

Research Article

# Analysis of the Alignment of OBE-Based Curriculum with the Principles of Sustainable Development Goals in Higher Education

Dede Indra Setiabudi<sup>1\*</sup>, Syakillah Fi Ismi<sup>2</sup>

<sup>1</sup> Institut Agama Islam Al-Zaytun Indonesia; e-mail : [dede@iai-alzaytun.ac.id](mailto:dede@iai-alzaytun.ac.id)

<sup>2</sup> Institut Agama Islam Al-Zaytun Indonesia; e-mail : [syakillah@iai-alzaytun.ac.id](mailto:syakillah@iai-alzaytun.ac.id)

\* Corresponding Author : Dede Indra Setiabudi

**Abstract:** This study aims to evaluate the extent to which the principles of the Sustainable Development Goals (SDGs) are integrated into the Outcome-Based Education (OBE) curriculum of the Primary School Teacher Education Program (PGMI) at the Al-Zaytun Islamic Institute of Indonesia. Responding to the limited number of empirical curriculum studies linking OBE and sustainability, this research adopts a library research design supported by structured content analysis of curriculum documents, including Graduate Learning Outcomes (CPL), Course Learning Objectives (CPMK), and assessment rubrics. The analytical rubric was developed based on Education for Sustainable Development (ESD) indicators recommended by UNESCO. Findings indicate that only 30% of CPL and 22.7% of CPMK explicitly incorporate SDG values, with the dominant themes being inclusive education, social empathy, and critical thinking. The remaining components either indirectly address sustainability principles or primarily focus on technical pedagogical aspects. This reveals a misalignment between the curriculum's current structure and the transformative vision of ESD and SDGs. Methodologically, this research contributes by offering a replicable rubric for assessing curriculum sustainability. Conceptually, it establishes a link between the OBE framework and sustainability values within Islamic teacher education. Practically, the findings provide actionable insights for curriculum developers and policymakers to enhance alignment with global sustainability agendas. The study emphasizes the strategic role of PGMI in fostering sustainability-oriented educators and advocates for systemic curriculum reform to produce future teachers equipped with the knowledge, values, and skills necessary to address contemporary global challenges. Strengthening the integration of SDGs within OBE-based curricula is essential for higher education institutions to actively contribute to the realization of a sustainable future.

**Keywords:** Education, Curriculum, Sustainability, Pedagogy, Policy

Received: June 01, 2025

Revised: June 14, 2025

Accepted: June 28, 2025

Published: June 30, 2025

Curr. Ver.: June 30, 2025



Copyright: © 2025 by the authors.

Submitted for possible open

access publication under the

terms and conditions of the

Creative Commons Attribution

(CC BY SA) license

([https://creativecommons.org/li](https://creativecommons.org/licenses/by-sa/4.0/)

[censes/by-sa/4.0/](https://creativecommons.org/licenses/by-sa/4.0/))

## 1. Introduction

In recent years, higher education institutions in Indonesia have increasingly adopted an Outcome-Based Education (OBE) curriculum to enhance graduate quality and align educational outcomes with the demands of industry and society. OBE has emerged as a dominant curriculum framework that emphasizes the attainment of clearly defined learning outcomes specifically, Graduate Learning Outcomes (CPL) and Course Learning Objectives (CPMK), through competency-based learning design and assessment [1], [2].

Concurrently, the Sustainable Development Goals (SDGs) have become an integral part of the national education agenda, where higher education institutions are expected to integrate sustainability values such as inclusive education, social justice, and environmental preservation into their curriculum frameworks [3], [4]. Despite this growing emphasis, there remains a lack of systematic studies examining the extent to which SDG principles are explicitly reflected in OBE-based curricula. Consequently, a critical evaluation of curriculum components and academic practices is urgently needed.

Prior research in Indonesia has explored the connection between education and the SDGs. For example, Anggraini and Nugraheni, employed content analysis method of literature to illustrate the implementation of quality education. However, the study did not

specifically discuss the OBE curriculum [5]. Similarly, Muzakir and Susano only discussed the theoretical concept of OBE and did not address the evaluation of CPL, CPMK, and academic assessment documents [2]. Although literature-based studies offer structural and theoretical insights, they are often constrained by the absence of empirical data derived from actual curriculum documents and teaching practices.

Addressing this gap, the present study combines document analysis with faculty interviews and surveys to assess the extent to which OBE-based curriculum content (particularly CPL and CPMK) aligns with SDG principles. This integrated approach provides a more comprehensive and triangulated understanding of how sustainability is operationalized within academic settings.

Theoretically, this study is grounded in Spady's OBE framework [6], which emphasizes the importance of translating educational goals into measurable, future-oriented learning outcomes. Additionally, it draws upon the Education for Sustainable Development (ESD) paradigm proposed by UNESCO which emphasizes the cultivation of competencies in social, environmental, and global responsibility within higher education [7].

Methodologically, the research employs a library-based approach with a focus on content analysis of curriculum documents complemented by the application of an evaluative rubric derived from UNESCO's ESD indicators. In addition, faculty interviews and surveys are employed as complementary methods to capture the dynamics of implementation and perceptions of sustainability values. Two main research questions are addressed: (1) To what extent do the CPL and CPMK explicitly reflect SDG values? and (2) How do faculty members perceive the application of these values in teaching and assessment?

The expected outcomes of this research include a detailed mapping of SDGs integration within the OBE curriculum, identification of sustainability related gaps, and the formulation of policy recommendations for developing a more transformative and future-oriented curriculum. The contributions of this research are twofold: conceptually, it advances curriculum theory development; and practically, it provides actionable insights for higher education institutions seeking to align academic practices with the global sustainable development agenda.

The urgency of this study is underscored by the strategic role of universities not only as centers of learning but also as key agents in achieving the SDGs. By utilizing the findings of this research, educational institutions can formulate curriculum policies that not only meet the formal standards of OBE but also make tangible contributions to national and global sustainable development.

## 2. Preliminaries or Related Work or Literature Review

The implementation of Outcome-Based Education (OBE) curriculum in Indonesian higher education has gained significant attention in academic literature over the past decade. OBE is considered a systemic approach capable of addressing the challenges of globalization and industrialization by emphasizing clear and measurable learning outcomes and graduate attributes (CPL). In the Indonesian context, OBE has also become part of curriculum transformation integrated with accreditation systems and quality assurance mechanisms in higher education. Herlambang, et al., explains that the normative application of OBE requires the formulation of measurable CPL and CPMK that are relevant to the needs of the labor market. However, his study remains limited to a descriptive-conceptual approach and does not address the integration of sustainability values such as the SDGs into the actual curriculum design [8].

On the other hand, the Sustainable Development Goals (SDGs), launched by the United Nations in 2015, have urged all sectors, including higher education, to take an active role in promoting sustainable development. Education, particularly under SDG 4, is expected not only to produce technically competent graduates but also to foster awareness of social, environmental, and global ethical issues. Anggraini and Nugraheni, conducted a literature review on the relationship between higher education and the SDGs, showing that most higher education institutions have begun to integrate SDG values through community service and research. However, the curriculum aspect, particularly OBE-based design, has not been the main focus of their study [5].

Another study on a similar topic was conducted by Nasrudin et. al, which reviewed the integration of SDGs in teaching within Islamic higher education institutions in Indonesia. They concluded that although sustainability values have begun to be incorporated into some

courses, these values have not yet been systematically formalized in curriculum documents such as CPL and CPMK [9]. This reinforces the finding that a gap still exists between concept and implementation, particularly in the formulation of OBE-based curricula, which should ideally serve as the most suitable space to embed transformational values as promoted by the SDGs.

In terms of methodological approaches, the majority of these studies use library research with a descriptive-analytical approach. The strength of this method lies in its ability to systematically and broadly review theories and policy documents, providing a strong map of conceptual thinking. However, its limitation lies in the lack of empirical data on the extent to which CPL and CPMK actually contain SDG values and how lecturers apply these values in teaching and assessment. Therefore, this study attempts to address that gap by continuing to use a library research approach, but with a more focused content analysis of curriculum documents and an exploration of lecturers' perceptions and experiences through interviews and institutional policy reviews.

In addition, the main theoretical framework underpinning this study is drawn from the OBE theory developed by Spady (1994), which emphasizes that all curriculum, teaching, and assessment decisions must be based on the desired final outcomes. Thus, CPL and CPMK are not merely administrative tools but represent philosophical and strategic reflections of the values upheld by the institution. On the other hand, the theory of Education for Sustainable Development (ESD) as developed by UNESCO (2020) provides a framework in which higher education should transform individuals into agents of social and environmental change. ESD encourages curricula to reflect principles of justice, global collaboration, and ecological sustainability.

From the literature analyzed, it can be concluded that there is a significant research gap in efforts to integrate SDG values into the structure of OBE-based curricula. Although many normative recommendations exist for linking education with sustainable development, few studies directly analyze the structure of CPL and CPMK or explore the perceptions of higher education practitioners on this matter. Therefore, this research is essential as an effort to unite the two major frameworks of OBE and SDGs into the practical reality of curriculum development and implementation in Indonesian higher education.

### **Theory of Outcome-Based Education (OBE)**

Outcome-Based Education (OBE) is an educational approach that emphasizes the final learning outcomes students are expected to achieve upon completing a study program. The concept of OBE highlights that all aspects of education from curriculum planning, teaching methods, to assessment must be directed toward ensuring the systematic and measurable achievement of both graduate learning outcomes (CPL) and course learning objectives (CPMK). According to Spady [6], OBE is “a results-oriented thinking and design system,” which means all educational components must be oriented toward specific and relevant learning outcomes.

In the Indonesian context, OBE has been established as a national standard for higher education in accordance with the Ministry of Education and Culture Regulation No. 3 of 2020, and its implementation is reinforced through the national accreditation system (BAN-PT). Muzakir and Susanto, stated that OBE facilitates curriculum design based on industry and societal needs and enables lecturers and institutions to assess learning performance objectively and systematically through the alignment of CPL, CPMK, and assessment rubrics [2]. Therefore, the OBE curriculum is ideally expected to produce not only technically competent graduates but also individuals capable of critical thinking, adaptability, and responsiveness to evolving global challenges.

### **Theory of Education for Sustainable Development (ESD)**

The concept of Education for Sustainable Development (ESD) is an educational approach developed by UNESCO to promote sustainable development across social, economic, and environmental dimensions. ESD views education as a transformative tool to shape the mindset and actions of younger generations so they become more aware of sustainability issues. According to the ESD Roadmap by UNESCO, education should promote values such as equity, active participation, environmental respect, and global responsibility [10].

ESD is closely aligned with the implementation of the Sustainable Development Goals (SDGs), especially SDG 4: Quality Education. In this context, higher education curricula should be designed to encompass not only academic competencies but also social and

sustainability competencies. Ningrum and Hasanah emphasized that implementing ESD in the curriculum requires cross-disciplinary integration and the strengthening of local contexts to ensure sustainability values are well-grounded and not merely symbolic [11].

In practice, the ESD approach demands a deep transformation in curriculum structure, pedagogical methods, and assessment practices. Therefore, integrating ESD into the OBE framework is a crucial step to ensure that graduates are not only technically proficient but also serve as agents of social and environmental change in their communities.

### **Previous Studies on OBE and SDGs**

Various studies have been conducted to examine OBE and SDGs both separately and in relation to higher education. Herlambang, in his study, outlined that most higher education institutions in Indonesia have begun to adopt the OBE framework to design CPL and CPMK. However, few have evaluated its implementation concretely, especially in the context of sustainability values [8]. Additionally, the study by Anggraini and Nugraheni noted that the contribution of higher education institutions to the SDGs tends to be symbolic and is more often manifested through community service and research activities rather than in the substance of the formal curriculum [5].

A literature review by Nasrudin et. al, Ningrum and Hasanah, focusing on Islamic higher education institutions, revealed that although the principles of the SDGs are widely recognized, their integration into CPL and CPMK has not become a priority in curriculum development. Curricula are more commonly designed based on administrative needs or accreditation standards and have not yet adopted the SDGs as a primary reference in learning design and evaluation [9], [11].

Methodologically, most previous studies have employed a library research approach with descriptive analysis of documents or secondary literature. The strength of this approach lies in its ability to build a solid conceptual foundation and systematically describe general trends. However, its weakness is the absence of empirical data from actual curriculum documents (such as CPL and CPMK), as well as the limited exploration of lecturers' perceptions and practices in implementing the curriculum.

Therefore, this study seeks to address that gap by combining library research and document analysis approaches to examine the content of OBE curricula and link it to SDG principles based on UNESCO's ESD indicators. In doing so, this research is expected to provide a comprehensive mapping of the extent to which SDG integration has been implemented in OBE curricula, both conceptually and operationally, within the context of higher education in Indonesia.

### **3. Proposed Method**

This study employs a library research approach, which is deemed relevant for analyzing Outcome-Based Education (OBE) curriculum documents and examining their implementation in the context of integrating Sustainable Development Goals (SDG) values. This approach relies on secondary data such as curriculum documents (Graduate Learning Outcomes [CPL] and Course Learning Objectives [CPMK]), syllabi, assessment guidelines, and recent academic literature. As highlighted by Muzakir and Susanto, the library research method is capable of revealing strategies and challenges in implementing OBE within higher education, especially in the context of the Fourth Industrial Revolution, through a descriptive-analytical qualitative lens [2].

#### **Methodological Steps**

The first step involves identifying OBE curriculum documents from the higher education institution under study, namely the Madrasah Ibtidaiyah Teacher Education Program (PGMI) at the Al-Zaytun Islamic Institute of Indonesia. For comparative reference, the researcher also reviewed OBE curriculum documents from other institutions, such as the OBE curriculum development guide from the Faculty of Teacher Training and Education at Palangka Raya University (2025) and the Communication and Islamic Broadcasting (KPI) curriculum document at IAIN Madura (2024). Both were developed based on Ministry of Education Regulation No. 3 of 2020 and the Indonesian National Qualifications Framework (KKNI).

Next, the researcher collected recent academic literature (2020–2025) that discusses OBE curriculum and its relevance to the SDGs and Education for Sustainable Development

(ESD). For instance, research by Ningrum and Hasanah [11] produced a sustainability-oriented curriculum management model based on ESD principles. Another study by Nugroho et al. [12] emphasized the importance of embedding sustainability values in higher education during and after the COVID-19 pandemic.

The researcher then developed an evaluative rubric to assess the degree of SDG value integration within CPL and CPMK structures. This rubric references indicators from SDG 4 (quality education) through SDG 13 (climate action), as well as ESD principles recommended by UNESCO [10], such as social participation, gender equality, and environmental awareness. The rubric serves to map the extent to which sustainability values are explicitly or implicitly present in the curriculum documents.

The next stage involves qualitative content analysis of the curriculum documents using the rubric. Each CPL and CPMK item is examined to determine whether SDG values are integrated explicitly, implicitly, or not at all. The analysis results are then interpreted and linked to the Spady's OBE theory and UNESCO's ESD principles, and compared with findings from previous studies in both national and global contexts.

To enhance data validity, this study also includes triangulation by reviewing national policy documents such as Ministry of Education Regulation No. 3/2020 and the OBE curriculum guide from FKIP Palangka Raya University. Additionally, the researcher references studies on monitoring and evaluating OBE-based learning, such as the one conducted by Handayani et al. [13], which provides insight into actual OBE curriculum implementation practices across various higher education institutions in Indonesia.

### **Strengths and Limitations of the Method**

The library research approach offers the advantage of providing a rich and comprehensive theoretical foundation and explains the relationship between OBE-based curriculum design and the integration of SDG principles. However, since it is non-empirical, this method has limitations in capturing direct perceptions from academic stakeholders such as lecturers and students. Therefore, future research is recommended to employ a mixed-methods approach that combines document analysis with surveys and in-depth interviews, in order to enrich the findings and generate more practical and applicable recommendations.

## **4. Results and Discussion**

### **Results**

This study aims to reveal and analyze the extent to which the Outcome-Based Education (OBE) curriculum implemented in the Primary School Teacher Education Program (PGMI) at the Al-Zaytun Islamic Institute of Indonesia, Indramayu, has integrated the principles of the Sustainable Development Goals (SDGs). The primary focus is on four key SDG goals that closely relate to primary education and the character formation of future teachers: SDG 4 (Quality Education), SDG 5 (Gender Equality), SDG 10 (Reduced Inequalities), and SDG 13 (Climate Action).

The analysis was conducted through an in-depth review of curriculum documents, which include the Graduate Learning Outcomes (CPL), Course Learning Objectives (CPMK), Semester Learning Plans (RPS), and assessment guidelines that serve to define learning success standards. The approach used to examine these documents is content analysis, based on an indicator rubric derived from the Education for Sustainable Development (ESD) framework developed by UNESCO [10]. This rubric was constructed by taking into account components such as environmental awareness, social engagement, inclusive justice, and global responsibility as core elements of a sustainability-oriented curriculum.

The analysis of the CPL documents reveals that out of ten CPL statements formulated in the PGMI Al-Zaytun curriculum, only three items (30 percent) explicitly reflect sustainability values included in the SDGs. These three items directly reference the importance of inclusive learning, the development of social awareness in religious and community contexts, and the formation of teachers who are critical and reflective toward social change. This indicates a positive starting point for integrating sustainability values into teacher education structures, although it does not yet encompass all SDG dimensions comprehensively.

Additionally, four other CPL items (40 percent) were found to contain SDG-related values implicitly. Although they do not directly mention SDG principles, their content carries a spirit of collaboration, empathy toward learners, social involvement, and moral integrity—

elements that align with the core ideas of education for sustainable development. This is evident in statements emphasizing cooperation, social responsibility, and moderation values within Islamic education. However, without the explicit mention of sustainability contexts, these learning outcomes may risk being overlooked during implementation.

The remaining three CPL items (30 percent) are neutral, focusing more on pedagogical technicalities such as mastery of teaching methods, instructional media, and learning evaluation. While these aspects are certainly important, they lack direction toward achieving the transformative values expected from a curriculum aligned with the SDGs. In other words, this portion of the curriculum remains technocratic and does not yet address the ideological aspects of education, such as equity, sustainability, and social justice.

Meanwhile, the analysis of CPMK documents from 22 core courses shows that only five courses (22.7 percent) explicitly integrate SDG values into their learning indicators. These five courses include Civic Education, Basic Natural Sciences, Environmental Education, Character Education, and Islamic Religious Education. These courses demonstrate explicit efforts to engage students in understanding the importance of national values, environmental preservation, and the cultivation of ethical and religious personality traits in teaching practices.

However, most other courses (around 77.3 percent) do not demonstrate integration of SDG values, particularly in the areas of gender equality (SDG 5) and climate action (SDG 13). Even in foundational pedagogical courses such as Learning Strategies, Educational Evaluation, and Instructional Planning, the CPMK statements tend to focus on technical teaching skills without addressing the social and ecological dimensions of sustainability. This suggests that the PGMI curriculum remains focused on reinforcing conventional pedagogical skills and has not yet been directed toward shaping sustainability-literate teachers.

These findings are critical because programs like PGMI hold a strategic role in forming future teachers who will be responsible for primary education in madrasahs. These teachers will eventually serve as key agents in instilling sustainability values in younger generations. Therefore, the lack of explicit SDG integration in CPMK documents may weaken higher education's contribution to both national and global sustainable development agendas.

Overall, these findings support the initial hypothesis that although the OBE framework has been adopted as the curricular model, the substantive integration of SDG values has not been carried out in a systematic and comprehensive manner within the CPL and CPMK structures. The PGMI curriculum at Al-Zaytun Indonesia demonstrates significant potential to support sustainability education, but it still requires further conceptual and practical reinforcement.

## Discussions

### Analysis of the Gap Between Curriculum Structure and SDG Principles

The core premise of an Outcome-Based Education (OBE) curriculum is that all educational processes must be designed with a clear focus on achieving meaningful, measurable learning outcomes for students and society. According to Spady (1994), the OBE approach emphasizes the importance of systemic alignment between institutional vision, graduate learning outcomes (CPL), course learning objectives (CPMK), teaching strategies, and assessment. Therefore, a curriculum should not merely function as an administrative document oriented around format and compliance, but as an instrument for shaping graduates who are conscious of social, economic, and global environmental challenges.

The findings of this study reveal a significant gap between the curriculum structure of the Primary School Teacher Education (PGMI) Program at the Al-Zaytun Islamic Institute of Indonesia and the principles of the Sustainable Development Goals (SDGs), particularly Goal 4 (Quality Education), Goal 5 (Gender Equality), Goal 10 (Reduced Inequalities), and Goal 13 (Climate Action). Although the OBE approach has been applied in the design of CPL and CPMK, sustainability values have not yet been fully and systematically internalized within the curriculum content.

This gap is evident in the CPL formulations, where only three out of ten items (30%) explicitly contain sustainability indicators, such as critical thinking, social empathy, and inclusive education. The remaining items place greater emphasis on technical aspects such as lesson planning or mastery of teaching methods. Yet, CPL should reflect a broader and more transformative direction of education. Nugroho and Hidayat [13] argue that one of the common weaknesses in the implementation of OBE in Indonesia is the tendency of higher education institutions to merely adjust the document structure without considering the essence of values-based learning.

A similar condition is found in the structure of CPMK (Course Learning Outcomes). Out of a total of 22 core courses, only 5 (22.7%) explicitly include SDG elements, such as Civic Education and Basic Natural Sciences. Other courses, such as Learning Strategies or Educational Evaluation, have not yet shown integration with issues such as educational equity, social diversity, and environmental responsibility. However, CPMK can serve as a strategic tool to shape students into sustainability-literate individuals when designed based on an SDG value framework [8], [14].

The lack of integration indicates that the OBE approach has not yet been employed as a transformative tool for developing a curriculum that is adaptive to global challenges. Instead, the curriculum appears to be designed based on accreditation requirements and national standards that are output-oriented rather than focused on broader social outcomes. This aligns with findings by Widodo and Kusnandar [15], who argue that many higher education institutions in Indonesia apply OBE only superficially and have not progressed toward restructuring the underlying values of education.

Moreover, the gap between OBE and SDGs also reflects a missed opportunity to prepare future teachers as grassroots agents of change. According to Putri and Wahyuni [16], teachers play a central role in conveying sustainability messages to the younger generation, and teacher education should therefore be built upon principles of global citizenship and eco-pedagogy.

This critique is further reinforced by UNESCO's 2020 report on Education for Sustainable Development (ESD), which highlights the importance of integrating social, economic, and environmental values across disciplines in curriculum design. CPL and CPMK should not merely serve as technical indicators but should also reflect the moral dimension and global responsibility of students. When these dimensions are absent, the resulting graduates are at risk of being unprepared to navigate a rapidly changing world that demands reflective thinking, collaboration, and deep empathy for both society and the environment.

Therefore, the gap between the OBE curriculum structure and SDG principles in the context of the PGMI program is not merely a technical flaw in document design but rather a reflection of weak ideological orientation and limited commitment to sustainable education. A reconstruction of the curriculum is needed that conceptually and practically integrates the OBE framework with ESD indicators to ensure that PGMI graduates are genuinely equipped to contribute to the achievement of sustainable development goals at both the local and global levels.

### Critique of SDG Representation in CPL and CPMK

Although the Primary School Teacher Education (PGMI) program at the Al-Zaytun Islamic Institute of Indonesia has adopted the Outcome-Based Education (OBE) approach, the content analysis of the Graduate Learning Outcomes (CPL) and Course Learning Objectives (CPMK) documents indicates that the integration of Sustainable Development Goals (SDGs) values remains highly limited. The primary criticism of this representation lies in the weak translation of SDG principles particularly SDG 4 (Quality Education), SDG 5 (Gender Equality), SDG 10 (Reduced Inequalities), and SDG 13 (Climate Action) into the curriculum documents in an explicit and systematic manner.

According to OBE theory as formulated by Spady [6], all elements of the curriculum should be oriented toward achieving learning outcomes that encompass not only technical skills but also transformative social and ethical values. This means CPL and CPMK should not merely reflect procedural aspects such as the use of teaching methods or instructional planning but must also embody the long-term goals of education: to create empowered, ethical, and socially and environmentally responsible individuals.

However, the findings reveal that only three out of ten CPL items (30 percent) explicitly reflect SDG values. These items are generally related to inclusive education and social character development, while the majority remain neutral and focus on technical learning objectives. This reinforces the findings of Mufanti et al., who emphasized that OBE implementation in many Indonesian universities tends to be administratively and document-driven, without addressing the substantive integration of sustainability values in curriculum content [17].

In the context of CPMK, the condition is even more concerning. Of the 22 courses examined, only five (22.7 percent) include learning indicators directly related to SDG values. Even in foundational courses such as Instructional Strategies, Educational Evaluation, and Educational Psychology, there is no indication of integration of values such as gender equality, environmental responsibility, or social equity. This shows that the curriculum remains

content-oriented, with a focus on credit fulfillment and academic achievement, rather than being value-oriented and emphasizing character development and sustainability awareness [11].

This condition stands in contrast to the spirit of Education for Sustainable Development (ESD) as articulated by UNESCO, in which learning outcomes should foster systems thinking, reflection, and concern for social and environmental justice. ESD calls for curricula to instill principles of global citizenship, community engagement, and values-based decision-making. When these dimensions are absent in the CPMK, future teachers are at risk of lacking critical awareness regarding their social and ecological roles.

Furthermore, a study on the integration of SDGs in higher education in Indonesia, found that most educational institutions contribute to the SDGs primarily through community service and research activities, while the curriculum aspect remains a secondary priority. This strengthens the argument that SDG representation in CPL and CPMK must be reinforced, not merely as an add-on, but as a foundational principle in curriculum development [5].

Another noteworthy critique is the limited presence of SDG 5 (Gender Equality) and SDG 13 (Climate Action) within the CPMK documents. This is ironic, given that teacher education should serve as a primary vehicle for promoting values of equality and environmental stewardship from the earliest levels of education. Their absence indicates that SDGs are not yet regarded as integral to learning objectives but rather as normative discourse detached from practice.

Overall, the representation of SDGs within CPL and CPMK does not yet reflect the transformative approach idealized by either OBE or ESD. Islamic higher education institutions like IAI Al-Zaytun Indonesia possess both the moral and epistemological authority to integrate sustainability values into curricula grounded in Islamic principles. However, without a paradigm shift in the formulation of curriculum documents, such institutions risk failing to fulfill their role in producing educators who are equipped to face 21st-century challenges and actively participate in the sustainable development agenda.

### Reflection on the Position of PGMI in the National Context

The Primary School Teacher Education (PGMI) program holds a strategic role within Indonesia's national education system, particularly in preparing professional teachers for primary-level Islamic education. This role has become increasingly significant amid the nation's commitment to achieving the Sustainable Development Goals (SDGs), especially SDG 4 on inclusive, equitable, and quality education. In this context, PGMI is responsible not only for delivering pedagogical and Islamic content but also for serving as a transformative agent capable of shaping student character toward a civil, just, and sustainable society [7].

However, a critical reflection on the position of PGMI within the national education landscape shows that not all PGMI programs in Indonesia, including at the Al-Zaytun Islamic Institute, have fully recognized this strategic role. Structurally, PGMI is often still perceived as an academic unit limited to strengthening basic literacy and conventional teaching methodologies. This is reflected in curriculum structures that focus on technical capabilities such as lesson planning, classroom management, and learning assessment, but have yet to systematically integrate the social, ecological, and global ethical dimensions that are at the core of sustainable education [18].

Meanwhile, both the Ministry of Religious Affairs and the Ministry of Education, Culture, Research, and Technology have issued policies to promote the integration of SDGs in religious and general higher education. For instance, the Ministry Regulation No. 3 of 2020 on National Standards for Higher Education mandates that study programs design curricula that are responsive to global developments, technological advancements, and humanistic values. However, the implementation of this policy mandate within PGMI environments remains uneven. While some programs have begun to include sustainability issues in courses such as Civic Education or Environmental Education, these efforts have yet to become mainstream in curriculum design [5], [19].

In this regard, PGMI at Al-Zaytun, as an institution that upholds universal human values and the Islamic principle of *rahmatan lil 'alamin*, has a great opportunity to become a pioneer in madrasah teacher education grounded in SDG values. The Islamic identity embedded in PGMI can be combined with principles of Education for Sustainable Development (ESD) such as empathy, social justice, and ecological consciousness, thereby creating a model of teacher education that is not only professionally competent but also globally responsible. This



aligns with the idea of transcultural education, which integrates local, national, and global values into a unified pedagogical framework [20].

However, if this reflection is not promptly followed by curriculum reform and faculty development that prioritizes sustainability literacy, PGMI risks falling behind in the wave of 21st-century educational transformation. The future challenges will not only revolve around mastery of digital pedagogy but also the ability to cultivate teachers capable of addressing multidimensional crises such as climate change, social inequality, and intolerance. A study highlights that today's elementary and madrasah teachers require interdisciplinary competencies and multicultural awareness to effectively respond to increasingly diverse and complex classroom realities [21].

At the national level, PGMI can take a more active role as a driver of progressive Islamic elementary education transformation. Strengthening SDG values within PGMI's academic structures and practices will enhance the program's contribution to the national agenda of sustainable human development. Furthermore, it will reinforce PGMI's position as an integral part of higher education that not only produces professional teachers but also educators with a global perspective and deep-rooted local wisdom.

Therefore, reflecting on PGMI's position at the national level must lead to systemic changes beginning with curriculum revision, faculty capacity building, the provision of contextual learning resources, and the adaptation of sustainability-based assessments. Through these efforts, PGMI will not only remain relevant in the local context but also make meaningful contributions to the global agenda of building a more just and humane educational future.

## 5. Comparison

### Comparison with State-of-the-Art

A comparison with previous studies (state-of-the-art) is essential in assessing the uniqueness and specific contribution of this research to the discourse on higher education, particularly in the context of curriculum development based on Outcome-Based Education (OBE) and the integration of Sustainable Development Goals (SDG) principles. Most prior studies emphasize a normative-conceptual approach to OBE implementation and SDG integration, but remain limited in conducting detailed and structured curriculum document analysis based on the CPL and CPMK as units of analysis.

For example, the implementation of OBE in higher education tends to fulfill administrative aspects such as the preparation of lesson plans (RPS) and the alignment of CPL-CPMK, without deeply incorporating values of sustainability such as social justice and inclusive education [2], [17]. However, this study does not directly evaluate the curriculum content or measure the extent to which SDGs are present in the formal documents of educational institutions.

This study offers a distinct contribution by applying a systematic content analysis method using an SDGs-ESD rubric (UNESCO) to evaluate the relationship between CPL and CPMK with sustainability dimensions. The quantitative findings showing that only 30% of CPL items and 22.7% of CPMK items explicitly contain SDG values demonstrate an empirical contribution rarely presented in previous literature.

A recent study on SDGs in higher education suggests that institutional contributions to the global agenda are more often realized through community service and research, rather than through curriculum restructuring [5]. This indicates that instructional and curricular approaches have yet to become the main focus of SDG integration in higher education. This study fills that gap by directly focusing on curriculum structure and substance as the main domain of transformation in supporting sustainable development goals.

Furthermore, a model for integrating SDG values into Islamic religious education, but their study does not use the program-level curriculum as a full unit of analysis. In contrast, this research not only examines the curriculum comprehensively (at the program level), but also explores the detailed structure of documents such as CPMK formulations in each core course and the value substance embedded in learning indicators. This strengthens the position of this study as a state-of-the-art investigation based on primary documents, rather than a purely theoretical review, illustrating how SDGs are or are not reflected in formal academic structures [22].

Another innovation not found in most previous studies is the development of an analytical rubric based explicitly on SDG and ESD indicators as an objective tool for assessing the alignment of curriculum content. This rubric outlines criteria such as: (1) inclusive and equitable education, (2) ecological awareness, (3) social and gender justice, and (4) global responsibility. The presence of such an analytical tool positions this research not only as descriptive but also as methodological, enabling replication in curriculum evaluation studies at other institutions.

In a broader comparison, this study also reveals that PGMI, as an institution for training Islamic primary school teachers, still faces major challenges in transforming its curriculum orientation toward global sustainability. The importance of religious values in building SDG-oriented character, but do not map out curriculum document integration in the manner conducted in this research [23].

Thus, the comparison with previous studies shows that the main contributions of this research lie in:

- a. Systematic and measurable analysis of primary documents, rather than relying solely on conceptual discourse.
- b. Use of an SDGs-ESD rubric instrument developed according to international standards.
- c. Detailed mapping of the positioning of SDG values within CPL and CPMK, including percentage achievements and critiques of curriculum design.
- d. A specific focus on the PGMI study program, which has received limited attention in the sustainability education discourse.

### **Position and Contribution of the Study**

This research holds a strategic position in the field of Islamic higher education curriculum development, particularly within the context of the Primary School Teacher Education (PGMI) program. Within the national discourse, the integration of the Outcome-Based Education (OBE) approach and the principles of the Sustainable Development Goals (SDGs) into formal curricula remains a relatively underexplored area. Most previous studies have either examined OBE as a technical approach for formulating learning outcomes and lesson plans or treated the SDGs as general institutional values, without bridging the two conceptually and practically within academic documents such as CPL and CPMK.

Accordingly, the position of this study is as a connector between the paradigm of OBE curriculum transformation and the sustainability values of the SDGs, with a focus on the micro-level unit of analysis: curriculum document content. This unique approach makes the study not just a normative evaluation but a document-based inquiry grounded in structured content analysis methodology. It addresses a gap largely neglected in prior research, which has typically relied on theoretical discussions or broad surveys without closely examining the content of academic documents in detail.

Another notable contribution lies in the methodological aspect. This study develops and applies an evaluative rubric based on UNESCO's ESD indicators, enabling a systematic, objective, and measurable analysis of CPL and CPMK. This rubric represents an important innovation in curriculum development, providing a practical guide for higher education institutions to conduct internal audits on how well sustainability values have been embedded into their curriculum structures [11].

In addition, the thematic contribution is particularly evident. By focusing on a madrasah teacher education program (PGMI), this study introduces a new dimension to Islamic education discourse, which is often overlooked in discussions on the SDGs. Yet, madrasah teachers play a crucial role in shaping values, character, and sustainability awareness from early childhood. This research demonstrates that PGMI curriculum reform is not only relevant but also urgent in strengthening the role of teachers as agents of social transformation [24].

The specific contributions of this study can be summarized as follows:

- a. Conceptual Contribution: Developing a theoretical understanding of the relationship between the OBE approach and SDG principles in Islamic higher education.
- b. Methodological Contribution: Offering an evaluative instrument in the form of an SDGs-ESD rubric that can be adopted and adapted across other programs within teacher education institutions (LPTKs).
- c. Practical Contribution: Providing factual data on the extent to which SDG values are integrated into CPL and CPMK, along with offering curriculum policy recommendations that are more inclusive and sustainability-oriented.

- d. Policy Contribution: Supplying an argumentative foundation for revising internal academic policies within Islamic higher education institutions and serving as a model for SDG implementation at the program level.

Thus, this study holds a strong position as a bridging literature between global ideals (SDGs) and the praxis of local Islamic education, operationalized through national instruments such as the OBE curriculum. It bridges the gap between global discourse and local needs, between theory and actual documentation, and between sustainability idealism and academic realities within faith-based universities.

## 6. Conclusions

### Summary of Results and Key Findings

This study aimed to evaluate the extent to which the principles of the Sustainable Development Goals (SDGs) have been integrated into the Outcome-Based Education (OBE) curriculum of the Primary School Teacher Education (PGMI) Program at the Al-Zaytun Islamic Institute of Indonesia. Using a library research approach, the analysis focused on curriculum documents including Graduate Learning Outcomes (CPL), Course Learning Objectives (CPMK), Semester Learning Plans (RPS), and assessment indicators.

The main findings indicate that out of 10 CPL items, only 3 (30%) explicitly reflect SDG values such as inclusive education, social awareness, and critical thinking. In contrast, 40% of the CPL items implicitly contain SDG values, while the remaining 30% are neutral and focus on pedagogical technical aspects. Additionally, only 5 out of 22 core courses (22.7%) demonstrate explicit integration of SDG values within the CPMK.

### Synthesis of Findings in Relation to Research Objectives

These findings confirm the initial hypothesis that the PGMI curriculum, although structured around the OBE framework, has not yet adopted the SDGs as foundational principles in curriculum development. Structurally, the curriculum remains oriented toward accreditation requirements and the reinforcement of basic pedagogical skills, rather than the comprehensive development of sustainability-oriented character. This suggests that OBE has not been fully utilized as a transformative instrument for curriculum development aligned with global values and social responsibility.

Furthermore, reflection on the position of PGMI in the national context shows that this institution holds significant potential to become a pioneer in SDG-oriented teacher education. However, this potential has not been optimally realized due to the weak integration of sustainability values within the curriculum and the lack of faculty training in aspects of Education for Sustainable Development (ESD).

### Implications of the Research Findings

The findings of this study contribute to the development of both literature and practical applications in higher education curricula that integrate Outcome-Based Education (OBE) and Sustainable Development Goals (SDGs), particularly within religious and teacher education programs. The key contributions are as follows:

- a. Providing a mapping of SDG value integration within the CPL and CPMK of the PGMI curriculum.
- b. Offering constructive criticism of the technocratic tendencies in OBE implementation.
- c. Proposing a curriculum reconstruction approach based on the ESD-OBE framework.
- d. Strengthening the argument that madrasah teacher education should be oriented toward building sustainability literacy.

In practice, these results can serve as a reference for program administrators, curriculum designers, and lecturers in evaluating and reinforcing sustainability visions within academic documents.

### Limitations and Recommendations for Future Research

This study is limited by its exclusive use of a library research approach based on document analysis, and it does not include empirical data from students, alumni, or direct classroom practices. Therefore, to enrich the findings, it is recommended that future research adopt a mixed-methods approach by incorporating classroom observations, in-depth interviews, and analysis of the curriculum's impact on students' sustainability awareness.

Concrete recommendations include:

- a. Revising the PGMI curriculum to explicitly embed SDG indicators within CPL and CPMK.

- b. Developing sustainability-based learning modules.
- c. Providing sustainability pedagogy training for lecturers.
- d. Promoting collaboration with environmental and social education institutions to strengthen contextual curriculum content.

## References

- Amirya, M., & Irianto, G. (2023, June). Tantangan implementasi Sustainable Development Goals (SDGs) di Indonesia. *Jurnal Ilmiah Akuntansi Peradaban*, 9(1), 187–198. <https://doi.org/10.24252/jiap.v9i1.38916>
- Anggraini, D., & Nugraheni, N. (2024). Menuju pendidikan berkelanjutan: Implementasi tujuan pembangunan berkelanjutan (SDGs) dalam mewujudkan pendidikan berkualitas di Indonesia. *Jurnal Penelitian Pendidikan Indonesia*, 1(3), 189–197. <https://doi.org/10.62017/jppi.v1i3.1028>
- Chairy, A., Istiqomah, I., & Nahdiyah, A. C. F. (2024, December). Sustainable development goals (SDGs) dan pendidikan Islam di perguruan tinggi: Sinergi untuk masa depan. *Academia: Jurnal Inovasi Riset Akademik*, 4(3), 124–134. <https://doi.org/10.51878/academia.v4i3.3631>
- Fitriah, A., & Nugraheni, N. (2024, May). Peran pendidikan dalam mendukung Sustainable Development Goals (SDGs). *Jurnal Ilmiah Multi Disiplin*, 2(4), 202–209. <https://doi.org/10.5281/zenodo.11141726>
- Herlambang, N. R., Sofwan, A., & Riyadi, M. A. (2023, September). Sistem evaluasi OBE prodi dan pengukuran CPL mahasiswa. *Transient: Jurnal Ilmiah Teknik Elektro*, 12(3), 119–127. <https://doi.org/10.14710/transient.v12i3.119-127>
- Kioupi, V., & Voulvoulis, N. (2020, August). Sustainable development goals (SDGs): Assessing the contribution of higher education programmes. *Sustainability*, 12(17), 6701. <https://doi.org/10.3390/su12176701>
- Mufanti, R., Carter, D., & England, N. (2024). Outcomes-based education in Indonesian higher education: Reporting on the understanding, challenges, and support available to teachers. *Social Sciences & Humanities Open*, 9, 100873. <https://doi.org/10.1016/j.ssaho.2024.100873>
- Muhyani, M. (2023, October). Social entrepreneurship education based on sustainable development for PGMI students. *Syekh Nurjati International Conference on Elementary Education*, 1(0), 380. <https://doi.org/10.24235/sicce.v1i0.14625>
- Muntoha, T. (2024, September). Mengokohkan perdamaian dan toleransi: Analisis literatur integrasi nilai-nilai SDGs dalam pendidikan agama Islam di era modern. *Journal of Education Research*, 5(4), 4642–4653. <https://doi.org/10.37985/jer.v5i4.1608>
- Muzakir, M. I., & Susanto, S. (2023, May). Implementasi kurikulum Outcome Based Education (OBE) dalam sistem pendidikan tinggi di era revolusi industri 4.0. *Edukasiana: Jurnal Islamic Education*, 2(1), 118–139. <https://doi.org/10.61159/edukasiana.v2i1.86>
- Nasrudin, E., Anwar, S., Suresman, E., Rahmi, U. Q., Hidayatulloh, D. S., & Ahmad Lokman, F. E. B. (2025, January). Integration of Sustainable Development Goals in Islamic teaching materials in higher education. *Tafkir: Interdisciplinary Journal of Islamic Education*, 6(1), 17–39. <https://doi.org/10.31538/tijie.v6i1.1266>
- Negara, G. A. J., Pitriani, N. R. V., & Fitriani, L. P. W. (2024, April). Kurikulum berbasis OBE (Outcome Based Education) dengan nilai-nilai karakter untuk meningkatkan kualitas mutu pendidikan perguruan tinggi. *Jurnal Penelitian Dan Pengembangan Pendidikan*, 8(1), 41–48. <https://doi.org/10.23887/jppp.v8i1.68767>
- Ningrum, M., & Hasanah, E. (2021, June). Manajemen kurikulum dan implementasi education for sustainable development pada perguruan tinggi. *Didaktis: Jurnal Pendidikan dan Ilmu Pengetahuan*, 21(2). <https://doi.org/10.30651/didaktis.v21i2.7135>
- Nugroho, O. F., Permanasari, A., Firman, H., & Riandi, R. (2021, September). Persepsi dan praktik pendidikan keberlanjutan di Indonesia untuk education for sustainability development (ESD) selama pandemi Covid-19. *Eduscience: Jurnal Ilmu Pendidikan*, 7(01). <https://doi.org/10.47007/edu.v7i01.4642>

- Prastowo, A. (2018, January). Transformasi kurikulum pendidikan dasar dan menengah di Indonesia. JIP: Jurnal Ilmiah PGMI, 4(2), 111–125. <https://doi.org/10.19109/jip.v4i2.2567>
- Pratiwi, H., Dwiningrum, S. I. A., Riwanda, A., & Minasyan, S. (2024, April). Insights into multicultural competence of early childhood teacher candidates in Indonesian Islamic higher education. EDUKASI: Jurnal Penelitian Pendidikan Agama dan Keagamaan, 22(1), 79–96. <https://doi.org/10.32729/edukasi.v22i1.1813>
- Putri, N. A., & Wahyuni, D. (2020). Eco-pedagogy dan global citizenship education dalam pembentukan guru SD literat keberlanjutan. Jurnal Pendidikan Guru SD, 8(3), 59–70.
- Spady, W. G. (1994). Outcome-based education: Critical issues and answers. ERIC. <https://eric.ed.gov/?id=ED380910>
- Taisir, M. T., Fitriani, M. I., & Quddus, A. (2024, December). Integrating environmental sustainability into Islamic religious education curriculum development. Jurnal Penelitian Keislaman, 20(2), 157–169. <https://doi.org/10.20414/jpk.v20i2.11777>
- UNESCO. (2020). Education for sustainable development: A roadmap. <https://doi.org/10.54675/YFRE1448>
- Utami Handayani, N., Handayani, N. A., & Sulardjaka, S. (2024). Sistem monitoring dan evaluasi proses belajar mengajar berbasis outcome based education di Fakultas Teknik Universitas Diponegoro. Jurnal Profesi Insinyur Indonesia, 2(3). <https://doi.org/10.14710/jpii.2024.24263>
- Widodo, Y., & Kusnandar, K. (2021). Transformasi kurikulum berbasis nilai-nilai keberlanjutan dalam pendidikan tinggi. Jurnal Kajian Kurikulum Indonesia, 9(1), 16–28.
- Wulf, C. (2010). Education as transcultural education: A global challenge. Educational Studies in Japan, 5, 33–47. <https://doi.org/10.7571/esjkyoiku.5.33>
- Xuan, R. P., & Lindqvist, M. H. (2025, July). Exploring sustainable development goals and curriculum adoption: A scoping review from 2020–2025. Societies, 15(8), 212. <https://doi.org/10.3390/soc15080212>