


## Implementation of the Deep Learning Approach in Developing Students' Critical Thinking Abilities in Economics Learning in Grade X of SMAS PGRI 2 Sampit

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Article Info	Abstract
<p><b>Article history:</b> Received: 15 June 2026 Publish: 1 July 2026</p>	<p><i>This study aims to analyze the effect of the Deep Learning approach on students' critical thinking skills in Economics subjects for Grade X students at SMAS PGRI 2 Sampit. Critical thinking is one of the essential 21st-century competencies that needs to be developed to enable students to face various complex problems. In practice, economics learning is still often teacher-centered, causing students to memorize concepts without fully understanding their meaning. The Deep Learning approach serves as an alternative learning strategy that emphasizes meaningful, reflective, contextual, and student-centered learning. This study employed a qualitative descriptive method with data collection techniques including observation and interviews. The findings revealed that the implementation of the Deep Learning approach was able to improve students' understanding of economic concepts, increase their active participation in learning activities, enhance their ability to analyze economic problems, develop their ability to express opinions logically, and strengthen their self-confidence. These findings indicate that Deep Learning can be an effective learning strategy for improving students' critical thinking skills in Economics subjects.</i></p>
<p><b>Keywords:</b> Deep Learning; Critical Thinking; Economics Learning, 21st-Century Education.</p>	
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### 1. INTRODUCTION

21st-century education demands that students possess a variety of skills that support their ability to adapt to rapid social, economic, and technological changes. One of the key skills is critical thinking. Critical thinking skills enable students to understand information in depth, evaluate various sources, solve problems logically, and make decisions based on reliable evidence (Facione, 2021).

Critical thinking skills are a crucial indicator of successful learning because they focus not only on mastery of the material but also on students' ability to process information and construct understanding independently. In the context of economics learning, critical thinking skills are essential because economics material is closely related to various life phenomena that require analysis and rational reasoning (Paul & Elder, 2021).

Economics subjects not only teach theoretical concepts but also discuss various social and economic phenomena occurring in society. Therefore, learning Economics requires an approach that encourages students to think deeply, analyze problems, and connect concepts to real-world situations. However, in practice, learning is often teacher-centered, leaving students passive recipients of information (Brookfield, 2021).

Based on initial observations at SMAS PGRI 2 Sampit, it was found that some students still have difficulty explaining economic concepts in depth and connecting them to everyday

phenomena. Furthermore, student engagement in discussions is still relatively low, resulting in the underdevelopment of critical thinking skills.

One learning approach considered capable of addressing these issues is Deep Learning. In an educational context, Deep Learning emphasizes in-depth conceptual understanding, active student engagement, and the ability to connect knowledge to real-world experiences (Fullan & Langworthy, 2018).

The Deep Learning approach is built on three main principles: meaningful learning, mindful learning, and joyful learning. Meaningful learning emphasizes meaningful learning, mindful learning emphasizes awareness in the learning process, and joyful learning creates a pleasant learning environment that motivates students to learn (Andyanie et al., 2023).

Various studies have shown that the Deep Learning approach can increase student engagement and develop higher-order thinking skills. However, research specifically examining the implementation of Deep Learning in Economics instruction at the high school level is still relatively limited. Therefore, this study was conducted to describe the implementation of the Deep Learning approach in developing critical thinking skills in grade 10 students at SMA PGRI 2 Sampit.

## 2. RESEARCH METHODS

This study used a descriptive qualitative approach. This qualitative approach was chosen because it provides an in-depth overview of the implementation of the Deep Learning approach and the development of students' critical thinking skills in economics (Creswell, 2018).

The research was conducted at SMAS PGRI 2 Sampit. The research informants consisted of Economics teachers and 10th-grade students directly involved in the learning process. Informants were selected purposively, considering their involvement in the implementation of the Deep Learning approach.

Data collection techniques included observation, interviews, and documentation. Observations were conducted to obtain an overview of classroom learning activities. Interviews were conducted with teachers and students to obtain more in-depth information about their learning experiences. Documentation was used to supplement the research data, including photos of activities, learning materials, and other supporting documents. Data analysis was conducted using the Miles and Huberman model, which includes data reduction, data presentation, and conclusion drawing. Data validity was achieved through source and technique triangulation, ensuring the data obtained is reliable and accountable.

## 3. RESULTS AND DISCUSSION

### a. Research result

The results of the study indicate that the implementation of the Deep Learning approach in Economics learning in class X SMAS PGRI 2 Sampit ran well and was able to create more active, meaningful, and student-centered learning. The implementation of this approach was carried out through various learning activities that encouraged direct student involvement in the learning process, such as group discussions, questions and answers, economic case analysis, presentations of discussion results, and reflection activities at the end of the learning. The teacher acted as a facilitator who provided direction and opportunities for students to explore knowledge independently so that students not only received information but also were involved in the process of building an understanding of the material being studied.

The application of the principle of meaningful learning is evident when teachers relate economics material to various phenomena that occur in everyday life. Students

are encouraged to analyze economic problems in their environment, making the concepts learned easier to understand and relevant to their experiences. Furthermore, the principle of mindful learning is realized through analysis and reflection activities that provide students with opportunities to understand their own thought processes and evaluate the understanding gained during the learning process. Meanwhile, the principle of joyful learning is reflected in a fun, interactive, and non-monotonous learning atmosphere, which encourages students to participate enthusiastically in learning activities.

Based on observations and interviews, the Deep Learning approach has a positive impact on the development of students' critical thinking skills. Students demonstrated improved abilities in understanding information, connecting economic concepts to events in their environment, analyzing various economic problems, and expressing opinions based on logical reasoning. Furthermore, students were able to evaluate various alternative solutions to a problem and draw conclusions based on data and information obtained during the learning process. These abilities demonstrate that students are no longer simply memorizing economic concepts but are now able to understand and apply these concepts in real-life contexts.

Interview results also showed that most students felt more confident in expressing their opinions and participating in discussions after participating in the Deep Learning approach. They felt freer to ask questions, share ideas, and respond to their peers' opinions. This demonstrates that the Deep Learning approach can create a learning environment that supports the development of critical thinking skills while simultaneously increasing students' confidence in the learning process.

#### **b. Discussion results**

The results of the study indicate that the implementation of the Deep Learning approach in Economics learning positively contributes to the development of students' critical thinking skills. This approach allows students to actively engage in the learning process through discussions, case analysis, problem-solving, and reflection on the material being studied. This active engagement provides students with the opportunity to construct knowledge independently, so that learning focuses not only on mastering the material but also on developing higher-order thinking skills. This finding aligns with the opinion of Fullan and Langworthy (2018), who stated that Deep Learning is a learning process that encourages students to understand the meaning of what is learned and relate it to real-life situations.

The application of the Deep Learning approach is evident through learning activities that connect economics material to phenomena occurring in the students' environment. Teachers not only convey theoretical concepts but also provide opportunities for students to analyze various economic issues relevant to everyday life. Through this process, students can develop a deeper and more meaningful conceptual understanding. The results of this study support the theory of meaningful learning, which emphasizes that learning will be more effective when new information is linked to students' existing experiences and knowledge (Biggs & Tang, 2020).

In addition to improving conceptual understanding, the Deep Learning approach also encourages active student engagement in the learning process. Group discussions, presentations, Q&A sessions, and case study completion provide students with opportunities to express their opinions, exchange ideas, and develop communication and collaboration skills. This creates a more interactive learning environment than teacher-centered learning. This finding aligns with Hattie's (2020) finding that active student engagement is a key factor influencing learning success.

The development of students' critical thinking skills is evident in their ability to comprehend information, analyze economic problems, evaluate various alternative solutions, draw conclusions based on available data, and reflect on the learning process. These abilities demonstrate that the Deep Learning approach can help students develop higher-order thinking skills, which are essential for facing life's challenges. This finding aligns with Facione's (2021) theory, which states that critical thinking encompasses the abilities of interpretation, analysis, evaluation, inference, and reflection.

The development of students' critical thinking skills is also evident in their increased confidence in expressing their opinions during the learning process. Before the implementation of the Deep Learning approach, some students tended to be passive and lacked confidence in participating in class discussions. However, after learning was implemented with a more student-centered approach, they became more active in asking questions, providing responses, and presenting arguments based on their understanding. This situation suggests that learning that provides opportunities for students to explore ideas and learning experiences independently can increase their self-confidence and critical thinking skills. These results support the opinion of Paul and Elder (2021), who stated that critical thinking skills develop through active individual involvement in the thinking and decision-making process.

Critical thinking skills also develop through the formation of self-awareness (*self-awareness*), students' perceptions of the learning process they are undergoing. Good self-awareness helps students understand their strengths and weaknesses, manage learning activities more purposefully, and evaluate strategies used to understand learning materials. Through the reflection process, which is one of the characteristics of the Deep Learning approach, students are encouraged to review learning experiences, identify errors, and plan improvements for subsequent learning. This condition contributes to increased critical thinking skills because students not only receive information passively but also actively evaluate their thinking processes and decisions. This finding is in line with research by Sudarmono, Apuanor, and Kurniawati (2017), which shows a positive relationship between self-awareness and student learning behavior. The higher the level of self-awareness students have, the better their ability to regulate learning behavior, make academic decisions, and solve problems encountered during the learning process.

Overall, the research results show that the Deep Learning approach not only contributes to improved understanding of economic concepts but also supports the development of various 21st-century competencies, including critical thinking, communication, collaboration, creativity, and problem-solving. Student-centered learning provides opportunities for students to develop these skills through meaningful, reflective, and enjoyable learning experiences. Therefore, the Deep Learning approach can be a relevant alternative learning strategy to be implemented in Economics teaching to improve the quality of student learning processes and outcomes.

#### 4. CONCLUSION

Based on the research results, it can be concluded that the implementation of the Deep Learning approach in Economics learning in class X SMAS PGRI 2 Sampit is able to develop students' critical thinking skills optimally. This is demonstrated through the improvement of students' abilities in understanding and interpreting information, analyzing economic problems, evaluating various alternative solutions, drawing conclusions based on

available facts and data, and reflecting on the learning process that has been implemented. The development of these abilities shows that students no longer play a role as passive recipients of information, but rather as active learning subjects in building knowledge and solving problems independently.

The application of the Deep Learning approach also succeeded in creating meaningful learning (*meaningful learning*), aware (*mindful learning*), and fun (*joyful learning*). Through this approach, students are able to connect economic concepts to everyday phenomena, making learning more contextual and relevant. Furthermore, students demonstrate increased confidence in expressing opinions, participating in discussions, and collaborating to complete assignments and problems assigned by the teacher.

The findings of this study confirm that the Deep Learning approach not only contributes to improving students' conceptual understanding but also plays a crucial role in developing 21st-century skills, particularly critical thinking, communication, collaboration, creativity, and problem-solving. Therefore, the Deep Learning approach can be used as an effective and relevant learning strategy for implementation in Economics and other subjects to support a higher-quality learning process oriented toward holistic student competency development.

Based on these research findings, it is recommended that teachers continue to develop student-centered learning by continuously integrating Deep Learning principles. Schools are also expected to provide support by providing a conducive learning environment and training for teachers to ensure optimal implementation of Deep Learning. Future research can develop broader studies involving different subjects and contexts to gain a more comprehensive understanding of the effectiveness of the Deep Learning approach in improving the quality of learning and students' critical thinking skills.

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## 6. BIBLIOGRAPHY

- Andayanie, E., Suyanto, T., & Mulyadi, A. (2023). Implementasi pendekatan deep learning dalam meningkatkan kualitas pembelajaran abad ke-21. *Jurnal Pendidikan Indonesia*, 12(2), 145–156.
- Biggs, J., & Tang, C. (2020). *Teaching for quality learning at university* (5th ed.). McGraw-Hill Education.
- Brookfield, S. D. (2021). *Becoming a critically reflective teacher* (3rd ed.). Jossey-Bass.
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publications.
- Facione, P. A. (2021). *Critical thinking: What it is and why it counts*. Insight Assessment.
- Fullan, M., & Langworthy, M. (2018). *A rich seam: How new pedagogies find deep learning*. Pearson.
- Hattie, J. (2020). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.
- Hidayat, R., Sari, N., & Putra, A. (2022). Pengaruh pembelajaran berbasis deep learning terhadap kemampuan berpikir kritis siswa sekolah menengah. *Jurnal Pendidikan dan Pembelajaran*, 29(3), 210–220.
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook* (4th ed.). Sage Publications.

- Moleong, L. J. (2021). *Metodologi penelitian kualitatif* (Edisi revisi). PT Remaja Rosdakarya.
- Paul, R., & Elder, L. (2021). *The miniature guide to critical thinking concepts and tools* (8th ed.). Foundation for Critical Thinking.
- Sugiyono. (2023). *Metode penelitian kualitatif, kuantitatif, dan R&D*. Alfabeta.
- Sudarmono, S., Apuanor, A., & Kurniawati, K. (2017). Hubungan kesadaran diri dengan perilaku belajar siswa. *Jurnal Pendidikan dan Pembelajaran*, 6(4), 1–10.
- Sukmadinata, N. S. (2020). *Metode penelitian pendidikan*. PT Remaja Rosdakarya.
- Uno, H. B. (2021). *Teori motivasi dan pengukurannya: Analisis di bidang pendidikan*. Bumi Aksara.
- Widoyoko, E. P. (2021). *Teknik penyusunan instrumen penelitian*. Pustaka Pelajar.
- Yamin, M. (2022). Pembelajaran bermakna sebagai strategi peningkatan kemampuan berpikir kritis siswa. *Jurnal Pendidikan Humaniora*, 10(1), 55–6