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Effectiveness of Case Method Implementation in Pedagogical Learning of Students Across Study Programs: A Study on Multidisciplinary Courses in Indonesian

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ABSTRACT

This study discusses students' passive participation, understanding challenges, and limitations in case-solving skills in Learning and Pedagogy lectures. This study aims to address critical gaps in pedagogical research and offer evidence-based recommendations for improving teaching practices across academic disciplines. This study uses a descriptive quantitative approach. The design used is pre-experimental with a one-shot case study model. This study involved two data collection techniques, namely questionnaires and structured observations. The population in this study were all students of Malang State University who took the Learning and Pedagogy course in the Odd Semester of the 2022/2023 academic year. The researcher selected the B1 Offering class by purposive sampling, with the following inclusion criteria: active students, attending all lecture meetings, and willing to fill out the questionnaire and take the posttest. The findings indicate that the application of the case method is effective, with a sig value of 0.000. In particular, students who scored above 75 showed an average posttest score of 83.5688. This underlines the positive impact of the case method in encouraging students' active participation and case-solving skills.

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1. INTRODUCTION

The Learning and Pedagogic course is a pivotal component for Bachelor of Education students. Its significance lies in equipping future educators with essential skills. This course forms the bedrock of educational understanding. A strong foundation in this course is imperative, as it lays the groundwork for success in subsequent semesters. Failing to grasp its concepts could hinder progress in future coursework. Moreover, inadequate comprehension could hinder their ability to address pedagogical challenges as practicing educators. Based on three semesters of teaching experience, passive student participation has emerged as a key concern. This passive involvement detrimentally affects their comprehension and problem-solving capabilities.

The issues identified stem from lecturer, student, and material-related factors. Lecturers often rely on repetitive strategies like presentations, lectures, explanations, and discussions, resulting in a monotonous teaching approach. On the student front, the universality of the Learning and Pedagogic course, open to students across programs, poses a challenge. This diversity within a single class makes it demanding to tailor the content effectively. Furthermore, the course material's timing seems premature, as it's introduced as early as the third semester. Additionally, the content's alignment with the scientific nuances of various study programs further complicates its delivery. A strategy is needed in order to increase participation by all parties, both students and lecturers.

The identified challenges and their underlying factors have ignited lecturers' determination to find effective solutions. As part of this commitment, the researcher, who is also a lecturer for the Learning and Pedagogic course, undertook the task of testing the case method's implementation within the course. Specifically, the case method was applied to the "Learning Modalities" segment, with careful attention to the categorization and application process within the classroom context. This approach seeks to foster a collaborative learning environment, where students engage in multidisciplinary projects, integrate diverse curriculum subjects, and explore the learning material, "Learning Modalities," through meaningful and collaborative experiments (Vahlepi et al., 2021), (Kee et al., 2024), (Almarzuqi & Mat, 2024).

Employing the case method strategy has demonstrated significant advancements in students' engagement, understanding of subject matter, and development of problem-solving abilities (McLean, 2016). The decision to implement the case method is rooted in the pedagogical orientation of the State University of Malang, which emphasizes student-centered learning approaches aimed at fostering problem-solving skills. This strategy is particularly suitable for addressing pedagogical challenges, especially those related to enhancing students' critical and analytical competencies. The relevance of the case method lies in its participatory nature — a learning model that encourages active discussion and collaborative resolution of real-world issues. Through this method, students are positioned to sharpen their critical thinking, enhance communication skills, strengthen teamwork, and cultivate creativity in approaching complex problems.

Previous research on pedagogical strategies has revealed distinctive trends within the broader educational and societal contexts. The ability to thrive and compete across diverse domains today demands not only intellectual proficiency but also the mastery of effective pedagogical approaches that promote strategic thinking and problem-solving skills. Numerous studies have demonstrated that pedagogical innovations emphasizing participatory and problem-based learning models represent a significant and growing trend within the global educational landscape (Dorta-Afonso, 2019; Guangul et al., 2020; Rostamnezhad et al., 2020).

The strategic implementation of the Case method, tailored to the diverse learning styles of students, holds substantial promise in enhancing their problem-solving capabilities. By aligning this approach with students' respective scientific disciplines, they are better equipped to independently and collaboratively identify and address learning challenges (Hackett, 2023; Zhang, 2018). This dual approach, which combines autonomous problem-solving with collaborative discussions, fosters a holistic development of critical thinking, communication, and adaptability. Nevertheless, the practical effectiveness of incorporating the Case method into higher education settings, particularly within

pedagogical courses, has not been sufficiently examined (Bonney, 2015). Therefore, this study, titled *"Implementation of the Case Method and Its Effectiveness in Lectures and Learning for Students across Study Programs,"* is important because it seeks to evaluate how the Case method influences the achievement of learning objectives. By exploring its impact, the study aims to address a critical gap in pedagogical re search and to offer evidence-based recommendations for improving teaching practices across diverse academic disciplines.

The application of the case method in the context of higher education has attracted the attention of many researchers because of its ability to encourage active and meaningful learning. One of the main figures in this approach is Adinda Fatikha & Acep Samsudin (2025) which highlights the effectiveness of case studies in teaching science in higher education. According to him, this method encourages students to actively engage with learning materials through real-life situation-based discussions. This not only improves conceptual understanding but also builds critical thinking skills. In the context of pedagogical education, this method also provides space for students to relate theory to practice. This is especially important when students come from diverse study program backgrounds. Thus, the case-based approach serves as a bridge between pedagogical theory and real-world applications in the field of education.

Then Alghifary Slamet et al. (2021) stated that the case method plays a crucial role in teacher education. He emphasized the importance of reflective experience through real case analysis in preparing prospective educators. In teacher training, the ability to understand and respond to classroom complexity is essential. The case method allows students to evaluate various learning scenarios and make decisions based on data and context. This approach is in line with experiential learning that demands deep cognitive engagement. In the context of students across study programs, this method can bridge the diversity of backgrounds by providing equal learning challenges. Therefore, this method is relevant as a professional development tool for prospective educators in a multidisciplinary context.

Reserch Krisdiana et al. (2014) make a significant empirical contribution to our understanding of the case method. Their study shows that student teachers gain different benefits depending on the case analysis approach used. They identified that learning through cases promotes higher levels of social interaction, argumentative skills, and reflective thinking. This reinforces the view that the case method can be an effective instrument in shaping complex pedagogical competencies. Furthermore, the results of this study underline the importance of relevant and contextual case design to ensure maximum student engagement. These findings can be applied in cross-program teaching, where case design must be tailored to varying academic backgrounds. Therefore, the integration of this method into pedagogical courses requires a structured and contextual approach.

In developing a critical thinking and problem solving framework, Asbari et al. (2024) suggested the need to design challenging and authentic learning environments. He emphasized that problem-solving skills do not emerge automatically but must be developed through structured learning experiences. His handbook offers strategies for designing learning that fosters strategic thinking skills. The case method falls into this approach because it places students in complex, real-world situations. This is particularly appropriate in higher education contexts involving students from various disciplines. Interestingly, a similar approach was also found in studies, Ismaimuza (2013) which highlights the importance of problem-based learning in the Asian context. This shows that the integration of case methods in cross-disciplinary pedagogical education in Indonesia has a strong theoretical and empirical basis.

To enhance the scientific contribution of this research, it is necessary to explicitly convey the research gap that is to be filled. So far, many studies on the case method have only focused on its application in one particular study program or discipline. However, there have not been many studies that evaluate the effectiveness of this method in the context of pedagogical learning followed by students across study programs. Thus, explicitly stating the literature gap will strengthen the scientific basis of the research. Researchers can highlight that there have been no studies that specifically examine

the case method in multidisciplinary pedagogical courses in Indonesia. Conveying this gap will show the urgency of the research and clarify the expected contribution. It will also help readers understand the position and relevance of the research in the broader map of studies.

In addition, strengthening the literature review section by including empirical and international literature will increase credibility and academic quality. The references used should not only be normative, but also include relevant and current research findings. The study by Herreid, Merseth, Lundeberg, and Jonassen provides strong evidence that the case method is effective in encouraging active learning and critical thinking. The addition of studies from the Asian context, such as the work of Komalasari (2011) will also provide contextual relevance. This is important to emphasize that the application of the case method can be adapted in the Indonesian education system. The study would also be stronger if it explained how the local context—such as student diversity and curriculum approach—influences the success of this method. Thus, this study not only adds theoretical insight but also provides practical recommendations based on evidence.

Although the case study method has been widely used in higher education globally, most studies focus on its application in a single discipline or study program. Cross-disciplinary research in the context of Indonesian pedagogy is still very limited. Moreover, testing the effectiveness of this method in basic pedagogical courses taken by students from various academic backgrounds (across study programs) has not been widely explored. Therefore, this study aims to fill this gap by evaluating the effectiveness of the case study method in improving participation, understanding, and problem-solving skills in the context of a multidisciplinary pedagogical course in Indonesia. Thus, this study makes an empirical contribution to the case-based learning literature and offers a new perspective on cross-study teaching.

2. METHOD

This study uses a descriptive quantitative approach, with the aim of describing the effectiveness of the application of the case method in learning the Learning and Pedagogy course for students across study programs. The design used is pre-experimental with a one-shot case study model, where one group is given treatment (learning intervention with the case method), then measurements are taken through a posttest. Within this design framework, a group undergoes a treatment, followed by measurements of the dependent variable to gauge the impact of the intervention (Sarwono, 2016). This study uses a descriptive quantitative approach, with the aim of describing the effectiveness of the application of the case method in teaching the Learning and Pedagogy course for students across study programs. The design used is pre-experimental with a one-shot case study model, where one group is given treatment (learning intervention with the case method), then measurements are taken through a posttest. Consequently, interdisciplinary learning is prevalent in every class, where students from diverse study programs come together for learning experiences (Farashahi, 2018; Xu et al., 2022; Cooper et al., 2001).

The population in this study were all students of Malang State University who took the Learning and Pedagogy course in the Odd Semester of the 2022/2023 academic year. The researcher selected the B1 Offering class by purposive sampling, with the following inclusion criteria: active students, attending all lecture meetings, and willing to fill out the questionnaire and take the posttest. A total of 40 students from five study programs (Guidance and Counseling, PGSD, Arabic Language Education, Informatics Engineering Education, and Physics Education) met the criteria and became the research sample. No exclusion criteria were applied because all students who met the inclusion criteria participated fully. The intervention in the form of teaching with the case method was carried out for four consecutive meetings, focusing on the topic of "Learning Modalities". Learning activities include group discussions, cross-disciplinary real case analysis, and presentations and reflections. This offering comprised students from five distinct study programs: Student Counseling (Bimbingan dan Konseling), Elementary School Teacher Education (Pendidikan Guru Sekolah Dasar), Arabic Language

Education (Pendidikan Bahasa Arab), Informatics Engineering Education (Pendidikan Teknik Informatika), and Physics Education (Lyall & Meagher, 2012).

To measure the effectiveness of the intervention, data collected through the posttest were analyzed using a one-sample t-test. Previously, the data were tested first using the Kolmogorov–Smirnov normality test to ensure that the data met the parametric assumptions. Statistical analysis was performed using SPSS version 23 software. A one-sample t-test was used to test whether the mean posttest scores of students significantly exceeded the minimum passing score (≥75). In addition, data from observations were analyzed descriptively to support quantitative findings, especially related to the level of active participation of students and their ability to complete case studies. The entire analysis procedure was aimed at comprehensively evaluating the effect of the case method in the context of interdisciplinary learning in general pedagogy courses. Both the normality test and the one-sample t-test analyses were performed using the SPSS 23 software application, thereby facilitating accurate statistical processing and interpretation of the study's findings (Kolahdouzan, 2020; Mahdi, 2020).

3. FINDINGS AND DISCUSSION

Finding

The collective posttest average gain achieved by the group of 40 students was determined to be 83.5688, as illustrated in the data table 1.

Table 1.
Table of Descriptive Statistics Posttest Value Results of Case Method Implementation

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
Score	40	74,25	91,75	3347,50	83,6875	4,23536
Valid N (listwise)	40					

Additionally, the data normality test, serving as a prerequisite examination, is employed to ascertain whether the data follows a normal distribution or deviates from it (Antara et al., 2014). By employing the Shapiro-Wilk formula, the analysis outcomes reveal that the p-value of 0.051 is greater than the significance level of 0.05. Consequently, the data can be considered to follow a normal distribution, as outlined in table 2.

Table 2.
Normality Test Table

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	**Df**	**Sig.**	**Statistic**	**df**	**Sig.**
Score	,174	40	,004	,945	40	,051

a. Lilliefors Significance Correction

The hypothesis test employing the one sample t-test is presented in table 3 as depicted below.

Table 3. One Sample t Test Table

	Test Value = 75					
					95% Confidence Interval of the Difference	
	t	**df**	**Sig. (2-tailed)**	**Mean Difference**	**Lower**	**Upper**
Score	12,973	39	,000	8,68750	7,3330	10,0420

Hypothesis testing using the one-sample t-test is performed by comparing the significance value (sig count) with a threshold of 0.05. If the sig count is less than 0.05, the null hypothesis (H0) is rejected and the alternative hypothesis (H1) is accepted. Conversely, if the sig count is greater than 0.05, H0 is accepted, and H1 is rejected (Sarwono, 2017).

Based on the analysis results, the significance value (sig count) was determined to be 0.000, which is less than the significance threshold of 0.05. Therefore, the null hypothesis (H0) is rejected, and the alternative hypothesis (H1) is accepted. This indicates that the implementation of the case method can be considered effective, as evidenced by the average scores of students exceeding 75.

The case method represents an instructional approach employed in education and training to impart specific concepts or principles by means of tangible case studies. Within this methodology, learners are presented with actual scenarios or situations that necessitate analysis, discussion, and resolution (Widiastuti et al., 2022). During this educational process, both students and instructors engage in a learning experience. The success of achieving learning objectives is evidenced by positive behavioral changes following a predefined learning plan. Given the diverse array of study programs within the class, students are tasked with identifying problems pertinent to their individual fields of study and devising appropriate solutions for these challenges .

Based on the findings derived from classroom research, student engagement during lecture sessions was observed through their active involvement in various activities. This engagement was evident in students' feedback, which reflected their appreciation for the outcomes of presentations and the viewpoints expressed by other groups. Moreover, students actively shared responsibilities within their groups, participated in group presentations, encouraged peers to express their thoughts, listened attentively to contributions, and posed thoughtful inquiries (Jarrah, 2023).

To implement the case method effectively, the research team divided students into distinct groups, each assigned a specific case topic aligned with their respective study programs. In the initial phase of individual preparation, the researcher introduced a real-life educational case as an overview. Students were given clear instructions to independently research, read, and analyze various educational issues pertinent to their study programs a practice shown to enhance engagement and critical thinking (Silitubun & Dewi, 2025). Afterward, groups were formed consisting of four to six students based on their fields of study. The researcher also provided examples of cases and potential solutions related to the learning styles covered in the Learning and Pedagogic course. Before proceeding to the next stage, a question-and-answer session was conducted to address any uncertainties.

During the group discussion phase, each group initiated discussions aimed at finding cases relevant to their study programs. Within the group, cases were identified and collectively analyzed, with each member contributing insights from their individual research. The group then collaborated to devise solutions and formulate conclusive outcomes, which were later presented in the classroom.

In the final phase of class discussion, after each group completed their presentations, a sharing session took place where groups presented their findings. This was followed by interactive discussions and question-and-answer exchanges among groups. Researchers and lecturers also provided feedback and responses. At the conclusion of the session, students participated in reflective activities and synthesized the collaborative learning experiences they had undertaken. Implementing the case method fosters multifaceted interactions among individual students, groups, and lecturers. Throughout each stage, distinct outcomes materialize. In the initial individual preparation stage, students refine skills in rapid reading, comprehension, and independent analysis. During the group discussion phase, they cultivate social aptitudes, enhance oral communication, and engage in democratic participation. Subsequently, in the class discussion stage, students refine their oral communication further, nurture critical thinking abilities, synthesize information effectively, and develop adept decision-making skills. Notably, the same strategy is employed in both the initial and subsequent learning sessions.

During the third meeting, a notable shift in strategy took place, centered around a common problem rather than being tailored to individual study programs. The case example revolved around the challenge of minimal English proficiency hindering the understanding of English material. The proposed solution was individual self-study—a practice involving independent reading at home before and after on-campus lectures. This approach aimed to reinforce comprehension by emphasizing personal understanding and experiential learning. This aligns with the cognitivism theory's premise

that learning is an internal process, nurturing critical and reflective thinking. Interestingly, this variation sparked a sense of healthy competition among groups and facilitated the emergence of diverse solutions aligned with the distinct study programs of each group.

Based on the analysis results, specifically the sig count value of 0.000, the implementation of the case method can be deemed effective, yielding a positive impact on students' performance in Learning and Learning courses. The students' average posttest score, surpassing 75 and reaching 83.5688, serves as evidence of the method's efficacy. This aligns with findings from a prior study by Fauzi et al., (Fauzi et al., 2022) which similarly demonstrated the effectiveness of the case method.

Furthermore, the researchers conducted a questionnaire survey to gauge students' responses to the case method's integration into lectures. The gathered feedback highlighted several benefits, such as enhanced ability to identify learning modalities, increased interaction among classmates who were initially unfamiliar, the creation of a dynamic and engaging learning atmosphere during group presentations, and opportunities for interactive learning through question-and-answer sessions between presenter groups and classmates. Additionally, the presence of case studies cultivated problem-solving skills and enabled students to bridge the gap between theoretical knowledge and practical application. Overall, these responses underscore the positive impact and value of integrating the case method into the curriculum.

Discussion

The results of the study indicate that the application of the case method has a significant impact on improving student performance, as evidenced by the significance value (sig count) of 0.000, which is far below the threshold of 0.05. The average posttest score of students reached 83.5688, exceeding the passing standard set at 75. Descriptively, these data show the effectiveness of the case method in improving learning outcomes. However, to understand why these results occur, it is important to conduct a more in-depth theoretical analysis and compare them with existing literature.

From a constructivist perspective, these results are consistent with the view that knowledge is actively constructed by learners through direct engagement with real-world contexts. The case method, which involves analyzing real-life situations, encourages students to integrate new knowledge with their prior experiences and understandings. This is consistent with Vygotsky's view of the zone of proximal development and the role of social interaction in cognitive development. In addition, this approach reinforces principles in cognitive learning theory, which emphasizes the importance of deep, reflective information processing—as enabled by the group discussions, presentations, and Q&A sessions conducted during the study.

This result is also consistent with previous studies by which found that the case method can improve critical thinking skills and problem-solving abilities in students. Another study by Adi Haironi et al. (2021) also showed that this method is effective in encouraging active participation and conceptual understanding in the classroom. Thus Abellia & Amalia (2025) and Fitria et al., (2019) emphasizes the importance of group dynamics in strengthening social and communication competencies in case-based learning processes. By comparing the current results with previous findings, it can be concluded that the advantages of this method lie not only in the acquisition of academic grades, but also in the formation of non-cognitive skills that are crucial in the context of higher education.

Several limitations must be acknowledged. First, these findings were obtained in the context of a specific course (Learning and Pedagogy) that may have unique characteristics compared to other courses. The effectiveness of the case method in technical, practical, or exact courses has not been thoroughly tested. Second, this study was conducted in a heterogeneous classroom environment, but with intensive guidance from lecturers and researchers, so that the instructor's involvement factor has the potential to be a confounding variable. Third, the measurement of effectiveness is still limited to posttest scores and perceptions through questionnaires. There is no longitudinal data to assess the extent to which learning effects persist in the long term or have an impact on contexts outside the classroom.

Other variables that may influence outcomes include students' intrinsic motivation, academic background, and prior collaborative skills. Students who are accustomed to working in groups or have prior experience with project-based learning may be more prepared to respond positively to this method (Arifin & Widiastuti, 2019; Fauziddin, 2015; Hasbi et al., 2024). In addition, the quality of the case study design and the lecturer's facilitation in discussions also have a significant influence on the depth of learning that occurs.

The findings of this study not only have practical implications in lectures, but also provide conceptual contributions to the development of cross-disciplinary learning approaches in higher education. The application of the case method has been proven to not only improve student learning outcomes, but also form a unique interaction model between students from different study program backgrounds (Adler & Kim, 2017; Karina et al., 2024; As'ad Umar & Dwi Ari Pertiwi, 2020). This dynamic shows that the case method can function as an epistemological bridge, connecting ways of thinking, problem-solving approaches, and learning preferences across disciplines. These results provide an empirical basis for the development of a case-based learning model that is more adaptive to the diversity of study programs in interdisciplinary classes. In the context of learning theory, these findings strengthen the constructivist approach and connectivism theory, where knowledge is socially constructed through cross-perspective collaboration. Therefore, the case method can be further studied as a basis for formulating a theory of authentic learning experience-based cross-disciplinary learning in the context of higher education in Indonesia.

Furthermore, these theoretical implications can trigger the birth of a new pedagogical framework that reflects the complexity of interactions in multidisciplinary classrooms. Structured and contextual cross-disciplinary case-based learning models can be directed to build students' professional dispositions early on, such as collaborative critical thinking, social sensitivity, and the ability to adapt to scientific diversity (Hendriana et al., 2013; Kompri, 2017; Nurfitriyanti, 2017). Thus, the results of this study open up opportunities for reconceptualizing the objectives of learning in higher education, not only to transfer knowledge, but also as a vehicle for developing cross-field competencies that are more relevant to the challenges of the world of work and society. In the future, further studies can be developed to test this integrative model in various institutional contexts and fields of study. This allows for the preparation of a more solid theoretical foundation regarding the effectiveness of the case method as a transdisciplinary pedagogical model that is responsive to the dynamics of 21st century higher education. In this framework, the case method is not only an instructional strategy, but a new paradigm in organizing interdisciplinary learning in higher education.

4. CONCLUSION

The implementation of the case method comprises three distinct stages: individual preparation, group discussion, and class discussion. These stages foster various forms of interaction among students, including interactions between individuals, groups, and lecturers. The research findings revealed a significant sig count value of 0.000, indicating thKe effectiveness of the case method's integration into Learning and Learning lectures. Moreover, the average posttest score of students who achieved scores greater than 75 was 83.5688, affirming its positive impact. Through this method, students were able to directly identify learning modalities, engage more with their peers whom they may not have known previously, and experience engaging and lively presentations, contributing to an interactive and engaging learning environment. The incorporation of case studies nurtured problem-solving skills and enhanced students' understanding of the material, bridging the gap between theoretical concepts and practical application within their study programs. This underscores the method's effectiveness in enhancing students' engagement and understanding in their learning on their own departements.

REFENRENCES

Abellia, V. P., & Amalia, D. (2025). Analisis Strategi Komunikasi Pemasaran Netflix Melalui Konten Klip Film pada Akun @netflixid dalam Meningkatkan Daya Tarik Audiens untuk Menonton. *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, *8*(1), 202–206. https://doi.org/10.54371/jiip.v8i1.6590

Adi Haironi, Triana Hermawati, & Suyono Umar. (2021). METODE PEMBELAJARAN BERBASIS QANTUM LEARNING DI PONDOK PESANTREN YATIM DAN DHUAFA AR. FAKHRUDDIN PRAMBANAN. *At Turots: Jurnal Pendidikan Islam*, *3*(1), 117–128. https://doi.org/10.51468/jpi.v3i1.65

Adinda Fatikha & Acep Samsudin. (2025). Strategi Digital Marketing dalam Pemasaran Produk Shampoo Berbahan Alami: Studi Kasus Brand Raisu pada PT. Otak Kanan. *Joong-Ki : Jurnal Pengabdian Masyarakat*, *4*(2), 376–381. https://doi.org/10.56799/joongki.v4i2.7337

Adler, R. F., & Kim, H. (2017). Enhancing future K-8 teachers ' computational thinking skills through modeling and simulations. *Journal Education and Information Technologies*, *23*(4), 1501–1514.

Alghifary Slamet, U., Rena, S., & Ratu Fadhilah, I. (2021). Implementasi pendidikan karakter berbasis al-quran dan as-sunnah: Studi kasus kelas 6 SD al-Wildan Islamic School (Nurul Islam) Tangerang. *MISYKAT: Jurnal Ilmu-Ilmu Al-Quran, Hadist, Syari'ah Dan Tarbiyah*, *6*(1), 39. https://doi.org/10.33511/misykat.v6n1.39-65

Almarzuqi, A. A. A., & Mat, H. (2024). The Effectiveness of Blended Learning on STEM Achievement of Secondary School Students. *International Journal of Academic Research in Business and Social Sciences*, *14*(1), Pages 1645-1661. https://doi.org/10.6007/IJARBSS/v14-i1/20140

Antara, T., Sepang, J., & Saerang, I. S. (2014). Analisis Rasio Likuiditas, Aktivitas dab Profitabilitas Terhadap Return Saham Perusahaan Wholesale yang Terdaftar di Bursa Efek Indonesia. *Jurnal EMBA*, *2*(3), 902–911.

Arifin, H. D., & Widiastuti, R. (2019). Pelatihan Pembuatan Pupuk Organik dan Pakan Alternatif Ternak Bagi Kelompok Tani dan Karang Taruna Desa Bedono Karangduwur. *Surya Abdimas*, *3*(2), 57–63. https://doi.org/10.37729/abdimas.v3i2.556

As'ad Umar & Dwi Ari Pertiwi. (2020). MODEL PENGUATAN EKONOMI MASYARAKAT MELALUI JASA LES PRIVAT DAN NGAJI. *Discovery : Jurnal Ilmu Pengetahuan*, *5*(1), 26–31. https://doi.org/10.33752/discovery.v5i1.660

Asbari, M., Novitasari, D., Wardoyo, S., & Lafendry, F. (2024). Membangun Lingkungan Belajar Positif: Seminar Implementasi Disiplin Positif di Sekolah Menengah Atas. *Niswantara: Jurnal Pengabdian Kepada Masyarakat*, *1*(01), Article 01. https://doi.org/10.70508/6bq1bg09

Bonney, K. M. (2015). Case study teaching method improves student performance. *Of Microbiology and Biology Education*, *16*(1), 21–28.

Cooper, H., Carlisle, C., Gibbs, T., & Watkins, C. (2001). Developing an evidence base for interdisciplinary learning: A systematic review. *Journal of Advanced Nursing*, *35*(2), 228–237. https://doi.org/10.1046/j.1365-2648.2001.01840.x

Dorta-Afonso, D. (2019). Teaching organizational behavior in the bachelor of tourism through the case study method. *Journal of Hospitality, Leisure, Sport & Tourism Education*, *25*, 100204. https://doi.org/10.1016/j.jhlste.2019.100204

Farashahi, M. (2018). Effectiveness of teaching methods in business education: A comparison study on the learning outcomes of lectures, case studies and simulations. *International Journal of Management Education*, *16*(1), 131–142. https://doi.org/10.1016/j.ijme.2018.01.003

Fauzi, A., Ermiana, I., Rosyidah, A. N. K., & Sobri, M. (2022). Implementasi Case Method (Pembelajaran Berbasis Pemecahan Kasus) Ditinjau Dari Kemampuan Kolaboratif Mahasiswa. *Jurnal Eduscience*, *9*(3), 809–817. https://doi.org/10.36987/jes.v9i3.3446

Fauziddin, M. (2015). Peningkatan Kemampuan Klasifikasi Melalui Media Benda Konkret pada Anak Kelompok A1 di TK Cahaya Kembar Bangkinang Kampar. *Jurnal Obsesi*, *2*(1), 94–107. https://doi.org/10.1017/CBO9781107415324.004

Fitria, H., Kristiawan, M., & Rahmat, N. (2019). Upaya Meningkatkan Kompetensi Guru Melalui Pelatihan Penelitian Tindakan Kelas. *ABDIMAS UNWAHAS*, *4*(1), Article 1. https://doi.org/10.31942/abd.v4i1.2690

Guangul, F. M., Suhail, A. H., Khalit, M. I., & Khidhir, B. A. (2020). Challenges of remote assessment in higher education in the context of COVID-19: A case study of Middle East College. *Educational Assessment, Evaluation and Accountability*, *32*(4), 519–535. https://doi.org/10.1007/s11092-020-09340-w

Hackett, S. (2023). The effectiveness of Collaborative Online International Learning (COIL) on intercultural competence development in higher education. *International Journal of Educational Technology in Higher Education*, *20*(1). https://doi.org/10.1186/s41239-022-00373-3

Hasbi, H., Muharom, L. A., Jalil, A., Munawaroh, F., Ananda, P. T., & Dwiansyah, I. (2024). Pelatihan Power Point Pada Guru Madrasah Diniyah dan Pengadaan Liquid Crystal Displa (LCD) Proyektor Yayasan Al-Muhlisin Pakem Bondowoso. *JIWAKERTA: Jurnal Ilmiah Wawasan Kuliah Kerja Nyata*, *5*(2), 217–222. https://doi.org/10.32528/jiwakerta.v5i2.23776

Hendriana, H., Sumarmo, U., & Rohaeti, E. E. (2013). Kemampuan Komunikasi Matematik Serta Kemampuan dan Disposisi Berpikir Kritis Matematis. *Jurnal Matematika Dan Pendidikan Matematika*, *2*(1), 35–45.

Ismaimuza, D. (2013). Kemampuan Berpikir Kritis dan Kreatif Matematis Siswa SMP Melalui Pembelajaran Berbasis Masalah dengan Strategi Konflik Kognitif. *Sains Humanika*, *63*(2), 33–37.

Jarrah, M. (2023). Interdisciplinary Pedagogy through Problem-Based Learning: A Case Study in Global Health Education. *Journal of Problem Based Learning in Higher Education*, *11*(3), 105–118. https://doi.org/10.54337/ojs.jpblhe.v11i3.7584

Sarwono. (2016). *Metodologi Penelitian (II)*. PT. Raja Grafindo Persada.

Karina, M., Judijanto, L., Rukmini, A., Fauzi, M. S., & Arsyad, M. (2024). Pengaruh Interaksi Sosial Terhadap Prestasi Akademik: Tinjauan Literatur Pada Pembelajaran Kolaboratif. *Innovative: Journal Of Social Science Research*, *4*(5), Article 5. https://doi.org/10.31004/innovative.v4i5.15351

Kee, T., Zhang, H., & King, R. B. (2024). An empirical study on immersive technology in synchronous hybrid learning in design education. *International Journal of Technology and Design Education*, *34*(3), 1243–1273. https://doi.org/10.1007/s10798-023-09855-5

Kolahdouzan, M. (2020). The effect of case-based teaching and flipped classroom methods in comparison with lecture method on learning and satisfaction of internship students in surgery. *Journal of Education and Health Promotion*, *9*(1). https://doi.org/10.4103/jehp.jehp_237_19

Komalasari, K. (2011). *Pembelajaran Kontekstual Konsep dan Aplikasi*. Refika Aditama.

Kompri, K. (2017). *Standardisasi Kompetensi Kepala Sekolah: Pendekatan Teori untuk Praktik Profesional Edisi Pertama*. Kencana.

Krisdiana, I., Apriandi, D., & Setiansyah, R. K. (2014). ANALISIS KESULITAN YANG DIHADAPI OLEH GURU DAN PESERTA DIDIK SEKOLAH MENENGAH PERTAMA DALAM IMPLEMENTASI KURIKULUM 2013 PADA MATA PELAJARAN MATEMATIKA (Studi Kasus Eks-Karesidenan Madiun). *JIPM (Jurnal Ilmiah Pendidikan Matematika)*, *3*(1). https://doi.org/10.25273/jipm.v3i1.492

Lyall, C., & Meagher, L. (2012). A Masterclass in interdisciplinarity: Research into practice in training the next generation of interdisciplinary researchers. *Futures*, *44*, 608–617. https://doi.org/10.1016/j.futures.2012.03.011

Mahdi, O. R. (2020). The role of using case studies method in improving students' critical thinking skills in higher education. *International Journal of Higher Education*, *9*(2), 297–308. https://doi.org/10.5430/ijhe.v9n2p297

McLean, S. F. (2016). Case-Based Learning and its Application in Medical and Health-Care Fields: A Review of Worldwide Literature. *Journal of Medical Education and Curricular Development*, *3*. https://doi.org/10.4137/JMECD.S20377

Nurfitriyanti, M. (2017). Peningkatan Kemampuan Disposisi Matematika Melalui Pembelajaran Berbasis Aktivitas Siswa. *Jurnal SAP*, *2*(1), 84–93.

Rostamnezhad, M., Nasirzadeh, F., Khanzadi, M., Jarban, M. J., & Ghayoumian, M. (2020). Modeling social sustainability in construction projects by integrating system dynamics and fuzzy-DEMATEL method: A case study of highway project. *Engineering, Construction and Architectural Management*, *27*(7), 1595–1618. https://doi.org/10.1108/ECAM-01-2018-0031

Sarwono, J. (2017). Mengenal Prosedur-prosedur Populer dalam SPSS 23. *Sarwono, Jonathan*, 1–3.

Silitubun, E., & Dewi, U. (2025). *The Effectiveness of Case-Based Learning in Enhancing Students ' Critical Thinking Skills Evaristus Silitubun , Mustaji , Utari Dewi*. *14*(2), 136–141.

Vahlepi, S., Helty, & Tersta, F. W. (2021). Implementasi Model Pembelaaran berbasis Case Method dan Project Based Learning dalam rangka mengakomodir Higher Order Thinking Skill mahasiswa dalam. *Jurnal Pendidikan Tambusai*, *5*(3), 10153–10159.

Widiastuti, F., Amin, S., & Hasbullah, H. (2022). Efektivitas Metode Pembelajaran Case Method dalam Upaya Peningkatan Partisipasi dan Hasil Belajar Mahasiswa pada Mata Kuliah Manajemen Perubahan. *Edumaspul: Jurnal Pendidikan*, *6*(1), 728–731. https://doi.org/10.33487/edumaspul.v6i1.3034

Xu, C., Wu, C.-F., Xu, D.-D., Lu, W.-Q., & Wang, K.-Y. (2022). Challenges to Student Interdisciplinary Learning Effectiveness: An Empirical Case Study. *Journal of Intelligence*, *10*(4), Article 4. https://doi.org/10.3390/jintelligence10040088

Zhang, J. (2018). Collaborative Learning in Higher Nursing Education: A Systematic Review. *Journal of Professional Nursing*, *34*(5), 378–388. https://doi.org/10.1016/j.profnurs.2018.07.007