



Optimizing the Curriculum of Religious Education and Ethics Based on Deep Learning in Improving Students' Critical Thinking Skills at Islamic Boarding Schools

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Abstract

The research aims to identify the need for curriculum implementation, analyze the obstacles to the implementation of deep learning, and explore adaptive curriculum development strategies in improving students' critical thinking skills in the context of the Independent Curriculum and pesantren values. This research is here to fill the limitations of previous studies that have not discussed the integration of deep learning approaches in the curriculum of religious education in Islamic boarding school-based vocational schools. The research uses a qualitative approach with a case study design at SMK Miftahul Huda Limbangan. The research participants were selected purposively involving PABP teachers, curriculum managers, and students who were directly involved in the implementation of the curriculum. Data were collected through semi-structured interviews, participatory observations, and document analysis in the form of syllabus and teaching modules. To minimize the subjectivity of interpretation, the validity of the data is strengthened through source triangulation, which is comparing the results of interviews, observations, and institutional documents, and analyzed using thematic analysis techniques. The results show that teachers need interactive learning strategy training and flexible curriculum development, while curriculum managers emphasize the importance of contextual teaching materials and external collaboration. Students prefer discussion-based learning methods, educational games, and practical projects. This study also found implementation obstacles that include limited learning time and facilities, learning culture that is still memorization oriented, and teacher readiness and student participation that are not optimal. The research concludes that the optimization of the deep-learning-based PABP curriculum can support the development of more adaptive and participatory Islamic education through teacher capacity building, contextual learning strategies, and project-based assessments relevant to 21st century competencies.

Keywords: Curriculum Optimization; Deep Learning; Islamic Boarding School-Based SMK

Abstrak

Penelitian bertujuan untuk mengidentifikasi kebutuhan implementasi kurikulum, menganalisis hambatan penerapan pembelajaran mendalam, serta mengeksplorasi strategi pengembangan kurikulum adaptif dalam meningkatkan kemampuan berpikir kritis siswa pada konteks Kurikulum Merdeka dan nilai-nilai pesantren. Penelitian ini hadir untuk mengisi keterbatasan kajian sebelumnya yang belum banyak membahas integrasi pendekatan deep learning dalam kurikulum pendidikan agama di SMK berbasis pesantren. Penelitian menggunakan pendekatan kualitatif dengan desain studi kasus di SMK Miftahul Huda Limbangan. Partisipan penelitian dipilih secara purposif yang melibatkan guru PABP, pengelola kurikulum, dan siswa yang terlibat langsung dalam implementasi kurikulum. Data dikumpulkan melalui wawancara semi-terstruktur, observasi partisipatif, dan analisis dokumen berupa silabus serta modul ajar. Untuk meminimalkan subjektivitas interpretasi, validitas data diperkuat melalui triangulasi sumber, yaitu membandingkan hasil wawancara, observasi, dan dokumen institusi, serta dianalisis menggunakan teknik analisis tematik. Hasil penelitian menunjukkan bahwa guru membutuhkan pelatihan strategi pembelajaran interaktif dan pengembangan kurikulum yang fleksibel, sementara pengelola kurikulum menekankan pentingnya bahan ajar kontekstual dan kolaborasi eksternal. Siswa lebih menyukai metode pembelajaran berbasis diskusi, permainan edukatif, dan proyek praktik. Penelitian ini juga menemukan hambatan implementasi yang meliputi keterbatasan waktu pembelajaran dan fasilitas,

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budaya belajar yang masih berorientasi hafalan, serta kesiapan guru dan partisipasi siswa yang belum optimal. Penelitian menyimpulkan bahwa optimalisasi kurikulum PABP berbasis deep learning dapat mendukung pengembangan pendidikan Islam yang lebih adaptif dan partisipatif melalui penguatan kapasitas guru, strategi pembelajaran kontekstual, dan asesmen berbasis proyek yang relevan dengan kompetensi abad ke-21.

Kata Kunci: Optimalisasi Kurikulum; Pembelajaran Mendalam; SMK Berbasis Pesantren

INTRODUCTION

The world of education in the 21st century is marked by various fundamental changes that have a great influence on the learning process, teaching system, and competency demands that a student must have.¹ 21st century education demands a paradigm transformation of learning from the conventional model centered on knowledge transfer to an approach that develops critical, creative, collaborative, and communicative competencies. In the Indonesian context, these challenges are answered through the Independent Curriculum policy. The independent curriculum is considered a strategic step in increasing flexibility and creativity for learning, providing space for technology integration, including through an in-depth learning approach. This approach emphasizes deep understanding through exploration, active engagement, and critical analysis.²

The Minister of Primary and Secondary Education (Mendikdasmen) Abdul Mu'ti, initiated the deep learning-based learning model as an approach that emphasizes the creation of a learning atmosphere and learning process that is conscious, meaningful, and joyful through thought, heart, taste, and sports in a holistic and integrated manner.³ This implementation is in line with the principles in the Independent Curriculum, which prioritizes students' freedom in learning, project-based learning and learning that emphasizes meaningful and mindful learning experiences.⁴ The habit of critical thinking is important to be instilled from an early age so that students have the skills to deal with problems in their life phases. These skills form superior and resilient human resources, which function as *life skills* that affect life.⁵ Vocational High School (SMK) in general is part of the formal education path that aims to develop students' thinking skills, especially in the aspect of critical thinking skills. ⁶ With the development of

¹ Tommy Jevisa et al., "Challenges and Strategies for the Implementation of 21st Century Learning of Hindu Religious Education and Ethics in Upt Sd Negeri 5 Amparita," *JAPAM (Journal of Religious Education)* 5, no. 1 (2025): 188–204, <https://doi.org/10.25078/japam.v5i1.4531>.

² Hidayat Edi Santoso, "Integrasi Teknologi Deep Learning Dalam Pembelajaran Pendidikan Agama Islam (PAI) Di Era Digital," *Jurnal Manajemen Pendidikan Dan Ilmu Sosial* 6, no. 2 (2025): 1476–83.

³ Abdul Mu'ti, *Academic Manuscript of Deep Learning Towards Quality Education for All* (2025).

⁴ Suwandi et al., "Educational Innovation Using Deep Learning Models in Indonesia," *Journal of Civic and Political Education* 2, no. 2 (2024): 69–77, <https://doi.org/10.61476/186hvh28>.

⁵ Aan Lancur Ferdinan Dewanto, "Improving Critical Thinking Skills of Vocational Students IMPROVING THE CRITICAL THINKING SKILLS OF VOCATIONAL SCHOOL STUDENTS THROUGH THE PROBLEM-BASED LEARNING MODEL OF AAN LANCUR FERDINAN," *JPTM* 11, NO. 01 (2021): 168–74.

⁶ A. Hardianti et al., "THE IMPORTANCE OF CRITICAL LEARNING MANAGEMENT OF VOCATIONAL SKILLS IN VOCATIONAL HIGH SCHOOLS (SMK)," *VOCATIONAL: Journal of Vocational Education Innovation* 2, no. 2 (2022): 106–15.

society, a pesantren-based vocational school is needed which is expected to create graduates who are not only technically competent, but also have critical thinking and noble character in accordance with the values of pesantren.

The subject of Religious Education and Ethics receives special attention in the independent curriculum to develop critical thinking skills in students.⁷ However, the implementation of most of the Religious Education and Ethics learning is still considered less effective because the delivery of material still uses traditional methods. As a result, the learning process is considered less interesting by students, unattractive, and lacks active and meaningful interaction.⁸ Through an integrated curriculum and pesantren-based approach, Religious Education and Ethics within the scope of vocational schools supports religious understanding and internalization of values so that graduates who are competent in critical thinking and have noble morals are formed.⁹ To improve the quality of education, a learning model is needed that effectively combines the national curriculum with the pesantren curriculum, as well as the deep learning approach, it is hoped that the learning process will be more meaningful and relevant, and improve students' critical thinking skills in facing modern challenges.¹⁰

This approach focuses on deep understanding, not only memorization, but also meaningful internalization of knowledge so as to strengthen students' spiritual awareness, form positive attitudes, and build social-emotional skills more effectively.¹¹ In Religious and Ethical Education, the approach to deep learning forms a character and a critical mindset that is integrated with religious and ethical values, preparing students academically, spiritually and socially.¹² The application of critical thinking skills in Islamic boarding schools has its own uniqueness. Considering that vocational school students are prepared for

⁷ Yuri Solfianetri and Rahmi Wiza, "Problematic Analysis of PAI Educators in the Implementation of the Independent Curriculum," *Tazakka: Journal of Education and Islam* 2, no. 02 (2024): 80–91, <https://doi.org/10.24036/tazakka.v2i02.29>.

⁸ Abdudssyukur and hefty Zulfah, "Islamic Religious Education (PAI) Learning Design with a Deep Learning Approach in High School," *MALEWA: Journal of Multidisciplinary Educational Research* 3, no. 01 (2025): 55–69, <https://doi.org/10.61683/jome.v3i1.111>.

⁹ Zulfikar Ali Buto Siregar et al., "Integration of Islamic Education and Vocational Education: A Literature Review on the Strengthening of Spiritual Skills and Values," *AHDĀF: Journal of Islamic Religious Education* 2, no. 2 (2024): 140–53, <https://doi.org/10.47766/ahdf.v2i2.2915>.

¹⁰ Luthfil Hakim et al., *Jurnal Pengabdian Kepada Masyarakat: DimaSTIKa e-ISSN: 3109-1148*, 4, no. 2 (2025): 220–36.

¹¹ Rizqiyul Azima et al., "Deep Learning Model in Islamic Religious Education for Elementary Schools Deep Learning Model in Islamic Religious Education for Elementary School Because at this stage they are in the period of early moral development, where," *TARUNAEDU: Journal of Education and Learning Published* 03, no. 02 (2023): 42–48.

¹² Yudistira Putra Harum and Ainun Nadlif, "Implementation of Problem Based Learning Model with Projector Media in Islamic Religious Education and Ethics Learning at SMK Negeri 3 Buduran," *JiIP - Scientific Journal of Education* 8, no. 2 (2025): 1960–68, <https://doi.org/10.54371/jiip.v8i2.7003>.

the world of work, the critical reasoning that is built must be applicable. Although the vision of deep learning is ideal, the reality on the ground shows that there are various obstacles that are both structural and cultural in nature. At SMK Miftahul Huda Limbangan, as in many other Islamic boarding schools, the learning practice of Religious Education and Ethics is still often trapped in traditional methods that tend to be boring for students. The lack of active interaction causes the critical potential of students to remain hidden behind walls of dogmatic obedience.

Several previous studies have shown that the deep learning approach is able to improve critical thinking skills, problem-solving, and active participation of students in the learning process. Research on the implementation of problem-based learning and contextual learning in secondary schools shows that student-centered learning models are more effective in building analytical skills than conventional lecture methods.¹³ The study confirms that deep learning not only emphasizes mastery of material, but also the ability to understand meaning, connect concepts, and apply them in real life.¹⁴ On the other hand, research on the Islamic education curriculum in Islamic boarding schools focuses more on the integration of religious values, character building, and strengthening students' Islamic identity. Several studies have found that pesantren have the power to build morality, discipline, and spirituality of students through a distinctive learning culture.¹⁵ However, the learning model in some Islamic boarding schools is still dominated by a rote approach and one-way learning so that the development of critical thinking skills has not been the main concern in the implementation of the curriculum.

Other research related to the Independent Curriculum shows that curriculum flexibility provides opportunities for schools to develop more adaptive and innovative learning strategies. Teachers are given space to design project-based learning, collaborative discussions, and 21st century competency strengthening.¹⁶ However, several studies have also revealed implementation obstacles in the form of limited teacher competence, lack of learning facilities, and an academic culture that has not fully supported participatory learning. In addition, studies on the development of pesantren-based vocational education show that there is a need for integration between religious competence, work skills, and critical thinking skills so that graduates are able to adapt to the demands of the modern industrial world.¹⁷ These

¹³ Rinat A. Zhanbayev et al., "Demoethical Model of Sustainable Development of Society: A Roadmap towards Digital Transformation," *Sustainability* 15, no. 16 (2023): 12478, <https://doi.org/10.3390/su151612478>.

¹⁴ Subowo Dikdayana Dikdayana, "Integrating Deep Learning-Based Instruction and Character Strengthening to Enhance Primary School Teachers' Competence," *Indonesian Journal of Character Education Studies* 3, no. 1 (2026): 20–32, <https://doi.org/10.64420/ijces.v3i1.488>.

¹⁵ Mubarak Mubarak et al., "Pesantren Strategies in Maintaining Islamic Education Traditions and Shaping Santri Social Identity in the Midst of Social Change," *Tafkir: Interdisciplinary Journal of Islamic Education* 7, no. 2 (2026): 565–79, <https://doi.org/10.31538/tijie.v7i2.2632>.

¹⁶ Busnawir Busnawir et al., "The Effectiveness of Project-Based Learning in Developing the 21st Century Skills," *Darussalam: Journal of Psychology and Educational* 4, no. 1 (2025): 35–50, <https://doi.org/10.70363/djpe.v4i1.272>.

¹⁷ Sodikin et al., "Integration of 21st Century Skills in Pesantren Education: An Innovative Model for Improving the Global Competence of Santri," *MUMTAZ: Jurnal Pendidikan Agama Islam* 5, no. 4 (2026): 1206–26, <https://doi.org/10.69552/mumtaz.v5i4.3549>.

studies emphasize the importance of curriculum innovation that not only instills religious values, but also builds students' creativity, communication, collaboration, and analytical abilities. Based on these previous studies, it can be understood that there is still a gap in studies related to the optimization of the PABP curriculum based on deep learning, especially in Islamic boarding school-based vocational schools. Most studies only address deep learning in general education or Islamic education separately.

In this context, optimizing the curriculum of Religious Education and Ethics based on deep learning is very important. This optimization is not only interpreted as an adjustment of curriculum documents, but also as a comprehensive effort that includes identifying the real needs of teachers and students, mapping structural and cultural barriers, and exploring opportunities for learning innovation that are relevant to the characteristics of educational units.

This research is focused on identifying the need for optimizing the Religious and Ethics Education curriculum based on deep learning to improve students' critical thinking skills in Islamic boarding school-based Vocational High Schools (SMK), uncover the obstacles faced by teachers and students in implementing this approach in the subject of Religious Education and Ethics, and explore opportunities for curriculum development that can be maximized for Strengthen the improvement of students' critical thinking skills effectively. In general, this study is present to identify the need to optimize the curriculum of Religious Education and Ethics based on deep learning in order to improve students' critical thinking skills in Islamic boarding school-based vocational schools, uncover the obstacles faced by teachers and students in implementing this approach in the subject of Religious Education and Ethics, and develop strategic opportunities to maximize the improvement of critical thinking skills through a more adaptive and contextual curriculum.

RESEARCH METHOD

This study uses a qualitative approach with a case study design to in-depth examine the optimization of the deep learning-based Religious and Moral Education (PABP) curriculum in Islamic boarding school-based vocational schools.¹⁸ The case study approach was chosen because it allows contextual exploration of the needs of teachers and students, obstacles to the implementation of deep learning, and opportunities for curriculum innovation in an educational environment that has religious and cultural characteristics typical of Islamic boarding schools. The research was carried out at SMK Miftahul Huda Limbangan as a pesantren-based education unit that integrates the national curriculum with Islamic values. The selection of the location was carried out purposively with the consideration that the school is facing challenges in the implementation of learning oriented to strengthening critical thinking. However, the use of one case study location makes the findings of this study contextual and not intended to be generalized widely to all Islamic boarding school-based vocational schools and non-Islamic boarding school educational institutions.

¹⁸ Patrik Aspers and Ugo Corte, "What Is Qualitative in Qualitative Research," *Qualitative Sociology* 42, no. 2 (2019): 139–60, <https://doi.org/10.1007/s11133-019-9413-7>.

The research participants were selected using purposive sampling techniques based on direct involvement in the implementation of the PABP curriculum. The research informants consisted of 4 teachers of Religious Education and Ethics, 1 deputy principal for curriculum, and 12 students from different levels. The criteria for selecting informants include experience in the PABP learning process, involvement in curriculum development, and the ability to provide relevant information related to the implementation of deep learning. The explanation of the criteria and the number of participants was carried out to increase the transparency and methodological rigor of the research. The source of research data includes primary and secondary data. Primary data was obtained through semi-structured in-depth interviews and participatory observations on the PABP learning process, while secondary data was obtained from school documents such as syllabus, teaching modules, lesson plans, student reflection notes, and curriculum policy documents. Participatory observation is carried out in a limited and non-interventional manner to minimize changes in teacher and student behavior during the learning process.¹⁹ The researcher also made repeated observations at different times to obtain more natural and consistent data.

Data analysis uses the Miles, Huberman, and Saldana models through the stages of data condensation, data presentation, and conclusion drawn.²⁰ At the data condensation stage, the results of interviews, observations, and documents are codified and grouped into main themes such as curriculum development needs, structural and cultural barriers, and opportunities for deep learning-based learning innovation. The data presentation stage is carried out through thematic matrix and descriptive narratives to show the relationship between themes in a systematic manner. The conclusion drawing stage is carried out through consistent pattern identification and in-depth interpretation of the research findings. The validity of the data is maintained through source triangulation and method triangulation. Source triangulation was carried out by comparing the data from interviews with teachers, students, and curriculum managers with the results of class observations and school documents. Meanwhile, the triangulation method is carried out by integrating interviews, observations, and document analysis to ensure data consistency and strengthen the validity of interpretation. The data integration process is carried out through matching themes that emerge from various sources before final interpretation is carried out.

RESULTS AND DISCUSSION

Optimizing the Islamic Religious Education and Ethics Curriculum Based on Deep Learning at SMK Miftahul Huda

The results of the study show that SMK Miftahul Huda as a pesantren-based vocational high school has distinctive characteristics in integrating the national vocational curriculum with the tradition of pesantren education. The integration places the school not only as an institution that produces technically competent graduates, but also as an institution that forms

¹⁹ Satish Prakash Chand, "Methods of Data Collection in Qualitative Research: Interviews, Focus Groups, Observations, and Document Analysis," *Advances in Educational Research and Evaluation* 6, no. 1 (2025): 303–17, <https://doi.org/10.25082/AERE.2025.01.001>.

²⁰ Matthew B. Miles et al., *Qualitative Data Analysis: A Methods Sourcebook*, Fourth edition (SAGE, 2020).

religious character, noble morals, and a deep understanding of Islam. In the context of the Independent Curriculum, this condition shows the strategic need to optimize the subject of Islamic Religious Education and Ethics (PABP) through a deep learning approach that is oriented towards strengthening students' critical thinking skills.

The deep learning approach is understood as a learning process that does not stop at textual mastery of concepts, but encourages students to reflect, critically analyze, solve problems, and apply the values of the Qur'an and hadith in daily life. Based on the results of observations and interviews, this approach is considered relevant to the educational needs of the 21st century, especially for students of Islamic boarding school-based vocational schools who are faced with global challenges as well as religious moral demands. However, the implementation of deep learning in PABP at SMK Miftahul Huda still faces various structural, cultural, and individual obstacles. On the other hand, there are strategic opportunities that can be a catalyst for the transformation of Islamic education based on pesantren towards more contextual, reflective, and critical learning.

The results of the study show that the Independent Curriculum provides a wide enough space for the development of critical thinking skills through the subjects of Islamic Religious Education and Ethics. Students are not only directed to understand religious concepts theoretically, but are also required to internalize these values in daily life, both in the school environment and Islamic boarding schools. In this context, deep learning is seen as a strategic approach to realizing educational goals that are integrative between spiritual, moral, and intellectual dimensions.

The findings of the study show that learning strategies such as group discussions, open-ended questions, case studies, and problem-solving are able to increase students' active participation and train their critical thinking skills. However, the implementation of this strategy has not been running optimally because the dominance of traditional methods in the form of lectures and memorization is still strong. In addition, time constraints, the administrative burden of teachers, and the learning culture of pesantren that tends to be normative are inhibiting factors in the implementation of deep learning.

Based on the results of the interview, PABP teachers emphasized the importance of adjusting the Independent Curriculum to the characteristics of Islamic boarding schools. Teachers realize that the deep learning approach can help students understand the relevance of religious teachings in real life, but its implementation is constrained by limited learning time and uneven student readiness. Therefore, teachers need more intensive training related to discussion-based learning strategies, case studies, and problem solving so that religious learning no longer depends on memorization alone.

Teachers also consider that a flexible and contextual curriculum is needed to integrate Islamic values such as adab and morals with critical thinking skills, logical argumentation, and reflective skills. In practice, teachers try to build students' courage to discuss and express opinions through a gradual approach. The success of learning according to teachers is not only measured by students' memorization skills, but also by their activeness, argumentative skills, and the application of religious values in daily life. The results of interviews with curriculum

managers show that deep learning has begun to be implemented in the Islamic boarding school environment, although it has not yet run optimally. Curriculum managers highlight the gap between the demands of the national curriculum and the local needs of Islamic boarding schools. Therefore, it is necessary to develop teaching materials that are more contextual and based on real problems in the life of Islamic boarding schools so that learning is more relevant to students' experiences.

The curriculum manager also emphasized the importance of equitable distribution of teacher training, additional time allocation for project activities and discussions, and the provision of learning support facilities such as internet access, LCD, and contextual learning resources. In addition, collaboration with the Ministry of Religion, universities, and the industrial world is seen as important to enrich the implementation of the Independent Curriculum in pesantren-based vocational schools. Learning evaluation is not only focused on cognitive aspects, but also on students' critical thinking skills, creativity, and involvement in Islamic value-based projects. One teacher mentioned *"the busy school and pesantren schedules make time limited"*,²¹ while the curriculum waka added *"limited learning time"*.²² This makes it difficult to implement discussions or projects that require a longer duration. *Second*, administrative burden and curriculum overload: Teachers complain about the *"administrative burden of teachers and the density of the curriculum"*, which makes deep learning *"less than optimal"*.²³ *Third*, minimal supporting facilities: Waka curriculum states that *"support facilities that are still limited, such as book collections, internet access, LCDs, projectors, etc."*, hinder practical projects or technology integration that students want.

From the perspective of students, PABP learning is considered more interesting when the material is associated with daily life. Students want more interactive and fun learning methods, such as group discussions, educational games, practical projects, and problem-solving based on religious values. They consider that the memorization method alone is not able to help understand the moral and social problems faced in modern life. Students also show enthusiasm for the use of technology in religious learning as long as it remains in line with the values of the Islamic boarding school. Interactive learning is considered to be able to increase confidence, courage to express opinions, and the ability to think logically. Thus, students expect a more holistic, applicative PABP curriculum that is able to answer the challenges of the 21st century without abandoning the religious identity of the pesantren.

Barriers to Deep Learning Implementation

The results of the study identified that the implementation of deep learning in PABP subjects at SMK Miftahul Huda faces three main obstacles, namely structural, cultural, and individual barriers. Structural barriers are related to the limitations of learning support systems and facilities. Teachers and curriculum managers said that the busy school and pesantren schedules caused learning time to be limited, making it difficult for discussions,

²¹ Ahmad Ula Khabib Munir, "PABP Guru," preprint, Private Interview, 2025.

²² Ahsanu Amala, "Waka Curriculum," preprint, Private Interview, 2025.

²³ Achmad Baehaqi, "PABP Teacher," preprint, Personal Interview, 2025.

projects, and case studies to be carried out optimally. In addition, the high administrative burden of teachers also reduces the effectiveness of innovative learning planning. Limited facilities such as a lack of contextual book collection, unstable internet access, LCDs, and other technological devices also hinder the implementation of deep learning. In fact, these facilities are indispensable to support project-based learning and exploration of contextual problems.

The learning culture of Islamic boarding schools that still emphasizes memorization and obedience is a challenge in developing critical learning. The teacher admitted that the lecture and memorization methods are still predominantly used, especially in the learning of verses and hadiths. Although these methods are considered important for strengthening religious foundations, the dominance of traditional approaches causes students to be less accustomed to expressing opinions and thinking reflectively. In addition, there is still a view that religious learning is enough to be done through memorization and normative compliance without the need to develop critical analysis. This condition causes a gap between the goals of the Independent Curriculum which emphasizes active learning and the traditional learning culture that has long developed in pesantren.

Individual barriers are related to the readiness of teachers and students to face changes in the learning paradigm. Not all teachers have the same ability to implement deep learning strategies, so training and mentoring are still needed. Teachers also recognize the need to improve competence in managing critical discussions and problem-based learning. On the other hand, some students still show a passive attitude and lack confidence in expressing opinions. Students admitted that they had difficulty finding the right guidelines when asked to think critically about certain issues. Memorization-oriented learning habits cause them to need time to adapt to a more reflective and dialogical approach to learning.

Strategic Opportunities for Deep Learning Development

Despite facing various obstacles, the results of the study show that there are considerable strategic opportunities in optimizing the PABP curriculum based on deep learning at SMK Miftahul Huda. The first opportunity lies in the integration of pesantren values with interactive learning methods. Teachers, curriculum managers, and students alike see that combining Islamic values with discussions, case studies, and contextual projects can create more meaningful learning. The second opportunity is the reduction of the dominance of lecture and memorization methods through a combination of traditional and modern approaches. Basic materials such as verses and hadith are still taught through memorization, but enriched with critical discussions and contextual application so that students are able to understand the relevance of religious teachings in modern life. The third opportunity has to do with the application of problem-based learning and real projects relevant to the challenges of the 21st century. Students show a keen interest in learning involving technology, group discussions, and exploration of contemporary social issues based on Islamic values. This opens up space for the development of a curriculum that is more adaptive to the needs of the industrial world while maintaining the religious identity of the pesantren.

In addition, the flexibility of the local curriculum is an important opportunity to integrate 21st century skills such as critical thinking, collaboration, communication, and creativity with the formation of morals and manners. Thus, education in Islamic boarding school-based vocational schools not only produces graduates who are religious, but also able to compete in the world of work and face global dynamics critically and responsibly. However, the implementation of deep learning still faces structural, cultural, and individual barriers that require holistic handling. Therefore, strengthening strategies are needed in the form of teacher training, development of contextual teaching materials, provision of supporting facilities, and transformation of the learning culture of Islamic boarding schools to be more adaptive to critical learning. With this step, Islamic boarding school-based vocational schools are expected to be able to produce students who not only excel academically and vocationally, but also have religious character, critical thinking skills, and readiness to face global challenges based on Islamic values.

CONCLUSION

SMK Miftahul Huda needs to optimize the Islamic Religious and Moral Education Curriculum (PABP) through an in-depth learning approach to develop students' critical thinking based on the faith and morals of the pesantren. Teachers need interactive strategy training such as discussions, case studies, and contextual Q&A; curriculum managers highlight flexible teaching materials based on local issues; while students want fun methods such as games and practical projects. The integration of the Independent Curriculum with the value of pesantren is key, supported by time flexibility, external collaboration, and assessment-based observation of activeness

The implementation of deep learning is hampered by structural factors (tight schedule, administrative burden, minimal facilities), cultural factors (dominance of lecture-memorization, normative assumptions of religion, national-local curriculum gap), and individual factors (uneven teacher readiness, passive attitude of students, lack of confidence). The interview confirmed that the limited time of the school-pesantren made it difficult to discuss/project, the memorization culture was still strong for verses/hadiths, and the difference in readiness between stakeholders.

Key opportunities include the integration of pesantren values with interactive methods (discussions, projects, games), the reduction of memorization dominance through a problem-based approach, the flexibility of local curriculum that unites 21st century skills with Islamic morals, and the use of technology for "fun" learning. Support from teachers, administrators, and students promises students who are both religious and globally competitive, with success indicators such as active arguments and the application of daily values.

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