually from simple to complex levels of understanding. Bloom's Taxonomy helps educators recognize that the success of learning is not determined by the volume of content delivered, but by the extent to which students experience intellectual growth, develop appropriate attitudes, and acquire relevant skills. In educational practice, this taxonomy supports alignment between learning objectives, instructional strategies, and assessment methods, ensuring that the learning process remains purposeful and well-directed.

Bloom's Taxonomy categorizes learning objectives into three main domains: cognitive, affective, and psychomotor. The cognitive domain relates to intellectual abilities and thinking processes, ranging from recalling information to evaluating and creating knowledge. The affective domain focuses on attitudes, values, emotions, and character development that emerge throughout the learning process. Meanwhile, the psychomotor domain emphasizes physical skills and the ability to perform actions through direct practice. This classification highlights

---

14 Benjamin Samuel Bloom et al., *Taxonomy of Educational Objectives*, vol. 2 (Longmans, Green New York, 1964).

that effective learning must address knowledge, attitudes, and skills in a balanced and integrated manner. In educational settings, these domains do not function independently, but rather interact and reinforce one another to support holistic student development.<sup>15</sup>

Within Bloom's Taxonomy, the cognitive domain is structured hierarchically, beginning with remembering and progressing through understanding, applying, analyzing, synthesizing, and evaluating.<sup>16</sup> This structure reflects the idea that students' thinking abilities develop progressively. Mastery of basic knowledge and comprehension provides the foundation for more complex cognitive processes such as analysis and evaluation. Consequently, educators are encouraged to design learning objectives that extend beyond rote memorization and actively promote critical and analytical thinking. By using Bloom's cognitive framework, educators can formulate learning objectives that are realistic, developmentally appropriate, and aligned with students' learning needs, thereby supporting deeper and more reflective learning experiences.

In addition to cognitive development, Bloom's Taxonomy emphasizes the importance of the affective domain in the learning process.<sup>17</sup> This domain concerns the formation of attitudes, values, and character through the internalization of educational experiences. Learning is not solely intended to enhance intellectual capacity, but also to shape learners' moral awareness and personal dispositions. The affective domain progresses through stages that include receiving values, responding actively, valuing, organizing values, and ultimately forming consistent patterns of behavior. This framework underscores that changes in attitudes and character occur gradually through sustained learning experiences, making Bloom's Taxonomy a valuable theoretical basis for character-oriented education.

The psychomotor domain in Bloom's Taxonomy highlights the importance of practical skills and physical performance in learning. This domain focuses on students' ability to translate knowledge into action through hands-on activities and direct practice. Effective learning, therefore, is not limited to conceptual understanding but also involves the ability to apply knowledge in real and meaningful contexts. Mastery of psychomotor skills reflects a deeper level of understanding, as students demonstrate their competence through observable actions. Overall, Bloom's Taxonomy provides a comprehensive theoretical foundation that integrates thinking, attitudes, and action, making it highly relevant for developing learning approaches that emphasize competence and measurable learning outcomes.

## **Aspects of the Competency-Based Curriculum and Outcome-Based Education in Islamic Religious Education**

The competency-based curriculum emphasizes the development of learners' abilities as measurable competencies that can be applied in real-life contexts. In Islamic Religious Education (PAI), this approach shifts learning from a content-centered orientation toward the mastery of knowledge, skills, and attitudes that reflect Islamic values. Rather than focusing solely on the transmission of religious doctrines, the curriculum encourages students to understand, internalize, and practice Islamic teachings in daily life. This orientation positions learners as

---

15 P. P. Noushad, "Taxonomies of Educational Objectives," in *Designing and Implementing the Outcome-Based Education Framework* (Springer, 2024), 43–82, [https://doi.org/10.1007/978-981-96-0440-1\\_2](https://doi.org/10.1007/978-981-96-0440-1_2).

16 Bunlot Khoy, "Unlocking Cognitive Learning Objectives: A Comprehensive Evaluation of How Textbooks and Syllabi Align with Revised Bloom's Taxonomy across Disciplines," *Curriculum Perspectives* 45, no. 2 (September 30, 2025): 189–202, <https://doi.org/10.1007/s41297-024-00295-2>.

17 Abdul Momen, Mansoureh Ebrahimi, and Ahmad Muhyuddin Hassan, "Importance and Implications of Theory of Bloom's Taxonomy in Different Fields of Education," in *Intelligent Technologies and Robotics Intelligent Technologies and Robotics (R0) Springer Nature Proceedings Excluding Computer Science, 2023*, 515–25, [https://doi.org/10.1007/978-3-031-20429-6\\_47](https://doi.org/10.1007/978-3-031-20429-6_47).

## Implementation of a Competency-Based Curriculum and Outcome-Based Education

active participants in the learning process, while educators function as facilitators who guide students toward achieving clearly defined competencies aligned with educational goals.

One of the key aspects of a competency-based curriculum in PAI is its focus on learning outcomes that integrate cognitive, affective, and psychomotor dimensions.<sup>18</sup> Cognitive competence involves understanding religious concepts and principles, affective competence relates to the formation of moral values and attitudes, and psychomotor competence emphasizes practical religious skills.<sup>19</sup> These three dimensions are inseparable in Islamic education, as religious knowledge is expected to shape character and behavior. By emphasizing competence rather than content accumulation, the curriculum aims to produce learners who are not only knowledgeable but also morally grounded and capable of applying Islamic teachings in social and personal contexts.

Outcome-Based Education (OBE) complements the competency-based curriculum by emphasizing clearly defined learning outcomes as the foundation of curriculum design, instruction, and assessment.<sup>20</sup> In the context of PAI, OBE ensures that every learning activity is directed toward specific outcomes that reflect both academic understanding and religious character formation.<sup>21</sup> Learning outcomes serve as benchmarks that describe what students should know, value, and be able to do upon completing a course or program. This approach promotes coherence between objectives, learning activities, and evaluation methods, ensuring that instruction remains focused on meaningful educational results rather than procedural completion.

Another important aspect of OBE in PAI is its emphasis on systematic planning and evaluation. Curriculum design under OBE begins with the identification of expected graduate competencies, which are then translated into course learning outcomes and instructional strategies. Educators are required to align teaching methods and assessment tools with these outcomes to ensure that learning objectives are effectively achieved.<sup>22</sup> In PAI, this alignment helps educators design learning experiences that not only convey religious knowledge but also foster ethical awareness, spiritual sensitivity, and practical religious competence among students.

The integration of competency-based curriculum principles with OBE also highlights the importance of continuous assessment and improvement. Assessment in this framework is not limited to summative tests but includes formative evaluations that monitor students' progress toward achieving learning outcomes. In PAI learning, such assessments can take various forms, including reflective activities, practical demonstrations, and behavioral observations. This approach allows educators to identify learning gaps and adjust instructional strategies accordingly, thereby supporting students' holistic development throughout the learning process.

---

18 Muhammad Nafis Allam and Muh. Nur Rochim Maksum, "The Effectiveness of Competency-Based Learning Evaluation in PAI Subjects at SMA 'MAN 2 Boyolali,'" *Journal of Educational Sciences* 9, no. 6 SE-Articles (n.d.): 5959–71, <https://doi.org/10.31258/jes.9.6.p.5959-5971>.

19 Ahmad Farid Fanani, "Moral Character and Virtue in Anime: An Aristotelian Reading of Wind Breaker Season 2 Episode 10," *Asian Journal of Media and Communication* 9, no. 2 SE-Articles (December 31, 2025): 123–35, <https://doi.org/10.20885/asjmc.vol9.iss2.art3>.

20 Siti Aminah, Adila Alfa Krisnadhi, and Achmad Nizar Hidayanto, "Ontological Framework for the Analysis of Outcome-Based Curriculum in Higher Education," *IEEE Access* 13 (2025): 31497–516, <https://doi.org/10.1109/ACCESS.2025.3542881>.

21 Eva Latipah and Noorhaidi Hasan, "Curriculum Reconstruction: Alignment of Profile, Body of Knowledge, and Learning Outcomes of the Indonesian Islamic Education Study Program," *Jurnal Pendidikan Agama Islam* 20, no. 1 (June 30, 2023): 1–19, <https://doi.org/10.14421/jpai.v20i1.7756>.

22 Slavča Hristov, Dimitar Nakov, and Jelena Miočinović, "Constructive Alignment Between Objectives, Teaching And Learning Activities, Student Competencies And Assessment Methods In Higher Education," *Journal of Agriculture and Plant Sciences* 21, no. 2 (2023): 21–36, <https://doi.org/10.46763/JAPS23212021h>.

In addition, the competency-based and outcome-based approaches encourage the use of diverse learning strategies that accommodate different learning styles and contexts.<sup>23</sup> In PAI, this may include discussion-based learning, experiential activities, contextual problem-solving, and the integration of real-life religious practices. These strategies help make learning more relevant and engaging, enabling students to connect religious teachings with contemporary social realities. As a result, PAI learning becomes more dynamic and meaningful, fostering deeper understanding and long-term internalization of Islamic values.<sup>24</sup>

Despite its advantages, the implementation of a competency-based curriculum and OBE in PAI also presents several challenges. These challenges include disparities in educational resources, variations in teachers' pedagogical competencies, and resistance to shifting from traditional teaching methods. In many contexts, educators may still prioritize theoretical knowledge over practical application, limiting the effectiveness of competency-based learning. Addressing these challenges requires institutional support, professional development for teachers, and adequate infrastructure to facilitate innovative teaching and assessment practices.

The competency-based curriculum and Outcome-Based Education provide a strong conceptual framework for improving the quality and relevance of PAI learning. By focusing on clearly defined competencies and measurable learning outcomes, these approaches support the development of students who are intellectually capable, morally responsible, and practically skilled. When implemented effectively, they enable PAI to fulfill its educational mission of shaping learners who not only understand Islamic teachings but also embody them in their attitudes and actions within society.

## **Integration of Bloom's Taxonomy in Islamic Religious Education Using Artificial Intelligence**

In the context of rapid digital development, the integration of Bloom's Taxonomy with the Competency-Based Curriculum and Outcome-Based Education (OBE) in Islamic Religious Education (PAI) needs to be supported by the use of Artificial Intelligence (AI) as an adaptive learning medium and instructional tool. The presence of AI enables learning processes to be designed in a more personalized, contextual, and outcome-oriented manner.<sup>25</sup> AI is not positioned as a substitute for educators, but rather as a supportive tool that assists teachers in designing learning activities, monitoring students' progress, and conducting competency- and outcome-based assessments more effectively.

The use of AI in PAI learning can be aligned with the framework of Bloom's Taxonomy, particularly in supporting the development of cognitive, affective, and psychomotor domains. In the cognitive domain, AI can assist students in understanding Islamic concepts through adaptive learning systems, analytical exercises, and automated feedback that promotes higher-order thinking skills.<sup>26</sup> In the affective domain, AI can function as a medium for value reflection,

---

23 Ilse Johanna Sistermans, "Integrating Competency-Based Education with a Case-Based or Problem-Based Learning Approach in Online Health Sciences," *Asia Pacific Education Review* 21, no. 4 (December 18, 2020): 683–96, <https://doi.org/10.1007/s12564-020-09658-6>.

24 Muhammad Yusuf Pratama, Ahmad Nabil Annuha, Ahmad Farid Fanani, and Muhammad Azlan Lubis. "Islamic Religious Education in Indonesia: Roles, Implementation, and Methods in Shaping Islamic Character in the Modern Era." *Indonesian Journal of Islamic Educational Review* 2, no. 3 (October 13, 2025): 282–92. <https://doi.org/10.58230/ijer.v2i3.422>.

25 Daniel H. Chang et al., "Educational Design Principles of Using AI Chatbot That Supports Self-Regulated Learning in Education: Goal Setting, Feedback, and Personalization," *Sustainability* 15, no. 17 (August 27, 2023): 12921, <https://doi.org/10.3390/su151712921>.

26 Nilna Azizatus Shofiyah, Ogi Lesmana, and Hendra Tohari, "Metamorphosis of Islamic Religious Education Learning Method: Classic Approach Converted by Artificial Intelligence (AI)," *Jurnal Pendidikan : Riset Dan Konseptual* 8, no. 2 (April 27, 2024): 265, [https://doi.org/10.28926/riset\\_konseptual.v8i2.998](https://doi.org/10.28926/riset_konseptual.v8i2.998).

## Implementation of a Competency-Based Curriculum and Outcome-Based Education

ethical discussions, and reinforcement of religious attitudes through contextual and interactive content. Meanwhile, in the psychomotor domain, AI can support practical learning through simulations, visual guidance, and step-by-step evaluation of skills.

The integration of Bloom's Taxonomy, the Competency-Based Curriculum, OBE, and AI in PAI learning can be systematically illustrated through the relationship between learning domains, competency outcomes, and the role of AI as an implementation support tool. This relationship demonstrates that AI functions as an enabler that strengthens the achievement of competencies and learning outcomes, rather than becoming an end goal of learning itself. This integrative relationship is summarized as shown in Table 1.

**Table 1.** Integration of Bloom's Taxonomy, Competency-Based Curriculum, OBE, and AI in PAI Learning

Bloom's Taxonomy Domain	Competency Focus in CBC	Learning Outcomes (OBE)	Role of AI in PAI Learning
Cognitive	Understanding and higher-order thinking skills	Students are able to analyze and apply Islamic teachings	Adaptive learning, analytical exercises, automated feedback
Affective	Formation of attitudes and religious values	Students demonstrate religious attitudes and moral character	Value reflection media, ethical discussions, character reinforcement
Psychomotor	Practical religious skills	Students are able to practice Islamic teachings independently	Worship simulations, visual guidance, skills assessment

*Source: by Author*

As shown in Table 1, the utilization of AI in PAI learning serves to strengthen the integration between Bloom's Taxonomy as a theoretical framework and the competency-based and outcome-oriented curriculum approach. AI supports balanced development across all learning domains while ensuring alignment with predefined learning outcomes. With AI support, educators can more easily monitor students' progress, provide timely feedback, and adjust instructional strategies according to individual learning needs and abilities.

Overall, the integration of Bloom's Taxonomy, the Competency-Based Curriculum, OBE, and AI use forms a learning framework for PAI that is more adaptive, measurable, and relevant to the challenges of the digital era. PAI learning is no longer limited to the acquisition of religious knowledge, but also emphasizes the formation of religious attitudes and practical skills supported by responsible use of technology. This approach is expected to produce learners with comprehensive Islamic understanding, strong moral character, and competencies that can be effectively applied in real-life contexts.

## CONCLUSION

Based on the discussion, this study demonstrates that the implementation of a Competency-Based Curriculum and Outcome-Based Education in Islamic Religious Education is highly relevant in addressing the challenges of contemporary and digital-era education. The integration of these approaches with Bloom's Taxonomy provides a systematic framework for formulating learning objectives, instructional processes, and assessment strategies that balance the cognitive, affective, and psychomotor domains. Furthermore, the use of Artificial Intelligence as a supportive learning tool strengthens the implementation of CBC and OBE by enabling more adaptive, contextual, and outcome-oriented learning experiences. As a result, PAI learning is not limited to the acquisition of religious knowledge but also emphasizes the development of religious character and practical skills that can be meaningfully applied in real-life contexts.

Based on these findings, it is recommended that PAI educators and educational institutions place greater emphasis on the development and implementation of competency-based and outcome-oriented learning supported by responsible use of technology, including Artificial Intelligence. Educators need to enhance their pedagogical and digital competencies in order to design learning activities aligned with Bloom's Taxonomy and to utilize AI as a supportive tool rather than a replacement for the educator's role. In addition, educational institutions and policymakers are expected to provide support in the form of professional training, adequate infrastructure, and policies that encourage innovation in PAI learning. Future research is recommended to explore empirical implementations of CBC-, OBE-, and AI-based PAI learning in educational settings to gain a more comprehensive understanding of its effectiveness and practical challenges.

## BIBLIOGRAPHY

- Adijaya, Made Aryawan, I Wayan Widiana, I Gusti Lanang Agung Parwata, and I Gede Wahyu Suwela Antara. "Bloom's Taxonomy Revision-Oriented Learning Activities to Improve Procedural Capabilities and Learning Outcomes." *International Journal of Educational Methodology* 9, no. 1 (February 15, 2023): 261–70. <https://doi.org/10.12973/ijem.9.1.261>.
- Allam, Muhammad Nafis, and Muh. Nur Rochim Maksum. "The Effectiveness of Competency-Based Learning Evaluation in PAI Subjects at SMA 'MAN 2 Boyolali.'" *Journal of Educational Sciences* 9, no. 6 SE-Articles (n.d.): 5959–71. <https://doi.org/10.31258/jes.9.6.p.5959-5971>.
- Alwakid, Wafa Naif, Nisar Ahmed Dahri, Mamoona Humayun, and Ghadah Naif Alwakid. "Exploring the Role of AI and Teacher Competencies on Instructional Planning and Student Performance in an Outcome-Based Education System." *Systems* 13, no. 7 (June 27, 2025): 517. <https://doi.org/10.3390/systems13070517>.
- Aminah, Siti, Adila Alfa Krisnadhi, and Achmad Nizar Hidayanto. "Ontological Framework for the Analysis of Outcome-Based Curriculum in Higher Education." *IEEE Access* 13 (2025): 31497–516. <https://doi.org/10.1109/ACCESS.2025.3542881>.
- Bloom, Benjamin Samuel, Max D Engelhart, Edward J Furst, Walker H Hill, and David R Krathwohl. *Taxonomy of Educational Objectives*. Vol. 2. Longmans, Green New York, 1964.
- Chang, Daniel H., Michael Pin-Chuan Lin, Shiva Hajian, and Quincy Q. Wang. "Educational Design Principles of Using AI Chatbot That Supports Self-Regulated Learning in Education: Goal Setting, Feedback, and Personalization." *Sustainability* 15, no. 17 (August 27, 2023): 12921. <https://doi.org/10.3390/su151712921>.
- Chen, Lijia, Pingping Chen, and Zhijian Lin. "Artificial Intelligence in Education: A Review." *IEEE Access* 8 (2020): 75264–78. <https://doi.org/10.1109/ACCESS.2020.2988510>.
- Fanani, Ahmad Farid. "Moral Character and Virtue in Anime: An Aristotelian Reading of Wind Breaker Season 2 Episode 10." *Asian Journal of Media and Communication* 9, no. 2 SE-Articles (December 31, 2025): 123–35. <https://doi.org/10.20885/asjmc.vol9.iss2.art3>.
- Hristov, Slavča, Dimitar Nakov, and Jelena Miočinović. "Constructive Alignment Between Objectives, Teaching And Learning Activities, Student Competencies And Assessment Methods In Higher Education." *Journal of Agriculture and Plant Sciences* 21, no. 2 (2023): 21–36. <https://doi.org/10.46763/JAPS23212021h>.
- Khanna, Richa, and Divya Mehrotra. "The Roadmap for Quality Improvement from Traditional through Competency Based (CBE) towards Outcome Based Education (OBE) in Dentistry." *Journal of Oral Biology and Craniofacial Research* 9, no. 2 (April 2019): 139–42. <https://doi.org/10.1016/j.jobcr.2019.02.004>.
- Khoy, Bunlot. "Unlocking Cognitive Learning Objectives: A Comprehensive Evaluation of How Textbooks and Syllabi Align with Revised Bloom's Taxonomy across Disciplines." *Curriculum Perspectives* 45, no. 2 (September, 2025): 189–202. <https://doi.org/10.1007/s41297-024-00295-2>.

## Implementation of a Competency-Based Curriculum and Outcome-Based Education

- Kurukwar, Amardip. *An Overview of Bloom's Taxonomy Applied in Outcome Based Education for Effective Learning*. Royal Book Publishing, 2022. <https://doi.org/10.26524/royal.134>.
- Latipah, Eva, and Noorhaidi Hasan. "Curriculum Reconstruction: Alignment of Profile, Body of Knowledge, and Learning Outcomes of the Indonesian Islamic Education Study Program." *Jurnal Pendidikan Agama Islam* 20, no. 1 (June 30, 2023): 1–19. <https://doi.org/10.14421/jpai.v20i1.7756>.
- Mat Yusoff, Shahazwan, Hao Lijie, and Mohd Helme Basal. "Investigating the Influence of Pedagogical Content Knowledge on Formative Assessment Practices in Islamic Religious Education of Malaysian Secondary Schools." *International Journal of Asia Pacific Studies* 21, no. 2 (2025): 89–113. <https://doi.org/10.21315/ijaps2025.21.2.5>.
- Mehta, Milan, Rupal Mehta, Akshat Mehta, and Parth Mehta. "Impact of Artificial Intelligence on Outcome-Based Education." *International Journal of Scientific Research in Computer Science, Engineering and Information Technology* 10, no. 1 (January 18, 2024): 85–108. <https://doi.org/10.32628/CSEIT228619>.
- Momen, Abdul, Mansoureh Ebrahimi, and Ahmad Muhyuddin Hassan. "Importance and Implications of Theory of Bloom's Taxonomy in Different Fields of Education." In *Intelligent Technologies and Robotics Intelligent Technologies and Robotics (R0) Springer Nature Proceedings Excluding Computer Science*, 515–25, 2023. [https://doi.org/10.1007/978-3-031-20429-6\\_47](https://doi.org/10.1007/978-3-031-20429-6_47).
- Mundofi, Ahmad Asron. "Integration of Deep Learning Approach in Transforming Islamic Religious Education Learning in Schools: A Pedagogical and Technological Study." *Journal of Asian Primary Education (JoAPE)* 2, no. 1 (March 30, 2025): 79–90. <https://doi.org/10.59966/joape.v2i1.1787>.
- Niskaromah, Anna Christina Abdullah, and Putri Amalia. "The Effectiveness of Islamic Religious Education in Shaping the Religious Character of Elementary School Students." *Zabags International Journal of Education* 3, no. 1 (April 30, 2025): 41–51. <https://doi.org/10.61233/zijed.v3i1.27>.
- Noushad, P. P. "Taxonomies of Educational Objectives." In *Designing and Implementing the Outcome-Based Education Framework*, 43–82. Springer, 2024. [https://doi.org/10.1007/978-981-96-0440-1\\_2](https://doi.org/10.1007/978-981-96-0440-1_2).
- Pratama, Muhammad Yusuf, Ahmad Nabil Annuha, Ahmad Farid Fanani, and Muhammad Azlan Lubis. "Islamic Religious Education in Indonesia: Roles, Implementation, and Methods in Shaping Islamic Character in the Modern Era." *Indonesian Journal of Islamic Educational Review* 2, no. 3 (October 13, 2025): 282–92. <https://doi.org/10.58230/ijier.v2i3.422>.
- Rao, N. J. "Outcome-Based Education: An Outline." *Higher Education for the Future* 7, no. 1 (January 7, 2020): 5–21. <https://doi.org/10.1177/2347631119886418>.
- Shaikh, Farah. "Triangulating Effective Teaching: Flipped Learning, Bloom's Taxonomy and Outcome Based Education in Review." *International Journal of Psychological Science* 5, no. 1 (May 9, 2025): 8–17. <https://doi.org/10.11648/j.ijps.20250501.12>.
- Shofiyah, Nilna Azizatus, Ogi Lesmana, and Hendra Tohari. "Metamorphosis of Islamic Religious Education Learning Method: Classic Approach Converted by Artificial Intelligence (AI)." *Jurnal Pendidikan: Riset Dan Konseptual* 8, no. 2 (April 27, 2024): 265. [https://doi.org/10.28926/riset\\_konseptual.v8i2.998](https://doi.org/10.28926/riset_konseptual.v8i2.998).
- Singh, Mayengbam Nandakishwor. "Inroad of Digital Technology in Education: Age of Digital Classroom." *Higher Education for the Future* 8, no. 1 (January 30, 2021): 20–30. <https://doi.org/10.1177/2347631120980272>.
- Sisternans, Ilse Johanna. "Integrating Competency-Based Education with a Case-Based or Problem-Based Learning Approach in Online Health Sciences." *Asia Pacific Education Review* 21, no. 4 (December 18, 2020): 683–96. <https://doi.org/10.1007/s12564-020-09658-6>.
- Zed, Mestika. *Metode Penelitian Kepustakaan*. Yayasan Pustaka Obor Indonesia, 2008.