

Integration of Islamic Boarding School Culture and Project-Based Learning in Strengthening Islamic Character Education for Modern Curriculum

Arif Efendi¹, Moh. Zainudin²
^{1,2}PPNI Bina Sehat University, Mojokerto, Indonesia

Email Address: zenika59@gmail.com²

Email Correspondence: ariffendi2018@gmail.com¹

ARTICLE INFO

Article History

Received: 09 Januari 2026

Revised: 10 Februari 2026

Accepted: 27 Maret 2026

Keywords

Islamic character education, Project-Based Learning, Pesantren culture, Character development, Holistic learning.



This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.

Copyright ©2026 by Author. Published by Akademi Penerbangan Indonesia.

ABSTRACT

This study examined the integration of pesantren cultural values with Project-Based Learning (PjBL) in strengthening Islamic character education in higher education. A qualitative approach was employed involving 20 undergraduate nursing students at Universitas Bina Sehat PPNI Mojokerto selected through purposive sampling. Data were collected through semi-structured interviews, observations, and documentation, then analyzed using thematic procedures including data reduction, categorization, and verification. The findings indicate that integrating pesantren culture with PjBL effectively strengthens discipline, responsibility, cooperation, respect, spirituality, and moral awareness through authentic and collaborative learning experiences. Students also demonstrated improved learning independence, critical thinking, and process-oriented learning attitudes. However, challenges related to passive learning habits, adaptation to collaborative learning, and unequal participation were still identified. The study further reveals that lecturer facilitation and institutional support significantly influence implementation effectiveness. Theoretically, this study contributes to culturally responsive and holistic education frameworks by integrating religious-cultural values into contemporary project-based learning.

1. INTRODUCTION

Islamic character education has become increasingly urgent amid the rapid transformations characterizing 21st-century society. The current era is marked by significant paradigm shifts in

education, moving beyond the traditional focus on academic achievement toward a more holistic approach that emphasizes moral development, personal identity, and social responsibility. Rapid advancements in technology, globalization, and digital communication have profoundly influenced the mindset, behavior, and lifestyles of younger generations (Munawarsyah, 2023; Haq & Mu'shoda, 2026). While these developments provide broader educational opportunities, they also generate complex challenges, including moral degradation, individualism, instant culture, and uncontrolled exposure to digital information. Consequently, educational institutions are increasingly expected not only to develop students' cognitive competencies but also to cultivate ethical awareness and strong moral character.

Within this context, Islamic character education serves as a strategic framework for strengthening students' moral foundations and guiding them in responding wisely to contemporary social realities. Islamic values such as honesty, discipline, responsibility, trustworthiness, and social care function as ethical principles that shape individual behavior and social interaction. These values are essential in helping students navigate modern life with integrity while maintaining balance between intellectual development and spiritual maturity. The growing concern regarding declining moral values among young people further reinforces the need for educational approaches that integrate character formation into the learning process rather than treating it merely as a supplementary component of the curriculum.

Moreover, the success of Islamic character education cannot be separated from the role of parents and families as the primary agents of moral development. Parents play a fundamental role in nurturing, guiding, and habituating children to practice positive values in daily life (Sugiarti et al., 2022). Collaboration between family, school, and community therefore becomes crucial in building a supportive educational environment that consistently reinforces Islamic character values. In this regard, Islamic character education should be understood not merely as religious instruction, but as a comprehensive educational paradigm aimed at preparing students to become morally responsible, socially aware, and spiritually grounded individuals capable of facing the challenges of contemporary civilization.

The modern education paradigm has undergone a significant shift from a conventional teacher-centered approach to a more participatory, collaborative, and competency-oriented learning model. Today's curriculum emphasizes the integration of 21st-century knowledge, skills, and contextual learning experiences so that students are able to think critically, creatively, and adaptively to change. The integration of values becomes an essential part of the process because education is not only aimed at producing intellectually intelligent individuals, but also having strong character and adequate social abilities (Alam¹, 2016), (Alam, 2023). This paradigm shift encourages the need for a learning approach that is able to combine moral, affective, and psychomotor aspects simultaneously, so that the educational process becomes more holistic and relevant to global demands. Morals are very important, even from the lowest level of education to the level of higher education, the moral aspect continues to be the center of attention that continues to be accompanied to maintain its purity (Jin, 2025).

Pesantren, as the oldest Islamic educational institution in Indonesia, has traditions, values, and culture that have proven effective in shaping the character of students over the centuries (Isbah, 2020), (Mujahid, 2021). The pesantren culture that emphasizes discipline, independence, respect for teachers, and the habit of daily worship creates a comprehensive learning ecosystem oriented

towards moral formation. A harmonious relationship between kiai and students, a congregational lifestyle, and repeated instilling values encourage the internalization of character not only through verbal instruction, but through example and real practice. This experiential value-building model places pesantren as one of the most successful examples of sustainable and contextual Islamic character education. With these peculiarities, pesantren offer a rich and relevant value base to be developed in various modern educational models.

Along with the times, there is a need to adapt and transform the cultural values of pesantren into a modern educational curriculum so that it can be implemented in various formal education contexts (Achmadin et al., 2024), (Halimah et al., 2024). The cultural values of Islamic boarding schools, especially those exemplified by Kiai, can have implications for the spirit of independence, entrepreneurship, and other positive values (Karim et al., 2025). This adaptation is important to expand the benefits of the noble values of the pesantren for students who are not in the pesantren environment, as well as to strengthen the Islamic character in the national education system. The transformation of pesantren values must be carried out through pedagogical approaches that are relevant, innovative, and in accordance with the character of today's students, without losing their spiritual and moral essence.

The global trend of education shows an increase in the adoption of active learning models, especially Project-Based Learning (PjBL), due to its ability to encourage learners to learn through hands-on experience, collaboration, and authentic problem-solving (Haatainen & Aksela, 2021), (Sukacké et al., 2022). PjBL allows for more meaningful learning through activities that require cognitive, affective, and psychomotor involvement simultaneously, so that it becomes an effective medium to internalize character values through practice and reflection. In the context of Islamic character education, PjBL offers a pedagogical approach that can bridge between abstract values and real implementation in daily life. Through a structured project, students can experience the process of internalizing values such as responsibility, cooperation, care, and perseverance directly, so that character learning is not only declarative, but truly integrated in an authentic and contextual learning experience.

Although Islamic character education has been integrated into various national curriculum documents, its implementation in modern educational institutions still shows suboptimal results (Mohammad, 2025). Many schools place character education at a declarative level through ceremonial activities or theoretical learning that do not provide space for the in-depth internalization of values. On the other hand, the dynamics of contemporary education that are oriented towards academic achievement make character values often marginalized and not a top priority in the learning process. As a result, learners acquire knowledge of Islamic values cognitively, but do not fully experience or practice them in a real context. This imbalance shows the need for a more systematic and applicable pedagogical approach so that Islamic character education can truly be implemented effectively in the modern curriculum.

One of the fundamental problems in strengthening Islamic character education is the limited integrative model that combines the strength of Islamic boarding school education traditions with innovative learning approaches such as Project-Based Learning (PjBL) (Harahap et al., 2025), (Mau, 2024). Pesantren have a strong value-based education system and have been tested in shaping the character of students, but the model has not been fully adapted to the context of more modern formal education. Meanwhile, PjBL has been recognized globally as an effective approach in increasing

learners' active engagement and instilling value through hands-on experience. However, the two still run separately without a pedagogical design that comprehensively integrates the spiritual dimension of the pesantren with a project-based learning structure. The absence of such a model results in a great loss of opportunity to optimize character learning holistically through the synthesis of tradition and innovation.

The objectives of this research are: 1) Describe the values and cultural practices of pesantren that are relevant to strengthening Islamic character education. 2) Analyze how the Project-Based Learning approach can be used to integrate the cultural values of the pesantren into learning activities. 3) Develop a conceptual model or integrative framework between pesantren culture and PjBL for a modern curriculum. 4) Identify the contribution of this integration to the effectiveness of student character formation in the context of contemporary education.

Previous studies on pesantren culture are still mostly descriptive, emphasizing the exposure of values, traditions, and practices that develop in the pesantren environment without associating them with the dynamics of modern pedagogical innovation. This kind of research does contribute to a basic understanding of the characteristics of pesantren education, but it does not provide a conceptual or methodological framework that bridges the potential of these values with the needs of contemporary education. The limitations of this descriptive approach cause knowledge about pesantren culture to be less applicable when faced with the demands of a modern curriculum that emphasizes active, collaborative, and competency-oriented learning. As a result, the opportunity to combine the rich traditions of pesantren with innovative pedagogical strategies has not been optimally utilized by previous studies.

Until now, there is no systematic model that comprehensively integrates pesantren culture with the PjBL approach to strengthening character education in the modern curriculum. Existing research offers general theoretical ideas without formulating an operational framework that can be used as a practical reference by educators. The absence of this model makes it difficult for educational institutions to design learning activities that can combine the depth of pesantren values with a directed project learning structure. In addition, the absence of an integrative framework makes efforts to adapt the culture of pesantren in the context of formal education sporadic, non-standardized, and dependent on individual initiatives of educators. This model gap indicates an urgent need to develop a systematic approach that is able to synergize tradition and innovation in character learning.

The justification for this research is: 1) Offering a new perspective by combining two domains: pesantren culture (traditional) and Project-Based Learning (modern and innovative). 2) Providing theoretical contributions in the form of integrative frameworks that have not been widely raised in the Islamic educational literature. 3) Provide practical contributions to curriculum developers and educators in designing experiential character learning. 4) Relevant to the demands of a modern curriculum that emphasizes character, collaboration, creativity, and contextualization of values. 5) Produce findings that can be a model for strengthening Islamic character that is adaptive, applicative, and based on local wisdom.

2. METHODS

This study uses qualitative research methods. Qualitative research refers to qualitative methods as study methods and techniques, and qualitative research and overall research is carried out in a qualitative way.

Furthermore, this study was conducted at the Faculty of Nursing, Universitas Bina Sehat PPNI Mojokerto, involving undergraduate nursing students as the primary sources of data. The participants consisted of 20 active undergraduate nursing students selected through a purposive sampling technique based on specific inclusion criteria relevant to the objectives of the study. The inclusion criteria were as follows: (1) active undergraduate nursing students, (2) students who had participated in project-based religious learning activities integrated with pesantren culture as part of character education strengthening, (3) students who were willing to participate in interviews and observations, and (4) students who had direct experience in project-based learning integrated with pesantren cultural values.

The purposive sampling technique was employed to ensure that the participants possessed sufficient experience and understanding regarding the implementation of project-based religious learning integrated with pesantren culture. The data collected in this study consisted of words, sentences, and narratives obtained from in-depth interviews, observation sheets, and supporting documentation. These data sources were analyzed to explore students' experiences, perceptions, and character development within the context of pesantren-based project learning.

The data collection techniques employed in this study included semi-structured interviews, observations, and documentation. Semi-structured interviews were conducted to obtain in-depth information regarding students' experiences and perceptions of project-based religious learning integrated with pesantren culture. Observations were carried out using observation sheets to identify students' attitudes, participation, and character-related behaviors during the learning process. In addition, documentation techniques were utilized to collect relevant supporting documents related to the research focus, including learning activity records, student assignments, and institutional documents.

The data analysis process was conducted systematically through several stages. First, data reduction was performed by selecting, classifying, and organizing data according to its relevance to the research objectives. This stage also involved coding and categorizing similar data into meaningful units. Second, data display was carried out by systematically presenting relevant findings in descriptive and thematic forms to facilitate interpretation. Third, conclusion drawing and verification were conducted to identify patterns, relationships, and meanings emerging from the collected data.

To ensure the trustworthiness and validity of the findings, this study applied several data validation techniques. First, triangulation was conducted by comparing data obtained from interviews, observations, and documentation to ensure consistency across different sources and methods. Second, member checking was employed by confirming interview results and interpretations with participants to enhance the accuracy of the data. Third, prolonged engagement and persistent observation were carried out to gain a deeper understanding of participants' experiences and the research context. In addition, peer debriefing was conducted through discussions with fellow researchers and academic supervisors to minimize researcher bias and

strengthen the credibility of the findings. These validation techniques were applied to ensure the reliability, credibility, and accuracy of the research results.

3. RESULTS

The findings of this study demonstrate that the integration of pesantren culture with Project-Based Learning (PjBL) provides a comprehensive impact on students' character development and learning processes. The results reveal that core values such as discipline, responsibility, cooperation, and respect are effectively internalized through structured routines and collaborative project activities. Students not only understand these values conceptually but also practice them consistently in real learning contexts. In addition, the integration of spiritual elements into the learning process enhances the meaning of academic activities, transforming them into value-driven experiences that go beyond cognitive achievement.

Furthermore, the findings obtained from interviews, observations, and documentation analysis indicate that Project-Based Learning (PjBL) integrated with pesantren culture functions as an effective pedagogical approach for transforming abstract Islamic moral values into practical daily behaviors. Data from participant interviews revealed that students became more actively involved in collaborative learning activities, such as group discussions, community-based projects, and reflective religious practices, which encouraged the application of values such as responsibility, discipline, honesty, and social care in real-life situations. Observation results further showed noticeable changes in students' participation, communication patterns, and accountability during project implementation.

The analysis also demonstrated that students experienced improvements in learning independence and critical thinking skills throughout the project-based learning process. Several participants reported that project activities required them to solve problems independently, manage time effectively, and make collective decisions within groups. In addition, students expressed a shift in learning orientation, from focusing primarily on academic outcomes toward valuing the learning process, collaboration, and personal character development. However, the findings also identified several challenges, particularly students' initial dependence on lecturer-centered learning and difficulties adapting to collaborative and reflective learning environments.

Moreover, the study found that the role of lecturers as facilitators significantly contributed to the success of the learning process. Lecturers provided guidance, reflective feedback, and value reinforcement throughout project activities, enabling students to connect pesantren cultural values with modern educational practices. The integration of traditional Islamic values and contemporary project-based learning approaches created a more contextual and meaningful learning environment. These findings suggest that the combination of cultural-religious values and innovative pedagogy can support the development of holistic, character-oriented education that is relevant to the demands of 21st-century learning.

Tabel 1. Findings on the Integration of Pesantren Culture and Project-Based Learning (PjBL)

| No | Theme Category | Empirical Findings (Based on Interviews, Observations, and Documentation) | Data Source | Coding / Categorization Result | Implications |
|----|---------------------|---|---------------------------|--|---|
| 1 | Discipline | Students consistently followed project schedules, attended religious activities on time, and completed assignments according to agreed deadlines. | Interviews, observations | Time discipline, learning compliance | Improves time management and task completion |
| 2 | Responsibility | Participants stated that group projects encouraged them to take responsibility for assigned tasks and collective outcomes. | Interviews, documentation | Academic responsibility, accountability | Strengthens accountability and integrity |
| 3 | Cooperation | Observation data showed active collaboration, mutual assistance, and collective problem-solving during project activities. | Observations, interviews | Team collaboration, social interaction | Builds teamwork and communication skills |
| 4 | Manners and Respect | Students demonstrated polite communication patterns toward lecturers and peers during discussions and project implementation. | Observations | Ethical communication, respectful behavior | Creates a conducive academic environment |
| 5 | Spirituality | Religious practices such as prayer, reflection, and Islamic discussions were integrated into project activities. | Documentation, interviews | Spiritual integration, religious awareness | Enhances meaning of learning beyond academics |
| 6 | Value Translation | Students applied values such as honesty, patience, and sincerity in completing community-based projects. | Interviews, observations | Internalization of Islamic values | Encourages practical implementation of character values |
| 7 | PjBL Effectiveness | Participants reported that project-based learning increased engagement and helped them understand values | Interviews | Experiential learning process | Promotes active and contextual learning |

| | | | | | |
|-----------|----------------------------|--|---------------------------|-----------------------------------|---|
| | | through direct experience. | | | |
| 8 | Learning Challenges | Several students initially experienced difficulties adapting from passive learning habits to collaborative learning activities. | Interviews | Learning adaptation barriers | Requires gradual pedagogical transition |
| 9 | Mindset Transformation | Students reported a shift from focusing solely on grades to valuing the learning process and self-development. | Interviews | Process-oriented learning mindset | Develops deeper learning awareness |
| 10 | Moral Identity | Participants expressed stronger awareness of Islamic moral identity after participating in pesantren-integrated learning activities. | Interviews | Moral self-awareness | Supports ethical decision-making |
| 11 | Contextualization | Students connected pesantren values with modern social and academic contexts during project implementation. | Interviews, documentation | Contextual application of values | Increases relevance of traditional values |
| 12 | Lecturer Role | Observations revealed that lecturers acted as facilitators, mentors, and value guides throughout the learning process. | Observations | Facilitative learning role | Ensures holistic learning process |
| 13 | Learning Independence | Students became more proactive in seeking information, managing tasks, and solving problems independently. | Interviews | Self-regulated learning | Enhances independent learning skills |
| 14 | Integrative Learning Model | The integration of pesantren culture and PjBL created a balanced model combining religious values and modern pedagogy. | Documentation, interviews | Integrative educational model | Produces sustainable character education |

4. DISCUSSION

The findings of this study demonstrate that the integration of pesantren cultural values with Project-Based Learning (PjBL) constitutes a pedagogical approach that not only supports academic development but also strengthens students' character formation in a more holistic manner. The results indicate that values such as discipline, responsibility, cooperation, respect, and spirituality

are not merely understood theoretically but are practiced within authentic learning activities (Syihabuddin, 2017; Wilson, 2014). Several participants explained that project-based religious learning encouraged them to apply these values in daily academic interactions. One student stated, "Before joining this project, I usually focused only on completing assignments individually, but through group projects I learned how to be responsible not only for myself but also for my team members." This finding suggests that character formation becomes more meaningful when values are embedded in real learning experiences rather than delivered solely through theoretical instruction.

The prominence of discipline as a major finding reflects the effectiveness of structured routines derived from pesantren culture. Students consistently followed project timelines, attended activities punctually, and demonstrated greater commitment to task completion. This finding supports constructivist perspectives emphasizing that behavior is developed through repeated practice and meaningful engagement (Rob & Rob, 2018; Honebein et al., 1993; Bada & Olusegun, 2015). However, a critical issue emerging from the data is that not all students adapted equally to the disciplined learning environment. Some participants initially perceived the structured routines as restrictive and demanding. One participant commented, "At first, I felt overwhelmed because the learning process required strict schedules and continuous reflection, which was different from my previous learning habits." This indicates that although discipline can positively shape self-regulated learning, the transition process may create resistance among students who are accustomed to teacher-centered or passive learning environments. Therefore, discipline should not only be imposed structurally but also accompanied by supportive guidance and gradual adaptation strategies.

The findings regarding responsibility further reveal that collaborative project activities foster both moral and academic accountability. Students developed awareness that project success depended on collective commitment and contribution. This aligns with social constructivist theory, which emphasizes shared responsibility in learning processes (Sánchez-García & Reyes-de-Cózar, 2025; Al-Qoyyim & Kurniawan, 2025). Nevertheless, the findings also reveal a potential limitation of collaborative learning. Several students reported unequal participation among group members, where more active students tended to dominate project activities. As one participant explained, "Sometimes only a few students worked seriously, while others depended on the group." This finding suggests that while PjBL can strengthen responsibility, ineffective group management may also create dependency and unequal workloads. Therefore, lecturers' monitoring and facilitation remain essential to ensure balanced participation and fair collaboration.

Another important finding concerns the role of cooperation rooted in pesantren values such as *gotong royong* (mutual assistance) and *musyawarah* (deliberation). Students demonstrated improved communication skills, teamwork, and social interaction throughout project implementation. This supports the argument that culturally responsive pedagogy can strengthen both academic and social competencies (Fahadah & Thomps, 2025). However, the study also indicates that cultural values alone are insufficient to guarantee effective collaboration. Some participants experienced difficulties in negotiating differing opinions and adapting to collaborative decision-making processes. This finding highlights the complexity of implementing collaborative learning in higher education contexts, particularly among students who are more familiar with individual learning practices. Consequently, cooperation should be viewed not only as a cultural value but also as a skill that requires continuous training and facilitation.

The integration of manners and respect into the learning process also contributed to the creation of a conducive and ethical academic environment. Observation data showed that students maintained polite communication and respectful interactions with lecturers and peers during discussions and project activities. These findings align with humanistic learning perspectives that emphasize empathy, interpersonal relationships, and ethical interaction in education (Khamrakulova, 2025; Kumari, 2024). One participant noted, "The learning process taught us to express opinions respectfully, even when we disagreed with others." However, this study critically indicates that respectful behavior was more visible during supervised activities than in informal interactions, suggesting that the sustainability of these values outside structured learning contexts requires further attention.

Another significant finding is the integration of spirituality into the learning experience. Students reported that religious practices and reflective activities increased the meaningfulness of project implementation. One participant stated, "The projects were not only academic assignments, but also reminded us that learning can become part of worship and self-improvement." This finding supports the concept of holistic education, which emphasizes the integration of intellectual, moral, and spiritual dimensions (Aseery, 2024; Clanton Harpine, 2024). However, a critical reflection is necessary regarding the contextual application of spiritual values in diverse educational settings. The effectiveness of spiritually integrated learning may vary depending on students' backgrounds, beliefs, and levels of religious engagement. Therefore, spirituality-based learning should remain contextual and inclusive rather than normative or coercive.

The study also confirms that PjBL functions effectively as a medium for translating abstract moral values into concrete practices (Parmentier et al., 2021; Malin & Rind, 2022). Students applied values such as honesty, patience, and responsibility during project planning, implementation, and reporting processes. This finding supports experiential learning theory, which posits that knowledge and values are strengthened through direct experience. Nevertheless, the findings reveal that some students still focused primarily on project completion rather than internalizing the intended values. This suggests that experiential learning alone does not automatically produce character transformation. Reflection sessions and guided evaluation are necessary to ensure that students critically connect project experiences with ethical and moral development.

Furthermore, the findings reveal a transformation in students' learning orientation from grade-centered learning toward process-oriented learning (Brosseau, 2024). Students gradually began to value collaboration, reflection, and personal development more than merely achieving academic scores. However, the transition was not immediate, as some participants initially struggled to adapt because they were accustomed to conventional assessment systems emphasizing examinations and grades. This finding indicates that innovative pedagogical models require institutional support and assessment systems that appreciate learning processes alongside cognitive achievement.

Finally, the role of lecturers emerged as a determining factor in the successful implementation of the integrative learning model. Lecturers acted not only as instructors but also as facilitators, mentors, and role models who reinforced pesantren values throughout project activities. Observation findings showed that students became more engaged when lecturers actively guided discussions and provided reflective feedback. However, this also implies that the effectiveness of the model heavily depends on lecturers' pedagogical competence and consistency. Without adequate

facilitation, the integration of cultural values into project-based learning may become superficial and lose its transformative potential.

Overall, the findings demonstrate that the integration of pesantren culture and PjBL provides a meaningful and contextual learning model that supports both academic and character development. At the same time, this study critically reveals that the success of the model is influenced by students' readiness, group dynamics, lecturer facilitation, and institutional support. Therefore, the integration of traditional values and innovative pedagogy should not be viewed as a universally applicable solution, but rather as a dynamic educational approach that requires contextual adaptation and continuous evaluation.

5. CONCLUSION

In conclusion, this study demonstrates that the integration of pesantren cultural values with Project-Based Learning (PjBL) provides a meaningful and holistic educational model that strengthens students' academic competencies, moral identity, spirituality, and character development through authentic and contextual learning experiences. The findings indicate that values such as discipline, responsibility, cooperation, respect, and spirituality are more effectively internalized when embedded within collaborative and experiential learning activities rather than delivered through theoretical instruction alone. Theoretically, this study contributes to the development of culturally responsive and holistic education frameworks by extending constructivist and experiential learning perspectives through the integration of religious-cultural values into contemporary pedagogy. Methodologically, the use of interviews, observations, and documentation combined with thematic categorization offers a richer understanding of how character values are translated into educational practice within higher education contexts. However, the study also reveals that the effectiveness of the model is influenced by students' readiness, collaborative dynamics, lecturer facilitation, and institutional support, indicating that the implementation of culturally integrated PjBL requires adaptive and context-sensitive strategies. Therefore, future research is recommended to explore the long-term impact of pesantren-integrated learning models on students' character sustainability, involve more diverse educational settings and participant backgrounds, and employ longitudinal or mixed-method approaches to examine the broader effectiveness and transferability of this pedagogical model in 21st-century education.

6. REFERENCES

- Achmadin, B. Z., Kawakip, A. N., Nafis, M. M., Barizi, A., Asrori, M., & Amrullah, A. M. K. (2024). The future of pesantren: Reconciling tradition with global educational trends. *Jurnal Pendidikan Agama Islam (Journal of Islamic Education Studies)*, 12(2), 197–222.
- Al-Qoyyim, T. M., & Kurniawan, W. (2025). Project-Based Learning in Science Learning: A Literature Review. *Contextual Natural Science Education Journal*, 3(1), 1–14.
- Alam, M. A. (2023). From teacher-centered to student-centered learning: The role of constructivism and connectivism in pedagogical transformation. *Journal of Education*, 11(2), 154–167.
- Alam¹, M. M. (2016). Constructivism: paradigm shift from teacher centered to student centered approach. *The International Journal of Indian Psychology*, Volume 4, Issue 1,(No. 79), 51.
- Aseery, A. (2024). Enhancing learners' motivation and engagement in religious education classes at elementary levels. *British Journal of Religious Education*, 46(1), 43–58.

- Bada, S. O., & Olusegun, S. (2015). Constructivism learning theory: A paradigm for teaching and learning. *Journal of Research & Method in Education*, 5(6), 66–70.
- Brosseau, R. (2024). *Restructuring the Landscape of Learning Incentives in Higher Education: A Case for Process-Oriented Instruction and Assessment in Introductory Physics*. McGill University (Canada).
- Clanton Harpine, E. (2024). Creating an intrinsically motivating learning environment: Promoting student engagement and intrinsic motivation. In *Service Learning in Higher Education: From Pedagogy to Practice* (pp. 59–76). Springer.
- Fahadah, A., & Thomps, J. (2025). Exploring the role of culturally responsive pedagogy in promoting equity across diverse educational environments. *International Journal of Post Axial: Futuristic Teaching and Learning*, 97–108.
- Haatainen, O., & Aksela, M. (2021). Project-Based Learning in Integrated Science Education: Active Teachers' Perceptions and Practices. *LUMAT: International Journal on Math, Science and Technology Education*, 9(1), 149–173.
- Halimah, S., Yusuf, A., & Safiudin, K. (2024). Pesantren education management: The transformation of religious learning culture in the age of disruption. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam*, 9(3), 648–666.
- Haq, E. D., & Mu'shoda, E. (2026). Islamic education in the 21st century: The challenges of globalization and the urgency of utilizing educational technology. *Hierophany: Journal of Islamic Religious Education*, 1(1), 44–58.
- Harahap, D. A., Faizin, M., Erydani, V. A. C., Lestari, S., Dewi, D. S., & Ardhi, M. A. (2025). Project-Based Learning with AI-Integration to Foster Critical Thinking Skills and Self-Efficacy of Pre-Service Teachers. *Jurnal Eduscience*, 12(5), 1453–1463.
- Honebein, P. C., Duffy, T. M., & Fishman, B. J. (1993). Constructivism and the design of learning environments: Context and authentic activities for learning. In *Designing environments for constructive learning* (pp. 87–108). Springer.
- Isbah, M. F. (2020). Pesantren in the changing Indonesian context: History and current developments. *Qudus International Journal of Islamic Studies (QIJIS)*, 8(1), 65–106.
- Jin, T. (2025). *Methods and reliability study of moral education assessment in universities : A machine learning-based approach*. 125(April), 20–28.
- Jones, J. N., Warnaar, B. L., Bench, J. H., & Stroup, J. (2014). Promoting the development of moral identity, behavior, and commitment in a social action program. *Journal of Peace Education*, 11(2), 225–245.
- Karim, A., Fathurohman, O., Marliani, L., Fajrin, F., Nugraha, F., Meliani, F., Ridwan, M., & Sianturi, R. (2025). *Social Sciences & Humanities Open Islamic spiritual leadership of kyai in fostering santri s' entrepreneurial spirit and independence in boarding school*. 12(August).
- Khamrakulova, K. (2025). The Role Of National Values In Ensuring The Sustainability Of A Conducive Learning Environment. *Nvpubhouse Library for European International Journal of Pedagogics*, 5(08), 44–48.
- Kumari, S. (2024). Humanism in education: Fostering student-centered learning through Maslow's and Rogers' theories. *Journal Homepage: Wwww. Ijrpr. Com ISSN, 2582, 7421*.
- Le, H., Janssen, J., & Wubbels, T. (2018). Collaborative learning practices: teacher and student perceived obstacles to effective student collaboration. *Cambridge Journal of Education*, 48(1),

103–122.

- Leech Morejon, A. V. (2025). *Context-based learning and its possibilities to enhance the teaching and learning of english focused on cultural identity development*. Riobamba, Universidad Nacional de Chimborazo.
- Malin, J. R., & Rind, G. M. (2022). Making the case for project-based learning: An examination of research evidence translation and mobilisation in education. *Review of Education*, 10(1), e3330.
- Mau, F. A. (2024). Integrating character education in Al-Syifa Islamic boarding schools: A case study approach. *Edu Spectrum: Journal of Multidimensional Education*, 1(1), 1–14.
- Mohammad, Y. (2025). The synergy of moderate Islam and curriculum reform in character education. *Sinergi International Journal of Education*, 3(2), 82–93.
- Mujahid, I. (2021). Islamic orthodoxy-based character education: creating moderate Muslim in a modern pesantren in Indonesia. *Indonesian Journal of Islam and Muslim Societies*, 11(2), 185–212.
- Munawarsyah, M. (2023). Islamic education in the modern era: Analysis of student character and their role in facing the challenges of Industry 4.0. *HEUTAGOGIA: Journal of Islamic Education*, 3(2), 141–154.
- Parmentier, D. D., Van Acker, B. B., Saldien, J., & Detand, J. (2021). A framework to design for meaning: insights on use, practicality and added value within a project-based learning context. *International Journal of Technology and Design Education*, 31(4), 815–838.
- Rob, M., & Rob, F. (2018). Dilemma between constructivism and constructionism: Leading to the development of a teaching-learning framework for student engagement and learning. *Journal of International Education in Business*, 11(2), 273–290.
- Sánchez-García, R., & Reyes-de-Cózar, S. (2025). Enhancing project-based learning: A framework for optimizing structural design and implementation—A systematic review with a sustainable focus. *Sustainability*, 17(11), 4978.
- Sugiarti, R., Erlangga, E., Suhariadi, F., Virgonita, M., Winta, I., & Pribadi, A. S. (2022). *Heliyon The influence of parenting on building character in adolescents*. 8(September 2021).
- Sukackè, V., Guerra, A. O. P. de C., Ellinger, D., Carlos, V., Petronienè, S., Gaižiūnienè, L., Blanch, S., Marbà-Tallada, A., & Brose, A. (2022). Towards active evidence-based learning in engineering education: A systematic literature review of PBL, PjBL, and CBL. *Sustainability*, 14(21), 13955.
- Syihabuddin, S. (2017). Spiritual pedagogy: an analysis of the foundation of values in the perspective of best performing teachers. *International Journal of Education*, 10(1), 27–33.
- Wilson, M. (2014). Critical reflection on authentic leadership and school leader development from a virtue ethical perspective. *Educational Review*, 66(4), 482–496.