

Constructive Alignment In Islamic Religious Education: A Conceptual Framework For The Merdeka Curriculum

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ABSTRACT

The Constructive Alignment Model (CAM) has become a foundational framework in higher education pedagogy, emphasizing coherence between learning outcomes, teaching strategies, and assessment methods. Despite its widespread adoption, existing studies have predominantly examined CAM within Western secular educational contexts, leaving a significant gap in its application to Islamic Religious Education (PAI), particularly within Indonesia's Merdeka Curriculum framework. This study addresses that gap by proposing a contextualized conceptual framework integrating Constructive Alignment principles with the distinctive pedagogical demands of PAI. Using a qualitative approach with systematic literature review methodology following the PRISMA protocol, this research critically synthesizes 39 selected sources from Scopus, Web of Science, ERIC, and Google Scholar published between 2011 and 2025. The findings reveal that although CAM has evolved significantly from a theoretical concept into a widely adopted practical framework, its application in religiously grounded education systems remains substantially underexplored. In the Merdeka Curriculum context, constructive alignment in PAI demonstrates strong potential to enhance holistic student development by integrating cognitive, affective, psychomotor, and spiritual dimensions. Learning outcomes emphasize character development aligned with Pancasila values, while learning strategies incorporate participatory and project-based approaches. Assessment practices have shifted toward competency-based evaluation encompassing ethical and behavioral dimensions. This study makes a twofold theoretical contribution. First, it advances discourse on CAM by demonstrating how the model can be reconceptualized beyond its Western secular origins to accommodate Islamic epistemological frameworks involving multiple ways of knowing. Second, it proposes an original four-component conceptual framework comprising holistic learning outcomes, integrative learning strategies, comprehensive assessment, and dialogic feedback, specifically tailored for PAI within the Merdeka Curriculum. These findings provide practical guidance for educators and policymakers in designing constructively aligned PAI curricula that prepare students to navigate a multicultural society while remaining grounded in their religious identity.

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Introduction

Education in Indonesia is undergoing significant transformation with the implementation of the Merdeka Curriculum as a new paradigm in the national education system. This curriculum emphasizes holistic student competency development, learning flexibility, and strengthening the Pancasila Student Profile (Amalia et al., 2024). In this context, Islamic Religious Education (PAI) as one of the compulsory subjects plays a strategic role in shaping students' character and moral values in accordance with Islamic teachings and Indonesian national values.

Globally, the Constructive Alignment (CA) model has gained increasing recognition as a foundational framework for curriculum design. Since its introduction by John Biggs in the late 1990s, CA has been widely adopted across diverse educational systems, including in Australia, the Gulf Cooperation Council (GCC) countries, and various Asian contexts (Romanowski et al., 2024; Wang et al., 2013). International literature consistently affirms that alignment between learning outcomes, teaching strategies, and assessment is central to effective pedagogical design (Biggs & Tang, 2020; Leber et al., 2018). However, as O'Sullivan & Bjørndal (2024) critically observe, CA was largely developed within Western secular higher education contexts, raising important questions about its applicability in culturally and religiously distinct settings. Similarly, Love (2025) and Loughlin et al. (2021) have challenged the model's tendency toward oversimplification and its potential to perpetuate inequalities when applied without contextual sensitivity.

Despite this growing body of international scholarship, a critical gap exists in the literature: there is limited research that systematically integrates CA principles with the specific pedagogical demands of Islamic Religious Education, particularly within the Indonesian Merdeka Curriculum framework. Most existing studies either examine CA in Western or secular contexts (Bellamy, 2017; Frost & Ackrill, 2025) or address Islamic education without reference to CA theory (Shaleh et al., 2024; Jasiah et al., 2024). This gap is significant because PAI occupies a unique position in the Indonesian education system—it is simultaneously a subject of religious formation, character development, and civic education aligned with Pancasila values.

The main challenge faced in implementing the Merdeka Curriculum, particularly in PAI subjects, is how to align the expected learning outcomes, the learning strategies used, and the assessment system applied. Misalignment between these three components can result in ineffective learning processes that fail to achieve the expected educational goals (Leber et al., 2018). This phenomenon demonstrates the urgency of adopting a pedagogical framework that can ensure such alignment.

The justification for contextualizing CA within PAI is threefold. First, the Merdeka Curriculum's emphasis on competency-based, student-centered learning is epistemologically consonant with CA's constructivist foundations (Amalia et al., 2024; Biggs & Tang, 2020). Second, Islamic pedagogy has historically emphasized integrated knowledge development—combining 'ilm (knowledge), 'amal (practice), and akhlaq (character)—which parallels CA's insistence on coherence across cognitive, affective, and behavioral domains (Shaleh et al., 2024). Third, the multicultural and pluralistic nature of Indonesian society demands that PAI learning be designed to foster not only religious identity but also tolerance and civic virtue, requiring a framework capable of accommodating these complex, multi-dimensional outcomes (Muhajir et al., 2025).

The implementation of the Merdeka Curriculum in PAI subjects requires an integrative approach, where Islamic values must be combined with 21st-century competencies and the Pancasila Student Profile. Astuti et al. (2024) affirm that the relevance of the Merdeka Curriculum in improving the quality of Islamic education in Indonesia depends on educators' ability to design learning that aligns objectives, processes, and evaluation. This demands a deep understanding of constructive alignment principles and how to apply them in the context of religious education.

Furthermore, digital transformation in the era of artificial intelligence (AI) brings new challenges and opportunities in implementing PAI learning. Wedi et al. (2025) identify that digital transformation in Islamic religious education requires the integration of digital tools and learning management systems while maintaining Islamic values. This context adds complexity to applying

the constructive alignment model that considers not only traditional pedagogical aspects but also technology integration in learning.

Numerous studies have been conducted to examine the Constructive Alignment model and its implementation in various educational contexts. Romanowski et al. (2024) in their study on problematizing constructive alignment in Gulf Cooperation Council countries revealed that this model has transitioned from a theoretical concept to a practical framework widely adopted in curriculum design, particularly in Australia. This research highlights the challenges of contextualizing the model in educational settings that differ culturally and religiously.

Bellamy (2017) at the ASCILITE conference presented a critical debate about constructive alignment, questioning the basic assumptions of the model and how it can be adapted to meet contemporary educational needs. This study opened academic discourse on the limitations of the model and its potential development in more inclusive educational contexts.

In the context of Islamic education, Shaleh et al. (2024) examined the development of a holistic-integrative Islamic Religious Education curriculum in integrated Islamic schools. This research shows that a holistic approach in PAI can enhance students' cognitive, character, and spiritual development, moving beyond dichotomous approaches that separate religious and general knowledge. These findings are relevant to constructive alignment principles that emphasize the integration of learning components.

Wang et al. (2013) conducted an exploration of constructive alignment in course design and its impact on students' learning approaches. The research results showed that students in courses implementing constructive alignment tend to adopt deep learning strategies, leading to improved academic performance. This research provides empirical evidence of the model's effectiveness in improving learning quality.

Maffei et al. (2019) developed the CONALI ontological framework for analyzing constructively aligned educational units. This development shows the evolution of the constructive alignment model in integrating digitalization and data analytics in education, providing more systematic tools for analyzing curriculum alignment.

In the context of the Merdeka Curriculum, Jasiah et al. (2024) conducted a systematic review of the implementation of the Merdeka Curriculum by PAI teachers in senior high schools. This research identifies challenges and opportunities in integrating Islamic pedagogical approaches with Indonesia's national educational goals. Wasehudin et al. (2023) also examined the transformation of Islamic education through the Merdeka Curriculum in pesantren, showing how traditional institutions adapt to new curriculum paradigms.

Although previous studies have examined the Constructive Alignment model and the implementation of the Merdeka Curriculum separately, there remains a research gap in integrating both aspects, particularly in the context of Islamic Religious Education in Indonesia. This research offers novelty in several aspects.

First, this research develops a conceptual framework that integrates Constructive Alignment principles with the unique characteristics of the Merdeka Curriculum in PAI learning. Unlike previous research that tends to examine both aspects separately, this study provides a comprehensive synthesis connecting Western pedagogical theory with the Indonesian Islamic education context.

Second, this research critically examines how learning outcomes, learning strategies, and assessment in PAI can be constructively aligned within the Merdeka Curriculum framework. This analysis considers epistemological aspects raised by O'Sullivan & Bjørndal (2024) about the need for reconceptualizing constructive alignment in the context of different ways of knowing, which is highly relevant to religious education.

Third, this research considers criticisms of the Constructive Alignment model, including potential marginalization identified by Love (2025) and implementation challenges examined by Frost & Ackrill (2025), to provide more nuanced recommendations for implementation in the PAI context.

Fourth, this study explores the integration of cultural and religious values in PAI learning according to constructive alignment principles, responding to the need for multicultural education and religious tolerance in Indonesia's pluralistic society (Muhajir et al., 2025).

This research has several main objectives. First, to analyze the development of the Constructive Alignment model from theoretical concept to practical application in contemporary educational contexts. Second, to identify learning outcomes, learning strategies, and assessment systems in PAI subjects according to the Merdeka Curriculum framework. Third, to develop a conceptual framework for applying Constructive Alignment principles in PAI learning in Indonesia. Fourth, to provide practical recommendations for educators and policymakers in designing constructively aligned PAI curricula.

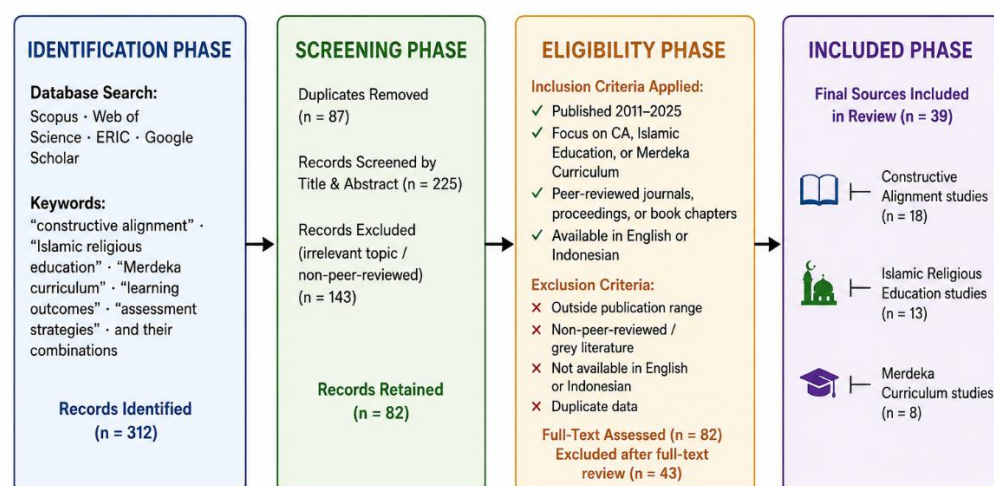
This research is expected to provide significant theoretical and practical contributions. From a theoretical perspective, this study enriches literature on the Constructive Alignment model by contextualizing it in religious education, particularly Islam. The integration of Western constructivist theory with Islamic pedagogy opens new discourse in curriculum studies and educational development. Practically, this research provides guidance for PAI teachers in designing learning that aligns learning outcomes, activities, and assessment. For policymakers, research findings can serve as reference for developing more effective implementation guidelines for the Merdeka Curriculum in PAI subjects. For educational institutions, the resulting conceptual framework can be used as a basis for teacher training and curriculum development.

Method

This research uses a qualitative approach with a systematic literature review method. This method was chosen because it aligns with the research objectives that seek to synthesize and critically analyze various academic literature sources on the Constructive Alignment model and the implementation of the Merdeka Curriculum in PAI learning.

The research design adopts a four-stage literature review framework: (1) source identification and selection, (2) data extraction, (3) thematic analysis, and (4) synthesis of findings. This approach allows researchers to identify patterns, themes, and gaps in existing literature, as well as develop an integrative conceptual framework. The overall methodological process is illustrated in Figure 1 below.

Figure 1. PRISMA-Guided Systematic Literature Review Process



Note. Adapted from PRISMA 2020 guidelines (Page et al., 2021).

The main data sources in this research include scientific journal articles indexed in Scopus and other leading academic databases, international conference proceedings, relevant books and book chapters, and policy documents related to the Merdeka Curriculum.

Inclusion criteria for source selection include: (1) publications within the timeframe of 2011–2025 to ensure contemporary relevance; (2) focus on constructive alignment, Islamic education, or the Merdeka Curriculum; (3) publications in peer-reviewed journals or proceedings; and (4) available in English or Indonesian.

Exclusion criteria comprise: (1) publications outside the 2011–2025 timeframe; (2) non-peer-reviewed materials, grey literature, or opinion pieces without empirical or theoretical grounding; (3) sources not available in English or Indonesian; and (4) duplicate studies reporting the same dataset.

Data collection was conducted through systematic searches using the following keywords and Boolean combinations: "*constructive alignment*", "*Islamic religious education*", "*Merdeka curriculum*", "*learning outcomes*", "*assessment strategies*", "*PAI*", "*Kurikulum Merdeka*", as well as combinations such as "*constructive alignment AND Islamic education*" and "*Merdeka curriculum AND learning outcomes*". Databases used include Scopus, Web of Science, ERIC, and Google Scholar. The selection process follows the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol to ensure transparency and reproducibility, as illustrated in Figure 1.

Data analysis uses thematic analysis techniques comprising six stages: (1) familiarization with data through repeated reading of selected sources; (2) initial coding to identify key concepts; (3) theme searching by grouping related codes; (4) theme review to ensure internal coherence and external distinctiveness; (5) theme definition and naming; and (6) final report production. In the analysis, researchers used the Constructive Alignment conceptual framework as the main analytical lens for interpreting findings about learning outcomes, learning strategies, and assessment in the context of PAI and the Merdeka Curriculum.

To ensure the rigor and credibility of the literature analysis, several measures were applied. First, source triangulation was conducted by comparing findings from multiple types of sources (journal articles, conference proceedings, book chapters, and policy documents) to corroborate emerging themes. Second, member checking of themes was performed through peer review among the research team to verify that identified themes accurately represented the literature. Third, the audit trail was maintained by documenting each stage of the search and selection process in accordance with PRISMA guidelines. Fourth, reflexivity was practiced by the researchers acknowledging their positionality as scholars working within the Indonesian Islamic education context, ensuring that interpretations remained grounded in the literature rather than personal assumption. These measures collectively strengthen the trustworthiness of the systematic literature review findings.

Result

Development of the Constructive Alignment Model

The Constructive Alignment (CA) model has undergone significant evolution since its introduction by John Biggs in the late 1990s. Originally developed to address pedagogical challenges in higher education, particularly in large-scale classroom contexts, this model has transformed into a practical framework widely adopted in curriculum design across various parts of the world (Bellamy, 2017; Romanowski et al., 2024).

The theoretical foundation of the CA model is rooted in constructivist psychology, which postulates that students construct their own knowledge through active engagement in meaningful learning activities (Cvetek, 2013; Ullah et al., 2011). This approach encourages deep learning rather than mere mechanical memorization, emphasizing that the learning process occurs when students actively build meaning from their learning experiences.

Biggs & Tang (2020) in their recent work affirm that CA as an outcomes-based approach requires alignment between three main components: (1) intended learning outcomes (ILO) describing what students should be able to do after completing learning, (2) teaching and learning

activities (TLA) designed to facilitate ILO achievement, and (3) assessment tasks (AT) that measure the extent to which students have achieved ILO. When these three components are aligned, students engage in activities that directly support the achievement of assessed outcomes.

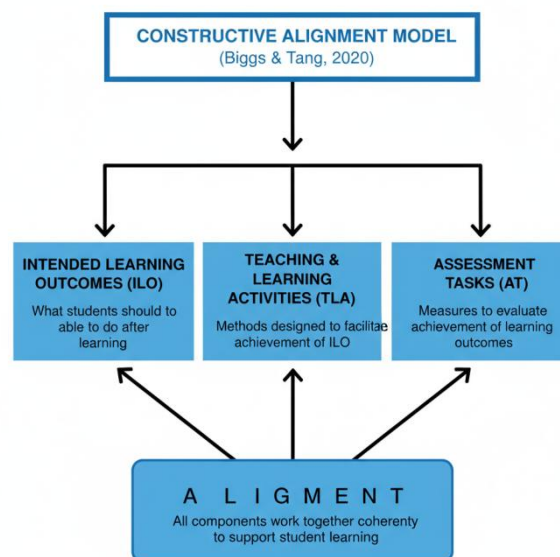
Recent developments in the CA model show adaptation to digitalization trends and data analytics in education. Maffei et al. (2019) developed the CONALI ontological framework that provides analytical tools for analyzing constructively aligned educational units. This development reflects the need for a more systematic approach to evaluating and ensuring curriculum alignment in the digital era.

Leber et al. (2018) emphasize that the alignment principle in CA is crucial because teaching and assessment methods must align with expected learning outcomes. Misalignment between assessment types and learning objectives can result in students adopting inappropriate learning strategies, ultimately hindering deep understanding.

O'Sullivan & Bjørndal (2024) provide an important contribution by reconceptualizing CA within the epistemological distinction framework of ways of knowing. This perspective acknowledges that there are various ways to know and understand, which can enhance CA effectiveness in diverse educational contexts.

Although CA has received widespread recognition, this model also faces substantial criticism. Loughlin et al. (2021) identify that the step-by-step simplicity of this model can create an illusion of control that potentially misaligns with the complexity of real-world teaching and learning. Love (2025) raises concerns about potential marginalization in CA implementation, where the model may inadvertently perpetuate inequality by inadequately addressing issues such as sexism and racism in educational practice. Implementation gaps also remain a challenge. Frost & Ackrill (2025) and Md Jani et al. (2020) found that many courses and educational programs do not fully achieve the expected alignment, indicating the need for better curriculum mapping and more intensive faculty training.

Figure 1. Constructive Alignment Model Framework



Learning Outcomes, Learning Strategies, and PAI Assessment in the Merdeka Curriculum Learning Outcomes

The Merdeka Curriculum emphasizes character development and skills aligned with Pancasila values. In the PAI context, learning outcomes are designed to encompass holistic development that integrates students' cognitive, character, and spiritual aspects (Amalia et al., 2024; Shaleh et al., 2024).

Holistic development becomes the main focus of the PAI curriculum in the Merdeka Curriculum. Unlike dichotomous approaches that separate religious and general knowledge, this

curriculum seeks to cultivate cognitive, character, and spiritual growth in an integrated manner. Shaleh et al. (2024) emphasize that the holistic-integrative approach in PAI curriculum at integrated Islamic schools shows positive results in forming students who are intellectually, emotionally, and spiritually balanced.

Integration of Islamic values is a key characteristic of PAI learning outcomes. Learning outcomes are designed to reflect Islamic values that cross all subjects, encouraging comprehensive understanding of both religious and secular knowledge. Amalia et al. (2024) in their study on the compatibility of the Merdeka Curriculum with Islamic values in madrasahs affirm that this integration enables students to see the connection between religious teachings and various aspects of life.

Alignment with national objectives is also an important consideration. PAI learning outcomes support broader educational goals in fostering critical thinking, creativity, and character building essential for students' success in modern contexts. Permatasari et al. (2025) show that developing Merdeka Curriculum learning assessment systems that facilitate teacher performance must consider alignment with these national objectives.

Learning Strategies

Effective implementation of the PAI curriculum in the Merdeka Curriculum requires innovative learning strategies that can accommodate diverse student needs while maintaining Islamic values.

Participatory learning models have shown effectiveness in enhancing students' religious and social character. Nasih et al. (2020) in their research on applying participatory observation in Islamic education found that this approach makes learning more engaging and relevant for students. This model allows students to actively engage in the learning process, rather than merely being passive recipients of information.

Project-Based Learning (PjBL) becomes a key strategy in the Merdeka Curriculum. Rosanawati et al. (2025) developed pedagogical model innovation based on Ki Hajar Dewantara's Among system that encourages students to explore local narratives and critically evaluate sources, fostering deeper understanding of their cultural and religious contexts.

Digital transformation is also an important component in contemporary PAI learning strategies. Wedi et al. (2025) examined the digital transformation model of Islamic religious education in the AI era, with a case study of Madrasah Aliyah in East Java. Integration of digital tools and Learning Management Systems (LMS) is used to enhance instructional methods while ensuring Islamic values are maintained. Hamdi et al. (2024) also developed digital-based PAI teaching modules on duha prayer material in elementary schools that have been validated for effectiveness.

Assessment

The assessment system within the Merdeka Curriculum framework is designed to evaluate not only knowledge but also students' skills and attitudes, which is highly relevant to holistic PAI objectives.

Formative and summative assessments become integral components in PAI learning evaluation. Teachers are encouraged to conduct various assessments that reflect students' understanding and mastery of subject matter, including character development aligned with Pancasila values (Astuti et al., 2024; Permatasari et al., 2025). Formative assessment provides ongoing feedback that allows students to adjust their learning strategies, while summative assessment evaluates overall achievement.

Self-assessment instruments are also implemented to measure how well students internalize character habits. Amali et al. (2025) in their analysis of Merdeka Curriculum implementation in mathematics learning show that self-assessment questionnaires can be effectively used to develop students' metacognitive awareness, which can also be adapted in the PAI context.

Performance-based evaluation becomes an important emphasis in this curriculum. Assessment is conducted through practical application of student learning, such as community projects or presentations that reflect their understanding of Islamic teachings (Hasanah et al., 2024).

The Tadabur Alam (nature contemplation) approach examined by Hasanah et al. (2024) demonstrates how assessment can be conducted through students' connection with nature as a manifestation of Islamic values learning.

Table 1. Three Main Components of Constructive Alignment Model

Component	Definition	Function
Intended Learning Outcomes (ILO)	Statements describing what students should be able to do after completing learning	Provide direction and goals for the entire learning process
Teaching and Learning Activities (TLA)	Instructional methods and activities designed to facilitate learning	Enable students to achieve the intended outcomes
Assessment Tasks (AT)	Methods to measure the extent to which students have achieved the outcomes	Evaluate and provide evidence of learning achievement

The Role of PAI in the Merdeka Curriculum Framework

Promotion of Moral and Ethical Values

The PAI curriculum emphasizes values such as respect for human dignity, inclusivity, and adaptability that are essential for fostering moderate attitudes among students. Hasbiyallah et al. (2024) in their study on Indonesian fiqh in higher education show how Islamic teachings can be aligned with contemporary societal needs, promoting gender equality and interfaith harmony.

Zul et al. (2026) in their systematic literature review on integrating Islamic ethics in modern education curriculum identify that the PAI curriculum aims to nurture well-rounded individuals by integrating ethical frameworks that guide personal behavior and social relationships.

Understanding Cultural Diversity and Religious Tolerance

Multicultural education becomes an integral component in PAI. Integration of multicultural values in PAI enhances students' appreciation of diversity. Muhajir et al. (2025) show that curricula that include teachings respecting ethnic, cultural, and religious differences can effectively foster interfaith tolerance and cultural sensitivity.

Rostandi et al. (2026) examined the Menyama Braya model as a multicultural education approach in pesantren, demonstrating how local traditions can be integrated with Islamic education to cultivate tolerance. Practical applications such as community service and interfaith dialogue are encouraged to enable students to engage with diverse communities and understand different perspectives.

Innovative Pedagogical Approaches

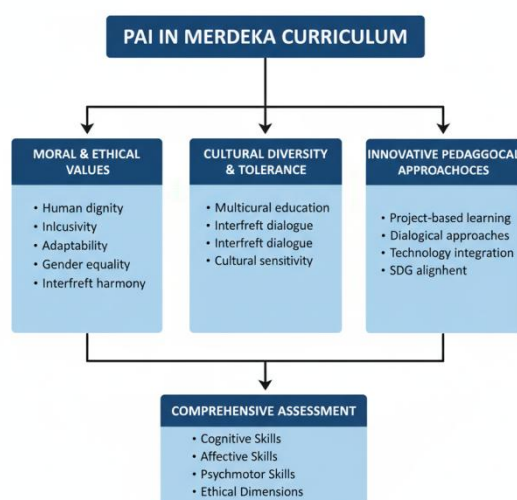
The Merdeka Curriculum framework promotes various pedagogical strategies that align with contemporary educational practice. Innovative teaching methods such as project-based learning, dialogical approaches, and technology use are employed to enhance student engagement and understanding (Isaac, 2025; Kartini et al., 2026).

Holistic educational models that integrate Islamic educational values with global sustainable development goals encourage student creativity and critical thinking. Khimmataliev et al. (2025) in their study on integrating Islamic pedagogy and Sustainable Development Goals show that this approach prepares students for dynamic educational environments and professional practice.

Comprehensive Assessment Strategies

PAI assessment in the Merdeka Curriculum reflects the importance of fostering critical thinking and personal development. Amirudin et al. (2025) analyze learning evaluation issues affecting educational goal achievement in Islamic education, emphasizing that current methodologies must include not only cognitive skills but also affective and psychomotor skills to ensure comprehensive evaluation of student competencies.

Figure 2. The Role of PAI in Merdeka Curriculum



Discussion

Development of the Constructive Alignment Model in PAI Learning

Developing the Constructive Alignment model in PAI learning requires a systematic approach that integrates theoretical foundations with practical application in the Merdeka Curriculum context. Based on the findings presented above, several key considerations emerge for effective implementation.

Defining Clear Learning Outcomes

The first step in developing the CA model is articulating specific and measurable learning outcomes that reflect what students should know or be able to do at the end of learning. Ngatia (2022) emphasizes using frameworks such as Bloom's taxonomy to formulate learning outcomes covering various cognitive levels.

In the PAI context, learning outcomes must include not only cognitive dimensions (knowledge of Islamic teachings) but also affective dimensions (Islamic attitudes and values) and psychomotor dimensions (worship practice and behavior). The backward design approach starting from expected outcomes can help ensure that all learning components align with ultimate goals (Ngatia, 2022; Romanowski et al., 2024). This represents a significant shift from traditional PAI teaching that often emphasizes rote memorization over holistic competency development.

Aligning Learning Strategies with Outcomes

Selection of appropriate learning strategies is crucial for facilitating achievement of defined learning outcomes. In the PAI context, strategies such as experiential learning and collaborative projects can be effective in design education and can also be adapted for religious learning (Cain & Babar, 2016; Lee & Chen, 2025).

Cain & Babar (2016) in their reflection on applying constructive alignment with formative feedback emphasize the importance of selecting learning activities that directly support learning outcome achievement. In PAI, this can include case studies on Islamic ethical dilemmas, community service projects applying Islamic values, or presentations on contemporary religious topics. The integration of participatory and project-based approaches identified in the results section demonstrates how these principles can be practically operationalized within the Indonesian educational context.

Designing Aligned Assessments

Implementation of formative and summative assessments directly linked to learning outcomes becomes an essential component in the CA model. Divjak et al. (2025) in their study on the impact of learning design on learning outcome mastery in higher education show that

assessment alignment with learning objectives is crucial, where misalignment can result in ineffective learning strategies and outcomes.

Formative assessment in PAI can include daily reflections, worship journals, or portfolios documenting students' spiritual growth. Summative assessment can include final projects demonstrating students' comprehensive understanding of Islamic teachings and their application in life. The shift toward competency-based evaluation encompassing ethical and behavioral dimensions, as identified in the results, represents an important evolution in PAI assessment practice that addresses the holistic nature of religious education.

Integrating Feedback Mechanisms

Feedback is an essential element in the CA model because it helps students understand their progress and areas needing improvement. Cain & Babar (2016) and Divjak et al. (2025) emphasize that formative feedback must be timely and constructive, allowing students to continuously adjust their learning strategies.

Dialogic feedback that encourages a two-way process where students can also provide input about their learning experience can enhance engagement and ownership of learning (Ngatia, 2022). In the PAI context, feedback can include discussions about applying Islamic teachings in real-life situations and collaborative reflection on spiritual growth. This dialogic approach is particularly relevant for religious education, where personal meaning-making and spiritual development require ongoing reflection and guidance.

Utilizing Technology

Technology can support CA implementation by providing tools for curriculum mapping, assessment design, and feedback collection. Kenney (2012) and Warriem et al. (2014) show that learning management systems can help track student progress and align activities with outcomes.

However, Warriem et al. (2014) also identify challenges such as ensuring equal access to technological resources and ensuring pedagogically appropriate technology use. In the PAI context, technology must be used in ways that support, not replace, the spiritual and relational dimensions of religious learning. The digital transformation findings from Wedi et al. (2025) and Hamdi et al. (2024) provide evidence that technology integration in PAI can be achieved while maintaining Islamic values, though careful attention must be paid to pedagogical appropriateness.

Conceptual Framework for CA Integration in PAI Merdeka Curriculum

Based on the literature analysis and findings presented in this study, a conceptual framework for integrating Constructive Alignment principles in Islamic Religious Education (PAI) learning within the context of the Merdeka Curriculum is proposed.

This framework consists of four interconnected main components:

First, holistic learning outcomes encompassing cognitive dimensions (understanding of Islamic teachings), affective dimensions (internalization of Islamic and Pancasila values), psychomotor dimensions (worship practices and behaviors), and spiritual dimensions (relationship with Allah and transcendental awareness). This four-dimensional approach responds to O'Sullivan & Bjørndal (2024) call for reconceptualizing CA within different epistemological frameworks, acknowledging that religious knowledge involves multiple ways of knowing beyond rational cognition.

Second, integrative learning strategies that combine participatory learning for active student engagement, project-based learning for contextual application, technology integration while maintaining Islamic values, and community-based learning for social relevance. This component addresses the implementation challenges identified by Frost & Ackrill (2025) by providing concrete guidance for strategy selection that aligns with defined outcomes.

Third, a comprehensive assessment system comprising continuous formative assessment for developmental feedback, competency-based summative assessment that includes ethical aspects, self-assessment for metacognitive development, and performance-based assessment through projects and presentations. This multi-modal approach to assessment responds to criticisms about oversimplification in traditional CA implementation (Loughlin et al., 2021) by acknowledging the complexity of evaluating holistic religious education outcomes.

Fourth, a feedback mechanism that includes timely and constructive feedback, dialogic feedback between teachers and students, and collaborative reflection on spiritual growth. This component is essential for addressing the ongoing developmental nature of religious education, where students' understanding and practice evolve continuously through guided reflection.

This framework is designed to ensure coherence among all components, where each learning activity is designed to support the achievement of assessed outcomes, and each assessment measures the achievement of defined outcomes. This approach is responsive to criticisms of traditional CA models by considering the complexity of religious education and the need for a more nuanced approach that accommodates multiple ways of knowing.

The framework also addresses Love (2025) concerns about marginalization by explicitly incorporating multicultural values and interfaith tolerance as learning outcomes, ensuring that PAI education contributes to rather than detracts from social equity and inclusion. Furthermore, by integrating the Pancasila Student Profile with Islamic values, the framework demonstrates how religious education can be aligned with national educational objectives while maintaining its distinctive character.

Implications for Practice and Future Research

The findings of this study have several important implications for educational practice and policy. For PAI teachers, the conceptual framework provides practical guidance for curriculum design that ensures alignment between learning outcomes, instructional strategies, and assessment methods. Professional development programs should focus on building teachers' capacity to implement constructive alignment principles while maintaining the distinctive features of Islamic education.

For policymakers, this research highlights the importance of providing adequate support for curriculum mapping and teacher training to address the implementation gaps identified in the literature. The successful integration of constructive alignment in PAI requires systemic support, including resources, training, and ongoing professional learning communities.

For educational institutions, the framework can serve as a foundation for curriculum development and quality assurance processes. Regular curriculum audits using constructive alignment principles can help identify and address misalignment issues before they impact student learning outcomes.

Future research should empirically test the effectiveness of the proposed conceptual framework in various educational contexts, including different school types (public schools, Islamic schools, pesantren) and different regional settings. Comparative studies examining the implementation of constructive alignment in PAI across different countries with significant Muslim populations could provide valuable insights for contextualizing the model in diverse cultural and educational settings.

Conclusion

This research has analyzed the development of the Constructive Alignment model and its implementation in Islamic Religious Education learning within the Merdeka Curriculum framework in Indonesia. Based on the systematic literature review conducted, several main conclusions can be formulated.

First, the Constructive Alignment model has developed significantly from a theoretical concept to a practical framework widely adopted in curriculum design. This model is rooted in constructivist psychology that emphasizes students constructing their own knowledge through active engagement in meaningful learning activities. Recent developments show model adaptation to digitalization and data analytics, as well as reconceptualization within the epistemological distinction framework of different ways of knowing.

Second, the Merdeka Curriculum provides a conducive framework for implementing Constructive Alignment principles in PAI learning. PAI learning outcomes in the Merdeka Curriculum emphasize holistic development integrating cognitive, character, and spiritual aspects, aligned with Pancasila values. Innovative learning strategies such as participatory learning, project-based

learning, and technology integration support achievement of these outcomes. Comprehensive assessment systems include formative and summative assessment, self-assessment, and performance-based evaluation.

Third, PAI in the Merdeka Curriculum plays a strategic role in promoting moral and ethical values, understanding cultural diversity, and religious tolerance. Integration of multicultural values in PAI enhances students' appreciation of diversity, while innovative pedagogical approaches prepare students to face 21st-century challenges while remaining grounded in Islamic values.

Fourth, developing the Constructive Alignment model in PAI learning requires a systematic approach encompassing: (a) defining clear and measurable learning outcomes covering cognitive, affective, psychomotor, and spiritual dimensions; (b) aligning learning strategies with outcomes through appropriate activity selection; (c) designing assessments aligned with outcomes; (d) integrating effective feedback mechanisms; and (e) utilizing appropriate technology.

Fifth, although the CA model offers a useful framework, its implementation in the PAI context must consider existing criticisms and challenges, including oversimplification risks, potential marginalization, and implementation gaps. Nuanced and context-responsive model application is needed to maximize its effectiveness.

Sixth, the conceptual framework developed in this research provides practical guidance for educators in designing constructively aligned PAI learning. This framework integrates four main components (learning outcomes, learning strategies, assessment, and feedback) with three basic principles (alignment, integration of Islamic and Pancasila values, and holistic development) to produce meaningful learning experiences.

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