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The Role of Problem-Based Learning Textbooks in Improving Students' Analytical and Critical Skills Introductory Management Course

Bayu Surindra[1], Tjetjep Yusuf Afandi[2], Susi Damayanti[3], Faridha Nadzirotul Rohmah[4], Nila Assaidiyyah[5]

[1,2,3,4,5]Economics Education Study Program, Faculty of Economics and Business, Nusantara PGRI University of Kediri, Indonesia

Corresponding Author: Bayu Surindra

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ABSTRACT

This study aims to ascertain the contribution of Problem-Based Learning (PBL)-based textbooks to the development of students' critical and analytical skills in the 'Introduction to Management' course. The study employed a quantitative approach involving a comparative test procedure. Using saturated sampling, the research sample comprised all students enrolled on the Economics Education Study Programme's Introduction to Management course. After collecting the pre-test and post-test data, it was analysed using a paired samples t-test. With a significance value (Sig. 2-tailed) of 0.000 (<0.05), the results revealed a significant difference in the students' pre- and post-test scores. The average score increased from 77.79 in the pre-test to 88.39 in the post-test. According to this study, using PBL-based textbooks helped students to develop their analytical and critical thinking skills. Using PBL-based textbooks has been proven to positively impact student achievement in higher education, particularly with regard to developing critical thinking skills.

Keywords: Textbook, Problem-Based Learning, Analytical and Critical Thinking Abilities, and an Introduction to Management

INTRODUCTION

The Industrial Revolution 4.0 marks the global community's entry into a new era of civilisation, where unlimited competition in the age of globalisation permeates various aspects of life, including education (Shofina & Annisa, 2023). Education is a structured form of communication that is designed to facilitate learning by guiding students through the teaching and learning process (Moiyo et al., 2024), One of the initiatives is designed to raise standards and potential for everyone (Siringoringo et al., 2023). Higher education in the 21st century era is faced with the challenge of not only transferring knowledge, but also developing students' thinking skills, especially analytical and critical skills.

The need for qualified human resources, able to develop their potential, and ready to face various future challenges makes universities have a strategic role in improving this quality through the implementation of the Tri Dharma of Higher Education (Riyanto et al., 2024) dan (Manurung & Marini, 2023). The aim of national education is to educate the nation and all Indonesian people, in order to produce individuals who are faithful and

devoted to God Almighty; who have noble characters; who are knowledgeable and skilled; who are physically and mentally healthy; and who live independently and prosperously (Pandiangan et al., 2023).

This is in line with the demands of the world of work and scientific developments that emphasise the importance of deep thinking, problem solving and analysis-based decision-making. However, the learning process in higher education, particularly on the Introduction to Management course, remains largely conventional, focusing on one-way lectures. While the lecture method can still be used, it needs to be supplemented by innovative, learner-centred learning models (Ulimaz et al., 2023). The success of an education system depends heavily on educators' ability to design and implement the learning process (Husnita & Saputri, 2023). Consequently, students tend to be passive and less involved in critical thinking, finding it difficult to link management concepts to real-world contexts.

According to TIMSS data from 2011 and PISA data from 2012, Indonesia was ranked 40th and 54th out of 42 and 65 countries respectively. This suggests that the development of critical thinking skills has not received sufficient attention in Indonesia (Biruni et al., 2023). Critical thinking, defined as the reflective process of determining what to believe and do, has been established as an educational competency standard in various developed countries, including the United States, Canada, Australia and New Zealand. It is also the goal of the Indonesian National Qualifications Framework for achieving learning competencies (Fitriani et al., 2022). Students need critical thinking skills because every activity requires careful consideration to minimise potential risks or negative impacts (Rosmaiyadi et al., 2023). PBL (Problem-Based Learning) is a learning model developed to train critical thinking skills. It is student-centred and takes a constructivist approach, involving negotiation between learners to give them more control over the learning processs (Pertiwi et al., 2023).

In order to develop critical thinking skills to their full potential, they must be trained continuously and deliberately (Muliana et al., 2024). Critical thinking, problem solving, creativity, discovery, collaboration and communication (4Cs) are essential 21st century skills that help prepare young people for an ever-changing world (Nisa et al., 2022), (Esteban et al., 2023), (Indriani et al., 2023) dan (Sabat et al., 2024). Critical thinking is one of the most important abilities that everyone, especially students, should possess (Susanti, 2023). Critical thinking skills are important because they enable individuals to maximise their potential for overcoming various everyday problems, particularly in an educational context (Khalid & Syafri, 2023).

Critical thinking skills are essential for dealing with everyday situations, as they help learners to solve simple and complex problems and identify truthful information (Siswanto & Andriyani, 2024). Critical thinking is a metacognitive process involving the access, analysis and synthesis of knowledge, which can be acquired, practised and mastered. In order to generate logical conclusions to arguments or solutions to problems, critical thinking also requires reflective judgement (Ashari, 2023). Critical thinking enables students to analyse situations in depth, identify root causes and consider multiple perspectives in order to find the most effective solution (Firmansyah, 2024). Critical thinking skills involve understanding, analysing and evaluating information in order to make logical and rational decisions (Triansyah et al., 2023).

Students are encouraged to participate actively in the critical and analytical thinking process by applying the Problem-Based Learning (PBL) methodology (Busdayu et al., 2022). Problem solving is one way to develop 21st-century skills. The problem-based learning (PBL) strategy seeks to increase students' intrinsic motivation and prepare them to tackle real-

world challenges (Wahyudin, 2023). Problem-Based Learning (PBL) enables educators to design a learning process that fosters active student engagement and cultivates the advanced reasoning abilities necessary for addressing contemporary challenges (Selirowangi et al., 2024). Problem-based learning (PBL) encourages students to actively solve real-world problems. It is one of the active learning strategies that focuses on using problems to inspire and encourage effective learning (Kusuma & Nurmawanti, 2023) dan (Farihin et al., 2023).

PBL focuses learning on solving real problems, encouraging students to think critically, collaboratively and independently. It is also one of the strategic alternatives for improving students' critical and analytical thinking. PBL puts students at the centre of the learning process by presenting them with challenging, contextualised problems to analyse and solve together. This approach is believed to encourage active student involvement and systematically develop their critical and analytical thinking skills. By connecting students' prior knowledge with the problems they encounter during the investigative process, PBL encourages them to participate in solving real-world problems through group projects. In theory, PBL can serve as a tool to foster critical thinking skills (Amaliyah et al., 2023). The Problem-Based Learning (PBL) approach places problems at the heart of the learning process. Students are actively and collaboratively trained to analyse and solve problems based on in-depth thinking (Damayanti & Nursalam, 2022). However, the effectiveness of implementing PBL is highly dependent on the availability of supporting learning materials, such as a specially designed PBL-based textbook.

The textbooks currently used for the Introduction to Management course are still generally narrative and theoretical and do not yet optimally accommodate the PBL approach. The need for PBL-based textbooks is increasingly urgent, as the demands of 21st-century education emphasise the development of critical thinking, analytical, collaborative, and problem-solving skills. Conventional, theoretical textbooks are often less effective at encouraging active student involvement in the learning process. PBL techniques can be used to create textbooks that present real-world contextual situations, enabling students to learn how to solve problems using the information they have, as well as understanding it conceptually. Consequently, PBL-based textbooks are valuable resources for fostering interactive and engaging learning that meets future competency demands.

This highlights the discrepancy between the demand for PBL and the availability of relevant teaching materials. In fact, textbook development must also align with the criteria required by educators and students (Safitri et al., 2023). In addition, few studies have specifically examined the contribution of PBL-based textbooks to improving students' analytical and critical thinking skills in a management learning context.

Against this backdrop, this study was conducted to examine the role of PBL-based textbooks in improving students' analytical and critical skills in an Introduction to Management course. It is expected that this research will contribute both theoretically and practically to the development of learning innovations, and will serve as a reference for the preparation of more effective teaching materials in higher education.

LITERATURE REVIEW

1. Textbook

The textbook contains a description of the main issue of the case being discussed, an analysis of the case and the lessons learned, as well as a clear framework (Alfiandra et al., 2022). In general, textbooks are educational materials used to support the learning process, which is an important part of a learning system (Helmi, 2024). Textbooks are methodically arranged written learning tools that serve as the main

guide for students and teachers to help them achieve learning objectives in a subject or course. To effectively help students understand and master competencies, textbooks usually provide explanations of concepts and theories, as well as sample questions and exercises in line with the curriculum and learning objectives.

2. Problem Based Learning

Problem-Based Learning (PBL) uses real-world issues as a foundation on which to develop students' critical thinking and information acquisition skills, equipping them to address important issues related to the course topic (Alfiandra et al., 2023). Real-world challenges form the basis of the PBL learning model, also known as problem-based learning, which fosters critical thinking and problem-solving abilities while imparting knowledge and concepts (Riyanto et al., 2024). Through a process involving problem analysis, goal setting, gathering information, generating ideas and reflecting on the problem-solving experience, PBL encourages active group learning to address open-ended challenges without definitive answers (Liu & Pásztor, 2022). Problem-based learning (PBL) is a student-centred learning approach that begins with real-world or contextual challenges. This fosters critical thinking, analytical and problem-solving skills, as well as the capacity for solo and group learning. Through investigation, group discussion, and reflection on solutions, PBL encourages students to independently acquire new knowledge, resulting in active, meaningful, and practical learning.

3. Analytical and Critical Thinking Abilities

Improving students' analytical thinking skills involves developing appropriate learning strategies and creating questions that can elicit higher order thinking skills (Busdayu et al., 2022). Analytical thinking is the ability to break down complex data or issues into more manageable, structured components in order to understand the relationships between them and reach logical conclusions (Putri et al., 2022). In an educational context, analytical thinking refers to the ability to methodically locate, classify, differentiate, and assess data in order to make judgements or successfully address issues.

Critical thinking skills help students to overcome real-world problems and improve their approach to the various scenarios they encounter daily (Suradika et al., 2023). These skills enable students to assess and solve problems effectively during the learning process (Sabat et al., 2024). The ability to objectively and logically examine, assess and understand information is a cognitive skill that helps people make decisions and find solutions to problems. This ability involves a reflective process that includes logical thinking, constructive scepticism, and openness to various points of view, with the aim of achieving deep understanding and drawing reliable conclusions from existing data.

4. Introduction to Management

The basic course Introduction to Management covers the concepts, principles, functions and procedures of management, which form the foundation for managing an organisation or business effectively and efficiently. This course covers planning, organising, leading and regulating, as well as the role of managers in achieving organisational goals by making the best use of available resources. Students who take Introduction to Management develop a basic understanding of management dynamics and procedures in various organisational environments.

MATERIALS & METHODS

This study aims to investigate whether a Problem-Based Learning (PBL)-based textbook can help students on the Introduction to Management course to develop their critical and analytical thinking skills. The study employed a quantitative methodology to achieve this objective. The

researcher was able to measure the difference in students' abilities before and after using the PBL-based introductory management textbook. Furthermore, the study aimed to identify whether there was a significant increase in students' analytical and critical thinking skills after using the textbook.

In any study, there must be a population and a sample. The population is a category for generalisation, consisting of items or people with certain characteristics and attributes that researchers have identified as requiring investigation in order to draw relevant conclusions (Sugiyono, 2022). The sample is representative of the size and composition of the population that has been chosen as the subject of the research (Sugiyono, 2022). This study examined students taking the Introduction to Management course at the Economics Education Study Programme in the 2024/25 academic year, both as the population and the sample.

The technique used in this research is saturated sampling. Saturated sampling involves selecting a sample from all members of the population (Sugiyono, 2022). To find out whether the use of PBL-based textbooks can improve students' analytical and critical skills more significantly than conventional textbooks, the sample was given a PBL-based introductory management textbook.

This study has two main variables. The independent variable is the use of PBL-based textbooks, applied to the experimental group. The dependent variable is students' analytical and critical skills, which will be measured through tests. Several instruments will be used to measure students' analytical and critical skills. The analytical ability test will contain multiple-choice questions and essays assessing students' ability to analyse information related to managerial issues. Meanwhile, the critical thinking test will focus more on students' ability to provide a critical assessment of a given situation or case study.

Descriptive statistical methods will be used to analyse the pre-test and post-test data and characterise the sample and test results. This study's data analysis method uses correlated (dependent) samples for comparative testing. Correlated or dependent samples are interrelated samples, typically encountered in experimental research designs (Surindra et al., 2017).

RESULT

Table 1. Comparison of Pre-Test and Post-Test Results

Paired Samples Statistics					
		Mean	**N**	**Std. Deviation**	**Std. Error Mean**
Pair 1	Pre Test	77,79	28	3,425	,647
	Post Test	88,39	28	5,846	1,105

The research results showed that the use of problem-based learning (PBL)-based textbooks significantly improved students' analytical and critical thinking skills. Before the intervention, the students' average pre-test score was 77.79. With the introduction of PBL-based textbooks into the curriculum, the average post-test score increased to 88.39. This increase in scores indicates that the PBL approach can improve students' understanding of the subject matter and motivate them to actively engage in higher order thinking processes. Therefore, it can be said that the use of PBL-based textbooks in the Introduction to Management course helps students to become more analytical and critical individuals.

Table 2. Correlation Level between Variables

Paired Samples Correlations				
		N	**Correlation**	**Sig.**
Pair 1	Pre Test & Post Test	28	,445	,018

Based on the results of the data analysis, there is a 44.5% relationship between variables related to students' analytical and critical skills and the use of problem-based learning (PBL)-based textbooks. Both variables have a significant positive relationship as shown in this graph. This means that students' analytical and critical skills increase in proportion to how well PBL-based textbooks are used in the learning process. This correlation shows that PBL-based textbooks are very important in helping students to develop a more analytical, systematic and reflective attitude when discussing various issues related to the Introduction to Management course.

Table 3. Significance Level of Pre-Test and Post-Test

Paired Samples Test									
		Paired Differences					**t**	**df**	**Sig. (2-tailed)**
		Mean	**Std. Deviation**	**Std. Error Mean**	**95% Confidence Interval of the Difference**				
					Lower	**Upper**			
Pair 1	Pre Test - Post Test	-10,607	5,301	1,002	-12,663	-8,552	-10,588	27	,000

The results of the statistical analysis show that the significance value (Sig. 2-tailed) is 0.000, which means that it is much smaller than the significance limit of 0.05. This indicates that there is a statistically significant difference between the pre-test and post-test scores of students' analytical and critical skills after using PBL-based coursebooks. In other words, the use of PBL-based textbooks has a real and positive impact on improving students' higher-level thinking skills in the Introduction to Management course.

DISCUSSION

The research findings show that using Problem-Based Learning (PBL)-based textbooks in the Introduction to Management course significantly improves students' analytical and critical thinking skills. The students' pre-test average score was 77.79, increasing to 88.39 in the post-test. This increase demonstrates that students experience progress in understanding concepts, analysing problems and formulating appropriate solutions to managerial cases in the textbook when participating in learning with the PBL approach.

This is also supported by observations during the learning process, which show increased active participation in group discussions, the ability to express opinions logically and the courage to make decisions based on rational arguments. Using problem-based learning strategies can help students to develop their critical thinking skills (Amalia & Dewi, 2024). The Problem Based Learning (PBL) approach is recognised as an effective teaching strategy because it encourages independent learning and fosters critical thinking, leadership and teamwork (Pertiwi et al., 2023). In addition, students responded well to PBL-based textbooks, as they found them easier to understand, with learning focused on finding solutions to real-world problems that can be applied in the workplace and neighbourhood. Therefore, it can be said that PBL-based textbooks help to improve learning outcomes quantitatively and encourage the development of critical thinking skills, which are essential in the modern world.

The results of the data analysis showed that students' analytical and critical thinking skills improved when they used a Problem-Based Learning (PBL) textbook in the Introduction to Management course. The correlation coefficient value of 0.445, equivalent to 44.5%, was determined through statistical calculations. This indicates a moderate yet significant relationship between using PBL-based textbooks and students' critical and analytical thinking skills. In other words, the

more intensive the use of PBL-based coursebooks in the learning process, the greater the tendency for students' thinking skills to increase.

While the correlation does not demonstrate a strong relationship, it still shows the significant contribution of the PBL approach to supporting the development of higher-level thinking skills. PBL emphasises real and collaborative problem solving, providing space for students to explore concepts more actively, develop logical thinking and make analysis-based decisions. Therefore, PBL-based textbooks have been proven to play a positive role in the learning process, particularly in developing students who are more critical and analytical and ready to face challenges in the workplace.

The results of the statistical test analysis show a significant value (Sig. 2-tailed) of 0.000, which is smaller than the significance level of 0.05. This indicates a significant improvement in students' analytical and critical thinking skills when using the Problem-Based Learning (PBL)-based textbook. Therefore, it can be concluded that students on the Introduction to Management course improved their higher-order thinking skills significantly through the use of PBL-based texts.

These results suggest that the PBL approach fosters an engaging, challenging, contextualised learning environment that inspires students to think more deeply and methodically. Textbooks structured according to PBL principles have been shown to help students with conceptual understanding and teach them how to analyse problems, make logical arguments and develop solutions. Thus, the research findings confirm that incorporating PBL into teaching materials greatly improves learning quality, particularly with regard to developing students' critical and analytical thinking skills to meet the expectations of the contemporary educational environment.

CONCLUSION

According to the study's results, students' analytical and critical thinking skills improved significantly in the Introduction to Management course through the use of a problem-based learning (PBL) textbook. The mean pretest score increased from 77.79 to 88.39 in the posttest, reflecting this improvement. Additionally, statistical tests revealed a positive correlation of 0.445, reaching significance at the 2-tailed $p < 0.05$ level. The PBL-based textbook effectively promotes contextual, interactive and cooperative learning, enabling students to engage more fully in higher-order thinking skills such as assessment, analysis and methodical and logical problem solving.

Declaration by Authors

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REFERENCES

1. Alfiandra, Safitri, S., Waluyati, S. A., Kurnisar, & Nuraini. (2023). DAMPAK POTENSIAL IMPLEMENTASI BUKU AJAR BERBASIS PROBLEM BASED LEARNING PADA MATA KULIAH PENDIDIKAN KEPENDUDUKAN DAN LINGKUNGAN HIDUP. Civic Hukum, 8(1), 117–126. https://doi.org/https://doi.org/10.22219/jch.v8i1.23554
2. Alfiandra, Yusuf, S., Barlian, I., & Safitri, S. (2022). Improving Students' Critical Thinking Skills Through Case Based Learning Oriented Textbook. Jurnal Penelitian Dan Pengembangan Pendidikan, 6(3), 440–449. https://doi.org/https://ejournal.undiksha.ac.id/index.php/JJL/article/view/56179/24829
3. Amalia, I. R., & Dewi, N. R. (2024). Analisis Model Pembelajaran Problem Based Learning Untuk Meningkatkan Berpikir Kritis Peserta Didik. PRISMA, Prosiding Seminar Nasional Matematika, 7, 281–289. https://doi.org/https://proceeding.unnes.ac.id/prisma/article/view/2963/2426

4. Amaliyah, D. I., Purwoko, R. Y., Kurniawan, H., & Wibowo, T. (2023). PENGEMBANGAN MODUL AJAR BERBASIS PROBLEM BASED LEARNING DALAM BENTUK FLIPBOOK UNTUK MENINGKATKAN KEMAMPUAN BERPIKIR KRITIS. JP2M (Jurnal Pendidikan Dan Pembelajaran Matematika), 9(2), 293–304. https://doi.org/10.29100/jp2m.v9i2.4652
5. Ashari, D. (2023). ANALISIS PEMANFAATAN MEDIA PEMBELAJARAN AUGMENTED REALITY (AR) UNTUK MENINGKATKAN KETERAMPILAN BERPIKIR KRITIS. Khazanah Pendidikan: Jurnal ILmiah Kependidikan, 17(1), 176–185. https://doi.org/https://doi.org/10.30595/jkp.v17i1.16040
6. Biruni, I. B., Rahmana, A. Y., Evanda, E. T., Sofyan, M. A., Merindasya, M., Karomika, D., Fahruli, M. T. A., & Rachmad, Y. T. (2023). Potentials of Problem Based Learning to Fostering Student's Critical Thinking and Scientific Literacy in a Boarding School. AIP Conference Proceedings, 2569(January). https://doi.org/https://doi.org/10.1063/5.0112236
7. Busdayu, Z. A., Rahmawati, N., & Setiadi, D. (2022). Penerapan Model Pembelajaran Problem Based Learning dalam Meningkatkan Keterampilan Berpikir Tingkat Tinggi (HOTS). JCAR: Journal of Classroom Action Research, 5(4), 449–453. https://doi.org/10.29303/jcar.v5i4.5537
8. Damayanti, A., & Nursalam. (2022). Pengembangan Bahan Ajar Berbasis Aplikasi Kvisoft Flipbook Menggunakan Model Pembelajaran Problem Based Learning dengan Pendekatan Saintifik. Alauddin Journal of Mathematics Education, 4(1), 37–49. https://doi.org/https://doi.org/10.24252/ajme.v4i1.29006
9. Esteban, A. J., Darmuki, A., & Esteban, A. (2023). The Effect of Collaboration Inquiry Problem Based Learning Model on 4C Skills. KREDO : Jurnal Ilmiah Bahasa Dan Sastra, 7(1), 14–32. https://doi.org/https://doi.org/10.24176/kredo.v7i1.9838
10. Farihin, N., Waluya, S. B., & Hidayah, I. (2023). Systematic Literature Review: Kemampuan Pemecahan Masalah Melalui Model Problem-Based Learning Berbantuan Media Pembelajaran. SEMANTIK: Prosiding Seminar Nasional Pendidikan Matematika, 1(1), 246–261. https://doi.org/https://seminar.ustjogja.ac.id/index.php/SEMANTIK/article/view/1874
11. Firmansyah, H. (2024). Analisis Penerapan Pendekatan Pembelajaran Inkuiri dalam Meningkatkan Keterampilan Berpikir Kritis pada Mata Pelajaran Sejarah. INNOVATIVE: Journal Of Social Science Research, 4(3), 7832–7842. https://doi.org/https://doi.org/10.31004/innovative.v4i3.11189
12. Fitriani, H., Samsuri, T., Rachmadiarti, F., Raharjo, & Mantlana, C. D. (2022). Development of Evaluative-Process Learning Tools Integrated with Conceptual-Problem-Based Learning Models: Study of Its Validity and Effectiveness to Train Critical Thinking. International Journal of Essential Competencies in Education, 1(1), 27–37. https://doi.org/https://doi.org/10.36312/ijece.v1i1.736
13. Helmi, D. (2024). Pengembangan Buku Ajar Berbasis Problem Based Learning Mata Kuliah Ilmu Sosial dan Budaya Dasar Berorientasi Kemampuan Berpikir Kritis. 5(3), 338–348. https://doi.org/https://doi.org/10.30596/jmp-dmt.v5i3.18929
14. Husnita, L., & Saputri, W. (2023). Analisis Kebutuhan Bahan Ajar Untuk Meningkatkan Keterampilan Berpikir Kritis. Diklabio: Jurnal Pendidikan Dan Pembelajaran Biologi, 7(1), 21–29. https://doi.org/https://doi.org/10.33369/diklabio.7.1.21-29
15. Indriani, R. P., Sigit, D. V., & Miarsyah, M. (2023). Meta-analisis: Pengaruh Media E-learning Terhadap Keterampilan Berpikir Kritis dan Kreatif. Cetta: Jurnal Ilmu Pendidikan, 6(1), 58–71. https://doi.org/https://doi.org/10.37329/cetta.v6i1.1862
16. Khalid, I., & Syafri, R. A. (2023). MODEL PEMBELAJARAN PROBLEM BASED LEARNING (PBL) UNTUK MENINGKATKAN KEAKTIFAN DAN HASIL BELAJAR MAHASISWA PADA MATA KULIAH MANAJEMEN JASA. Indonesian Educational Administration and Leadership Journal (IDEAL), 5(2), 30–45.

https://doi.org/https://doi.org/10.22437/ideal.v5i2.28733
17. Kusuma, A. S., & Nurmawanti, I. (2023). Pengaruh Strategi Pembelajaran Problem Based Learning (PBL) Terhadap Keterampilan Metakognitif dan Kemampuan Pemecahan Masalah Mahasiswa. Jurnal Ilmiah Profesi Pendidikan, 8(3), 1922–1934. https://doi.org/10.29303/jipp.v8i3.1890
18. Liu, Y., & Pásztor, A. (2022). Effects of problem-based learning instructional intervention on critical thinking in higher education: A meta-analysis. Thinking Skills and Creativity. https://doi.org/https://doi.org/10.1016/j.tsc.2022.101069
19. Manurung, A., & Marini, A. (2023). PENERAPAN PROBLEM BASED LEARNING DALAM UPAYA MENGEMBANGKAN KEMAMPUAN BERPIKIR KREATIF MAHASISWA. Jurnal Ilmiah Pendidikan Citra Bakti, 10(1), 142–154. https://doi.org/https://doi.org/10.38048/jipcb.v10i1.967
20. Moiyo, Y., Buhungo, T. J., & Abdjul, T. (2024). Analisis Keefektifan Perangkat Pembelajaran Model Problem Based Learning (PBL) Berbantuan Video Pembelajaran Materi Fluida Statis. JJP: Jurnal Jendela Pendidikan, 4(02), 125–132. https://doi.org/https://doi.org/10.57008/jjp.v4i02.714
21. Muliana, Fonna, M., & Nufus, H. (2024). PENGARUH PENERAPAN PROBLEM BASED LEARNING (PBL) TERHADAP KETERAMPILAN ABAD 21. Ar-Riyadhiyyat: Jurnal Pendidikan Matematika, 5(1), 22–30. https://doi.org/https://doi.org/10.47766/arriyadhiyyat.v5i1.2900
22. Nisa, S., Anwar, N., & Al Husaini, M. D. (2022). Penerapan Pendekatan Problem Based Learning dalam Meningkatkan Hasil Belajar Siswa pada Materi Perbandingan. Ar-Riyadhiyyat: Journal of Mathematics Education, 2(2), 72–81. https://doi.org/https://doi.org/10.47766/arriyadhiyyat.v2i2.178
23. Pandiangan, S. M. T., Gultom, J. A., Ariani, D., Dharmawan, D., & Butar-Butar, R. S. (2023). Effect of Problem-Based Learning Model on Learning Outcomes in Microeconomic Course. EDUMASPUL: Jurnal Pendidikan, 7(2), 5572–5575. https://doi.org/10.33487/edumaspul.v7i2.7283
24. Pertiwi, F. A., Luayyin, R. H., & Arifin, M. (2023). PROBLEM BASED LEARNING UNTUK MENINGKATKAN KETERAMPILAN BERPIKIR KRITIS: META ANALISIS. JSE: Jurnal Sharia Economica, 2(1), 42–49. https://doi.org/https://doi.org/10.46773/jse.v2i1.559
25. Putri, R. D. R., Ratnasari, T., Trimadani, D., Halimatussakdiah, Husna, E. N., & Yulianti, W. (2022). Pentingnya Keterampilan Abad 21 Dalam Pembelajaran Matematika. SICEDU: Science and Education Journal, 1(2), 449–459. https://doi.org/https://doi.org/10.31004/sicedu.v1i2.64
26. Riyanto, M., Asbari, M., & Latif, D. (2024). Keefektifan Problem Based Learning terhadap Kemampuan Berpikir Kritis Mahasiswa. Journal of Information Systems and Management (JISMA), 03(01), 1–5. https://doi.org/https://doi.org/10.4444/jisma.v3i1.744
27. Rosmaiyadi, Buyung, & Hartianingsih, S. (2023). Analisis Kemampuan Berpikir Kritis Matematis Ditinjau Dari Gender Pada Materi Kubus Kelas VIII. JPMI: Jurnal Pendidikan Matematika Indonesia, 8(1), 11–24. https://doi.org/https://journal.stkipsingkawang.ac.id/index.php/JPMI/article/view/3832/pdf
28. Sabat, D. R., Sudiatmika, A. R., Suma, I. K., & Suardana, I. N. (2024). META ANALISIS: PENGARUH PEMBELAJARAN KEARIFAN LOKAL UNTUK MENINGKATKAN KEMAMPUAN BERPIKIR KRITIS. Bioscientist : Jurnal Ilmiah Biologi, 12(1), 61. https://doi.org/10.33394/bioscientist.v12i1.9856
29. Safitri, V., Syamsurizal, Helendra, & Anggriyani, R. (2023). VALIDASI PENGEMBANGAN MODUL AJAR EVOLUSI BERBASIS PROBLEM BASED LEARNING (PBL). ISLAMIKA: Jurnal Keislaman Dan Ilmu Pendidikan, 5(4), 1358–1368. https://doi.org/10.36088/islamika.v5i4.3754
30. Selirowangi, N. B., Aisyah, N., & Rohmah, L. (2024). Penerapan Model Pembelajaran

Problem Based Learning untuk Meningkatkan Higher Order Thinking Skills (HOTS). EDUKASIA: Jurnal Pendidikan Dan Pembelajaran, 5(1), 31–40. https://doi.org/https://doi.org/10.62775/edukasia.v5i1.714
31. Shofina, N., & Annisa, M. (2023). KOMBINASI PROBLEM BASED LEARNING DAN MODEL PEMBELAJARAN PEMAKNAAN UNTUK MENINGKATKAN HASIL BELAJAR DAN KARAKTER WASAKA SISWA SEKOLAH DASAR. DIKSEDA: Jurnal Pendidikan Sekolah Dasar, 1(01), 63–73. https://doi.org/https://dikseda.winayailmu.id/index.php/1/article/view/6/6
32. Siringoringo, R., Asbari, M., & Margaretta, C. (2023). Strategi Pembelajaran Berdiferensi: Akselerasi Meningkatkan Potensi Peserta Didik. Journal of Information Systems and Management (JISMA), 2(5), 13–16. https://doi.org/https://jisma.org/index.php/jisma/article/view/436
33. Siswanto, D. H., & Andriyani. (2024). Analisis Kemampuan Berpikir Kritis dalam Penyelesaian Masalah Matriks Berkonteks Perjalanan Wisata. Buletin Edukasi Indonesia (BEI), 3(03), 93–103. https://doi.org/https://doi.org/10.56741/bei.v3i03.647
34. Sugiyono. (2022). METODE PENELITIAN Kuantitatif, Kualitatif, dan R&D (2nd ed.). Alfabeta.
35. Suradika, A., Dewi, H. I., & Nasution, M. I. (2023). PROJECT-BASED LEARNING AND PROBLEM-BASED LEARNING MODELS IN CRITICAL AND CREATIVE STUDENTS. Jurnal Pendidikan IPA Indonesia, 12(1), 153–167. https://doi.org/https://doi.org/10.15294/jpii.v12i1.39713
36. Surindra, B., Widyaningrum, B., & Zulistiani. (2017). Statitiska Teori & Praktik SPSS. CV Azizah Publishing.
37. Susanti, R. H. (2023). Penulisan Karya Ilmiah sebagai Salah Satu Tools Meningkatkan Kemampuan Berpikir Kritis. 06(01), 1–11. https://doi.org/https://osf.io/preprints/osf/qw4vk
38. Triansyah, F. A., Suwatno, & Supardi, E. (2023). Fokus Penelitian Berpikir Kritis Siswa dalam Pembelajaran Ekonomi: Bibliometrik Analisis 2019-2023. Jurnal Simki Pedagogia, 6(1), 130–139. https://doi.org/https://doi.org/10.29407/jsp.v6i1.226
39. Ulimaz, A., Yardani, J., & Widiyastuti, D. A. (2023). Increase Student Learning Activities by Using A Problem-Based Learning Model in Legum Technology Lecture Materials. Edunesia: Jurnal Ilmiah Pendidikan, 4(1), 238–246. https://doi.org/https://doi.org/10.51276/edu.v4i1.329
40. Wahyudin, S. (2023). PENERAPAN MODEL PEMBELAJARAN BERBASIS MASALAH (PROBLEM BASED LEARNING). OSFPREPRINTS. https://doi.org/https://doi.org/10.31219/osf.io/4yhns

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