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Planning, Implementation, and Evaluation of the Education Unit Curriculum through a Deep Learning Pedagogical Approach: A Case Study at MTs NU 02 Gringsing

Sobirin[1*], Ghufron Abdullah[2], Harjito[3]
[1,2,3]Universitas PGRI Semarang, Semarang, Indonesia

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ABSTRACT

Purpose: This study addressed the uneven understanding and application of Deep Learning principles in curriculum planning and classroom practice at MTs NU 02 Gringsing, Indonesia. It examined the planning, implementation, and evaluation of the Education Unit Curriculum (KSP) through a pedagogical Deep Learning approach. **Methods:** A qualitative case study was conducted in 2026. Participants included the head of the madrasah, vice heads, a madrasah supervisor, teachers, students, and school committee members. The total number and composition of participants were [insert actual numbers]. Data were collected through interviews, observations of [insert the actual number and scope of observed sessions], and documentation of curriculum plans, teaching modules, assessment records, supervision reports, and evaluation activities. Data were analyzed through data condensation, data display, and conclusion drawing and verification, with credibility supported by source and technique triangulation. **Findings:** Curriculum planning drew on student characteristics, learning needs, assessment results, teacher observations, and parental input. Classroom practices included discussion, problem-solving, collaborative projects, contextual tasks, and opportunities for application and reflection. Diagnostic, formative, and summative assessments were connected with supervision, teacher reflection, and instructional follow-up. However, implementation varied among teachers, particularly in differentiated learning, contextual assessment, reflective activities, and technology use. Limited coordination time, differing student readiness, and uneven resource utilization also constrained implementation. **Research Implications:** Consistent implementation requires collaborative planning, practical teacher mentoring, purposeful assessment, and systematic follow-up. **Originality:** This case study provides contextual evidence of how curriculum planning, classroom practice, and evaluation interact in implementing a pedagogical Deep Learning approach within an Islamic madrasah.

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INTRODUCTION

Educational systems are increasingly required to prepare students not only to master disciplinary knowledge but also to develop higher-order thinking, creativity, communication, collaboration, problem-solving, and reflective abilities. The demands of twenty-first-century education have encouraged a shift from learning practices dominated by memorization toward learning experiences that enable students to understand concepts, apply knowledge in authentic contexts, and reflect on their learning. The Education Unit Curriculum (Kurikulum Satuan Pendidikan or KSP) provides educational institutions with autonomy to develop curricula according to their characteristics, vision and mission, local potential, and student needs (Kementerian Pendidikan Riset, dan Teknologi Republik Indonesia, 2022). Curriculum development at the educational-unit level also requires analysis of the social and cultural environment, available facilities, and student profiles to ensure that curriculum planning is consistent with the principles of school-based management (Mulyasa, 2022).

Current educational policy in Indonesia places increasing emphasis on learning that is holistic, reflective, and student-centered. Learning planning, learning implementation, and assessment are positioned as interconnected components within the learning process (K. P. D. dan M. R. Indonesia, 2026). The policy also emphasizes learning that is conscious, meaningful, and enjoyable, requiring students to understand learning objectives, connect learning materials with real-life contexts, and experience positive and challenging learning environments (K. P. D. dan M. R. Indonesia, 2026). The policy direction demonstrates that curriculum implementation should not be evaluated merely from the existence of curriculum documents but also from the extent to which curriculum principles are translated into meaningful learning experiences.

Curriculum implementation represents a complex educational change because the transition from policy to practice requires adjustments in teacher behavior, instructional strategies, assessment, management, and organizational culture. Curriculum implementation is influenced by the clarity of curriculum content, management support, and school climate (Ornstein & Hunkins, 2018). The leadership of school or madrasah leaders also has an important function in facilitating curriculum change and supporting teachers throughout the implementation process. Curriculum implementation consequently needs to be understood as an interconnected process involving planning, implementation, assessment, reflection, evaluation, and follow-up.

Practical challenges in curriculum implementation can occur at planning, classroom, assessment, and systemic levels. Teachers may experience difficulties in formulating learning objectives, determining learning steps, and developing substantive assessment procedures even when curriculum policy provides flexibility. Differentiated learning may not yet be implemented optimally, while learning practices may remain dominated by memorization and less contextual experiences. Teacher reflection can also remain administrative instead of becoming a culture of continuous improvement, while differences in infrastructure and access to technology may create additional barriers to implementation. These conditions demonstrate that curriculum reform requires professional preparation, appropriate resources, and institutional support to achieve its intended objectives.

The Deep Learning approach, referred to in the Indonesian educational context as Pembelajaran Mendalam, provides an orientation that responds to the need for deeper and more meaningful learning. Deep Learning is defined as a process through which students develop essential competencies that enable them to become lifelong learners and positive agents of change in society (Fullan, Quinn, & McEachen, 2018). The approach moves beyond surface learning that emphasizes memorization and recall by encouraging students to develop broader competencies and meaningful understanding. The framework emphasizes six competency dimensions consisting of character, citizenship, collaboration, communication, creativity, and critical thinking (Fullan, Quinn, & McEachen, 2018).

Critical thinking is an important component of Deep Learning because students are expected to analyze information systematically, evaluate arguments, solve problems, and make reliable judgments or decisions. Critical thinking involves questioning, verifying, and understanding relationships among ideas and facts rather than simply memorizing information (Mulyono, 2018). The development of critical thinking therefore requires classroom activities that provide opportunities for inquiry, discussion, analysis, problem solving, and reflection. Learning that emphasizes these processes can support students in applying knowledge rather than merely reproducing information.

The Education Unit Curriculum orientation for the 2025/2026 academic year emphasizes flexibility and school autonomy in designing learning according to the context and needs of students (K. P. D. dan M. R. Indonesia, 2025). The curriculum also emphasizes deeper conceptual understanding, critical and reflective thinking, and student-centered learning as important elements of educational practice. KSP is intended to become a living document that assists educational institutions in planning quality education, developing student competencies, and preparing learners to face future challenges. Curriculum flexibility provides teachers with greater opportunities to adapt learning to students' abilities and local conditions (Vhalery, Setyastanto, & Leksono, 2022).

Madrasahs have a distinctive educational mission because they are responsible not only for academic development but also for the formation of character and noble morality based on Islamic values. Madrasahs function as educational institutions that transfer knowledge while also strengthening students' character and moral development (Maulida, Priyatna, & Wahidin, 2019). The Nahdlatul Ulama educational tradition also emphasizes values associated with Ahlussunnah wal Jama'ah an-Nahdliyah, including tawasuth, tawazun, and tasamuh. These values provide an important cultural foundation for curriculum development within NU-affiliated madrasahs. The integration of religious values with contemporary competencies can strengthen the relevance of curriculum implementation within the Islamic educational context.

MTs NU 02 Gringsing in Batang Regency is an Islamic educational institution characterized by the values of Ahlussunnah wal Jama'ah an-Nahdliyah. The madrasah carries the responsibility of fulfilling national education standards while maintaining its religious and institutional identity. The implementation of an Education Unit Curriculum oriented toward Deep Learning consequently involves the integration of contemporary learning principles

with the religious values and characteristics of the madrasah. Collaboration and communication, for example, may be connected with values such as ukhuwah islamiyah and amar ma'ruf nahi munkar, creating opportunities for academic and character development to take place simultaneously (Maulida, Priyatna, & Wahidin, 2019).

MTs NU 02 Gringsing had implemented the independent form of the Merdeka Curriculum since 2022 before continuing to adapt its curriculum to subsequent national policy developments. The initial interview with the head of the madrasah indicated that teachers had not yet developed a comprehensive understanding of the new Education Unit Curriculum orientation toward Deep Learning. Some teachers continued to use lecture-based learning, while difficulties were also experienced in adapting assessment procedures and preparing teaching modules or lesson plans according to the new orientation. These conditions indicate that curriculum implementation involves a process of adaptation requiring time, professional development, coordination, and continuous assistance.

The 2025 National Assessment results provide important empirical context for understanding the learning conditions at MTs NU 02 Gringsing. Literacy achievement reached 91.11 and was categorized as good, whereas numeracy achievement reached 62.22 and remained in the moderate category. Learning quality reached 67.28 and was categorized as good, while teacher reflection and improvement reached 55.64 and remained in the moderate category. Character, school safety climate, and community participation were categorized as good, with respective scores of 61.78, 71.26, and 76.77. The moderate achievement in numeracy indicates the need to strengthen students' ability to use concepts, procedures, facts, and mathematical tools to solve problems in relevant real-life contexts.

Teacher reflection is also an important issue in supporting the implementation of Deep Learning. Reflection and improvement achievement at MTs NU 02 Gringsing remained in the moderate category, indicating that classroom reflection and improvement practices still require strengthening. Effective instructional planning is considered an important requirement for successful learning because poor planning can affect the efficiency of learning activities, while the ability to prepare quality learning plans represents an important characteristic of professional teachers (Lutfiana, 2022). Deep Learning therefore requires teachers to develop learning designs that deliberately connect learning objectives, activities, assessment, student characteristics, and reflection.

Research on curriculum implementation in Indonesian schools has identified the importance of teacher readiness and institutional preparedness. A study at SMP Negeri 1 Rejotangan found that school leaders and teachers were generally prepared to implement the Merdeka Curriculum, although teachers continued to experience obstacles related to experience, resources, facilities, and the adaptation of learning materials to curriculum requirements (Yuniar & Umami, 2023). The finding indicates that curriculum implementation can begin successfully while still requiring continuous professional support and improvement. Curriculum implementation consequently needs to be viewed as an evolving process rather than as a one-time policy adoption.

Curriculum implementation can also contribute to student character development through the organization of intracurricular, co-curricular, extracurricular, and positive school-culture activities (Angga, Hernawan, & Mulyati, 2023). Changes in curriculum implementation require teachers to understand new structures, learning content, and instructional expectations, including adaptation of subject arrangements and learning resources (Saadah & Amarullah, 2023). Professional development through training, webinars, workshops, and collaboration among teachers can support the preparation of teachers to implement curriculum changes and utilize instructional technology more effectively (Wiyono, 2023). Innovation in teaching methods, differentiated learning, learning media, and learning resources can further support active, creative, and independent learning (Hutagalung, Katuuk, & Sumual, 2023).

The initial observation at MTs NU 02 Gringsing identified several challenges that are directly relevant to Deep Learning implementation. Non-cognitive diagnostic assessment involved parents as sources of information regarding students' interests, abilities, and characteristics, but not all parents were able to provide sufficient information. Teachers had also not fully developed differentiated teaching modules, resulting in learning that was not yet consistently adapted to student characteristics. Some teachers continued to rely on lecture methods without fully utilizing learning media and educational technology, making classroom learning potentially less engaging.

The combination of these conditions indicates a gap between the intended principles of Deep Learning and their practical implementation at the madrasah level. Curriculum documents may provide strategic direction, but their effectiveness depends on the capacity of teachers and educational leaders to translate curriculum principles into learning designs and classroom practices. Curriculum implementation should therefore connect curriculum objectives with student needs, teacher competence, instructional strategies, assessment, learning resources, and institutional support. This perspective reinforces the importance of examining curriculum implementation through a comprehensive management framework rather than focusing only on the final classroom outcome (Ornstein & Hunkins, 2018).

The existing research also leaves an important contextual gap concerning the implementation of a Deep Learning-oriented Education Unit Curriculum within an Islamic madrasah. Previous studies have largely examined the implementation of the Merdeka Curriculum, teacher readiness, student character development, differentiated learning,

and instructional innovation. The present study extends this discussion by examining how curriculum planning, classroom implementation, and curriculum evaluation operate within a madrasah that simultaneously responds to national curriculum demands and a distinctive Islamic institutional identity. The study therefore addresses the need for a contextual understanding of curriculum implementation in Islamic education.

The present study aims to describe and analyze the implementation of the Education Unit Curriculum with a Deep Learning approach at MTs NU 02 Gringsing, Batang Regency. The investigation focuses on three dimensions: curriculum planning, curriculum implementation in teaching and learning activities, and curriculum evaluation. The study seeks to explain how the madrasah translates curriculum policy into planning, instructional practice, assessment, reflection, monitoring, and improvement while maintaining its religious and institutional characteristics.

The significance of this study lies in positioning Deep Learning as an educational orientation that requires systematic curriculum management rather than treating it merely as a teaching technique. The implementation process needs to establish coherence between student characteristics, curriculum objectives, learning activities, assessment, teacher capacity, learning resources, institutional support, and the cultural values of the madrasah. The findings are expected to contribute to the development of contextual, collaborative, reflective, and continuously improving curriculum management practices in Islamic educational institutions, while also providing practical insights for madrasah leaders, teachers, supervisors, and educational policymakers seeking to strengthen Deep Learning implementation.

METHOD

This study employed a qualitative approach with a case study design to examine the implementation of the Education Unit Curriculum with a Deep Learning approach at Madrasah Tsanawiyah Nahdlatul Ulama 02 Gringsing, Batang Regency. Qualitative research is appropriate for exploring phenomena in their natural settings and understanding the meanings constructed by participants from their experiences (Creswell & Poth, 2018). A case study design enables researchers to investigate a bounded system or particular case intensively and comprehensively within its real-life context (Creswell, 2018). The design was selected because the study sought to understand curriculum implementation as a contextual process involving planning, implementation, assessment, evaluation, reflection, and follow-up rather than as a phenomenon measured through numerical variables.

The research was conducted at MTs NU 02 Gringsing, Batang Regency, Central Java, Indonesia, during 2026. The research focused on three major dimensions: planning, implementation, and evaluation of the Education Unit Curriculum with a Deep Learning approach. The research activities consisted of the pre-field stage, fieldwork, and data analysis. The pre-field stage involved preparing the research design, determining the research setting, obtaining research permission, identifying informants, and preparing research instruments, while fieldwork involved direct interaction with participants and observation of curriculum-related activities (Sugiyono, 2019). The selection of the research setting was based on the relevance of the madrasah to the research problem and its ongoing adaptation to the Deep Learning-oriented curriculum.

The research participants consisted of the head of the madrasah, vice heads of the madrasah, a madrasah supervisor, teachers, students, and school committee members who were considered relevant to the research focus. Participant selection was based on their knowledge, involvement, and experience in curriculum planning, implementation, supervision, assessment, and evaluation. The researcher served as the primary research instrument, which is a characteristic of qualitative research in which the researcher is directly responsible for collecting, interpreting, and analyzing field information (Moleong, 2021). The researcher was supported by interview guides, observation sheets, and documentation instruments.

The study used primary and secondary data. Primary data were obtained directly from participants through interviews and observations of curriculum implementation, learning activities, assessment, supervision, and evaluation. Secondary data were obtained from institutional documents such as curriculum documents, meeting minutes, teaching modules, assessment records, supervision reports, and evaluation records. The use of multiple sources was intended to provide a comprehensive understanding of the phenomenon and to enable comparison among different forms of evidence. Data collection in qualitative research needs to be sufficiently contextual and detailed to enable the researcher to interpret participants' experiences and the conditions in which those experiences occur (Creswell & Poth, 2018).

Data were collected through observation, interviews, and documentation. Observation was used to examine actual curriculum-related practices, including curriculum planning, In-House Training, preparation of teaching modules, project activities, supervision, and assessment. Interviews were conducted with the head of the madrasah, vice heads, supervisor, and teachers using structured and unstructured techniques. Structured interviews were guided by predetermined questions, whereas unstructured interviews allowed the researcher to explore relevant information more deeply according to participants' responses. Interviewing is particularly important in qualitative research because it

allows researchers to understand participants' perceptions, experiences, and interpretations of a phenomenon (Creswell & Poth, 2018).

The interview guide was organized around the three research dimensions. The planning dimension covered analysis of student and madrasah characteristics, curriculum objectives, stakeholder involvement, integration of Deep Learning principles, learning experiences, instructional strategies, media and technology, teacher readiness, professional development, facilities, and planning constraints. The implementation dimension addressed program socialization, conscious, meaningful, and enjoyable learning, students' understanding, application and reflection, active and contextual learning, collaboration, technology use, learning environment, partnerships, religious-value integration, and implementation challenges. The evaluation dimension addressed assessment, monitoring, supervision, teacher reflection, program achievement, student engagement, supporting and inhibiting factors, follow-up, and program improvement. This organization ensured that data collection remained aligned with the research questions and the conceptual boundaries of the study.

Documentation complemented the findings obtained through observation and interviews. The documents examined included curriculum documents, meeting minutes, assessment documents, teaching modules, supervision reports, supervision follow-up records, evaluation meeting documents, photographs of follow-up activities, and end-of-year evaluation records. Documentary evidence was used to strengthen contextual understanding and to compare information reported by participants with evidence of actual institutional practices. Documentation is an important supplementary source in qualitative research because it can provide historical, administrative, and contextual evidence that cannot always be obtained through interviews or observations alone (Sugiyono, 2019).

Data analysis was conducted continuously during and after data collection. The analysis followed the interactive model of data analysis consisting of data condensation, data display, and conclusion drawing or verification. Data were first selected, focused, simplified, and organized according to the research themes. Relevant information was then displayed in narrative and systematic forms to facilitate comparison and interpretation. Conclusions were subsequently formulated and continuously verified against the available evidence (Miles, Huberman, & Saldaña, 2014). This interactive process enabled the researcher to revisit field information when emerging findings required additional clarification or confirmation.

The credibility of the findings was strengthened through triangulation of data sources and data-collection techniques by comparing information from interviews, observations, and documentation. Triangulation was used to identify convergence, differences, and relationships among the evidence obtained from various participants and sources. The qualitative analysis emphasized interpretation of meaning, contextual understanding, and consistency of evidence rather than statistical generalization. Although Ghozali's methodological works are widely used for statistical testing and quantitative data analysis, the present study did not employ statistical hypothesis testing because its research design was qualitative and case-based (Ghozali, 2018). The findings were presented primarily through narrative descriptions supported by tables and other systematic forms of data display.

This methodological design enabled the study to develop an in-depth account of how the Education Unit Curriculum with a Deep Learning approach was planned, implemented, evaluated, and continuously improved at MTs NU 02 Gringsing. The combination of case study inquiry, multiple data sources, systematic qualitative analysis, and triangulation was intended to ensure that the findings accurately reflected the actual conditions and experiences of curriculum implementation in the madrasah

RESULTS

The implementation of the Education Unit Curriculum (KSP) with a Deep Learning approach at MTs NU 02 Gringsing, Batang Regency, was characterized by an interconnected process of curriculum planning, classroom implementation, assessment, supervision, reflection, evaluation, and follow-up. The findings were obtained through triangulation of interviews with the head of the madrasah, vice heads, supervisor, and teachers, supported by observations and documentation. The data indicate that the madrasah had established a structured direction for implementing Deep Learning, although the depth and consistency of implementation still varied among teachers.

Curriculum planning was conducted by considering student characteristics, learning needs, previous learning outcomes, teacher observations, assessment results, information from homeroom teachers, and input from parents. The planning process involved the head of the madrasah, vice head for curriculum affairs, curriculum team, and teachers, with support from the madrasah committee and foundation. Planning was carried out through coordination and meetings in which curriculum programs, learning strategies, instructional approaches, resources, assessment, and teacher development were discussed. The process enabled the curriculum to be adapted to the actual conditions of students and the institutional characteristics of the madrasah rather than being implemented as a uniform program.

The principles of conscious, meaningful, and enjoyable learning were incorporated into the planning of learning activities. Teachers were encouraged to organize learning experiences through the stages of understanding, application, and reflection. Planned learning activities included discussion, questioning, problem solving, practice, group work, projects, and presentations. Learning resources included textbooks, visual materials, videos, presentations, digital resources, and the surrounding environment. The planning documents also began to demonstrate an orientation toward learning that connected knowledge with experience and provided opportunities for students to use and reflect on what they had learned.

Religious and character values formed an important element of curriculum planning at MTs NU 02 Gringsing. The development of honesty, discipline, responsibility, cooperation, politeness, religiosity, and respect was integrated into learning activities and the broader educational environment. Religious practices such as prayer, Qur'an reading, appropriate conduct, and respect for teachers and peers were also maintained as part of the madrasah culture. Curriculum planning consequently addressed academic development while preserving the religious identity and character-development mission of the madrasah.

Teacher readiness to implement Deep Learning was generally adequate, but the level of understanding and practical competence was not yet uniform. Some teachers had begun to adjust learning objectives, teaching strategies, media, activities, and assessment toward the Deep Learning framework, while others continued to require assistance in designing contextual, differentiated, and reflective learning. The madrasah addressed these differences through socialization, In-House Training (IHT), teacher discussions, sharing of good practices, supervision, and mentoring. Supporting facilities such as classrooms, library resources, projectors, computers or laptops, and internet access were available, although their availability and utilization were not completely even across learning situations.

The educational environment also provided important support for implementation. Observations indicated that MTs NU 02 Gringsing had a relatively conducive learning environment, a strong religious culture, and leadership support for balancing academic achievement, science and technology, faith, and character development. IHT activities were conducted interactively and provided opportunities for teachers to discuss the concept of Deep Learning, examine learning practices, and share experiences in preparing instructional materials. These conditions strengthened the institutional foundation for implementing the curriculum.

The analysis of teaching modules showed that the planning documents generally contained learning objectives, learning materials, time allocation, instructional strategies, learning media, learning activities, and assessment procedures. Several modules had incorporated the characteristics of Deep Learning by providing activities related to understanding, application, and reflection. Understanding was developed through reading, observation, questioning, discussion, and explanation. Application was facilitated through practice, assignments, problem solving, projects, and presentations. Reflection was introduced through concluding activities, reflective questions, and opportunities for students to communicate their learning experiences. The implementation of these components, however, differed among teachers, particularly in the depth of reflective activities, contextual learning, differentiated tasks, and assessment.

Table 1. Summary of the Implementation of the Education Unit Curriculum with a Deep Learning Approach

Dimension	Main Findings	Evidence
Curriculum planning	Planning considered student characteristics, learning needs, academic data, assessment results, teacher observations, and input from homeroom teachers and parents.	Interviews, curriculum documents, meeting records
Deep Learning principles	Conscious, meaningful, and enjoyable learning were incorporated into curriculum and lesson planning.	Interviews, teaching modules, observations
Learning experiences	Learning was organized through understanding, application, and reflection.	Teaching modules, classroom observations
Teacher readiness	Teacher readiness was generally adequate, but understanding and implementation skills remained uneven.	Interviews, IHT, supervision
Classroom implementation	Teachers used discussion, questioning, problem solving, projects, practice, presentation, collaboration, and contextual learning.	Classroom observations, interviews
Media and technology	Presentations, videos, projectors, internet resources, and digital materials supported learning.	Observations, interviews
Assessment	Diagnostic, formative, and summative assessment were used to monitor student learning.	Assessment documents, observations, interviews

Dimension	Main Findings	Evidence
Supervision and reflection	Supervision and reflection were used to identify strengths and areas requiring improvement.	Supervision records, interviews
Follow-up	Findings were followed by improvement of teaching materials, strategies, assessment, mentoring, and facilities.	Evaluation and follow-up records

Classroom implementation demonstrated an effort to move from teacher-dominated instruction toward more active, collaborative, and student-centered learning. Teachers used group discussions, questioning, problem solving, projects, practical activities, presentations, and contextual tasks. Students were encouraged to observe, ask questions, discuss ideas, collaborate with peers, complete tasks, present their work, and reflect on learning experiences. The teacher's role increasingly functioned as a facilitator who provided direction, clarified concepts, monitored participation, and provided assistance when students encountered difficulties.

Conscious learning was implemented by communicating learning objectives and helping students understand the purpose and relevance of the learning activities. Teachers encouraged students to focus on the learning process, ask questions, identify difficulties, and recognize their own learning progress. Meaningful learning was developed through examples, problems, assignments, and activities that were connected to students' experiences and everyday environments. Enjoyable learning was supported through varied activities, group work, educational games, presentations, media use, and a positive classroom atmosphere.

The stages of understanding, application, and reflection were visible in classroom practices. The understanding stage involved reading, listening, observing, discussing, questioning, and explaining concepts. The application stage included practical work, assignments, projects, problem solving, presentations, and the use of knowledge in particular situations. The reflection stage involved questions, discussion, conclusions, and opportunities for students to communicate what they had learned and the difficulties they had experienced. These practices indicate that learning had begun to emphasize the processing and use of knowledge rather than the reproduction of information alone.

Project-based and collaborative activities also supported character development. Students were involved in identifying problems, discussing possible solutions, dividing responsibilities, working in groups, producing work, and presenting results. These activities provided opportunities to develop communication, cooperation, independence, creativity, responsibility, and problem-solving abilities. Teachers facilitated the process by providing instructions, monitoring group activities, and assisting students in completing their tasks. Classroom observation confirmed that students were increasingly involved directly in learning activities rather than remaining passive recipients of teacher explanations.

Learning media and technology were used to support classroom activities. Teachers utilized presentations, instructional videos, projectors, internet-based resources, and digital learning materials according to the characteristics of the subject and learning objectives. Technology supported information access, classroom discussion, task completion, and student presentations. Differences remained in the intensity of technology use because of variations in teacher familiarity, classroom conditions, and resource availability.

The implementation involved multiple stakeholders within and around the madrasah. The head of the madrasah provided direction and supervision, while the vice head and curriculum team coordinated implementation. Teachers functioned as the main actors in classroom learning, and students participated as active learners. Homeroom teachers, parents, and the madrasah committee contributed support according to their respective roles. This pattern demonstrates that the implementation of Deep Learning was supported institutionally rather than depending entirely on individual teacher initiative.

Supervision was used to examine the alignment between instructional planning and classroom implementation. Supervision focused on teaching preparation, classroom activities, student participation, instructional methods, learning media, assessment, and reflection. Feedback was provided to teachers concerning strengths, weaknesses, and aspects requiring improvement. Follow-up activities included mentoring, discussion, IHT, sharing of good practices, revision of teaching materials, and subsequent monitoring. Supervision consequently functioned as both a monitoring mechanism and a professional development process.

Several challenges were identified during implementation. Differences in teachers' understanding of Deep Learning remained a major issue, particularly in applying contextual, differentiated, active, and reflective learning consistently. Limited instructional and coordination time, differences in student abilities and readiness, administrative demands, and uneven availability or utilization of learning facilities also affected implementation. The madrasah responded through socialization, mentoring, IHT, discussion, peer sharing, flexible coordination, optimization of available facilities, and gradual improvement of supporting resources.

Table 2. Supporting and Inhibiting Factors in the Implementation

Aspect	Supporting Factors	Inhibiting Factors	Institutional Response
Leadership	Supportive leadership and supervision	-	Routine monitoring and guidance
Teacher competence	IHT, discussion, peer sharing, and professional support	Uneven understanding of Deep Learning	Training, mentoring, and good-practice sharing
School culture	Religious, collaborative, and conducive environment	-	Integration of academic and character development
Learning resources	Availability of books, projectors, computers, internet, and digital media	Uneven use and availability	Optimization and gradual improvement
Time	Coordination adapted to school activities	Limited planning and instructional time	Flexible and gradual coordination
Student characteristics	Opportunities for contextual and collaborative learning	Differences in ability, readiness, and needs	Adjustment of learning strategies
Evaluation	Diagnostic, formative, and summative assessment	Reflective and contextual assessment not yet equally developed	Feedback, reflection, supervision, and follow-up

Evaluation constituted a continuous component of curriculum implementation. The evaluation process covered students' initial readiness, learning processes, learning outcomes, teacher performance, implementation of learning activities, supervision results, program achievement, obstacles, and follow-up. Evaluation had consequently extended beyond the traditional function of determining final student scores and had begun to function as a source of information for improving teaching and curriculum implementation.

Diagnostic assessment was used to identify students' initial abilities, readiness, and learning difficulties. Teachers collected information through initial questions, observations, short quizzes, and student responses. The information obtained helped teachers adjust instructional strategies and determine which students required additional explanation, reinforcement, or mentoring. Diagnostic findings were therefore connected directly with subsequent classroom decisions.

Formative assessment was conducted during the learning process to monitor student progress and provide immediate feedback. Teachers used questioning, assignments, quizzes, discussions, presentations, practical activities, and observations of student participation. Formative assessment supported the stages of understanding, application, and reflection by helping teachers identify whether students had understood concepts, could use knowledge in practical situations, and were able to reflect on their learning experiences.

Summative assessment was conducted after the learning process to determine achievement of learning objectives. Written and oral tests, projects, practical activities, assignments, and presentations were used according to learning objectives. The assessment considered students' ability to explain concepts, connect information, apply knowledge, solve problems, participate in collaborative activities, and communicate the results of their work. The findings indicate an effort to evaluate learning more comprehensively than through recall-based assessment alone.

Teacher reflection was connected to the evaluation process. Teachers reviewed learning objectives, student participation, assessment results, learning difficulties, and the effectiveness of teaching strategies. Reflection helped teachers determine aspects that needed to be maintained, modified, or strengthened in subsequent learning. The information generated through classroom reflection was also connected to supervision and institutional evaluation.

Institutional evaluation was conducted through meetings involving the head of the madrasah, vice heads, curriculum team, and teachers. The meetings addressed curriculum implementation, student learning outcomes, student engagement, teacher performance, supervision results, implementation obstacles, and supporting facilities. Evaluation documents included meeting records, follow-up records, and end-of-year evaluation records. The results were used to improve teaching materials, instructional strategies, assessment procedures, teacher mentoring, programs, and learning resources.

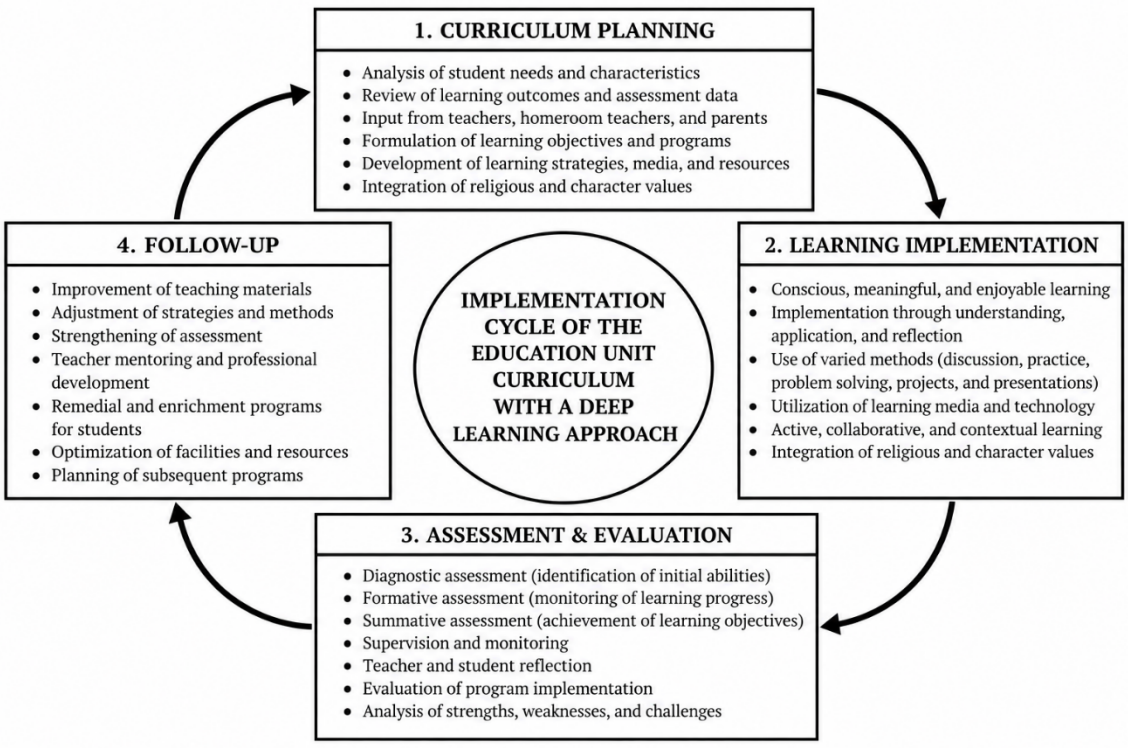


Figure 1. Implementation Cycle of the Education Unit Curriculum with a Deep Learning Approach

The evaluation findings were used to establish a cycle of continuous improvement. Programs that had been implemented effectively were maintained, while aspects that had not reached the expected level were addressed through revisions to teaching materials, instructional strategies, assessment procedures, teacher mentoring, remedial and enrichment activities, and improvement of supporting facilities. End-of-year evaluation also became a reference for the preparation of subsequent learning and curriculum programs. The evidence from interviews, observations, and documentation demonstrates that evaluation at MTs NU 02 Gringsing had begun to function not merely as a mechanism for judging results but also as an instrument for improving subsequent practice.

The findings show that MTs NU 02 Gringsing had developed a relatively coherent institutional process for implementing the Education Unit Curriculum with a Deep Learning approach. Planning was based on student needs and institutional characteristics, classroom implementation emphasized conscious, meaningful, enjoyable, active, collaborative, and contextual learning, while evaluation connected assessment, supervision, reflection, and follow-up. The main challenge concerned the consistency and depth of implementation across teachers, particularly in differentiated learning, reflective practices, contextual assessment, and technology utilization. The institutional responses through IHT, mentoring, supervision, discussion, and gradual improvement of resources indicated an ongoing effort to strengthen the implementation of Deep Learning at the madrasah.

DISCUSSION

The findings of this study indicate that the implementation of the Education Unit Curriculum (KSP) with a Deep Learning approach at MTs NU 02 Gringsing, Batang Regency, has developed as a gradual and systemic process involving curriculum planning, classroom implementation, assessment, supervision, reflection, and follow-up. The implementation cannot be understood merely through the availability of curriculum documents or the use of particular teaching methods. The essential transformation occurs when curriculum intentions are translated into learning experiences that respond to student needs, reflect the characteristics of the madrasah, involve teachers collaboratively, and use assessment information to improve subsequent practice. Deep Learning in this context can therefore be understood as a pedagogical and managerial transformation rather than simply a change in instructional terminology.

Curriculum planning at MTs NU 02 Gringsing demonstrates a shift from an administrative orientation toward contextual and pedagogical planning. The planning process utilizes assessment results, student achievement, teacher observations, homeroom-teacher information, previous learning experiences, and parental input to identify students'

abilities, interests, characteristics, and learning difficulties. Such a pattern reflects evidence-informed planning because curriculum decisions are constructed from multiple forms of information rather than relying on a single source. Curriculum needs analysis becomes more credible when multiple sources, methods, and forms of triangulation are used to obtain a comprehensive understanding of educational needs (Smith, Jung, & Zenker, 2022).

Student-centered planning is particularly important within the Deep Learning framework. Teachers need to interpret curriculum requirements in relation to the actual characteristics, readiness, interests, and learning difficulties of their students rather than simply translating national policy into teaching documents (Rich, 2021). Deep Learning emphasizes student-centered and contextual learning through the integration of conscious, meaningful, and enjoyable learning with the experiences of understanding, application, and reflection (Y. Rahmawati et al., 2025). The needs analysis conducted at MTs NU 02 Gringsing therefore provides an important foundation for translating these principles into contextual learning design.

The contextual character of planning is also shaped by the institutional identity of the madrasah. MTs NU 02 Gringsing integrates academic development with religious values, character formation, science and technology, faith, and piety. Curriculum planning consequently does not treat religious values as an additional program detached from learning but as part of the context in which learning experiences are designed. Curriculum management in religiously oriented schools requires alignment between curriculum planning, institutional identity, organizational goals, and religious values (Rahmawati, Sutarto, & Budi Utomo, 2021). The findings therefore suggest that the religious identity of the madrasah can provide an important contextual framework for implementing Deep Learning.

The implementation of curriculum in madrasahs also operates within a specific policy framework. The integration of religious character and institutional characteristics into curriculum planning is consistent with the orientation of curriculum implementation in madrasahs regulated through the Ministry of Religious Affairs policy framework, including Decree of the Minister of Religious Affairs Number 1503 of 2025 (K. A. R. Indonesia, 2025).

Collaborative planning further strengthens the implementation process. The involvement of the head of the madrasah, vice head, curriculum team, teachers, homeroom teachers, and parents creates opportunities for curriculum decisions to be informed by different perspectives. Collaborative curriculum design can function as professional development because teachers learn through joint curriculum construction and through negotiating curricular intentions with classroom realities (Ke et al., 2023). The planning meetings identified in this study therefore function not only as organizational coordination mechanisms but also as spaces for professional learning and shared curriculum ownership.

Professional collaboration also has implications for curriculum change. Curriculum planning, professional practice sharing, and teacher support represent important dimensions of professional development during curriculum reform (Keung et al., 2021). The collaborative practices identified at MTs NU 02 Gringsing consequently have significance beyond the production of curriculum documents because teacher participation can strengthen professional ownership and facilitate the translation of policy into classroom practice.

Teacher readiness remains a central issue in the transition toward Deep Learning. The findings show that teacher understanding is not completely uniform, and this difference influences the depth of curriculum translation into lesson planning and classroom practice. IHT, internal discussions, mentoring, professional sharing, and supervision have been used by the madrasah to strengthen teacher competence. Effective teacher professional development requires continuity, collaboration, practical orientation, and connection with the knowledge teachers actually need in their work (Sims & Fletcher-Wood, 2021).

The role of IHT becomes more meaningful when it moves beyond concept dissemination toward practical activities such as reviewing teaching modules, designing contextual tasks, developing reflective questions, examining assessment procedures, observing classroom practice, and receiving feedback. Teacher readiness, technological infrastructure, and conventional assessment systems are among the important challenges in implementing Deep Learning, making continuous professional development essential for successful implementation (Andayanie et al., 2025).

The integration of Deep Learning principles into teaching plans indicates that the curriculum has begun to develop vertical coherence between institutional policy and classroom preparation. Teaching modules include learning objectives, strategies, media, learning activities, and assessment, with several modules incorporating understanding, application, and reflection. Deep Learning requires systemic transformation involving teacher competence, learning environment, technology, and learning partnerships rather than isolated changes in teaching technique (Rahmawati et al., 2025). The presence of these components in teaching modules at MTs NU 02 Gringsing indicates progress toward such coherence, although variation among teachers shows that the translation of the framework has not yet reached the same depth.

The variation in the design of reflection and contextual assessment is especially important. Reflection does not necessarily emerge spontaneously during learning and can be strengthened through guiding questions, examples, and teacher-supported discussion (Eshuis, ter Vrugte, & de Jong, 2022). Reflection within Deep Learning therefore needs to be intentionally designed rather than simply added as a brief concluding activity. Teacher development should focus not only on including a reflection component in lesson plans but also on designing reflective experiences that help students explain what they have learned, how they learned it, what difficulties they encountered, and what actions they should take next.

Assessment planning also reflects a broader transformation in curriculum management. Diagnostic, formative, and summative assessments are used together with tests, assignments, practical activities, projects, presentations, observation, and portfolios. Assessment information can help teachers identify student competencies and design subsequent learning according to student needs (Chesa & Nafi'ah, 2022). The findings therefore indicate that assessment has begun to function as part of curriculum design rather than as an activity added after instruction has been completed.

Classroom implementation demonstrates that planned curriculum principles have begun to produce changes in the learning process. Teachers use discussion, questioning, practical activities, projects, problem solving, presentations, group work, and contextual learning, while students receive greater opportunities to observe, ask questions, collaborate, apply knowledge, present their work, and reflect. Student-centered education has been shown to have a positive overall effect on academic achievement, although its effectiveness varies according to subject matter, educational level, learning environment, instructional strategy, and learner autonomy (Li, Ding, & Zhang, 2024).

Active learning also requires structure and teacher support. Active learning involves students' mental engagement in constructing understanding rather than merely participating in visible activities (Brod, 2021). Discussion, project work, practical activities, and presentations therefore become elements of Deep Learning only when students are required to interpret information, make decisions, use concepts, solve problems, and reflect. The teacher consequently remains important as a facilitator who provides scaffolding, task structures, clarification, guiding questions, and feedback.

The principles of conscious, meaningful, and enjoyable learning provide a conceptual foundation for these classroom practices. Conscious learning is reflected in efforts to communicate learning objectives and encourage students to understand what they are learning and why it matters. Meaningful learning emerges when concepts are connected to students' experiences, daily lives, local environments, and religious contexts. Enjoyable learning is supported through positive classroom interaction, varied activities, group work, media, educational games, and opportunities for participation. These three principles are interconnected within the Deep Learning framework and are designed to support cognitive, contextual, and emotional dimensions of learning (Rahmawati et al., 2025).

The three learning experiences of understanding, application, and reflection provide a further distinction between Deep Learning and surface-oriented instruction. Understanding involves reading, listening, observing, questioning, discussing, and explaining concepts. Application involves practice, problem solving, projects, assignments, presentations, and the use of knowledge in specific situations. Reflection requires students to reconsider what they have learned and recognize their achievements and difficulties. These experiences should be understood as interconnected forms of cognitive development rather than rigidly separated instructional stages.

Active learning must involve meaningful mental engagement rather than simply increasing the number of activities performed by students (Brod, 2021). Understanding without application may limit knowledge transfer, while application without reflection may result in task completion without deeper meaning. The findings therefore indicate that the quality of Deep Learning depends less on the quantity of classroom activities and more on the cognitive processes generated through those activities.

Contextual learning further strengthens the meaningfulness of instruction. Teachers at MTs NU 02 Gringsing attempt to connect subject matter with real-life situations, student experiences, and the surrounding environment. The integration of Contextual Teaching and Learning with meaningful learning has been found to strengthen learning processes and student achievement at the junior secondary level (Mubarok et al., 2022). Contextual learning in the present study should therefore be understood not simply as the use of everyday examples but as an opportunity for students to use knowledge to understand and respond to authentic situations.

The depth of contextualization remains different among teachers. Some learning plans connect concepts with students' experiences more explicitly, while others still use context primarily as an example. More advanced contextualization would position authentic problems, projects, practical activities, and case situations as arenas for students to transfer knowledge and make decisions based on concepts they have learned.

Collaborative learning represents another important dimension of implementation. Group discussions, shared tasks, projects, and presentations provide opportunities for students to explain ideas, negotiate perspectives, divide responsibilities, and construct understanding collectively. Structured cooperative learning can strengthen peer relationships, reduce stress, and support academic engagement among junior secondary students (Van Ryzin & Roseth, 2021). Collaborative learning therefore has potential not only for academic development but also for strengthening the social and emotional dimensions of learning.

Collaboration does not automatically emerge simply because students are placed into groups. Teachers need to establish task structures, role distribution, common goals, interaction opportunities, and individual accountability. Differences in student ability identified in the present study make this issue particularly relevant. Heterogeneous grouping can become a learning resource when peer support is organized effectively, while poorly structured group work may leave some students passive.

Variation in teaching methods and media should similarly be interpreted as a means rather than an end. Teachers at MTs NU 02 Gringsing combine lectures with questioning, discussion, practice, projects, problem solving, presentations, group work, visual media, and digital resources. Learning environments that provide greater opportunities for interaction and student activity can strengthen several dimensions of student engagement (Bond, 2020). Methodological variation therefore has value when each strategy is selected according to the learning objectives and the cognitive processes that students are expected to develop.

Technology plays a supporting role in this process. Teachers use presentations, videos, internet resources, and digital media to expand learning resources and support exploration, discussion, assignment completion, and presentation. Technology integration in schools is influenced by interconnected teacher, school, and policy factors, meaning that the availability of devices alone does not guarantee effective educational use (Sosa-Díaz et al., 2022). Technology should therefore be treated as an enabler of pedagogy rather than a substitute for pedagogy.

A digital presentation that simply reproduces teacher explanation does not necessarily produce Deep Learning. Technology can provide greater pedagogical value when it enables students to explore phenomena, compare information, collaborate, create products, solve authentic problems, access broader resources, or receive feedback. The technological conditions observed at MTs NU 02 Gringsing therefore require simultaneous development of infrastructure, teacher competence, leadership support, and pedagogical decision making.

The integration of religious values represents a distinctive contribution of the madrasah context. Honesty, discipline, responsibility, cooperation, politeness, and religious practices are incorporated into learning experiences and school life. Deep Learning does not replace the identity of the madrasah but can operate within its existing cultural framework. A meaningful learning experience can consequently emerge from the relationship between knowledge, values, identity, community, and religious character.

Supervision represents an important mechanism for connecting curriculum planning with classroom reality. The supervision of teachers at MTs NU 02 Gringsing examines learning preparation, student participation, instructional methods, media, assessment, and reflection. The resulting feedback is used for mentoring, IHT, discussion, revision of teaching materials, and sharing of good practices. Instructional coaching based on observation and professional development has been associated with improvements in classroom practice and academic engagement (Reddy, Shernoff, & Lekwa, 2021).

Instructional coaching can also strengthen teachers' awareness of their own practice, professional relationships, reflection, and instructional development (Warnock, Gibson-Sweet, & van Nieuwerburgh, 2022). The supervision system at MTs NU 02 Gringsing is consistent with this developmental orientation because the process is followed by feedback and opportunities for improvement rather than being limited to administrative inspection.

Variation among teachers remains one of the most important findings. Interviews generally indicate positive implementation, whereas observation and document analysis reveal differences in the depth of application. Such partial convergence is valuable because it prevents the findings from being reduced to the simple conclusion that the curriculum has been fully implemented. Differences may naturally arise from subject characteristics, but they become more problematic when caused by unequal pedagogical understanding or professional competence.

The implementation challenge at MTs NU 02 Gringsing can therefore be understood as a transition from a stage in which teachers generally recognize and attempt to apply Deep Learning toward a stage in which teachers can implement it consistently and deeply according to the characteristics of their respective subjects. Teacher readiness remains an important determinant of the successful implementation of Deep Learning (Andayanie et al., 2025). Active learning also requires adequate support structures from teachers, particularly when students differ in prior knowledge and learning readiness (Brod, 2021).

Evaluation constitutes the mechanism that sustains this transformation. The findings show that evaluation encompasses diagnostic, formative, and summative assessment, supervision, monitoring, teacher reflection, student reflection, program evaluation, and follow-up. Assessment for Learning involves teacher expertise, student agency, dialogic classroom conditions, and attention to learner needs, indicating that assessment can become part of the learning process rather than merely an instrument for final judgment (Arnold, 2022).

Diagnostic assessment provides an important starting point for this process. Students enter classrooms with different levels of prior knowledge, readiness, experience, and difficulty, making initial information necessary for instructional decision making. The educational value of assessment evidence increases when teachers use it to determine subsequent instructional responses (Lee et al., 2020). The findings at MTs NU 02 Gringsing therefore suggest that the significance of diagnostic assessment lies not primarily in the assessment activity itself but in its use for adapting learning.

Formative assessment creates an ongoing feedback loop between teaching and learning. Teachers use questioning, observation, quizzes, assignments, discussions, practical work, and presentations to monitor learning progress. Formative assessment has been shown to produce positive effects on learning at the K–12 level when assessment evidence is used effectively during instruction (Lee et al., 2020). The effectiveness of formative assessment nevertheless varies according to the type and quality of implementation (Sortwell et al., 2024).

Student involvement in assessment also has important implications. Formative assessment that involves students as active participants can generate stronger learning effects than approaches that rely entirely on teacher judgment (Xuan, Cheung, & Sun, 2022). The findings suggest that students at MTs NU 02 Gringsing can benefit from increasingly explicit opportunities to evaluate their own understanding, review their progress, and participate in peer feedback.

Summative assessment in the madrasah is also connected to follow-up rather than treated as the end of the learning process. The results are used for remedial activities, enrichment, reinforcement, and instructional improvement. Such practice reduces the rigid separation between summative and formative functions because information generated at the end of one learning sequence becomes evidence for improving the next sequence.

Feedback gives assessment information practical value. Feedback has been shown to have a moderate overall effect on learning, although its impact varies substantially according to the type and quality of information provided (Wisniewski, Zierer, & Hattie, 2020). Scores, labels, or simple statements of correctness are not necessarily sufficient to support Deep Learning. Effective feedback needs to help students understand the expected achievement, recognize their current position, identify remaining gaps, and determine possible next steps.

The same principle applies to teacher supervision. Teachers need feedback that is sufficiently specific to identify effective practices and aspects requiring improvement. The quality of the evaluation system is therefore determined not only by the quantity of information collected but also by the extent to which the information can be interpreted and translated into actionable decisions.

Reflection represents another critical component of evaluation. Students are encouraged to recognize what they have understood, what difficulties remain, and what they have experienced during learning, while teachers reflect on objectives, participation, assessment results, instructional strategies, and classroom obstacles. Reflective pedagogy enables learners to revisit learning experiences, identify meaning, and develop greater awareness of their own learning processes (Setyawan, 2022). Self-assessment and peer-assessment can also contribute positively to academic performance and learner engagement (Yan et al., 2022).

Teacher reflection functions as a bridge between evaluation and professional learning. Teachers become not only curriculum implementers but also learners of their own practice. This dimension is particularly important within Deep Learning because the development of reflective students is difficult to sustain without a reflective professional culture among teachers. Reflection becomes more useful when it moves beyond general judgments and examines causes, evidence, learner groups, instructional choices, and concrete next steps.

Evaluation at MTs NU 02 Gringsing extends from the classroom to the organizational level. Evaluation meetings, follow-up records, supervision reports, and end-of-year evaluation documents allow individual classroom information to become institutional information. School evaluation data can be used to identify weaknesses while simultaneously recognizing and preserving practices that have become organizational strengths (Aderet-German & Ben-Peretz, 2020). School self-evaluation also has substantial potential to support school improvement when schools possess sufficient capacity to conduct evaluation and use the resulting evidence effectively (Brown et al., 2021).

Follow-up is the strongest indicator that evaluation has acquired an improvement function. Evaluation results at MTs NU 02 Gringsing are used to revise teaching materials, adjust instructional strategies, provide teacher mentoring, conduct remedial and enrichment activities, strengthen programs, and improve facilities. Evaluation therefore produces

decisions rather than merely reports. The effectiveness of evaluation should consequently be judged not only by the completeness of documentation but by the extent to which evidence changes subsequent action.

The three dimensions of this study reveal an integrated cycle. Planning uses information about student needs and institutional conditions to establish objectives, strategies, resources, and assessment. Implementation translates those decisions into conscious, meaningful, enjoyable, active, contextual, collaborative, and reflective learning. Evaluation generates evidence about student learning, teacher practice, program implementation, and institutional conditions. Follow-up returns that evidence to subsequent planning and implementation.

The resulting pattern can be interpreted as assessment, interpretation of evidence, feedback and reflection, follow-up, improvement of practice, reassessment. Such a cycle is consistent with the reflective orientation of Deep Learning because students and teachers continuously use evidence to understand learning and determine subsequent action (Rahmawati et al., 2025).

The integrated findings demonstrate that the implementation of the Education Unit Curriculum with a Deep Learning approach at MTs NU 02 Gringsing has moved beyond a purely administrative curriculum process. Its principal strengths lie in the use of multiple sources of student information, collaborative planning, teacher development through IHT and professional forums, student-centered learning activities, contextual and collaborative learning, integration of religious values, supervision, and the use of evaluation for improvement. The principal challenge is not the absence of Deep Learning practices but the uneven depth of those practices across teachers, particularly in contextualization, application, reflection, assessment, and technology-supported learning.

Curriculum implementation should therefore be understood as a continuum rather than a binary condition of success or failure. MTs NU 02 Gringsing is moving from a relatively conventional instructional pattern toward one that is more active, contextual, collaborative, applicative, and reflective. The institutional system has developed a relatively coherent direction, while pedagogical consistency at the individual teacher level is still being strengthened.

The discussion ultimately shows that Deep Learning at MTs NU 02 Gringsing is best understood as a systemic curriculum transformation involving the coherence of student needs, curriculum objectives, teacher competence, classroom pedagogy, assessment, supervision, institutional culture, technology, and follow-up. Deep Learning requires transformation of the broader learning ecosystem rather than simply replacing one instructional method with another (Rahmawati et al., 2025). The findings add an important institutional dimension by showing that sustained implementation requires a cycle in which curriculum planning, classroom practice, assessment, reflection, supervision, and organizational learning continually inform one another.

The quality of implementation therefore depends not simply on whether the madrasah has adopted Deep Learning, but on how consistently the entire system converts the principles of conscious, meaningful, and enjoyable learning and the experiences of understanding, application, and reflection into sustained educational practice.

CONCLUSION

This study examined the planning, implementation, and evaluation of the Education Unit Curriculum (KSP) through a pedagogical Deep Learning approach at MTs NU 02 Gringsing, Batang Regency. The findings indicate that curriculum implementation operates as an interconnected process rather than a set of separate administrative and instructional activities. Planning draws on student characteristics, learning needs, assessment results, teacher observations, and stakeholder input. Classroom practices incorporate active, contextual, collaborative, and reflective learning, while evaluation connects diagnostic, formative, and summative assessment with supervision, teacher reflection, and instructional follow-up.

The main challenge is not the absence of Deep Learning practices but the uneven depth and consistency of their application among teachers, particularly in differentiated learning, contextual assessment, student reflection, and technology use. These findings suggest that sustainable implementation requires stronger teacher mentoring, collaborative curriculum planning, purposeful use of assessment evidence, and systematic follow-up. The study's contextual contribution lies in illustrating how curriculum management, pedagogical practice, and evaluation interact within an Islamic madrasah while maintaining its religious and character-development values. However, the findings describe implementation practices and institutional responses; they do not establish that the approach directly improved student learning outcomes.

Several limitations should be acknowledged. The study examined a single madrasah, limiting the transferability of its findings to other educational settings. In addition, the participant composition and the scope of classroom observations require more explicit reporting, while the available evidence does not provide a sufficiently robust basis for determining changes in student learning outcomes over time. Future research should compare implementation across multiple madrasahs, document participant coverage and classroom observations in greater detail, and use longitudinal evidence to examine how changes in curriculum practice relate to student learning. For educational leaders

and teachers, the findings support prioritizing continuous professional development, reflective assessment, differentiated instruction, and coordinated follow-up while accounting for resource and time constraints.

REFERENCE

Aderet-German, T., & Ben-Peretz, M. (2020). Using data on school strengths and weaknesses for school improvement. *Studies in Educational Evaluation*, *64*, 100831. https://doi.org/10.1016/j.stueduc.2019.100831

Andayanie, L. M., Adhantoro, M. S., Purnomo, E., Kurniaji, G. T., & Jufriansah, A. (2025). Implementation of Deep Learning in Education: Towards Mindful, Meaningful, and Joyful Learning Experiences. *Journal of Deep Learning*, *1*(1), 47–56. https://doi.org/10.23917/jdl.v1i1.11157

Angga, Hernawan, A. H., & Mulyati, T. (2023). Implementasi Kurikulum Merdeka (IKM) di Sekolah Dasar dalam Mengembangkan Profil Pelajar Pancasila. *Jurnal Elementaria Edukasia*, *6*(3), 1290–1299. https://doi.org/10.31949/jee.v6i3.6107

Arnold, J. (2022). Prioritising students in Assessment for Learning: A scoping review of research on students' classroom experience. *Review of Education*, *10*(3), e3366. https://doi.org/10.1002/rev3.3366

Bond, M. (2020). Facilitating student engagement through the flipped learning approach in K-12: A systematic review. *Computers & Education*, *151*, 103819. https://doi.org/10.1016/j.compedu.2020.103819

Brod, G. (2021). Toward an understanding of when prior knowledge helps or hinders learning. *Npj Science of Learning*, *6*, 24. https://doi.org/10.1038/s41539-021-00103-w

Brown, M., Gardezi, S., McNamara, G., O'Hara, J., Del Castillo Blanco, L., Simeonova, R., Parvanova, Y., & Kechri, Z. (2021). School self-evaluation an international or country specific imperative for school improvement? *International Journal of Educational Research Open*, *2*, 100063. https://doi.org/10.1016/j.ijedro.2021.100063

Chesa, N., & Nafi'ah, B. A. (2022). Asesmen Kompetensi Minimum (AKM) Kelas Sekolah Dasar sebagai Sarana Evaluasi Kemampuan Literasi dan Numerasi Siswa. *Jurnal Pendidikan Dasar*, *13*(2), 67–86. https://doi.org/10.21009/jpd.v13i2.28482

Creswell, J. W. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications.

Creswell, J. W., & Poth, C. N. (2018). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. SAGE Publications.

Eshuis, E. H., ter Vrugte, J., & de Jong, T. (2022). Supporting reflection to improve learning from self-generated concept maps. *Metacognition and Learning*, *17*, 691–713. https://doi.org/10.1007/s11409-022-09299-7

Fullan, M., Quinn, J., & McEachen, J. (2018). Engage the World Change the World. *SAGE Publications Ltd.*, 1–313.

Ghozali, I. (2018). *Aplikasi Analisis Multivariate dengan Program SPSS*. Badan Penerbit Universitas Diponegoro.

Hutagalung, R., Katuuk, D. A., & Sumual, T. E. M. (2023). Implementasi Kurikulum Merdeka di SMP Negeri 2 Airmadidi. *Jurnal Mirai Management*, *8*(3). https://doi.org/10.37531/mirai.v8i3.5751

Indonesia, K. A. R. (2025). *Keputusan Menteri Agama Republik Indonesia Nomor 1503 Tahun 2025 tentang Perubahan atas Keputusan Menteri Agama Nomor 450 Tahun 2024 tentang Pedoman Implementasi Kurikulum pada Raudhatul Athfal, Madrasah Ibtidaiyah, Madrasah Tsanawiyah, Madrasah Aliyah, dan Madrasah Aliyah Kejuruan*. Kementerian Agama Republik Indonesia.

Indonesia, K. P. D. dan M. R. (2025). *Peraturan Menteri Pendidikan Dasar dan Menengah Nomor 13 Tahun 2025 tentang Perubahan atas Peraturan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Nomor 12 Tahun 2024 tentang Kurikulum pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan J*. Kementerian Pendidikan Dasar dan Menengah Republik Indonesia. https://peraturan.bpk.go.id/Details/322506/permendikdasmen-no-13-tahun-2025

Indonesia, K. P. D. dan M. R. (2026). *Peraturan Menteri Pendidikan Dasar dan Menengah Nomor 1 Tahun 2026 tentang Standar Proses pada Pendidikan Anak Usia Dini, Jenjang Pendidikan Dasar, dan Jenjang Pendidikan Menengah*. Kementerian Pendidikan Dasar dan Menengah Republik Indonesia. https://peraturan.bpk.go.id/Details/344196/permendikdasmen-no-1-tahun-2026

Ke, L., Friedrichsen, P., Rawson, R., & Sadler, T. D. (2023). Teacher learning through collaborative curriculum design in the midst of a pandemic: A cultural historical activity theory investigation. *Teaching and Teacher Education*, *122*, 103957. https://doi.org/10.1016/j.tate.2022.103957

Kementerian Pendidikan Riset, dan Teknologi Republik Indonesia, K. (2022). *Panduan Interpretasi Rapor Pendidikan sebagai Dasar Perencanaan Berbasis Data*. Kemendikbudristek.

Keung, P. C. C., Cheung, A., Mak, B., & Tam, W. W. Y. (2021). Examining role of professional development initiatives from the perspectives of Key Learning Area Coordinators and Subject Heads: A mediation analysis. *International Journal of Educational Research*, *109*, 101829. https://doi.org/10.1016/j.ijer.2021.101829

Lee, H., Chung, H. Q., Zhang, Y., Abedi, J., & Warschauer, M. (2020). The Effectiveness and Features of Formative Assessment in US K-12 Education: A Systematic Review. *Applied Measurement in Education*, *33*(2), 124–140. https://doi.org/10.1080/08957347.2020.1732383

Li, Y.-D., Ding, G.-H., & Zhang, C.-Y. (2024). Effects of learner-centred education on academic achievement: A meta-analysis. *Educational Studies*, *50*(3), 285–298. https://doi.org/10.1080/03055698.2021.1940874

Lutfiana, D. (2022). Penerapan Kurikulum Merdeka dalam Pembelajaran Matematika SMK Diponegoro Banyuputih. *VOCATIONAL: Jurnal Inovasi Pendidikan Kejuruan*, *2*(4), 310–319. https://doi.org/10.51878/vocational.v2i4.1752

Maulida, A., Priyatna, M., & Wahidin, U. (2019). Strategi Peningkatan Mutu Pendidikan Islam Perspektif Mastuhu: Studi Analisis Perspektif Pemikiran Tokoh Pendidikan Islam. *Edukasi Islami: Jurnal Pendidikan Islam*, *8*(2), 453–468. https://doi.org/10.30868/ei.v8i2.437

Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook*. SAGE Publications.

Moleong, L. J. (2021). *Metodologi Penelitian Kualitatif*. PT Remaja Rosdakarya.

Mubarok, H., Sofiana, N., Kristina, D., & Rochsantiningsih, D. (2022). Meaningful Learning Model: The Impact on Students' Reading Comprehension. *Journal of Educational and Social Research*, *12*(1), 346. https://doi.org/10.36941/jesr-2022-0027

Mulyasa, E. (2022). *Kurikulum Merdeka dan Implementasinya dalam Pembelajaran*. Remaja Rosdakarya.

Mulyono, N. (2018). *Kurikulum dan Pembelajaran*. Rizqi Press.

Ornstein, A. C., & Hunkins, F. P. (2018). *Curriculum: Foundations, Principles, and Issues* (7th ed.). Pearson Education Limited.

Rahmawati, A., Sutarto, J., & Budi Utomo, C. (2021). Management of Al-Qur'an-Based Curriculum at Qur'an Hanifah Elementary School Semarang. *Educational Management*, *10*(2), 311–324. https://journal.unnes.ac.id/sju/eduman/article/view/49513

Rahmawati, Y., Mu'ti, A., Suyanto, S., & Herianingtyas, N. L. R. (2025). Pembelajaran Mendalam: Transformasi Pembelajaran Menuju Pendidikan Bermutu. *Jurnal Penelitian Kebijakan Pendidikan*, *18*(1). https://doi.org/10.24832/jpkp.v18i1.1281

Reddy, L. A., Shernoff, E., & Lekwa, A. (2021). A randomized controlled trial of instructional coaching in high-poverty urban schools: Examining teacher practices and student outcomes. *Journal of School Psychology*, *86*, 151–168. https://doi.org/10.1016/j.jsp.2021.04.001

Rich, K. M. (2021). Examining agency as teachers use mathematics curriculum resources: How professional contexts may support or inhibit student-centered instruction. *Teaching and Teacher Education*, *98*. https://doi.org/10.1016/j.tate.2020.103249

Saadah, S., & Amarullah, M. M. S. (2023). Konsep dan Implementasi Kurikulum Merdeka di SMP Bina Taruna Bandung. *EDUKATIF: Jurnal Ilmu Pendidikan*, *5*(2), 858–868. https://doi.org/10.31004/edukatif.v5i2.4688

Setyawan, T. Y. (2022). The Practice of Reflective Pedagogy in Indonesian Classrooms: A Systematic Review. *Polyglot: Jurnal Ilmiah*, *18*(2), 169–186. https://doi.org/10.19166/pji.v18i2.4969

Sims, S., & Fletcher-Wood, H. (2021). Identifying the characteristics of effective teacher professional development: A critical review. *School Effectiveness and School Improvement*, *32*(1), 47–63. https://doi.org/10.1080/09243453.2020.1772841

Smith, G. F., Jung, H., & Zenker, F. (2022). From task-based needs analysis to curriculum evaluation: Putting methodological innovations to the test in an English for academic purposes program. *English for Specific Purposes*, *66*, 80–93. https://doi.org/10.1016/j.esp.2022.01.001

Sortwell, A., Trimble, K., Ferraz, R., Geelan, D. R., Hine, G., Ramirez-Campillo, R., Carter-Thuiller, B., Gkintoni, E., & Xuan, Q. (2024). A Systematic Review of Meta-Analyses on the Impact of Formative Assessment on K-12 Students' Learning: Toward Sustainable Quality Education. *Sustainability*, *16*(17), 7826. https://doi.org/10.3390/su16177826

Sosa-Díaz, M. J., Sierra-Daza, M. C., Arriazu-Muñoz, R., Llamas-Salguero, F., & Durán-Rodríguez, N. (2022). "EdTech Integration Framework in Schools": Systematic Review of the Literature. *Frontiers in Education*, *7*, 895042. https://doi.org/10.3389/feduc.2022.895042

Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabeta.

Van Ryzin, M. J., & Roseth, C. J. (2021). The Cascading Effects of Reducing Student Stress: Cooperative Learning as a Means to Reduce Emotional Problems and Promote Academic Engagement. *Journal of Early Adolescence*, *41*(5), 700–724. https://doi.org/10.1177/0272431620950474

Vhalery, R., Setyastanto, A. M., & Leksono, A. W. (2022). Kurikulum Merdeka Belajar Kampus Merdeka: Sebuah

Kajian Literatur. *Research and Development Journal of Education*, *8*(1), 185. https://doi.org/10.30998/rdje.v8i1.11718

Warnock, J. M., Gibson-Sweet, M., & van Nieuwerburgh, C. J. (2022). The perceived benefits of instructional coaching for teachers. *International Journal of Mentoring and Coaching in Education*, *11*(3), 328–348. https://doi.org/10.1108/IJMCE-01-2021-0030

Wisniewski, B., Zierer, K., & Hattie, J. (2020). The Power of Feedback Revisited: A Meta-Analysis of Educational Feedback Research. *Frontiers in Psychology*, *10*, 3087. https://doi.org/10.3389/fpsyg.2019.03087

Wiyono, H. (2023). Sistem Pembelajaran pada Kurikulum Merdeka di SMP Negeri 21 Pontianak. *Sustainable: Jurnal Kajian Mutu Pendidikan*, *6*(1), 85–94. https://doi.org/10.32923/kjmp.v6i1.3354

Xuan, Q., Cheung, A., & Sun, D. (2022). The effectiveness of formative assessment for enhancing reading achievement in K-12 classrooms: A meta-analysis. *Frontiers in Psychology*, *13*, 990196. https://doi.org/10.3389/fpsyg.2022.990196

Yan, Z., Lao, H., Panadero, E., Fernández-Castilla, B., Yang, L., & Yang, M. (2022). Effects of self-assessment and peer-assessment interventions on academic performance: A meta-analysis. *Educational Research Review*, *37*, 100484. https://doi.org/10.1016/j.edurev.2022.100484

Yuniar, R. H., & Umami, N. R. (2023). Implementasi Pembelajaran Kurikulum Merdeka SMP Negeri 1 Rejotangan. *ARMADA: Jurnal Penelitian Multidisiplin*, *1*(8), 786–795. https://doi.org/10.55681/armada.v1i8.730

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AUTHOR CONTRIBUTION STATEMENT

Sobirin contributed to the conceptualization of the study, research design, data collection, data analysis, interpretation of findings, and preparation and revision of the manuscript. Ghufron Abdullah contributed to research supervision, methodological guidance, critical review, interpretation of findings, and revision of the manuscript. Harjito contributed to academic supervision, critical review, methodological direction, interpretation of findings, and revision of the manuscript. All authors reviewed and approved the final version of the manuscript.

AI DISCLOSURE STATEMENT

The authors declare that this research was prepared, researched, written, and edited without the aid of artificial intelligence (AI) techniques.

***Sobirin (Corresponding Author)**
Master's Program in Educational Management, Graduate School,
Universitas PGRI Semarang,
Jl. Sidodadi Timur No.24, Karangtempel, Kec. Semarang Tim., Kota Semarang, Jawa Tengah 50232, Indonesia
Email: somi007matsaniba@gmail.com

Gufron Abdullah
Master's Program in Educational Management, Graduate School,
Universitas PGRI Semarang,
Jl. Sidodadi Timur No.24, Karangtempel, Kec. Semarang Tim., Kota Semarang, Jawa Tengah 50232, Indonesia
Email: gufronabdullah@upgris.ac.id

Harjito
Master's Program in Educational Management, Graduate School,
Universitas PGRI Semarang,
Jl. Sidodadi Timur No.24, Karangtempel, Kec. Semarang Tim., Kota Semarang, Jawa Tengah 50232, Indonesia
Email: harjito@upgris.ac.id