

Analysis of History Teachers' Strategies in Adapting Deep Learning Approach: A Qualitative Study at SMA Muhammadiyah 1 Semarang

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Abstrak

Penelitian ini menganalisis strategi yang digunakan oleh guru sejarah dalam mengadaptasi pendekatan *deep learning* di SMA Muhammadiyah 1 Semarang. Metode kualitatif diterapkan melalui observasi, wawancara mendalam, dan analisis dokumen. Temuan penelitian menunjukkan bahwa: (1) Guru sejarah menggunakan pembelajaran berbasis proyek, diskusi isu kontekstual, dan pertanyaan reflektif untuk meningkatkan pemahaman mendalam siswa; (2) Tantangan utama mencakup keterbatasan relevansi kontekstual dari konten sejarah serta keragaman karakteristik belajar siswa yang memengaruhi efektivitas penerapan *deep learning*; (3) Koordinator kurikulum memberikan dukungan struktural melalui pelatihan rutin dan desain instruksional yang adaptif. Pendekatan ini berdampak positif terhadap keterlibatan aktif siswa dan mendorong pemikiran reflektif serta kritis dalam pembelajaran sejarah. Penelitian ini menekankan pentingnya kolaborasi antara guru dan pengembang kurikulum dalam memperkuat praktik *deep learning* di kelas sejarah. Temuan ini penting dalam konteks pendidikan abad ke-21 yang mengutamakan pembelajaran bermakna, kedalaman konseptual, dan keterlibatan siswa sebagai penggerak utama kualitas dan relevansi pendidikan.

Kata kunci: guru sejarah, pembelajaran mendalam, strategi mengajar.

Abstract

This study analyzes the strategies employed by history teachers in adapting the deep learning approach at SMA Muhammadiyah 1 Semarang. A qualitative method was applied through observation, in-depth interviews, and document analysis. The findings reveal: (1) The history teacher utilized project-based learning, contextual issue discussions, and reflective questioning to enhance students' deep understanding; (2) Major challenges include the limited contextual relevance of historical content and the diversity of student learning characteristics that affect the effectiveness of deep learning implementation; (3) Curriculum coordinator provided structural support through routine training and adaptive instructional design. This approach positively influences students' active engagement and fosters reflective and critical thinking in history education. The study highlights the importance of collaboration between teachers and curriculum developers in reinforcing deep learning practices in history classrooms. These findings are significant in the context of 21st-century education, which prioritizes meaningful learning, conceptual depth, and student-centered engagement as key drivers of educational quality and relevance.

Keywords: history teacher, deep learning, teaching strategy.

INTRODUCTION

Digital transformation has brought fundamental changes in various aspects of life, including the world of education. According to (Fahrina Yustiasari Liriwati, 2023), in this context, conventional skills

are no longer enough to guarantee success; It also requires the ability to adapt to technological advances and a commitment to lifelong learning. The development of information and communication technology has

revolutionized the way students learn, teachers teach, and interaction patterns in the school environment. The digital era presents new challenges as well as opportunities that require the world of education to be more adaptive, by prioritizing twenty-first century skills and lifelong learning (R. A. Putri, 2023).

The effectiveness of modern learning according to (Riva'i et al., 2023) It is reflected in active interaction between teachers and students, the use of approaches and methods that are in accordance with the characteristics of the subject, the selection of learning media that supports contextual understanding, and evaluation that includes cognitive, affective, and psychomotor aspects in a balanced and continuous manner (Shabrina et al., 2025). This change has prompted a shift from conventional methods that have been in the form of one-way lectures, the assignment of memorization assignments, the use of textbooks as the only learning resource, and evaluations that only measure low-level cognitive aspects to a more modern and interactive approach to learning (Sakti, 2023).

The conventional method has proven to be less effective because it makes students passive recipients of information, does not develop critical thinking skills, and does not prepare students to face the challenges of an increasingly complex era (Hamdani M. et

al., 2019). Teachers now have the flexibility to utilize digital technologies such as video, animation, and other visual media to create a more engaging learning atmosphere. The digital era opens up wide opportunities for teachers to innovate creatively in the digital environment, by adjusting learning strategies according to the needs of students (Rozi & Hafidz, 2024). This strategy has proven to be effective in increasing student active participation and making the learning process more meaningful according to the needs of students. This more modern approach provides significant advantages, as multimedia content such as animations, images, and videos is able to increase students' active participation in the learning process (Rahmadhani et al., 2023).

In the context of the Independent Curriculum, history learning plays an important role in shaping the character and national identity of students. However, the reality is that there are still many history teachers who are trapped in traditional memorization and lecture methods. The conventional methods in question include the dominance of teachers' lectures without two-way interaction, the assignment of memorizing dates and names of figures without context, the use of package books as the only source of learning, and evaluations that only measure the ability to remember historical facts (Maulidan & Tarunasena,

2024). The lack of integration of character values and innovative approaches makes history lessons considered boring and less relevant to students' lives. As a result, history learning often does not integrate character values, thus fostering a pragmatic mindset among students (Afwan et al., 2020).

Low motivation to learn history is a real impact of an approach that does not suit the needs of students. Many teachers still dominate the classroom without providing participatory space. In addition, the limitations of teachers in developing methods that suit the characteristics and needs of students also strengthen the tendency of low motivation to learn history among students (Ajeng Arini et al., 2020). The lack of media variety and non-contextual methods make students tend to be passive and find it difficult to develop a deep and critical understanding of history. The lack of use of innovative learning models and the lack of interesting media variety make students tend to be passive and unmotivated to engage deeply in the learning process (Aini et al., 2023).

In response to these challenges, the deep learning approach exists as a strategic alternative in improving the quality of twenty-first century learning (Cahyaningsih et al., 2025). This approach prioritizes deep understanding, critical thinking, and meaningful learning experiences through the principles of caring, meaningful, and fun learning.

Deep learning not only improves academic achievement, but also fosters a lifelong learner mindset. Thus, deep learning plays a strategic role in shaping comprehensive competencies that are crucial for the success of individuals in the future (Diputera et al., 2024).

The effectiveness of this approach also depends on the student's learning style. Individuals with a deep learning style tend to actively build understanding through meaning, exploration of various sources, and reflective processing of information, so that the material is easier to understand and remember. In contrast, superficial learning styles tend to rely on basic memorization and comprehension without strong contextual linkages (Rohmadini & Gaya, 2022). This confirms that deep learning styles are more effective in forming comprehensive and applicable understanding (Fitri & Shafira, 2020). Students with a deep learning style tend to actively explore information, analyze context, and construct meaning reflectively. This has been proven to be able to increase academic success and overall learning engagement compared to learning styles that only focus on memorization.

This research was conducted at SMA Muhammadiyah 1 Semarang which has initiated the application of deep learning in history learning. The main focus is to identify the history teacher's strategies for integrating this approach, the challenges

faced, and the impact it has on student engagement and understanding. It is hoped that this research will make a real contribution to the development of history learning strategies that are more adaptive, contextual, and able to produce a generation that thinks critically, reflectively, and is ready to face the challenges of the times.

METHODS

This study uses a qualitative method with a field approach, focusing on the dynamics of history learning practices. The research is contextual and flexible, allowing for the adjustment of the research design based on field conditions (Khotimah & Abdan, 2025). The main goal is to describe the strategies of history teachers in adapting the deep learning approach in secondary education. The research was carried out at SMA Muhammadiyah 1 Semarang in May 2025, considering this school as an institution that has initiated the implementation of deep learning in history subjects.

The research subjects consisted of two key informants who were purposively selected based on the relevance of their roles and experiences. The first informant was Agung Wibowo, S.Pd., M.Pd. as a history teacher who has direct experience in the application of the deep learning approach in the classroom. The second informant is Muhammad Farid, S.Pd. as the school curriculum manager who is

responsible for the development and implementation of a deep learning-based curriculum. The selection of these two informants was based on consideration of their experience and active involvement in curriculum development as well as readiness to innovate in history learning.

The data collection technique used methods consisting of participatory observation, semi-structured interviews, and document analysis. Observations were carried out to capture learning practices directly in the classroom, in-depth interviews were aimed at exploring a comprehensive understanding of the strategies and challenges faced by teachers and curriculum managers, while document analysis was focused on examining the Learning Implementation Plan and teaching modules that had been developed. The collected data is then analyzed using the Miles and Huberman interactive model which includes the stages of data reduction, data presentation, and drawing conclusions or verification. (Scott, 2013). This analysis process helps identify learning patterns, dominant strategies applied, and supporting and inhibiting factors in the implementation of deep learning (R. Putri, 2024), so as to provide a comprehensive overview of the dynamics of deep learning-based history learning and generate practical recommendations for the development of innovative learning

strategies relevant to the challenges of twenty-first century education.

RESULTS AND DISCUSSION

This research is motivated by changes in national education policies that encourage learning transformation to be more adaptive to the times. One of the strategies applied is the *Deep Learning*, which emphasizes deep understanding, critical thinking, and the ability to construct meaning independently. Thus, deep learning is not a form of substitute for the curriculum, but rather a contemporary pedagogical approach that can be flexibly and contextually integrated into the current curriculum, although in the international realm this term is also used in the context of artificial intelligence (Hidayat & Haryati, 2025).

In learning history, this approach is very relevant because it not only requires memorization, but also the meaning of social, political, and cultural contexts. At SMA Muhammadiyah 1 Semarang, history teachers began to adapt teaching strategies to the characteristics of *deep learning*, such as the use of reflective questions, authentic historical documents, and collaborative discussions to create active and meaningful learning.

This approach aims not only to improve cognitive comprehension, but also to develop students' reflective, interpretive, and argumentative thinking

skills. Teachers encourage students to critically analyze historical sources and discover the meaning of past events from various perspectives. (Jiang, 2022) stated that students who follow the learning process with a deep learning approach tend to show a deeper understanding of the material, a higher level of learning motivation, and a better ability to apply knowledge contextually.

In addition, teachers relate historical material to today's social reality, thereby strengthening the relevance of history in students' lives. An open and collaborative classroom atmosphere supports students in expressing opinions, discussing, and building arguments. Thus, *deep learning strategies* enrich the history learning process and strengthen historical literacy contextually and applicatively.

Conceptual Understanding of Deep Learning in the Context of Secondary Education

Based on the results of an interview conducted on May 9, 2025, at SMA Muhammadiyah 1 Semarang, the Kurikulum teacher showed a gradual adaptation stage in understanding the concept of *deep learning learning*. The school admits that "*we are still in the stage of learning the concept of deep learning, because this approach will be a reference for the curriculum in the future*". Nonetheless, practical

implementation has begun with a variety of concrete initiatives. Several fundamental elements of *deep learning* have been applied, especially in the more structured aspect of learning preparation. The school reports that "*in practice, we have actually implemented some elements of deep learning, such as preparing students to understand what they will learn before learning begins*". However, the gap between practice and theoretical understanding remains a major challenge. The conceptual learning process continues with adjustments to learning materials according to the government's direction. This condition illustrates the transition phase from conventional learning to a more in-depth and meaningful approach. The school recognizes the importance of a strong theoretical understanding as a foundation for effective implementation.

The Urgency and Motivation of Implementing the Deep Learning Approach

The implementation of *the deep learning* approach at SMA Muhammadiyah 1 Semarang is based on multiple interrelated factors. The main factor is the government's policy demands which make "*the implementation of deep learning a demand from the government as part of the curriculum policy direction*". The curriculum as a reference for annual learning requires schools to

make systematic adjustments. In addition to the regulatory aspect, there is an intrinsic motivation that comes from the regional identity of Central Java as a pioneer of national education. The school stated that "*Central Java is known as a pioneer of national education, so we feel the need to keep up with these developments*". Awareness of responsibility as a leading educational institution drives a commitment to adopt the latest learning innovations. Nonetheless, the school remains realistic in acknowledging that "*its implementation still needs some improvement*". This perspective shows a mature approach to managing expectations and implementation realities. The combination of external pressure and internal motivation creates a strong momentum for learning transformation. (Interview Mr. Muhammad Farid, S.Pd. on May 9, 2025).

Deep Learning Integration Procedures and Mechanisms

The process of integrating *deep learning approaches* at SMA Muhammadiyah 1 Semarang follows a systematic and structured protocol. The initial stage involves comprehensive preparation by the teacher that includes multiple learning components. The school explained that "*in the implementation procedure, teachers first prepare all needs, ranging from learning planning, teaching tools, to assessments*". The assessment component

received special attention because of its role as an indicator of the success of *the deep learning approach*. The importance of assessment is emphasized with the statement that "*assessment is an important aspect because it must reflect the depth of student understanding*". A continuous evaluation mechanism is implemented to ensure compliance with *deep learning* principles. If the assessment does not meet the set standards, a re-evaluation is carried out for improvement. This process shows the school's commitment to quality assurance in implementation. A holistic approach that integrates planning, implementation, and evaluation reflects a mature understanding of the complexities of learning transformation. (Interview Mr. Muhammad Farid, S.Pd. on May 9, 2025).

Institutional Readiness and Professional Development of Teachers

The institutional readiness of SMA Muhammadiyah 1 Semarang in supporting *deep learning* shows optimistic conditions with several areas that still need development. The school stated that "*in general, the school is ready to support deep learning learning, although in terms of materials we are still in the learning and adjustment stage*". This awareness of limitations drives continuous efforts for capacity building. Professional development programs have been initiated through the provision of facilitators and

ongoing training. The school reports that "*we continue to work to provide facilitators to be better prepared for the future, and so far there have been training or workshops for teachers on this approach*". This capacity building strategy shows a proactive approach in preparing human resources. Investment in teacher professional development is a top priority to ensure successful implementation. The combination of infrastructure readiness and competency development creates a solid foundation for learning transformation. The gradual approach applied allows for sustainable and effective adaptation. (Interview Mr. Muhammad Farid, S.Pd. on May 9, 2025).

Implementation Challenges and Learning Complexity

The implementation of *deep learning approaches* presents a variety of complex challenges that require specialized handling strategies. The fundamental challenge lies in the individualization aspect of learning that takes into account the diversity of student characteristics. The school identified that "*the main challenge lies in the uniqueness of each student's character*". This complexity requires teachers to develop a deep understanding of each student's learning profile. The need for personalization of learning demands more sophisticated pedagogical competencies. In addition to individual aspects, technical challenges

also arise in the preparation of learning devices and media. The school explained that "*learning preparation such as devices and media must also be adjusted to the deep learning approach, which is certainly not easy because this approach is still relatively new to be reapplied*". The novelty of this approach creates a steep learning curve for all stakeholders. Anticipation of the need for continuous evaluation is also an important consideration. The school states that "*going forward, there will definitely be a lot that needs to be evaluated*", showing awareness of the iterative nature of the implementation process. (Interview Mr. Muhammad Farid, S.Pd. on May 9, 2025).

Adaptation Strategy and Change Management

SMA Muhammadiyah 1 Semarang developed a comprehensive strategy to overcome the challenges of *deep learning implementation* through a multi-dimensional approach. Continuous training programs are the cornerstone of the adaptation strategy implemented. The school implements a "*one-day Teacher's Day program every week, as directed by the government*" as a structured professional development mechanism. Although these programs have an impact on teaching intensity, schools develop creative solutions to overcome these constraints. The compensation strategy is implemented in a "*way that all learning*

day maps have been prepared in advance before the learning schedule". This proactive approach shows adaptive management ability in managing competing demands. In addition to formal training, self-learning initiatives are also encouraged to improve teacher competence. The combination of structured training and self-directed learning creates a comprehensive learning ecosystem. Flexibility in curriculum scheduling and management demonstrates innovative problem-solving in the context of educational transformation. This holistic strategy allows the implementation of *deep learning* without sacrificing the quality of existing learning. (Interview Mr. Muhammad Farid, S.Pd. on May 9, 2025).

Expectations and Vision of Learning Transformation

The vision of learning transformation through a *deep learning* approach at SMA Muhammadiyah 1 Semarang reflects the aspiration to create more meaningful and engaging. The main hope focuses on improving the quality of the student-centered learning process. The school states that "*through a deep learning approach, students can be more focused on learning and have clear goals*". This goal shows an orientation towards purposeful and goal-oriented learning. The enjoyment aspect in learning is also a priority with the hope of "*creating a fun*

learning atmosphere without having to depend on gadgets". This approach shows awareness of the importance of intrinsic motivation in learning. The expected transformation includes fundamental changes in student engagement with the learning process. The school hopes that *"this approach is expected to be able to make students enjoy the learning process more, different from before"*. The assessment system developed is expected to provide deeper insight into student development. The ultimate goal is to create learning that *"makes students more interested, active, and no longer thinks of learning as something boring"*, demonstrating a holistic vision of transforming the educational experience. (Interview Mr. Muhammad Farid, S.Pd. on May 9, 2025).

Based on the results of the interview, the curriculum team of SMA Muhammadiyah 1 Semarang stated that understanding is related to the *Deep Learning*. Among teachers, including history teachers, are still in the early stages of adaptation. Although theoretically still not fully mastered, the elements of the approach *Deep Learning* Like building student understanding before the start of the learning process, *Sudai* began to be applied in practice. In the context of history learning, this is important because history material requires students to not only memorize an event, but also be able to construct a

deep understanding related to past events and their relevance to current conditions. Integration process *Deep Learning* into the curriculum is carried out through adjustments to teaching tools, assessments, and learning strategies that emphasize the development of critical and reflective thinking. History teachers are required to develop learning scenarios that are able to encourage students to think deeply, explore meaning, and compare historical events with relevant contemporary challenges (Liu et al., 2022).

In addition, in the process of implementing the *Deep Learning*, history teachers have an important role in designing learning that not only focuses on the transfer of historical information, but also on meaningful construction by students. The curriculum team explained that all teachers, including history teachers, are required to prepare in advance teaching and assessment tools relevant to this approach. Assessment is the main indicator in measuring the depth of student understanding. Therefore, history teachers are expected to be able to design evaluations that not only measure low-level cognitive aspects such as memorization of events, but also assess students' analytical, synthetic, and applicative abilities in relating historical events to the contemporary context. The main challenge faced by history teachers in this regard is adapting the old teaching

tools to a learning format that requires students to think critically, formulate historical arguments, and solve problems based on historical data (Lubis & Ariansyah, 2024).

In facing these challenges, SMA Muhammadiyah 1 Semarang has designed a strategy to strengthen teacher capacity through routine training, including the weekly Teacher Learning Day program. The Curriculum Waka explained that this training is a form of school support for the implementation of *Deep Learning*, where history teachers are also involved to understand this approach thoroughly (Francis, 2019). In addition to structured training, teachers are encouraged to conduct independent development so that they are better prepared to implement learning strategies that are relevant to student characteristics. The goal is to create a history learning change that not only changes teaching methods, but also strengthens a learning philosophy that makes students active subjects in understanding history critically and contextually. It is hoped that through this strategy, students can be more active, and no longer consider learning as a burden, but as a fun and meaningful exploratory process (Ladi et al., 2022).

Understanding and Conceptualizing the *Deep Learning Approach*

Based on the results of interviews conducted on May 8 & 15, 2025, history

teachers at SMA Muhammadiyah 1 Semarang showed a fairly good conceptual understanding of the *deep learning approach*. The teacher stated that "*deep learning emphasizes independence, mutual cooperation, and eight main competencies with three principles of deep learning*". Nonetheless, the recognition that "*understanding is still limited due to new implementations*" indicates that the adaptation process is still in the early stages of development. This approach is perceived to have significant potential to "*deepen students' understanding through systematic training and comprehensive curriculum understanding*". This shows that teachers have positive expectations of the effectiveness of the approach. This conceptual understanding is developed through professional training that teachers have attended, where it is stated that "*they have participated in a two-day training with applicable materials for history learning*". The sustainable development program is also planned as a "*continuous socialization effort from the office and schools*". This foundation of understanding is an important foundation in the implementation of deeper and more meaningful learning strategies.

Implementation Strategies in Learning Planning and Implementation

In the aspect of learning planning, teachers integrate *deep learning*

principles by *"following the template of the Ministry of Education and Culture with the development of teacher creativity"*. This strategy allows for flexible adaptation according to the contextual needs of the class. The principle of *deep learning* is integrated through *"meaningful, joyful, and thoughtful learning in core activities with room for adaptation according to class needs"*. At the implementation stage, teachers applied a varied lighter strategy, even though *"the lighter strategy applied was inconsistent at every meeting"*. This approach uses *"light and engaging material to build a basic understanding before gradually developing students' critical thinking skills."* To maintain students' focus and awareness of the learning process, teachers *"insert extracurricular materials such as the mathematical aspects of Borobudur architecture to increase engagement"*. This strategy is complemented by providing *"discussion space to relate the material to the context outside the classroom"*, so that learning becomes more contextual and relevant. (Interview Mr. Agung Wibowo, S.Pd., M.Pd. on May 8, 2025).

Contextualization and Learning Differentiation Methods

To achieve a deep understanding and relevance to real life, teachers implemented *"long-term family genealogy*

tracing projects to train historical research methods." This method allows students to develop historical research skills in a practical and personal way. Teachers also focus on *"contextualizing the material with the student's experience and connecting historical events with contemporary situations."* In managing the diversity of students' characters, the strategies implemented include *"initial diagnostic assessments to identify prerequisite knowledge"*. The differentiation approach is carried out by *"structuring gradual learning from introductory history to complex material with differentiation of delivery styles and participation spaces"*. The learning reflection process ends with *"emphasizing the conclusion of the chronological aspect with visual analogies (minus/plus) for the understanding of periodization"*. Teachers also *"invite reflection on the meaning of events for the current context to internalize historical values"*, so that learning history becomes more meaningful and applicable to students' lives. (Interview Mr. Agung Wibowo, S.Pd., M.Pd. on May 15, 2025).

Evaluation of Effectiveness and Implementation Challenges

Reflections on the effectiveness of applying *deep learning* approaches show mixed results. Teachers admit that *"the impact on academic achievement has not been seen but the learning process shows*

improvement". Positive indicators can be seen from the fact that *"students are more active in discussing and able to contextualize the material"*. Nonetheless, *"learning strategies are still in the stage of continuous adjustment"* indicating the need for systematic improvement. The main challenges faced include *"difficulties in contextualizing the material (pre-literacy vs. Reformasi period) and variations in student activeness in participation"*. This is because *"deep learning demands active engagement that not all students are ready to do."* To overcome these challenges, teachers develop strategies by *"seeking contextual bridges through the value and impact of historical events"*. In addition, teachers *"create a participatory atmosphere with small group discussions before complex activities to build student confidence"*. The teacher's long-term expectation is to *"prioritize increasing student activity and participation over academic grades"* and *"develop critical thinking skills and deep understanding through meaningful discussions to overcome misconceptions of historical learning."*

Based on the results of the interview table with the history teacher at SMA Muhammadiyah 1 Semarang above, it can be seen that the approach *Deep Learning* It has begun to be introduced as a new learning strategy that focuses on strengthening conceptual understanding, learning independence, and active

involvement of students in the learning process in the classroom. History teachers recognize that an understanding of the approach *Deep Learning* This is still developing, considering that the curriculum and its implementation are still in the early stages. However, this approach is considered to have great potential in history learning, because it is able to encourage students to think critically and explore the relevance between historical events and students' daily lives. Although in reality not all history material is suitable for direct application in the field, teachers still strive to create an immersive learning experience by using reflection, discussion, and case study strategies that are relevant to local conditions or students' personal experiences (Broekkamp & Van Hout-Wolters, 2007).

In its implementation, history teachers have applied various strategies to adapt learning to deep learning principles. One approach used is to provide long-term projects such as family genealogy tracing, which not only teaches about historical research methods, but also engages students in the excavation of their own cultural and family identities. To maintain the students' focus and interest in learning history, teachers prepare historical materials that are not commonly found in textbooks, such as the mathematical aspects of Borobudur architecture. This approach has been proven to increase

students' curiosity and make them more actively involved in learning. In addition, teachers also design learning that is meaningful, fun, and provokes deep thinking, although at the design stage it still refers to the standard lesson plan structure from the Ministry of Education and Culture (Sakti, 2023).

Reflections made by history teachers on the effectiveness of the approach *Deep Learning* This shows that although the impact has not been seen significantly in terms of academic achievement, it has experienced positive developments in the learning process. The students began to show confidence in discussing and were able to relate historical material to the context of daily life. Despite this, the challenges that arise remain, especially in building the courage of students who tend to be passive. To overcome this, teachers create a relaxed, fun, and participatory classroom atmosphere, starting from light discussions to engaging students in role-playing that later encourages active participation. Teachers also try to understand the diversity of characters of each student by compiling materials and learning strategies that are tailored from the beginning of their entry into class X. It is hoped that, through a gradual process, the approach *Deep Learning* can be implemented more effectively and more sustainably, especially if supported by advanced training and collaborative

forums between teachers as part of continuous professional development (Nurmidi et al., 2024).

Implementation of *Deep Learning Strategies* by History Teachers

Implementation of the approach *Deep Learning* in history learning at SMA Muhammadiyah 1 Semarang is a response to the government's new policy that encourages a change in the learning paradigm. Previously, the history learning process was considered passive, where teachers often replaced face-to-face activities with written assignments without adequate assistance. This condition affects students' interest and interaction in learning. With the presence of an approach *Deep Learning*, teachers begin to change learning strategies to be more interactive, fun, and meaningful to actively increase student engagement (Fahrina Yustiasari Liriwati, 2023).

In an interview conducted on May 15, 2025, the history teacher said that this approach is actually not completely foreign, because elements such as learning independence, cooperation, and strengthening competencies have been implemented even though they are not systematic. In its implementation, teachers adjust the standard lesson plan format from the Ministry of Education and Culture with learning that prioritizes in-depth, contextual, and relevant understanding of the material to students'

daily lives. The focus is no longer only on the chronological order of historical events, but also on the value and meaning that can be taken from those events (Fatmawati, 2025).

One of the strategies implemented is project-based learning, such as family tree tracing. This project is aimed at students of class X so that they can connect the concept of history with personal identity and the surrounding environment. Through this activity, students learn to conduct interviews, collect data, and compile information sequentially. This project was considered effective in training critical thinking skills and understanding of historical research methods directly (Mulyati & Parwati, 2021).

In addition to the project, teachers also insert additional materials that are not available in the textbook, such as unique facts about Borobudur architecture or local customary traditions that are familiar to students' lives. This strategy has been proven to be able to arouse students' curiosity and interest in learning. They become more enthusiastic about discussing and relating the material to their own experiences, in line with the principle *joyful learning* which places pleasure in the learning process as part of achieving learning objectives. This was reinforced by the wrong results of an interview with one of the students who argued that the teacher often used

additional materials and students liked them (Rahmadhani et al., 2023).

At the beginning of learning, teachers often use triggers in the form of reflective questions, quotes from historical figures, or simple case studies that are relevant to students' lives. The use of this lighter refers to the principle of student-centered learning that places students as the main subject in the learning process (Tang, 2023). While not always used in every meeting, this technique helps open up spaces for dialogue and encourages students to think deeper. This is in accordance with the *student-centered learning*, where students are the main subjects in the learning process, not just recipients of information.

Classroom management is carried out in a differential manner, by understanding the background of students' initial knowledge from the beginning of entering class X. Teachers then adjust the preparation of the material from the topic of introduction to history to more complex themes. This approach is effective in bridging the comprehension gap among students and ensuring that each individual gets learning that matches his or her abilities (Rozi & Hafidz, 2024).

At the end of the lesson, the teacher closes the session by concluding the material through a symbolic and reflective approach. For example, the use of minus (-) and plus (+) signs is used to help

students understand the difference between prehistoric and historical times. The teacher also invites students to reflect on the relationship between historical events and current social conditions, so that learning is not only oriented to memorization, but also the internalization of historical values. More than just referring to technological advances such as artificial intelligence, this approach emphasizes the importance of students' active involvement in reflective, critical, and collaborative exploration of knowledge to shape meaningful and responsible learning (Khotimah & Abdan, 2025). This strategy suggests that project-based learning in history encourages the formation of critical thinking skills and strengthens the relationship between students and learning materials. Overall, the strategies implemented show a significant shift towards more in-depth, contextual, and student-centered history learning. Although the implementation is still in its early stages, the increase in student participation and involvement is a positive indicator for sustainable development in the future.

Teachers' Challenges and Reflections on the Effectiveness of *Deep Learning*

Implementation of the approach *Deep Learning* at SMA Muhammadiyah 1 Semarang is still in the early stages of adaptation. Both schools and teachers

realize that this approach is in line with the direction of the national curriculum policy which demands fundamental changes in the learning process. However, a theoretical understanding of *Deep Learning* still limited. Some elements such as learning triggers, material meanings, and active student participation have indeed begun to be implemented, but not comprehensively. Teachers assessed that curriculum and further training are still needed to ensure consistent and effective implementation (Scott, 2025).

The main challenge comes from the difference in character and readiness of students in participating in active and reflective learning. Not all students are familiar with discussions, role-playing, or projects based on personal experience. Class X students tend to be easier to be invited to build meaningful learning, while at higher levels, the complexity of the material is an obstacle in itself. From the school side, the readiness of infrastructure, teaching materials, and assessment models also still needs to be adjusted to the principles *Deep Learning Gradually* (Scott, 2025).

In response, the school has held teacher training through workshops from the education office and the weekly Teacher Learning Day program. This activity helps teachers prepare more contextual materials, evaluate teaching tools, and develop alternative assessment models. Although it affects teaching

hours, schedule adjustments are made carefully. Teachers are also actively conducting independent learning to deepen their understanding of this approach (Mulyati & Parwati, 2021).

Teachers' reflections show an increase in students' active participation in discussions and the ability to express opinions. Although it has not had a significant impact on academic grades, the learning process has become more lively and meaningful. Students begin to be able to relate historical material to their lives. Teachers realize that not all history topics can be directly related to the student's context, but the use of thematic issues and adaptive discussion strategies is an effective solution. This effort is in line with the findings (Lombardi & Marinai, 2020), which states that the application of deep learning in the context of historical documents can improve deeper and analytical information processing, while also fostering a critical understanding of complex historical contexts. History learning plays an important role in shaping the younger generation as heirs of national values (Sardiman, 2015).

In the future, the school hopes that history learning will not only be oriented to academic results, but also be able to foster critical, collaborative, and independent thinking characters. A fun, directed, and non-overly dependent on technology learning is expected to be a

hallmark of history learning. In addition, a holistic assessment is expected to describe the development of students as a whole, both in terms of knowledge, skills, and attitudes.

CONCLUSION

Based on the results of this study, it was found that the strategy of history teachers in adapting the *deep learning approach* at SMA Muhammadiyah 1 Semarang showed a positive initial commitment, even though the implementation was still in the development stage. History teachers began to apply deep learning principles such as project-based learning, reflective triggers, and strengthening critical discussions as an effort to encourage students to understand historical material in a more contextual and meaningful way. The adaptation of this strategy also reflects the teacher's understanding of the importance of shaping a learning experience that is not only cognitive, but also involves the social aspects of students.

The application of *the deep learning approach* still faces several challenges, such as differences in student characteristics, the limitations of the context of historical material that are not always easily related to the reality of students, and the need to improve teacher competence in developing teaching tools that are in accordance with this approach. Nevertheless, support from schools

through training and professional development programs such as Teacher Learning Day is a strategic step that supports more optimal implementation in the future.

Thus, it can be concluded that the strategy of history teachers in adapting the *deep learning* approach has been running gradually and adaptively. This approach has great potential to increase students' activeness, conceptual understanding, and reflective thinking skills in learning history. To achieve maximum effectiveness, continuity in teacher training, reinforcement of contextual curriculum, and cross-party collaboration are needed to strengthen the implementation of deep learning more thoroughly in the school environment.

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