
Cultivating Good Practices of In-Depth Learning by High School Teachers in Makassar City: A Qualitative Case Study Analysis

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Abstrak

Penelitian ini bertujuan mendeskripsikan dan menganalisis praktik baik implementasi Pembelajaran Mendalam (*Deep Learning*) pada guru-guru SMA peserta Program Kelas 1K Batch 1 Kota Makassar, khususnya terkait konteks pelaksanaan, faktor pendukung, hambatan, serta praktik baik yang muncul dalam proses pembelajaran. Penelitian ini dilatarbelakangi oleh program transformasi pendidikan yang diinisiasi Kementerian Pendidikan Dasar dan Menengah (Kemendikdasmen) melalui Balai Besar Guru dan Tenaga Kependidikan Provinsi Sulawesi Selatan yang mendorong paradigma pembelajaran berorientasi pada kesadaran, kebermaknaan, dan kegembiraan belajar. Penelitian menggunakan pendekatan kualitatif dengan desain studi kasus, dan melibatkan 33 guru dari 11 sekolah negeri dan swasta. Teknik pengumpulan data meliputi observasi, wawancara, dan dokumentasi, serta dianalisis melalui reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian ini menjelaskan bahwa pembelajaran mendalam memfasilitasi keterlibatan aktif siswa melalui refleksi, pemecahan masalah, dan kolaborasi, didukung perencanaan modul ajar komprehensif, namun menghadapi kendala waktu, minat baca rendah, orientasi nilai, keragaman kemampuan, dan keterbatasan media, meski meningkatkan motivasi, antusiasme, dan pengalaman belajar bermakna. Penelitian ini menyimpulkan bahwa pembelajaran mendalam berpotensi meningkatkan kualitas pembelajaran, namun memerlukan dukungan budaya akademik, sarana memadai, dan pengembangan profesional guru berkelanjutan sebagai rujukan kebijakan pendidikan.

Kata kunci: *Deep Learning*, Guru SMA, Pelatihan Guru, Pembelajaran Bermakna, Pembelajaran Mendalam.

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Abstract

This study aims to describe and analyze good practices in the implementation of Deep Learning among high school teachers participating in the Makassar City Class 1K Batch 1 Program, particularly in relation to the context of implementation, supporting factors, obstacles, and good practices that emerged in the learning process. This research was motivated by the education transformation program initiated by the Ministry of Primary and Secondary Education (Kemendikdasmen) through the South Sulawesi Province Teacher and Education Personnel Center, which promotes a learning paradigm oriented towards awareness, meaningfulness, and joy of learning. The research used a qualitative approach with a case study design and involved 33 teachers from 11 public and private schools. Data collection techniques included observation, interviews, and documentation, which were

analyzed through data reduction, data presentation, and conclusion drawing. The this study aims to describe and analyze good practices in the implementation of Deep Learning among high school teachers participating in the Makassar City Class 1K Batch 1 Program, particularly in relation to the context of implementation, supporting factors, obstacles, and good practices that emerged in the learning process. This research was motivated by the education transformation program initiated by the Ministry of Primary and Secondary Education (Kemendikdasmen) through the South Sulawesi Province Teacher and Education Personnel Center, which promotes a learning paradigm oriented towards awareness, meaningfulness, and joy of learning. This research used a qualitative approach with a case study design and involved 33 teachers from 11 public and private schools. Data collection techniques included observation, interviews, and documentation, which were analyzed through data reduction, data presentation, and conclusion drawing.

Keywords: *Deep Learning, High School Teachers, Teacher Training, Meaningful Learning, Deep Learning.*

INTRODUCTION

Theoretically, student-centered learning is rooted in constructivism theory, which states that knowledge is actively constructed by learners through interaction with the learning environment (Piaget; Vygotsky). Learners are not positioned as passive recipients of information, but rather as subjects who actively interpret, process, and reconstruct knowledge based on their experiences and social contexts. Within this framework, the student-centered approach provides space for learners to construct meaning, reflect on learning experiences, and internalize values consciously and continuously. The learning process emphasizes not only mastery of subject matter, but also the development of self-awareness, learning responsibility, and emotional engagement of learners.

This approach is in line with the principles of deep learning, which emphasizes conceptual understanding, interconnections between ideas, and the ability to reflect on the meaning behind the information being learned. Deep learning encourages learners to read critically, interpret texts deeply, and relate them to real life, social values, and the issues they

face. Thus, reading activities are no longer mechanical or merely fulfill academic requirements, but become a meaningful process that involves cognitive, affective, and moral dimensions.

The integration of student-centered learning with deep learning is believed to increase interest in reading because students feel they have control and relevance over their learning process. In addition, values can be formed more authentically because they are not taught dogmatically, but are built through understanding, reflection, and critical dialogue. Therefore, this approach is seen as a relevant pedagogical strategy to address the issues of low reading interest and weak internalization of values in the context of contemporary education.

The paradigm shift in education in the 21st century demands a transformation in the learning process that is not only oriented towards academic achievement, but also towards the development of awareness, meaning, and a fun and in-depth learning experience. In this context, deep learning has emerged as an innovative approach that emphasizes the cognitive, affective, and

psychomotor involvement of students as a whole (Apriliyana, 2025; Fitrah et al., 2025; Zuhri et al., 2025). This approach encourages teachers to create student-centered learning processes, facilitate critical, reflective, creative, and collaborative thinking skills, and build meaningful connections between knowledge and real life.

Although deep learning approaches have been widely discussed in contemporary educational literature as approaches that promote conscious, meaningful, and enjoyable student understanding and the development of higher-order thinking skills (Biggs et al., 2022; Michael Fullan, Joanne Quinn, 2018a) their implementation in school learning practices still faces various obstacles. A number of studies show that deep learning often stops at the conceptual level and has not been fully realized in classroom learning practices (Darling-Hammond & Oakes, 2021). Most previous studies have focused more on the effectiveness of deep learning in improving student learning outcomes and academic achievement (Hattie, 2008), while studies examining how teachers concretely operationalize this approach in learning are still relatively limited. This gap is even more apparent at the secondary education level, which is characterized by curriculum complexity, administrative demands, and variations in teacher readiness and competence (Paniagua & Istance, 2018). In the Indonesian context, research on deep learning tends to emphasize policy suitability and pedagogical idealism, but has not explored the understanding, strategies, and challenges faced by teachers in implementing deep learning in the classroom (Michael Fullan, Joanne Quinn, 2018b). This situation indicates a gap between the idealism of deep learning theory and the reality of learning practices, necessitating empirical research that specifically examines the practices, experiences, and competencies of teachers in applying deep learning in secondary

education in Makassar City, Indonesia. studies have focused on the effectiveness of deep learning in improving learning outcomes, but relatively few have examined how teachers concretely operationalize this approach, especially in the context of secondary education in Indonesia. This shows that teachers' understanding and competence in implementing deep learning still varies, and is often limited.

In addition to pedagogical competence, the implementation of deep learning is also influenced by limited resources, a learning culture that is still teacher-centered, and administrative demands that take up teachers' time to design more meaningful learning experiences (Leek et al., 2024; Martin-alguacil et al., 2024; Woods & Copur-gencturk, 2024). This situation has led to deep learning being discussed more often than it is consistently and measurably practiced. Therefore, studies that explore how teachers understand, plan, and apply deep learning are important to bridge the theory-practice gap and identify the systemic support needed for this approach to be optimally implemented in school learning.

A particular phenomenon observed in the field shows that many teachers still focus on surface learning, where the learning process emphasizes memorization and achieving good test scores. This condition can be observed in various secondary schools, including in the city of Makassar. Although various training and socialization programs related to deep learning have been conducted by the South Sulawesi Provincial Teacher Training Center, the results have not yet shown consistent implementation in the classroom. Some teachers demonstrated a good understanding of the principles of deep learning and were able to apply them in their lesson plans, but others still faced obstacles in terms of time management, media readiness, and low student motivation.

In addition, contextual factors such as differences in students' initial abilities, limited teaching time, low interest in reading, and inability to manage reflective discussions pose their own challenges. Teachers at Makassar City High School, as observed in the field, have tried to adjust their teaching methods and strategies to suit the characteristics of their students.

Findings regarding low reading interest and a strong orientation towards grades need to be linked to empirical evidence and learning motivation theory. National research shows that reading interest and learning motivation are interrelated and have a positive impact on student learning outcomes at various levels of education, for example at SMP PGRI 2 Sekampung, where learning motivation correlates with reading interest and influences learning achievement (The Relationship between Student Learning Motivation and Reading Interest with Physics Learning Outcomes) and at PGRI 1 Jombang High School, which found that reading interest and learning motivation together influence student learning achievement (The Influence of Reading Interest and Learning Motivation on Student Learning Achievement) (Ricita et al., 2025). Internationally, studies also show that intrinsic motivation which focuses more on personal interest and satisfaction in the reading process—correlates more strongly with academic reading ability than extrinsic motivation (Intrinsic and Extrinsic Motivation as Predictors of Academic English Reading Performance), supporting the Self-Determination Theory about the importance of intrinsic motivation in reading engagement (JEET Journal) (Lubis & Jasrial, 2025). This condition emphasizes the need for a more in-depth study of how high school teachers implement deep learning in a real context, what factors support and hinder the process, and what good practices can be used as

models for future teacher professional development. Thus, this research is urgent in order to provide an empirical picture of the implementation of deep learning in secondary education, particularly in the city of Makassar, while also enriching the literature on strategies for implementing meaningful learning in Indonesia.

Based on this description, the purpose of this study is to describe and analyze in depth the factors that support and hinder the implementation of deep learning, as well as to identify good practices carried out by teachers in applying this approach. This research aims to provide a comprehensive understanding of the dynamics of deep learning implementation in schools, so that the results can be used as a basis for designing teacher training, educational policies, and learning innovations that are more effective and oriented towards improving the quality of the learning process.

METHOD

This study uses a qualitative approach with a case study design (Creswell, 2018; Unaradjan, 2019; Upe, 2022; R. K. Yin, 2018) to gain an in-depth understanding of the implementation of Deep Learning by high school teachers participating in Batch 1 of the Makassar City Class K Program. This approach was chosen because it is able to explore social realities, pedagogical behavior, the dynamics of the learning process, and the responses of training participants in a natural and holistic context.

As mentioned, case studies allow researchers to explore phenomena intensively in specific locations, individuals, or groups. In this study, the cases examined were the implementation of Deep Learning training and teacher learning practices in the classes they taught.

The study subjects consisted of 33 teachers from 11 public and private

high schools, divided into three study groups. This criterion was met because these teachers were participating in in-depth learning training. The researcher acted as a facilitator during the training process, thus having direct access to observe interactions, participant engagement, and learning implementation practices in their respective schools.

Data collection was conducted using three main techniques: (1) participatory observation during In-1, OJT 1–3, and In-2 sessions, (2) in-depth interviews with model teachers and training participants, and (3) documentation in the form of teaching modules, learning media, and reflection notes. Data analysis followed the stages of data reduction, data presentation, and conclusion drawing. To maintain the credibility of the findings, data validity techniques were used in the form of source triangulation, member checking, and peer discussion. Through this method, the study is expected to produce a comprehensive picture of the planning, implementation, obstacles, and good practices of deep learning implementation at the secondary education level, as well as provide an empirical basis for teacher professional development in the context of learning transformation in Indonesia.

RESULTS AND DISCUSSION

Context of In-Depth Learning and Distribution of Training Participants

This study focuses on high school teachers who participated in Deep Learning training in Batch 1 of the 1K Class Program in Makassar City. This program is part of an initiative by the Ministry of Primary and Secondary Education (Kemendikdasmen) through the Center for Teachers and Education Personnel in an effort to strengthen the professional competence of educators, particularly in applying learning approaches that foster higher-order thinking skills, creativity, collabora-

tion, and meaningful learning for students (Ismayilova & Laksov, 2023; X. Yin et al., 2023).

Researchers were inspired by this learning transformation phenomenon and were directly involved as facilitators in this training. This role provided researchers with the opportunity to gain a deeper understanding of the reality, both in terms of the acceptance process, responses, and the dynamics of teachers in understanding and implementing the concept of Deep Learning in their respective classrooms. In Batch 1, researchers were assigned to assist high school teachers who were members of Class 1K.

The Makassar City Class 1K Batch 1 program was attended by 33 teachers from 11 schools throughout Makassar City, including both public and private schools. The participants were divided into three groups consisting of teachers from different subjects, such as Physics, Biology, Mathematics, Indonesian Language, English Language, German Language, Arabic Language, Geography, Economics, Sociology/Anthropology, PKWU, and History. This composition allowed for cross-disciplinary interaction and the exchange of good practices among educators. The research was conducted during a series of Deep Learning training activities, starting with a seven-day In-1 session, followed by On the Job Training (OJT) stages 1, 2, and 3, and concluding with a four-day In-2 session. This series of activities provided space for teachers to not only learn concepts, but also test their application in the classroom, reflect on their experiences, and improve their next learning strategies.

Group 1 consists of teachers from SMAS Kartika XX-1 Makassar, SMAS Islam Athirah Makassar, SMAS Gamaliel Makassar, and SMA Negeri 1 Makassar. The subjects taught by teachers in this group are very diverse, including Physics, Economics, Indonesian Language, Biology, Ger-

man Language, English Language, and Geography. This diversity reflects the broad scientific composition of the training process. Group 2 consists of teachers from SMAN 3 Makassar, SMA Muhammadiyah 1 UNISMUH Makassar, and SMA Muhammadiyah 7 Makassar. This group includes teachers of English, Physics, History, Arabic, and Sociology. The involvement of Muhammadiyah schools was quite dominant in the second group, demonstrating the active role of community-based educational institutions in improving the capacity of educators. Furthermore, Group 3 consisted of teachers from SMAN 15 Makassar, SMAN 5 Makassar, SMAS Hang Tuah Makassar, and SMAN 6 Makassar. The subjects taught include Mathematics, Home Economics, Indonesian Language, Economics, English, Sociology/Anthropology, Biology, and Geography. This group shows a diverse range of fields that are also evenly distributed and rich in scientific disciplines.

Overall, the implementation of Class K Batch 1 in Makassar City demonstrates a serious effort to improve the professionalism of teachers across subjects through collaboration between schools. This activity not only enables the improvement of pedagogical competencies, but also opens up opportunities for the exchange of teaching experiences, learning innovations, and the strengthening of professional networks among educators at the city level.

These findings are supported by national research showing that reading interest and learning motivation are interrelated and have a positive impact on student learning outcomes at various levels of education (Kinasih & Mariana, 2021). For example, at SMP PGRI 2 Sekampung, learning motivation correlates with reading interest and influences learning achievement. Further findings show

that reading interest and learning motivation together influence student learning achievement. Internationally, studies also show that intrinsic motivation, which is more directed towards personal interest and satisfaction in the reading process, correlates more strongly with academic reading ability than extrinsic motivation, supporting the Self-Determination Theory about the importance of intrinsic motivation in reading engagement (JEET Journal) (Lubis & Jasrial, 2025).

Appropriate and Effective Learning Planning

The results of the study show that the lesson plans developed by model teachers have met the characteristics of effective planning and are oriented towards the achievement of student competencies. These plans are realized through the development of teaching modules that are aligned with the learning objectives, learning objectives flow, and predetermined learning outcomes. This alignment refers to a curriculum framework that emphasizes the importance of continuity between planning components so that each learning objective can be translated operationally through structured learning activities. The learning design is also translated into the principles of deep learning, which emphasizes the continuous cognitive, affective, and reflective involvement of students (Biggs, 2006; Fitrah et al., 2025). Through this approach, teachers not only design procedural learning activities, but also stimulate higher-order thinking skills, problem solving, and the ability to connect concepts to real-life contexts.

This principle is in line with Biggs and Tang (2011) view of constructive alignment, namely the importance of integration between learning objectives, learning activities, and assessment as an effort to build meaningful learning experiences. In practice, model teachers ensure that each

component of learning has a logical alignment that supports the formation of deep understanding in students. Thus, planning does not stop at document preparation, but becomes a focused and measurable pedagogical guide. The plan is not only designed individually, but through a collaborative process between model teachers and observers. This collaboration provides space for professional reflection to assess the suitability of the learning design, improve weaknesses, and identify alternative instructional strategies before learning is implemented in the classroom. This process reflects the essence of lesson study, in which teachers act as designers and researchers of learning practices on an ongoing basis. This collaborative model enables the continuous improvement of teachers' pedagogical capacity and minimizes the gap between ideal design and actual implementation.

In addition, model teachers also coordinate with students regarding the readiness of media and learning

resources. This coordination includes the provision of digital devices, supporting teaching materials, and technical instructions necessary before the learning process begins. This step is important to ensure that students have access to and an initial understanding of the learning tools used. Media readiness not only supports the smooth implementation of learning, but also helps create a conducive, inclusive, and adaptive learning environment for students with various abilities. Thus, the learning plans developed by model teachers are not only administrative in nature, but also strategic, reflective, and adaptive to the real needs of students (Fauziati, 2025). Overall, these findings confirm that the quality of good learning planning is an important foundation in developing deep learning practices in schools. Comprehensive, collaborative planning that is oriented towards strengthening student competencies is an essential prerequisite for improving the quality of the learning process and outcomes.

Table 1.
Findings of Appropriate and Effective Learning Planning

No.	Aspect	Findings Indicator	Findings Description
1.	Alignment of Planning with the Curriculum	Penyelarasan tujuan, ATP, dan CP	Model teachers develop teaching modules that are aligned with learning objectives, learning objectives flow, and learning outcomes. Planning follows the curriculum framework so that each objective can be translated into operational and structured learning activities.
2.	Application of Deep Learning	Cognitive, affective, reflective involvement	The learning design applies deep learning principles that emphasize continuous cognitive, affective, and reflective engagement. Teachers stimulate higher-order thinking skills, problem

			solving, and the linking of concepts to real-world contexts.
3.	Collaboration in Planning	Collaboration between model teachers and observers	Planning is carried out through joint discussion and reflection, reflecting the principles of lesson study. This collaboration enables continuous evaluation of designs, improvement of strategies, and enhancement of pedagogical capacity
4.	Impact on Learning Quality	Improvement in learning processes and outcomes	Findings indicate that quality planning is an essential prerequisite for improving learning quality. A focused, collaborative, competency-oriented design supports the effectiveness of the learning process and outcomes.

Source: Results of the researcher's findings analysis

Realistic Learning Implementation with Time Constraints

The findings indicate that teaching has been carried out in a realistic and contextual manner, taking into account the characteristics and conditions of the students in the classroom. Model teachers are able to implement learning strategies in accordance with the initial design, particularly those oriented towards the principles of deep learning. In practice, teachers demonstrated pedagogical skills in managing classroom dynamics through the use of discussion activities, problem exploration, and educational interactions that encouraged active student participation (Alpian et al., 2025; Conde-Izquierdo et al., 2025; Yang et al., 2024). These activities reflect efforts to create a collaborative, reflective learning space that stimulates higher-order thinking skills. However, the reality of classroom learning shows that not all components of the plan can be executed optimally.

One of the main challenges faced by model teachers is changes in the allocation of learning time. In some sessions, the duration of learning, which was originally planned for 45 minutes, was cut to 25 minutes. This situation had consequences for the smooth running of the learning scenario, so teachers had to prioritize material and adapt their delivery strategies. This situation has resulted in several important elements of the learning plan not being implemented, such as the screening of instructional videos, more in-depth exploration activities, and the implementation of formative assessments as a tool to directly gauge student understanding. These obstacles show that the effectiveness of learning is greatly influenced by the availability of time as an instructional resource that cannot be ignored.

This fact is in line with the view that learning effectiveness is influenced by consistency between learning time, instructional strategies, and opportunities for students to

construct understanding independently and collaboratively (Hattie, 2008). Meaningful learning requires sufficient time to explore ideas, engage in reflection, and integrate learning experiences into students' cognitive structures. Therefore, when time allocation is significantly reduced, students' capacity to achieve deep understanding is also hampered. This situation shows that successful learning depends not only on the quality of the learning design, but also on the structural conditions that influence its implementation.

In this context, teachers are required to have pedagogical flexibility to adjust learning strategies without compromising the substance of the desired learning outcomes. Teachers need to determine core activities that contribute significantly to conceptual understanding, while postponing or modifying supporting activities that cannot be carried out. The ability to

adapt quickly is one indicator of a teacher's professionalism in managing time and classroom dynamics. In addition, teachers must identify more efficient alternative methods, such as using short question-and-answer approaches, guided discussions, or reflective assignments as substitutes for formative assessments that cannot be carried out in class.

Overall, this section emphasizes that the implementation of realistic learning is not only determined by its conformity with the initial plan, but mainly by the teacher's ability to manage time constraints strategically and creatively. Teachers who are able to maintain the essence of learning even under limited conditions demonstrate an important adaptive capacity in realizing effective and meaningful deep learning for students. To provide a more focused understanding, the following table of findings has been created:

Table 2.
Findings on the Implementation of Realistic Learning with Time Constraints

No.	Findings	Description of Findings	Implications
1.	Aspects of Learning Implementation	Learning is realistic, contextual, and tailored to student characteristics. Teachers are able to follow the principles of deep learning according to the initial design.	The learning environment is more collaborative and reflective; the principles of deep learning can be implemented, even if not fully.
2.	Learning Strategy	Teachers use discussions, problem exploration, educational interactions, and higher-order thinking activities.	Students participate actively and demonstrate better learning engagement.
3.	Teachers' Pedagogical Skills	Teachers are able to manage classroom dynamics and maintain the continuity of the learning process.	Learning continues to be effective despite situational changes

4.	Impact on the Learning Process	Teachers prioritize core material and modify strategies in a short period of time.	The reduction in time hinders the depth of concept exploration and the quality of student reflection.
5.	Teacher Professionalism	Teachers demonstrate flexibility, creativity, and adaptability in limited conditions.	Becoming an important indicator of pedagogical competence in 21st century learning

Source: Analysis of Researchers' Findings

Challenges and Obstacles to Deep Learning

The results of the study reveal that the implementation of deep learning in the classroom faces a number of multidimensional challenges, originating from students, teachers, and structural learning conditions. These challenges are generally related to learning readiness, academic culture, and limited learning resources. One of the most prominent obstacles is the low level of learning awareness among students, who are still oriented towards achieving good grades rather than conceptual understanding. This kind of learning orientation causes students to tend to memorize information without engaging in higher-level cognitive processes, which is not in line with the characteristics of deep learning that requires analytical, reflective, and evaluative skills. This condition is exacerbated by low reading interest, which limits students' ability to independently access, understand, and process information.

Another challenge lies in the diversity of students' initial abilities. Differences in prerequisite understanding, literacy skills, and critical thinking capacity require teachers to make more complex adjustments to their instructional strategies. In the context of deep learning, this heterogeneity requires adequate learning differentiation design so that students do not only participate passively but

are actively involved in analyzing learning problems. However, teachers still find it difficult to develop differentiation scenarios due to time constraints and a lack of supporting tools. The next obstacle is the lack of student activity in class discussions. Although discussions are designed as reflective-collaborative activities, student participation levels are not yet optimal. Some students choose to remain silent, waiting for answers from the teacher or other classmates. This phenomenon shows that academic communication skills and confidence This phenomenon indicates that students' academic communication skills and self-confidence still need to be developed through the habit of student-centered learning strategies.

In addition, there are challenges related to adjusting learning methods that require analysis and critical thinking. Not all students are accustomed to problem-based analysis or case studies. Teachers also need time to adapt these methods to suit the context and abilities of their students. These obstacles are compounded by limited learning time, meaning that several important stages, such as in-depth exploration or formative assessment, are not carried out optimally. On the other hand, the readiness of learning media is not always supportive. Technical constraints such as limited access to digital devices, technical errors, or

unstable internet networks have an impact on the suboptimal integration of digital learning resources. Therefore, the implementation of deep learning requires stronger support in the form

of a progressive learning culture, professional development for teachers, and improvements in learning facilities and infrastructure. For more details, see the following table:

Table 3.
Findings on Challenges and Obstacles in Deep Learning

No.	Challenge Categories	Description of Findings	Implications for deep learning
1.	Student Learning Orientation	Students focus more on achieving grades than on conceptual understanding; they tend to memorize information.	Inhibits the analytical, reflective, and evaluative thinking processes that are at the core of deep learning.
2.	Low Interest in Reading	Students' literacy skills are limited, making it difficult for them to access and understand information independently.	Limiting students' ability to explore concepts in depth and critically
3.	Difficulty in Differentiation	Teachers have limited time and tools to develop differentiation scenarios.	Learning activities do not always meet students' needs; some students fall behind, while others are underchallenged.
4.	Student Engagement	There are some passive students during discussions who are reluctant to speak and wait for answers from the teacher or their friends.	Reflective-collaborative discussions did not run optimally; academic communication and critical thinking skills were underdeveloped.
5.	Time Constraints	Time management is inadequate for in-depth exploration, discussion, or formative assessment.	The important stages in deep learning are not carried out; the depth of learning is significantly reduced.
6.	Unpreparedness for Critical Thinking Methods	Students are not yet accustomed to problem-based analysis, case studies, or other higher-order thinking activities.	The deep learning process slows down because students need a more intensive pedagogical transition to understand the new method

Source: Analysis of Researchers' Findings

Student Success and Positive Responses in Deep Learning

Research findings show that the implementation of deep learning not only faces challenges, but also produces various significant positive achievements for the learning process and experience of students. This success is evident through increased participation, enthusiasm, and changes in students' learning orientation towards more meaningful cognitive engagement. This confirms that deep learning can be achieved when teachers are able to create a conducive, relevant, and appropriate learning environment for their students. One of the prominent indicators of success is the enthusiasm and active involvement of students in the learning process. Students show a higher interest in the material presented, as reflected in their participation in class discussions, question and answer sessions, and group work. Learning that facilitates concept exploration, problem solving, and reflection encourages students to develop curiosity and confidence in expressing their opinions. This situation supports the characteristics of deep learning that emphasize higher-order thinking activities, including analysis, synthesis, and evaluation.

Another success can be seen in the emergence of meaningful learning experiences. Students are assessed not merely on their passive reception of information, but on their ability to connect new knowledge with real-life experiences, local contexts, and everyday phenomena. This approach is relevant to the principles of constructivism, which states that knowledge is constructed through a process of internalization and reflective social interaction. This meaningful learning is also supported by activities that

stimulate collaborative skills, communication, digital literacy, and critical thinking skills. The contribution to this success cannot be separated from the competence of model teachers in adapting learning methods and techniques. Teachers are able to adjust instructional strategies according to the classroom context, student readiness levels, and the dynamics of the learning process. The variety of methods used, such as case-based learning, problem solving, group projects, and reflective assignments, provide alternative learning paths that enable students to construct their understanding more independently.

In addition, the use of varied learning media is a factor that reinforces the successful implementation of deep learning. The use of learning videos, digital teaching materials, visual simulations, and concrete aids helps students understand abstract concepts more easily. The integration of these media creates a more engaging and multisensory learning experience, while also increasing students' intrinsic motivation to participate in the learning process. Students' positive response to deep learning shows that pedagogical transformation does not only depend on methodological innovation, but also on the teacher's ability to build supportive educational relationships. Thus, the success achieved becomes an important foundation for strengthening the practice of deep learning in schools on an ongoing basis. This learning model has the potential to improve the quality of learning outcomes, critical thinking literacy, and students' readiness to face complex challenges in the future.

Table: 4
Findings on Student Success and Positive Responses in Deep Learning

No.	Aspects of Success	Description of Findings	Key Implications for Learning
1.	Increased Participation and Enthusiasm	Students are more active in discussions, question and answer sessions, and group work; they demonstrate a higher level of curiosity.	Increased cognitive and affective engagement of students; classroom conditions become more dynamic and interactive.
2 .	Changes in Learning Orientation	Students move from value orientation to conceptual understanding and higher-order thinking processes.	Supporting the achievement of deep learning objectives that focus on analysis, reflection, and evaluation.
3.	Meaningful Learning Experiences	Students are able to connect concepts to real-world contexts, local experiences, and everyday phenomena.	Knowledge is more easily internalized; improves transfer of learning to real-world situations
4.	Adaptation of Effective Teaching Methods	Teachers successfully adapted methods such as case-based learning, problem solving, group projects, and reflection.	Providing diverse learning paths so that students can build understanding independently and deeply
5.	Variations in Learning Media	The use of videos, digital teaching materials, visual simulations, and concrete tools enhances the understanding of abstract concepts.	Enhancing intrinsic motivation and creating engaging multisensory learning experiences.
6.	Improving Student Readiness to Face Challenges	Deep learning trains critical thinking, analytical, and problem-solving skills.	Students are better prepared to face complex learning challenges and real-life situations.

Source: Analysis of Researchers' Findings

The uniqueness of this study lies in its contextual examination of deep learning, which highlights teachers' actual practices, implementation challenges,

and the integration of the values of awareness, meaning, and joy of learning.

CONCLUSION

This study shows that the implementation of Deep Learning in the Makassar City Class K Batch 1 Program has had a positive impact on improving teacher competence and the quality of classroom learning, despite facing a number of obstacles. The training was attended by 33 teachers from 11 public and private high schools, with diverse subject backgrounds, creating a space for cross-disciplinary collaboration and strengthening professional learning community practices. In terms of planning, teachers were able to design module-based learning that was aligned with learning objectives, flow, and outcomes. Planning was collaborative, providing space for reflection and validation among teachers. At the implementation stage, learning took place realistically and adaptively to classroom dynamics. Students showed engagement in learning through discussions, problem solving, and collaborative activities, even though limited learning time often required teachers to modify their strategies. This study also reveals various challenges in implementing deep learning, including low student interest in reading, a learning orientation that is still focused on grades, heterogeneity in initial abilities, limited media, and technical constraints during the teaching process. However, success is evident through positive student responses, increased participation, and a more meaningful and contextual learning experience. Thus, deep learning has strong potential to improve the quality of the learning process and outcomes, but it requires more systemic support through the strengthening of academic culture, continuous improvement of teacher professionalism, and the provision of adequate learning facilities. It is important to continue this training model as part of an education transformation that is oriented towards the formation of a holistic,

conscious, meaningful, and enjoyable learning process.

DAFTAR PUSTAKA

- Alpian, Y., Anggraeni, S. W., & Rohayati, N. (2025). The Activity of Students in Problem-Based Learning and Project-Based Learning Models to Improve Social Studies Learning Outcomes in Elementary Schools. *Jurnal Ilmiah Sekolah Dasar*, 9(1), 133–142.
- Apriliyana, N. P. (2025). Transforming Education Through Deep Learning Design : Integrating Four Key Elements in School Practice. *MOLANG: Jurnal Of Islamic Educations*, 03(01), 19–27.
- Biggs, J. (2006). What the Student Does: Teaching for Enhanced Learning. *Higher Education Research & Development*, 18(01).
<https://doi.org/10.1080/0729436990180105>
- Biggs, J., & Tang, C. (2011). Teaching for Quality Learning at University Fourth Edition The Society for Research into Higher Education. *Teaching for Quality Learning at University What the Students Does (4th Ed.)*.
- Biggs, J., Tang, C., & Kennedy, G. (2022). *Teaching for Quality Learning at University 5e*. McGraw-hill education (UK).
- Conde-Izquierdo, S., Ruano, Á. M., & Nicolás, D. P. (2025). The impact of active methodologies in the classroom on academic achievement: A systematic

- literature review using the PRISMA protocol. *International Journal of Educational Research*, 132, 102644.
- Creswell, J. W. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publication Inc.
- Darling-Hammond, L., & Oakes, J. (2021). *Preparing Teachers for Deeper Learning*. Harvard Education Press.
- Fauziati, E. (2025). Deep Learning : A Theoretical Review. *Suara Betang*, 20(1), 123–133.
- Fitrah, M., Sofroniou, A., Yarmanetti, N., Ismail, I. H., Anggraini, H., Nissa, I. C., Widyaningrum, B., Khotijah, I., Kurniawan, P. D., & Setiawan, D. (2025). Are Teachers Ready to Adopt Deep Learning Pedagogy ? The Role of Technology and 21st-Century Competencies Amid Educational Policy Reform. *Education Sciences*, 15(10), 1–19.
- Hattie, J. (2008). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. In *Visible Learning: A Synthesis of Over 800 Meta-Analyses Relating to Achievement*. <https://doi.org/10.4324/9780203887332>
- Ismayilova, K., & Laksov, K. B. (2023). Teaching Creatively in Higher Education : The Roles of Personal Attributes and Environment Teaching Creatively in Higher Education : The Roles of Personal Attributes and Environment. *Scandinavian Journal of Educational Research*, 67(04). <https://doi.org/10.1080/00313831.2022.2042732>
- Kinasih, A., & Mariana, E. (2021). Hubungan Antara Motivasi Belajar dan Minat Baca Siswa dengan Hasil Belajar Fisika Siswa Kelas Viii SMP PGRI 2 Sekampung. *Jurnal Pendidikan Fisika Undiksha*, 11(1), 39–46.
- Leek, J., Rojek, M., Dobińska, G., & Kosiorek, M. (2024). Navigating the power of time in classroom practices : teachers ' and students ' perspectives. *Educational Review*, 0(0), 1–23. <https://doi.org/10.1080/00131911.2024.2438878>
- Lubis, F., & Jasrial, D. (2025). Intrinsic and Extrinsic Motivation as Predictors of Academic English Reading Performance among Multidisciplinary University Students Afdaleni. *Journal of English Education and Teaching*, 09(04).
- Martin-alguacil, N., Avedillo, L., Mota-blanco, R., & Gallego-agundez, M. (2024). Student-Centered Learning : Some Issues and Recommendations for Its Implementation in a Traditional Curriculum Setting in Health Sciences. *Education Sciences*, 14(11), 1–16.
- Michael Fullan, Joanne Quinn, J. M. (2018a). DEEP LEARNIG Engage the World Change the World. In *CORWIN, Principals*.

- Michael Fullan, Joanne Quinn, J. M. (2018b). DEEP LEARNING Engage the World Change the World. In *CORWIN, Principals*.
- Paniagua, A., & Istance, D. (2018). *Teachers as Designers of Learning Environments*. OECD Publishing.
- Unaradjan, D. D. (2019). Metode Penelitian Kuantitatif - Google Books. In *Universitas Katolik Indonesia Atma Jaya*.
- Upe, A. (2022). *Metode Riset Kuantitatif dan Kualitatif (Mengurai Perbedaan Ke Arah Mixed Methods*. Cv. Linterasi Indonesia.
- Woods, P. J., & Copur-gencturk, Y. (2024). Examining the role of student-centered versus teacher-centered pedagogical approaches to self-directed learning through teaching. *Teaching and Teacher Education, 138*, 1–16. <https://doi.org/10.1016/j.tate.2023.104415>
- Yang, W., Zhang, X., Chen, X., Lu, J., & Tian, F. (2024). Based case based learning and flipped classroom as a means to improve international students ' active learning and critical thinking ability. *BMC Medical Education, 24*, 1–8.
- Yin, R. K. (2018). Case study research and applications: Design and methods. In *Journal of Hospitality & Tourism Research* (Vol. 53, Issue 5). <https://doi.org/10.1177/109634809702100108>
- Yin, X., Rashid, M., Mohd, B., Binti, H., & Halim, A. (2023). A systematic review of critical thinking instructional pedagogies in EFL writing: What do we know from a decade of research. *Thinking Skills and Creativity, 49*, 101363. <https://doi.org/10.1016/j.tsc.2023.101363>
- Zuhri, A. S., Muslikhah, U., & Sumino. (2025). The Deep Learning Approach in 21st Century Education. *Jurnal Ilmiah Penelitian Mahasiswa, 3*(5), 730–741. <https://ejurnal.kampusakademik.my.id/index.php/jipm/article/view/1523/1275>