

Lecturer's Strategy In Developing Higher-Order Thinking Skills (HOTS) Through The Deep Learning Approach In Macroeconomic Theory Courses

Muhammad Hadianur¹, Widianty², Endang Setiawati³, Mahbubatur Rida⁴, Anisa Dwi Astuti⁵

^{1,2,3,4,5} Pendidikan Ekonomi, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Muhammadiyah Sampit

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Abstract

The development of higher education in the Industrial Revolution 4.0 era requires students to have higher-order thinking skills (HOTS). However, in practice, HOTS development still faces various challenges in the university environment. Several studies show that students still tend to memorize economic concepts without being able to connect them to real phenomena. Based on this context, this study aims to analyze in-depth lecturers' strategies in developing higher-order thinking skills (HOTS) through a deep learning approach in Macroeconomic Theory courses. This study applies a qualitative method with a case study approach. Data were collected through observation and in-depth interviews with lecturers and students. Data analysis refers to the Miles and Huberman model which includes the stages of data reduction, data presentation, and conclusion drawing supported by the use of Nvivo software. The results of the study show that lecturers apply learning strategies based on macroeconomic case study analysis, policy evaluation, and the creation of academic solutions that encourage students' HOTS. This strategy is combined with deep learning that includes meaningful learning, mindful learning, and joyful learning, thereby increasing cognitive engagement, reflective awareness, and student learning motivation. The conclusion of this study states that the strategy used by Macroeconomic Theory lecturers through a deep learning approach is effective in developing students' higher-order thinking skills (HOTS), particularly in analyzing, evaluating, and creating. However, its implementation still faces obstacles such as student readiness, lecturers' pedagogical skills, and limited learning resources and time allocation.

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Corresponding Author:

Muhammad Hadianur

Universitas Muhammadiyah Sampit

Email Coresspondent: ianhadianur28472@gmail.com

1. INTRODUCTION

The development of higher education in the era of the Industrial Revolution 4.0 requires students to have high-level thinking skills or *Higher Order Thinking Skills* (HOTS). This ability is crucial to help students navigate increasingly complex economic and social dynamics. Strengthening HOTS enables students not only to understand concepts but also to analyze, evaluate, and make informed decisions. The government, through the Ministry of Education and Culture, has emphasized the importance of HOTS implementation in the learning and evaluation process. This policy aims to equip students with advanced thinking skills, including critical thinking, reasoning, rationality, introspection, metacognition, and innovation (Kemendikbud, 2017). In this context, critical thinking is a crucial skill for students to possess because it plays a role in helping them solve problems, both simple and complex (Siti Halimah & Qahfi, 2025). HOTS-based evaluation instruments are also aimed at stimulating students to reason beyond memorization and basic applications. This policy positions lecturers as the primary actors responsible for designing learning that encourages higher-order thinking skills.

However, in practice, the development of higher-order thinking skills (HOTS) still faces several obstacles in higher education. Several studies show that students tend to simply memorize

economic concepts without connecting them to everyday events. Traditional learning approaches also fail to provide students with the full opportunity to explore, analyze, and reflect deeply on their understanding. In Macroeconomic Theory courses, the abstract nature of material such as economic growth, fiscal policy, inflation, and unemployment increasingly requires learning strategies that facilitate students' connection between theory and reality.

Although research on HOTS and deep learning, while the field continues to develop, studies specifically examining lecturers' strategies for integrating these two aspects in Macroeconomic Theory courses are still limited. Previous research generally focused on the effectiveness of learning models or improving learning outcomes, rather than on how lecturers design, implement, and evaluate problem-based learning strategies of *deep learning* to develop students' HOTS. This gap is important to address, considering that lecturers have a strategic role as *learning designer* which determines the quality of the learning process.

One of the most relevant approaches is deep learning. (*Deep Learning*) that encourages straightforward conceptual understanding, interdisciplinary integration, meaningful learning, and reflection on the learning process (Biggs & Tang, 2011). This approach not only encourages the development of HOTS but also 21st-century skills such as analysis, evaluation, communication, and collaboration. In Macroeconomic Theory, in-depth learning can help students understand the relationships between abstract concepts and economic phenomena, enabling them to identify problems and find relevant solutions. This approach relies heavily on the lecturer's strategy in designing learning activities, providing feedback, and facilitating reflective discussions.

Based on this context, this study aims to analyze in depth the lecturer's strategy in developing high-level thinking skills (HOTS) through an approach of *deep learning* in the Macroeconomic Theory course, and identify obstacles and opportunities in its implementation. This research is expected to provide practical contributions for lecturers in designing more effective and relevant learning, while also providing theoretical contributions to the development of economic education studies in Indonesia.

2. MATERIALS AND METHODS

A lecturer's learning strategy is a systematic plan for effectively achieving learning objectives. Each lecturer has a different strategy because they interact directly with students, thus providing opportunities for students to understand the material in depth (Ririn Eka Monicha & Wanto, 2022). The right strategy not only facilitates the delivery of material but also stimulates the growth of knowledge and critical thinking skills. Furthermore, a lecturer's strategy must foster an active, reflective, and student-centered learning environment. An approach that allows space for in-depth analysis, assessment, and conceptual linkages, such as *deep learning*, it is very important to cultivate higher-order thinking skills (HOTS).

Higher Order Thinking Skills (HOTS) refers to students' abilities that emphasize advanced thinking skills, namely critical, creative, logical, metacognitive, and innovative thinking (Helda Viniyasi & Mulyani, 2022). According to (Aziz Rizki & Puspita, 2023), critical thinking skills or Higher Order Thinking Skills (HOTS) are the ability to think by utilizing all existing knowledge to analyze, synthesize, and evaluate a problem, thereby producing effective or different solutions from common solutions. In the context of HOTS, higher-order thinking skills include analyzing, evaluating, and creating (Anderson & Krathwohl, 2001). Analyzing is a cognitive ability that allows someone to break down a problem into its essential parts to gain deeper insight into the object being studied (Gunartha, 2024). Evaluating is a key element in the Higher Order Thinking Skills (HOTS) indicator. Evaluation is the ability to identify and prove errors in a problem, then formulate an appropriate solution to the problem (Lisda Fitriana Masitoh, 2020). This ability demonstrates an individual's skills in assessing, considering, and making decisions based on certain criteria or standards. According to Anderson and Krathwohl (2001), in the revised Bloom's Taxonomy, the ability to evaluate involves two main activities: examining and criticizing. Based on the revised Bloom's Taxonomy, creating is a higher-order thinking ability that requires a person

to integrate various ideas, concepts, or elements of knowledge into a new, meaningful, and functional whole. This process includes the ability to organize, design, and produce new ideas or products that demonstrate a deep understanding of a concept (Anderson and Krathwohl 2001). A person is considered to have creative abilities if he or she is able to produce ideas that are new, diverse, or different from previous ideas (Gunartha, 2024).

Deep learning is understood as a learning approach that emphasizes higher-order thinking processes. This approach encourages individuals to critically analyze and process information, resulting in in-depth conceptual understanding (Santiani, 2025). According to Deny Khusnul Khotimah (2025), the deep learning approach to learning centers on critical analysis of material, connecting new information with existing knowledge, and applying these concepts in a wider range of contexts. The goal is to create a learning experience that is reflective, meaningful, enjoyable, critical, and provides a deeper understanding.

Indicators of the success of implementing the deep learning approach in learning can be seen from the achievement of three main indicators, namely meaningful learning (meaningful learning), learning with full awareness (mindful learning), and fun learning (joyful learning) (Tri Ariqoh Kholisah & Aesha Najwa Alia, 2025)

Meaningful Learning is a teaching method that emphasizes students' ability to understand, connect, and integrate new information with existing knowledge. In this process, students go beyond simply memorizing data to construct meaning and conceptual connections between pieces of knowledge, resulting in deeper and more lasting understanding (Diputera, 2024).

Mindful learning is a concept in education that emphasizes the importance of mindfulness (or mindfulness) during the learning process (Ryan Angga Pratama & Abidin, 2024). Mindful learning is a learning approach that facilitates students' transformation and integration of concepts with existing ideas. This approach contributes significantly to students' social-emotional development, as it requires strengthening self-awareness in managing emotions and academic challenges throughout the course.

Joyful learning can also be called fun learning, namely a fun learning process (Hilyah Azkiya, 2025). Fun Learning (Joyful Learning) is a teaching approach that aims to create a positive, enjoyable, and motivating learning environment. Its primary goal is to increase student engagement and eliminate boredom during the learning process. A comfortable and encouraging learning environment significantly helps students become more focused, creative, and willing to try new ideas.

This research applies a qualitative method with a case study approach to obtain a comprehensive understanding of lecturers' strategies in developing high-level thinking skills (Higher Order Thinking Skills (HOTS) through the application of a deep learning approach to the Macroeconomic Theory course. Qualitative research is grounded in post-positivist philosophy and conducted in a natural context, with the researcher acting as the primary instrument. Data collection is conducted through triangulation, data analysis is inductive, and research results focus more on interpreting phenomena than generalizing findings (Sugiyono, 2013).

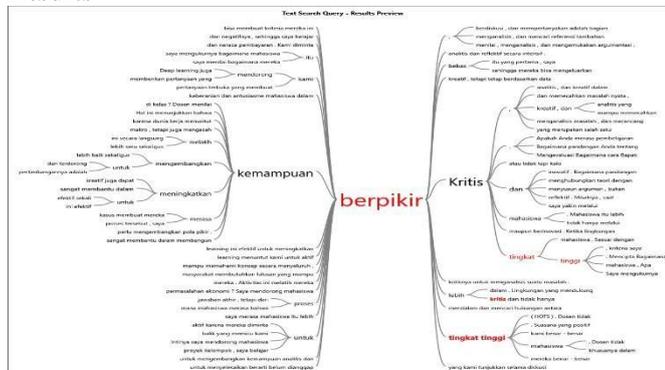
The research was conducted at Muhammadiyah University of Sampit from October to December 2025. The subjects were lecturers teaching the Macroeconomic Theory course, selected through purposive sampling, considering their experience and involvement in implementing deep learning-based learning strategies. Students were also involved as supporting informants to strengthen the data through source triangulation. Data collection was conducted through observation of the learning process and in-depth interviews. Interviews were conducted using semi-structured guidelines focused on the planning, implementation, and evaluation of learning oriented towards HOTS development. Meanwhile, observations were conducted to verify the suitability of learning planning and its implementation in the classroom.

The validity of the data in this study was maintained through the application of source triangulation and technical triangulation. Source triangulation involved comparing data collected from lecturers and students, while technical triangulation involved comparing findings from interviews and observations. These steps were designed to strengthen the credibility and

trustworthiness of the research findings. Data analysis followed the Miles and Huberman model, which consists of data reduction, data presentation, and conclusion drawing (Miles & Huberman, 2014). The analysis process was facilitated by NVivo software, which facilitated coding, grouping categories, and determining key themes. Data reduction was carried out by selecting and coding data relevant to the research focus. Data presentation was organized in a thematic narrative format, while conclusions were drawn gradually throughout the study to reveal patterns and interrelationships between themes related to lecturers' strategies in developing higher-order thinking skills (HOTS) through the learning approach of *deep learning*

3. RESULTS

a. Overview of Research Results



Based on the results of the text search analysis, the keyword "thinking" emerged as a key finding strongly associated with critical thinking and higher-order thinking (HOTS) skills. This finding indicates that the learning approach used by lecturers focuses on developing students' thinking processes through an in-depth learning approach. (*deep learning*). Lecturers not only focus on achieving mastery of the material but also actively facilitate student engagement in analytical, reflective, and evaluative thinking processes. The development of higher-order thinking skills is reflected through the use of open-ended questions that encourage students to present arguments, analyze problems, and connect theoretical concepts to the empirical context of macroeconomics learning. Through this strategy, students are guided to understand the stages and reasoning behind each answer, thus making the learning process more in-depth and meaningful.

In addition, lecturers continuously facilitate discussion and group work activities to develop students' analytical and argumentative skills. These activities train students to develop and defend arguments based on data, while simultaneously evaluating differing viewpoints. This strategy contributes to increased student participation and strengthened higher-level critical thinking skills.

The research findings also revealed that learning assessments not only focus on outcomes but also consider students' thinking processes, such as their ability to analyze problems, convey ideas logically, and reflect on learning. Overall, the research results indicate that lecturers' implementation of a deep learning approach strongly supports the development of students' higher-order thinking skills (HOTS).

b. Lecturer Strategies in Developing High-Level Critical Thinking Skills (HOTS)

1) Analyzing

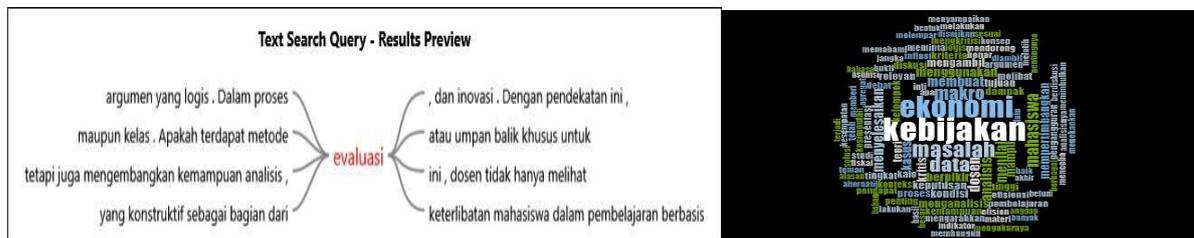


The findings of this study indicate that the ability to analyze is a key indicator of Higher Order Thinking Skills (HOTS), which is the most dominant approach developed by lecturers

in the learning process. This is evident in the consistent frequency of the keyword "analyze" across various contexts, such as classroom activities, student assignments, and the lecturer's role in guiding learning. Students are given practice in identifying macroeconomic problems through case studies, reading and interpreting data, and connecting economic phenomena to relevant theories. The development of analytical skills can be facilitated through learning strategies that present contextual problems, encourage open discussions, and train students to systematically identify and interpret information (Fitria Puteri Arviani & Dewi, 2023).

The analytical process is developed in a gradual and systematic manner, guiding students to follow a logical flow of thought, from understanding data, identifying problems, developing solutions, and drawing conclusions. This emphasis on process indicates that learning is not only about achieving final results but also assessing students' thinking as a crucial part of developing HOTS (Host Values). Lecturers provide active guidance when students encounter difficulties in developing analytical skills, enabling optimal development of analytical thinking skills. Furthermore, analytical skills serve as an indicator for assessing student understanding. Through analysis-based assignments, lecturers can observe the extent to which students are able to relate macroeconomic theory to actual phenomena, interpret data, and construct logical arguments. Thus, analytical skills serve as a key foundation for developing high-level critical thinking.

2) Evaluate

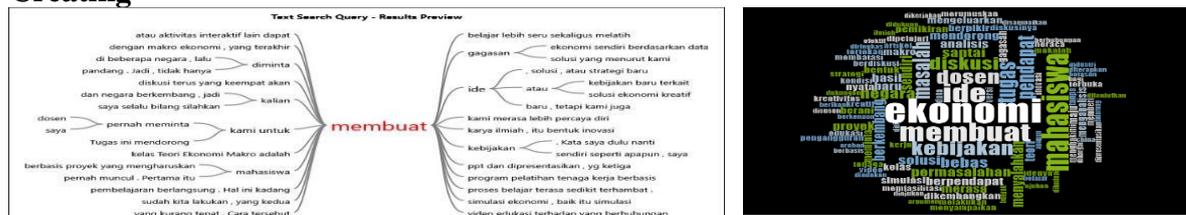


In terms of evaluation, research findings indicate that lecturers integrate evaluation as both a reflective and constructive process. Evaluation is not merely interpreted as an administrative assessment, but rather as a method for developing students' critical thinking skills. Students are guided to assess economic policies, analyze their effectiveness and implications, and examine macroeconomic phenomena using relevant data and indicators.

Instructors consistently provide constructive feedback on student arguments. This feedback is designed to refine thinking patterns, strengthen analytical foundations, and guide students in aligning with applicable economic theoretical frameworks. If students demonstrate inaccurate reasoning or deviate from the topic, instructors provide corrective guidance to refine and deepen their understanding.

Evaluation is also used as a tool to control and strengthen the thinking process. Through evaluation, lecturers can monitor the development of students' analytical skills, their level of engagement in learning, and the quality of their arguments. Thus, the ability to evaluate plays a crucial role in developing students' high-level critical thinking skills.

3) Creating



The research results show that creative skills are developed through learning activities that require students to produce original ideas, solutions, or academic products. Visual data analysis shows the emergence of the keyword "create" in the context of developing economic solutions, formulating policies, developing creative ideas, and creating learning media. Students engage in project-based learning and comprehensive assignments, such as

designing economic strategies, developing analytical presentations, creating simulations, and developing educational videos or media. These activities encourage students to integrate theoretical knowledge with analytical and creative skills.

Furthermore, the creative process provides students with the opportunity to propose ideas, solve data-based problems, and critically present their work. Student engagement in creative activities demonstrates that learning has reached the highest cognitive level, namely creation (C6). Learning focuses not only on conceptual understanding but also encourages students to process knowledge into solutions relevant to macroeconomic problems.

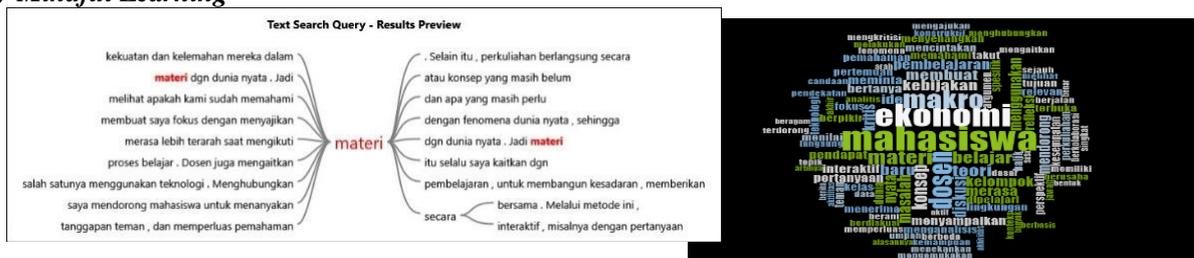
c. Lecturer Strategy through Approach: Deep Learning

1) Meaningful Learning



Research findings reveal that the learning process occurs within a meaningful learning framework, or *meaningful learning*. Lecturers routinely connect macroeconomic ideas to everyday situations and current events, enabling students to relate new information to their existing experiences and foundational knowledge. This method facilitates students in developing a deeper and more organized conceptual understanding. In addition, the learning process is also carried out interactively through group discussion activities, simulations, and case studies. Learners are actively involved in the application of the ideas learned, so that knowledge is not only mastered theoretically, but also applied in real situations. This process of connecting theory and practice increases the value of learning and encourages the formation of lasting understanding.

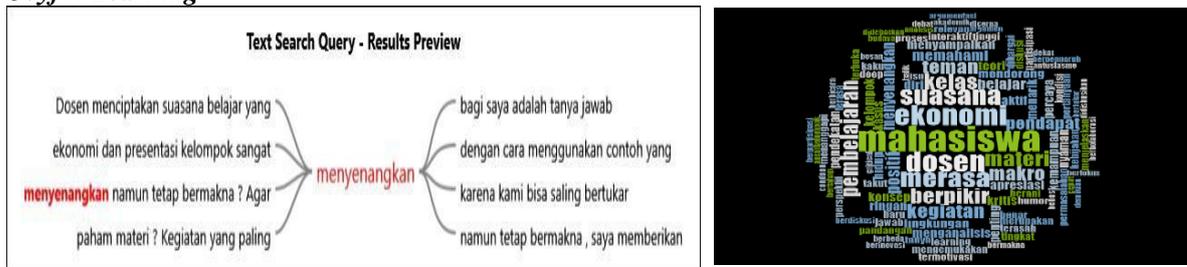
2) Mindful Learning



Implementation of *mindful learning* is evident in learning that demands students' awareness of their thinking processes. Lecturers encourage students to understand the relevance of the material, pay attention to reasoning steps, and reflect on their understanding after the learning process. Dialogic and collaborative interactions in class discussions foster intellectual awareness and openness to diverse perspectives.

Reflection is a crucial element in the learning process, where students assess their understanding and apply thinking approaches. This enhances metacognitive skills and facilitates the growth of analytical, evaluative, and creative abilities, which are the essence of HOTS. Beyond the cognitive aspect, *mindful learning* also creates a supportive emotional atmosphere, so that students are able to be fully involved and concentrate on learning.

3) Joyful Learning



Joyful learning is A fun learning approach is reflected in the creation of a conducive and communicative learning environment, free from psychological stress. Lecturers implement various learning strategies, such as question-and-answer sessions, discussions, and group presentations, which provide more space for students to actively participate. This positive classroom atmosphere encourages students to express opinions, build arguments, and interact in discussions without anxiety. A fun learning environment contributes to increased student motivation and self-confidence. This optimal psychological condition further supports deeper cognitive engagement and strengthens the meaningful learning process. Therefore, fun learning functions not only as an affective aspect of learning but also as a pedagogical approach that plays a role in supporting the development of higher-order thinking skills (HOTS).

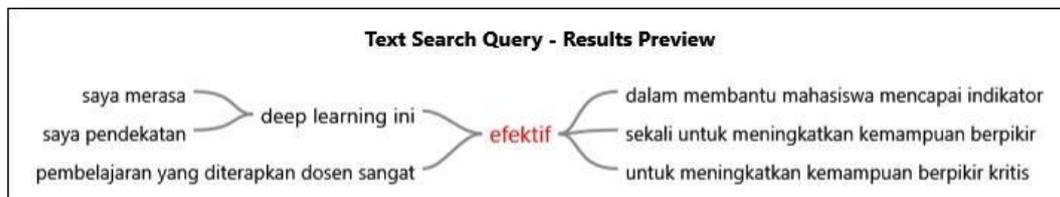
d. Challenges for Lecturers in Developing HOTS through the Approach of Deep Learning



The results of the study show that the lecturer's strategy in developing high-level critical thinking skills (HOTS) is through the approach of *deep learning*. The Macroeconomic Theory course still faces various complex and interrelated challenges. These challenges stem not only from pedagogical aspects but also involve student preparation, the role of lecturers, and the adequacy of learning support facilities. One major obstacle is the low readiness and motivation of some students to actively engage in this learning model, which demands critical thinking skills, collaboration, and a high degree of learning independence. Differences in academic background, motivation, and traditional learning habits mean that not all students can adapt well. Furthermore, lecturers face difficulties in maintaining a meaningful and participatory learning process, as they must act as facilitators who design collaborative activities, encourage in-depth discussions, and build effective group work, which requires more complex pedagogical skills and innovative strategies.

Another challenge relates to limited facilities, such as technology, interactive media, and a conducive learning environment, which, if inadequate, can reduce the effectiveness of learning. Time is also a significant obstacle, as this learning requires more time for planning, implementation, and evaluation, requiring lecturers to design appropriate strategies despite the limitations of class schedules. Overall, these findings indicate that these challenges are multidimensional, encompassing student readiness, lecturer competence, facilities, and time management and strategies. Therefore, sustained and collaborative efforts are needed to overcome these obstacles so that learning based on learning can be effective, and *deep learning* can be implemented optimally and have a positive impact on the quality of learning in higher education.

e. Patterns and Trends Among Findings



The results of the text search query show a strong relationship between the application of the approach of *deep learning* and the effectiveness of learning in developing students' critical thinking skills. The keyword "effective" is consistently tied to the lecturer's teaching strategy, approach *deep learning*, as well as the development of higher-order thinking skills (HOTS). This indicates that students view the learning strategies implemented by lecturers not merely as delivering material, but as methods that significantly influence and develop their complex thinking processes. Therefore, *deep learning* strengthened as the main link between lecturers' teaching tactics and students' HOTS improvement.

Thus, the effectiveness of the research in this study stems from the integration of higher-order cognitive activities such as analysis, evaluation, and creativity with meaningful, conscious, and enjoyable learning experiences. The consistency of these findings reinforces the main tendency that the application of the learning approach, *deep learning*, plays a crucial role in enhancing students' higher-order critical thinking skills, particularly in the context of Macroeconomic Theory courses. This finding aligns with a literature review that suggests integrating deep learning with the development of Higher-Order Thinking Skills (HOTS) can facilitate the development of critical, creative, and reflective thinking patterns in students through a meaningful, context-based learning process (Nihayatul Hafidzni & Yasin, 2025).

4. CONCLUSION

The research findings show that the lecturer's strategy in learning Macroeconomic Theory through the approach of *deep learning* has been proven effective in developing students' higher-order thinking skills (HOTS), which include the ability to analyze, evaluate, and create. Analytical skills are strengthened through the use of macroeconomic case studies, data processing activities, and the integration of theoretical concepts with economic reality. Evaluative skills are developed through learning reflection strategies, critical discussions, and providing constructive feedback on students' arguments. Meanwhile, creative skills are facilitated through project-based learning that encourages students to produce innovative ideas, solutions, and academic work.

The learning strategies implemented by the lecturer are combined with *deep learning*, which includes meaningful learning (*meaningful learning*), conscious learning (*mindful learning*), and fun learning (*joyful learning*). This approach contributes to increasing students' cognitive engagement, strengthening reflective awareness of the thinking process, and creating a conducive, interactive, and motivating learning atmosphere.

On the other hand, this study also found several obstacles in implementing lecturers' strategies to develop HOTS through a deep learning approach, including differences in students' levels of readiness and motivation, increasingly complex demands on lecturers' pedagogical competencies, limited learning support facilities, and limited implementation time. Therefore, ongoing and collaborative efforts are needed to optimize the implementation of this *deep learning* in order to provide a more optimal impact on improving the quality of learning in higher education.

5. BIBLIOGRAPHY

- Aziz Rizki, M. I., & Puspita, E. (2023). Mengajarkan Keterampilan berpikir tingkat tinggi di kelas. *Jurnal Rekayasa, Teknologi, dan Sains*, 1-10. <http://ejournalmalahayati.ac.id/index.php/teknologi/index>
- Anderson, L. K. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. New York: Longman.

- Biggs, J. &. (2011). *Teaching for Quality Learning at University*. McGraw-Hill Education/Open University Press.
- Deny Khusnul Khotimah, M. R. (2025). Analisis Pendekatan *Deep Learning* untuk Meningkatkan Efektivitas Pembelajaran PAI di SMKN di Pringkuku. *Jurnal Pendidikan dan Pembelajaran Indonesia(JPPI)*, 866-879.
<https://doi.org/10.53299/jppi.v5i2.1466>
- Diputera, A. M. (2024). Memahami Konsep Pendekatan *Deep Learning* Dalam Pembelajaran Anak Usia Dini Yang Meaningful, Mindful dan Joyful : Kajian Melalui Filsafat Pendidikan . *Jurnal Bunga Rampai Usia Emas*, 108-120.
- Fitria Puteri Arviani, . D., & Dewi, L. (2023). Role of Teaching Strategies in Promoting Students ' Higher Order Thingking Skills and Critical Thinking Dispositions. *International Journal of Learning, Teaching and Educational Research* , 348-364.
<https://doi.org/10.26803/ijlter.22.9.19>
DOI:10.24114/jbrue.v10i2.67168
- Gunartha, I. W. (2024). pengembangan penilaian berorientasi HOTS: upaya peningkatan kemampuan berpikir kritis siswa di era global abad ke -21. *Widyadari*, 133-147.
DOI:10.59672/widyadari.v25i1.3660
- Hilyah Azkiya, S. I. (2025). Penerapan Metode *Joyful Learning* Dalam Meningkatkan Motivasi Belajar Siswa. *Jurnal Basicedu*, 401-414.
DOI: <https://doi.org/10.31004/basicedu.v9i2.9770>
- Lisda Fitriana Masitoh, W. G. (2020). Pengembangan Instrumen Asesmen Higher Thingking Skills (HOTS) Matematika di SMP Kelas VII. *Jurnal Cendekia: Jurnal Pendidikan Matematika*, 866-894.
DOI: <https://doi.org/10.31004/cendekia.v4i2.328>
- Kemendikbud. (2017). *Modul Penyusunan Higher Order Thinking Skill (HOTS)*. Jakarta: Direktort Jenderal Pendidikan Dasar dan Menengah Departeman Pendidikan dan Kebudayaan.
- Nihayatul Hafidzni, N. P., & Yasin, M. (2025). Kajian Literatur Penerapan *Deep Learning* Pedagogis dan Hots untuk Meningkatkan Literasi dan Numerasi Menuju Indonesia Emas 2045. *Journal of Mandalika Literature*, 752-765.
<http://ojs.cahayamandalika.com/index.php/jml>
- Ririn Eka Monicha, S., & Wanto, D. (2022). Srtategi Pembelajaran Dosen Dalam Mengembangkan Kemampuan Critical Thinking Mahasiswa. *Universitas Muhammadiyah luwuk*, 41-53.
DOI: <https://doi.org/10.32529/al-ilm.v5i1.1661>
- Ryan Angga Pratama, A. S., & Abidin, N. Z. (2024). Efektivitas *Mindful Learning* Dalam Konteks Pendidikan di Indonesia (2000-2024): Sebuah Studi Meta Analisis. *Primatika: Jurnal Pendidikan Matematika*, 77-92.
<https://doi.org/10.30872/primatika.v13i2.4483>
- Santiani, A. f. (2025). Analisis Literatur Pendekatatan pembelajaran *Deep Learning* Dalam Pendidikan. *Jurnal ilmiah Nusantara (JINU)*, 50-57.
DOI: <https://doi.org/10.61722/jinu.v2i3.4357>
- Sugiyono. (2013). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta Bandung.
- Siti Halimah, M. H., & Qahfi, M. (2025). Critical Thinking Skills in Solving Problems in Economics Learning. *Jurnal Ilmiah Mandala Education (JIME)*, 871-883.
DOI: [10.58258/jime.v11i3.9400/http://ejournal.mandalanursa.org/index.php/JIME](https://doi.org/10.58258/jime.v11i3.9400/http://ejournal.mandalanursa.org/index.php/JIME)

Tri Ariqoh Kholisah, H. R., & Aesha Najwa Alia, B. M. (2025). Analisis Efektivitas Implementasi Kebijakan Deep Learning di Sekolah. *Khatulistiwa: Jurnal Pendidikan dan Sosial Humaniora*, 833-845.

[DOI: https://doi.org/10.55606/khatulistiwa.v5i3.7322](https://doi.org/10.55606/khatulistiwa.v5i3.7322)