

Management of Case-Based Learning in Supporting the Development of Nursing Students' Competencies at Universitas Bakti Indonesia

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ABSTRACT

Case-Based Learning (CBL) provides opportunities for nursing students to connect theoretical knowledge with contextual situations and develop competencies needed for professional practice. However, its effectiveness depends on how the learning process is systematically planned and managed. This study aimed to analyze the management of CBL in supporting the development of nursing students' competencies at Universitas Bakti Indonesia. The study employed a qualitative descriptive approach. Data were collected through semi-structured interviews, classroom observations, and document analysis involving 3 lecturers and 10 nursing students participating in CBL activities. Data were analyzed through data reduction, data display, and conclusion drawing, with credibility strengthened through source and technique triangulation. The findings showed that CBL management consisted of planning, organizing, implementation, monitoring and evaluation, and follow-up activities. Relevant case selection, clear learning objectives, lecturer facilitation, group discussion, continuous feedback, and follow-up contributed to students' engagement and competency development. CBL provided opportunities for students to develop critical thinking, problem-solving, communication, clinical reasoning, decision-making, and the application of nursing knowledge to contextual cases. However, differences in student participation and variations in case complexity remained challenges in implementation. The study concludes that CBL can support nursing students' competency development when managed systematically and continuously. Strengthening case design, lecturer facilitation, student participation, assessment, and follow-up is essential for optimizing CBL in nursing education.

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Introduction

Higher education in nursing requires learning approaches that prepare students not only to understand theoretical concepts but also to apply knowledge to complex and contextual situations (Lin et al., 2024). Nursing students are expected to develop critical thinking, problem-solving, communication, clinical decision-making, and the ability to integrate theoretical knowledge with practical situations (Adelia et al., 2026). These competencies cannot be developed optimally through conventional knowledge-transfer approaches alone. Learning needs to provide students with opportunities to actively analyze problems, discuss possible solutions, and connect theoretical concepts with realistic situations encountered in nursing practice (Berg & Lepp, 2023).

One learning approach that is relevant to these needs is *Case-Based Learning* (CBL). CBL uses authentic or simulated cases as the basis for learning activities and encourages students to analyze problems, identify relevant information, formulate possible solutions, and make decisions based on the knowledge they have acquired (Alrashed et al., 2026). In nursing education, case-based learning provides opportunities for students to connect theoretical concepts with contextual situations and actively participate in the learning process (Afonso & Amaral, 2025). Recent research by Wahyudin et al. (2023) has shown that CBL can contribute to the development of critical thinking, theoretical knowledge, problem-solving abilities, and practical skills among nursing students.

The potential of CBL is also supported by studies in health professional education. Varma et al. (2025) has indicated that case-based approaches can facilitate the development of critical thinking, communication, teamwork, problem-solving, and clinical skills. These findings demonstrate that cases can provide a meaningful learning context in which students are encouraged to integrate different aspects of knowledge rather than simply memorize information. In nursing education, the use of cases is particularly relevant because professional practice frequently requires nurses to analyze patient conditions, identify problems, prioritize care, and make appropriate decisions based on available information (Zainal et al., 2025).

Despite its potential, the implementation of CBL does not automatically result in effective learning. The quality of case selection, clarity of learning objectives, organization of student activities, lecturer facilitation, time allocation, assessment, and follow-up can influence the effectiveness of case-based learning (Zhou et al., 2025). Gandini & Morselli, (2026) also indicates variation in the effects of CBL across learning outcomes and educational contexts, suggesting that implementation and contextual factors need to be considered when evaluating its effectiveness. Therefore, CBL should not be viewed merely as a teaching technique but as a learning process that requires systematic planning and management (Das et al., 2021).

From an educational management perspective, learning management involves organizing various components of the learning process so that educational objectives can be achieved effectively (Jenab, 2023; Wahyudin et al., 2023). In CBL, management begins with identifying learning objectives and selecting cases that are relevant to the competencies students are expected to develop (Juniawati et al., 2026). The process

continues with organizing learning groups and tasks, facilitating case discussions, monitoring student participation, assessing learning processes and outcomes, and providing follow-up activities (Evangelou & Xenos, 2025). Effective management is important to ensure that case discussions remain focused on learning objectives and contribute meaningfully to students' competency development.

This perspective is particularly important in nursing education because students need to integrate knowledge, skills, attitudes, communication, critical reasoning, and decision-making. A case-based learning environment can provide opportunities for such integration, but the quality of the learning experience depends on how lecturers manage and facilitate each stage of the process (Budiarto et al., 2025). Lecturers need to design cases that reflect relevant nursing situations, provide sufficient guidance without dominating discussion, encourage students to justify their reasoning, and use assessment results to identify areas requiring further development (Aase et al., 2022). Thus, the management of CBL becomes an important factor in ensuring that the learning model supports the intended competencies of future nurses.

Previous studies have shown that *Case-Based Learning* (CBL) has considerable potential to support the development of various competencies among nursing students. Wahyudin et al. (2023) reported that CBL can support critical thinking, knowledge acquisition, problem-solving, and practical skills among nursing students. Similarly, Varma et al. (2025) found that case-based approaches can facilitate critical thinking, communication, teamwork, problem-solving, and clinical skills. More recent studies by Afonso and Amaral (2025) and Alrashed et al. (2026) further indicate that contextual cases can help students connect theoretical knowledge with situations that resemble professional practice.

However, most previous studies have focused primarily on the effectiveness of CBL or its effects on specific learning outcomes and student competencies, while limited attention has been given to the management of CBL as a systematic learning process. Previous research has not sufficiently explained how CBL is planned, how cases and learning groups are organized, how lecturers facilitate case discussions, how student participation is monitored, and how learning outcomes are evaluated and followed up. This is important because the success of CBL depends not only on the use of cases but also on the quality of its management and implementation at each stage of the learning process.

This gap is particularly important in nursing education because competency development involves interconnected skills, including critical thinking, problem-solving, communication, clinical reasoning, decision-making, and the ability to apply nursing knowledge to contextual situations. Therefore, research is needed not only to examine whether CBL is effective, but also to understand how CBL is managed to support the comprehensive development of nursing students' competencies.

The Nursing Study Program at Universitas Bakti Indonesia provides a relevant context for examining this issue. In this setting, effective CBL requires appropriate case selection, clear learning objectives, lecturer facilitation, active student participation, monitoring, evaluation, and follow-up. This study addresses the identified gap by analyzing the management of CBL through the processes of planning, organizing, implementation, monitoring and evaluation, and follow-up, and by examining how these processes support the development of nursing students' competencies.

Method

This study employed a qualitative descriptive approach to analyze the management of *Case-Based Learning* (CBL) in supporting the development of nursing students' competencies at the Nursing Study Program, Universitas Bakti Indonesia. The qualitative

approach was selected because the study focused on understanding the learning management process in its natural educational context, particularly how CBL is planned, organized, implemented, monitored, and evaluated. The research was conducted during the 2025/2026 academic year. Participants were selected purposively and consisted of 3 lecturers and 10 nursing students who were directly involved in CBL activities. Data were collected through semi-structured interviews, classroom observations, and document analysis. Interviews with lecturers and students explored the preparation of learning objectives and cases, organization of learning activities, lecturer facilitation, student participation, monitoring, assessment, difficulties encountered during implementation, and follow-up activities. Observations were conducted during CBL sessions to examine how cases were presented, how students analyzed and discussed the cases, how lecturers facilitated the learning process, and how students demonstrated competency-related behaviors. Relevant documents, including course plans, case materials, learning modules, assessment rubrics, attendance records, and students' learning products, were also examined to complement the interview and observation data. Data were analyzed through an interactive process consisting of data reduction, data display, and conclusion drawing. During data reduction, information relevant to the research objectives was selected and categorized according to five main dimensions: planning, organizing, implementation, monitoring and evaluation, and follow-up. The data were then displayed in thematic descriptions to identify patterns and relationships among findings from different sources. Conclusions were drawn by interpreting the emerging patterns and comparing information across participants and data collection methods. The credibility of the findings was strengthened through source and technique triangulation by comparing information obtained from lecturers, students, observations, and documents. Member checking was also conducted by confirming key findings with selected participants. The development of nursing students' competencies was examined through indicators that emerged during the CBL process, including critical thinking, problem-solving, communication, clinical reasoning, decision-making, and the ability to apply nursing knowledge to contextual cases. This research design enabled the study to provide a comprehensive description of how CBL is managed and how its implementation supports the development of nursing students' competencies at Universitas Bakti Indonesia.

Results and Discussion

1. Results

The findings indicate that the management of *Case-Based Learning* (CBL) in the Nursing Study Program at Universitas Bakti Indonesia was implemented through a sequence of planning, organizing, implementation, monitoring and evaluation, and follow-up activities. Data obtained from interviews, classroom observations, and document analysis showed that CBL was not implemented simply as a discussion method but was organized as a learning process intended to connect theoretical knowledge with contextual nursing situations.

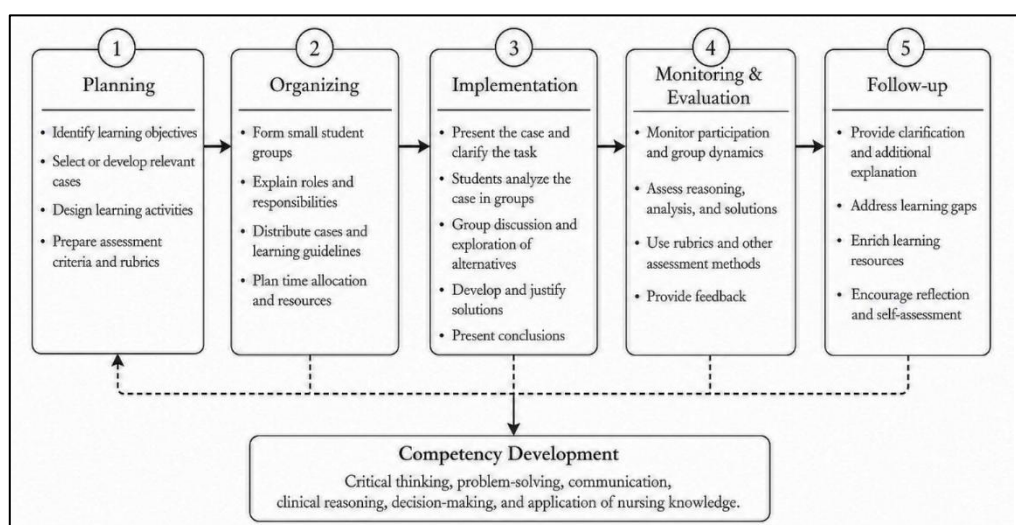


Figure 1. Management Process of Case-Based Learning in Nursing Education

Figure 1 illustrates that CBL management is implemented as a continuous process in which planning provides the foundation for organizing and implementing learning activities, while monitoring, evaluation, and follow-up are used to improve subsequent learning processes. The process ultimately supports the development of students' nursing competencies.

The first finding concerns planning. Lecturers prepared learning objectives, selected cases, determined learning activities, and developed assessment criteria before CBL sessions were conducted. The cases were generally selected based on their relevance to the topics being taught and their potential to stimulate students to analyze nursing problems. Course documents also showed that learning activities were organized around competency-oriented objectives. However, the complexity of cases varied across learning sessions, indicating that case development could still be made more consistent with the level of competence expected from students.

The second finding relates to organizing the learning process. Students were generally organized into small groups to discuss and analyze the cases. Each group was given tasks related to identifying problems, analyzing relevant information, discussing possible solutions, and presenting the results of their analysis. The organization of group activities encouraged students to exchange perspectives and participate in the learning process. Classroom observations showed that students became more actively involved when cases were closely related to situations they could recognize from nursing practice.

The third finding concerns CBL implementation. During the learning process, lecturers presented the cases and provided initial directions before students began analyzing the problems. Lecturers functioned primarily as facilitators by asking questions, clarifying concepts, and directing students toward relevant sources rather than providing immediate solutions. Students were observed discussing cases, identifying important information, connecting cases with theoretical concepts, and presenting their reasoning. Nevertheless, differences in student participation remained visible, with some students being more active in discussions while others tended to follow the group's conclusions without contributing substantially.

The fourth finding concerns monitoring and evaluation. Lecturers monitored students' participation, quality of discussion, ability to explain their reasoning, and understanding of the cases. Evaluation was conducted through presentations, discussions, written assignments, and other forms of assessment relevant to the course. The results showed that

assessment was used not only to determine students' achievement but also to identify difficulties in analyzing cases and applying theoretical knowledge. Feedback was provided during and after CBL activities to help students correct misunderstandings and improve their reasoning.

The fifth finding concerns follow-up activities. Lecturers provided additional explanations, feedback, and opportunities for students to revisit cases that had not been analyzed adequately. Students were encouraged to compare their conclusions with relevant learning resources and revise their understanding when errors were identified. Follow-up activities demonstrated that CBL was treated as a continuing learning process rather than ending when the group discussion was completed.

In relation to competency development, the findings indicate that CBL supported several aspects of students' learning. Students demonstrated opportunities to develop critical thinking through the analysis of case information, problem-solving through the identification of appropriate responses, communication through group discussions and presentations, and clinical reasoning through the connection of theoretical concepts with contextual nursing situations. Students also showed greater opportunities to practice decision-making when they were required to justify the solutions proposed for the cases.

Overall, the findings demonstrate that CBL management at Universitas Bakti Indonesia involved interconnected processes of planning, organizing, implementation, monitoring, evaluation, and follow-up. These processes created learning experiences that supported students in applying knowledge to contextual problems and developing competencies relevant to nursing education.

2. Discussion

The findings indicate that the management of *Case-Based Learning* (CBL) at Universitas Bakti Indonesia supports the development of nursing students' competencies through interconnected processes of planning, organizing, implementation, monitoring and evaluation, and follow-up. This finding is consistent with Lukman et al. (2025), who emphasized the importance of aligning case-based learning activities with learning objectives and contextual problems. Similarly, previous studies in nursing and health professions education have reported that CBL can support critical thinking, problem-solving, clinical reasoning, and the integration of theoretical and practical knowledge. The present study extends these findings by showing that these learning benefits are closely related to how CBL is systematically managed throughout the learning process.

The planning process was an important foundation for CBL implementation. Lecturers prepared learning objectives, selected relevant cases, organized learning activities, and developed assessment criteria before the learning sessions. This finding is in line with Lukman et al. (2025), who found that case-based learning becomes more meaningful when cases are aligned with instructional objectives and require students to apply knowledge to contextual problems. The present findings further indicate that case selection needs to consider students' competency levels, as variations in case complexity were still identified across learning sessions. Therefore, effective planning requires not only relevant cases but also progressive case complexity that corresponds to the intended learning outcomes.

The finding that students were more engaged when cases were closely related to nursing situations also supports previous research emphasizing the value of contextual learning in nursing education. Afonso and Amaral (2025) and Alrashed et al. (2026) highlighted that case-based approaches can help students connect theoretical knowledge with realistic professional situations. In the present study, contextual cases encouraged students to identify relevant information, prioritize problems, and formulate possible

solutions. This suggests that the relevance of cases to nursing practice is an important mechanism through which CBL facilitates deeper learning and competency development.

The organization of students into small groups also contributed to the learning process. Students were given opportunities to exchange ideas, discuss alternative solutions, and present their reasoning. This finding is consistent with Wijnia et al. (2024), who reported that case-based approaches can support communication, teamwork, problem-solving, and clinical reasoning when students are actively involved in case analysis. The present study adds that group organization needs to be accompanied by appropriate task distribution and lecturer monitoring, because differences in student participation were still observed during group discussions.

The role of lecturers as facilitators was another important finding. Lecturers generally provided questions, clarification, and guidance rather than immediately providing solutions. This finding is consistent with Sartania et al. (2022), who emphasized the importance of facilitative teaching in CBL, where lecturers guide students while maintaining their responsibility for analyzing problems. The present findings suggest that effective facilitation requires a balance between guidance and student independence. Too little guidance may make students uncertain about the case, while excessive intervention may reduce opportunities for independent reasoning.

The findings related to monitoring and evaluation further strengthen previous evidence that assessment is an important component of CBL implementation. In this study, lecturers monitored student participation, reasoning, discussion quality, and understanding of the cases and used presentations, discussions, and written assignments to evaluate learning. Feedback was then provided to address misconceptions and improve students' analysis. This finding supports the view that assessment in CBL should not focus only on the final answer but should also consider the learning process through which students analyze information, justify decisions, and communicate their conclusions.

The competency-related findings are also consistent with previous studies reporting positive contributions of CBL to nursing students' competencies. Critical thinking was supported through the analysis and evaluation of case information, problem-solving through the formulation of possible responses, communication through group discussions and presentations, and clinical reasoning through the integration of theoretical knowledge with contextual nursing situations. These findings are consistent with Loyens et al. (2023), Wanahari et al. (2022), and recent evidence in nursing education showing that case-based approaches can facilitate critical thinking, knowledge application, and practical skills. Thus, the present study reinforces previous evidence while demonstrating how these competencies can emerge through a systematically managed CBL process.

However, the findings also reveal challenges that require attention. Differences in student participation indicate that group-based CBL does not automatically guarantee equal involvement. This finding is consistent with Novalia et al. (2025), who noted that some students may depend on more active group members or hesitate to express their reasoning. Therefore, lecturers need to establish individual accountability through role assignments, individual preparation, or a combination of group and individual assessment.

Variation in case complexity was another challenge identified in this study. This finding is important because the difficulty of cases needs to correspond with students' competency levels. Rusdin et al. (2026) emphasized that inappropriate case complexity may reduce the effectiveness of case-based learning because overly simple cases may not stimulate sufficient analysis, while overly complex cases may create excessive cognitive demands. The present findings therefore suggest that case development should be progressive and explicitly linked to the competencies expected at each stage of nursing education.

The findings regarding follow-up also provide an important addition to previous

discussions of CBL. In this study, lecturers provided additional explanations, feedback, and opportunities for students to revisit cases and correct their understanding. This indicates that CBL should not end with the completion of group discussion or presentation. Follow-up allows students to reflect on their reasoning, correct misconceptions, and strengthen the connection between theoretical knowledge and clinical situations. From an educational management perspective, this reinforces the importance of treating CBL as a continuous cycle rather than a single classroom activity.

The present study contributes to the existing literature by shifting attention from whether CBL is effective to how CBL is managed to support competency development. Previous research has predominantly examined CBL outcomes, including critical thinking, knowledge, clinical reasoning, and professional competence. In contrast, this study highlights the interconnected management processes of case preparation, organization, lecturer facilitation, monitoring, evaluation, and follow-up. This process-oriented perspective provides a more comprehensive understanding of the implementation of CBL in nursing education.

Overall, the findings are consistent with previous studies showing that CBL can support nursing students' critical thinking, problem-solving, communication, clinical reasoning, and application of knowledge. However, the present study demonstrates that these benefits depend on appropriate case selection, clear learning objectives, effective group organization, facilitative lecturer support, continuous monitoring and feedback, and meaningful follow-up. Therefore, CBL at Universitas Bakti Indonesia should be managed systematically while maintaining active student participation and ensuring that learning activities remain aligned with the competency demands of nursing education.

Conclusion

This study concludes that the management of *Case-Based Learning* (CBL) at Universitas Bakti Indonesia involves interconnected processes of planning, organizing, implementation, monitoring and evaluation, and follow-up. Well-managed CBL provides nursing students with opportunities to connect theoretical knowledge with contextual situations and supports the development of critical thinking, problem-solving, communication, clinical reasoning, and decision-making skills.

The findings imply that nursing education institutions should manage CBL systematically by strengthening case design, lecturer facilitation, active student participation, assessment, and follow-up. Lecturers should select cases that are relevant to students' competency levels, facilitate discussion without reducing student independence, and provide continuous feedback. These practices can help ensure that CBL functions not merely as a discussion method but as a structured learning approach that supports the competency development required for future nursing practice.

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