THE EFFICACY OF CASE-BASED LEARNING MODEL INTEGRATED WITH CRITICAL THINKING SKILLS TO IMPROVE EFL LEARNERS’ READING COMPREHENSION

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Abstract
The CBL offer dynamic and engaging learning experiences that cater to diverse learning styles and preferences. By working collaboratively in groups, students not only enhance their language skills but also develop essential communication, teamwork, and problem-solving abilities. Therefore, this study is aimed at investigating the efficacy of case-based learning model integrated with critical thinking skills to improve EFL learners’ reading comprehension. This study is designed in a classroom action research. 27 EFL learners are involved in this study. The research participants are selected in purposive random sampling. To collect the research data, the observation sheets, reading tests, and critical thinking tests are applied as the research instruments. The data consisted of qualitative and quantitative one. Qualitative data are analyzed qualitatively while the quantitative data are counted in statistical analysis. Based on the results, the findings show that the case-based learning model integrated with critical thinking skills is effective to improve EFL learners’ reading comprehension. The improvement lies on learners’ vocabulary mastery, grammar knowledge, comprehension, reading strategies, and fluency. For further studies, researchers can include metacognitive strategies and measure learners’ linguistic awareness in learning language skills.

Keywords
Case-based learning; Critical thinking skills; Reading skills; Reading comprehension; Learning experiences;

INTRODUCTION
Case-based learning (CBL) and project-based learning (PBL) are both innovative approaches employed in education, particularly in enhancing language skills such as reading comprehension (Al-Rawahi & Al-Mekhlafi, 2015; Amalia et al., 2024). CBL is structured around presenting learners with real-world scenarios, challenging them to apply their existing knowledge within the context of a group project. Similarly, PBL shares this emphasis on practical application, with learners engaging in collaborative projects to solve complex problems or address authentic challenges (Amorati et al., 2022; Ennis et al., 2022). Both CBL and PBL serve as frameworks for integrating learners’ background knowledge with content-specific information, facilitating a deeper understanding of language skills. By immersing students in meaningful tasks that mirror real-life situations, these pedagogical practices foster active engagement and communicative skills. Rather than passively consuming information, learners are encouraged to actively apply their knowledge to analyze, interpret, and solve problems within the context of the task at hand.

The CBL offer dynamic and engaging learning experiences that cater to diverse learning styles and preferences (Dawson et al., 2021; Rebbapragada, 2020). By working collaboratively in groups, students not only enhance their language skills but also develop essential communication, teamwork, and problem-solving abilities. Through this interactive
process, learners are empowered to take ownership of their learning journey, fostering a sense of autonomy and self-directed learning. In other words, CBL provide effective frameworks for teaching language skills such as reading comprehension by immersing learners in authentic, real-world scenarios. By encouraging active participation, collaboration, and communication, these approaches facilitate deeper learning and skill development, ultimately preparing students for success in both academic and real-life contexts (Li et al., 2024).

Reading comprehension plays a pivotal role in language acquisition, particularly for non-English study programs like accounting and economics. As a unique language skill, reading serves as a gateway for learners to deepen their understanding of academic subjects. Despite possessing the ability to read, many language learners struggle with comprehending English texts effectively. This challenge underscores the importance of honing specific reading skills tailored to comprehension. Li et al. (2024) underscores the significance of reading comprehension, noting that the transfer and development of knowledge predominantly occur through reading. Given this crucial role, this study advocates for the implementation of CBL as a means to enhance reading comprehension among learners (Dolba et al., 2022; Habibi et al., 2022). CBL offers a structured approach wherein learners engage with real-world scenarios, applying their knowledge to solve complex problems or address authentic challenges. By incorporating CBL into reading activities, learners are provided with a dynamic and interactive learning experience. Through exposure to relevant case studies, students are encouraged to actively engage with the text, analyze information, and extract meaning within the context of the given scenario.

The active participation fosters deeper comprehension as learners connect theoretical concepts with practical applications. Furthermore, CBL fosters a collaborative learning environment wherein students can exchange ideas, discuss interpretations, and collectively construct meaning from the text (Dawson et al., 2021; Li et al., 2024). This collaborative process not only enhances comprehension but also develops learners’ communicative skills and promotes peer learning. The integration of CBL into reading classrooms offers systematic learning activities to improve reading comprehension among learners. By immersing students in authentic contexts and promoting active engagement, CBL facilitates the development of essential reading skills necessary for academic success and knowledge acquisition.

Reading comprehension, defined as the capacity to decode written text, grasp its significance, and assimilate it with existing knowledge, is a fundamental aspect of language proficiency (Alfatihah & Tyas, 2022; Anwar & Sailuddin, 2022). However, achieving proficiency in reading comprehension isn't solely contingent on linguistic prowess; it also hinges on the integration of critical thinking skills into the learning process. Critical thinking skills play a crucial role in enhancing reading comprehension as they enable learners to engage with texts more deeply and critically (Haerazi et al., 2021; Kazemian et al., 2021). The relationship between reading comprehension and critical thinking skills is symbiotic. As learners hone their reading skills, they concurrently cultivate their critical thinking abilities. This is because effective reading necessitates more than just deciphering words; it involves actively analyzing, synthesizing, and evaluating information presented in the text. Critical thinking skills encompass a range of cognitive processes, including analysis, reasoning, evaluation, and effective communication of ideas. By integrating critical thinking skills into reading activities, learners are empowered to delve beyond the surface meaning of the text and explore underlying themes, arguments, and perspectives. For instance, they may analyze the author's intent, evaluate the validity of arguments presented, and synthesize information to form well-informed opinions.

The development of critical thinking skills enriches reading comprehension by fostering a deeper understanding of complex texts and enhancing the ability to make connections between disparate ideas. Learners equipped with robust critical thinking skills are better
equipped to discern bias, identify logical fallacies, and interpret information within its broader context. According to Haerazi et al. (2021), the proficiency of learners' reading comprehension is intricately linked to the level of their critical thinking skills. By fostering a symbiotic relationship between these two cognitive processes, lecturers can empower learners to engage with texts more effectively, extract deeper meaning, and become more discerning and analytical readers (Selim & Islam, 2022; Zano, 2022). Through intentional integration of critical thinking skills into reading instruction, lecturers can cultivate well-rounded learners who are adept at comprehending and critically evaluating a wide range of texts.

Given the essential of critical thinking skills in reading comprehension during implementing the case-based learning model, this study is aimed at finding out the efficacy of case-based learning model integrated with critical thinking skills to improve EFL learners' reading comprehension at accounting study program at Politeknik Negeri Malang. Based on the research problems identified, the current study is directed with two research questions: how does the CBL model integrated with critical thinking skills improve EFL learners’ reading comprehension? And to what extend does the CBL model integrated with critical thinking skills improve EFL learners’ reading comprehension? The novelty of the study lies on the use of case-based learning for teaching language skills, reading comprehension integrated with the level of learners’ critical thinking skills. Besides, the teaching materials are designed based on learners’ needs in their academic subjects, accounting study program.

RESEARCH METHOD
Research Design
The classroom action research conducted aims to assess the effectiveness of integrating the case-based learning model with critical thinking skills to enhance EFL learners' reading comprehension within the accounting study program at Politeknik Negeri Malang. Central to this research is the exploration of critical thinking skills as a potential moderator or control variable, influencing the impact of the case-based learning model on reading comprehension outcomes. The design of the classroom actions is tailored to address the specific research objectives and questions (Cohen et al., 2018). Utilizing a one-shot learning approach, the classroom interventions are structured to facilitate immediate and measurable improvements in reading comprehension among the participating EFL learners. This focused approach allows for a clear assessment of the effectiveness of the proposed intervention in addressing the identified research problems. Central to the classroom actions is the integration of the case-based learning model, which immerses learners in real-world scenarios, prompting them to apply their knowledge and critical thinking skills to solve authentic problems. By engaging with complex and contextually relevant materials, learners are challenged to analyze, evaluate, and synthesize information, thereby enhancing their reading comprehension abilities.

Additionally, the variable of critical thinking skills serves as a pivotal component of the intervention, acting as both a moderator and a control dimension. Through targeted instruction and practice, learners are encouraged to develop and apply critical thinking skills such as analysis, reasoning, and evaluation in the context of reading comprehension tasks. By examining the interaction between critical thinking skills and the case-based learning model, the research seeks to elucidate their combined impact on reading comprehension outcomes. In summary, the classroom actions are meticulously designed to investigate the efficacy of integrating the case-based learning model with critical thinking skills to improve EFL learners' reading comprehension within the accounting study program. Through a one-shot learning approach, the interventions are structured to address the research problems while providing valuable insights into the interplay between instructional strategies and learner outcomes.
Research Participants

The selection of EFL learners from the accounting study program for this study was carefully considered to ensure the validity and relevance of the research participants. A total of 27 EFL learners were included in the study, all of whom are enrolled in a non-English study program within the accounting department. The participants were selected using purposive random sampling to represent a diverse yet representative sample of the target population. The chosen participants share several key characteristics that make them suitable for inclusion in the study. Firstly, they fall within a narrow age range, specifically ranging between 22 and 23 years old. This demographic consistency helps to minimize potential confounding variables related to age differences that could influence the research outcomes. Furthermore, the participants are all in their fourth-grade semester, indicating a relatively advanced level of academic progression within their respective programs. This ensures a baseline level of academic proficiency and familiarity with the subject matter, which is essential for meaningful engagement with the research interventions. Importantly, the participants exhibit homogeneity in their English achievement levels, indicating comparable proficiency levels across the cohort. This consistency in English proficiency helps to control for potential disparities in language abilities that could otherwise impact the study's results.

In terms of gender distribution, the participant group comprises 18 female and 9 male EFL learners. While the gender ratio is not perfectly balanced, the inclusion of both male and female participants ensures a degree of gender diversity within the sample, which is important for capturing a range of perspectives and experiences. Additionally, all participants have equal access to English language learning opportunities within the context of English for Specific Purposes (ESP). This ensures that each participant has had similar exposure to English language instruction tailored to their academic discipline, further enhancing the comparability of their language learning experiences. The selection of EFL learners from the accounting study program as research participants was guided by a rigorous process aimed at ensuring the validity, representativeness, and relevance of the sample.

Research Instruments

The research instruments employed in this study have been carefully selected to ensure their validity and reliability in collecting relevant data (Creswell, 2009). These instruments encompass observation sheets, reading tests, and critical thinking tests, each serving a specific purpose in assessing various aspects of the research objectives. The observation sheets play a pivotal role in capturing valuable insights during the implementation of the case-based learning model within the reading classes. These sheets are utilized by trained observers who systematically document essential information and observations pertaining to the instructional process. By systematically recording key interactions, strategies, and learner engagement levels, the observation sheets provide valuable qualitative data that complement the quantitative measures obtained through other assessment tools. In addition to the observation sheets, reading tests are administered to gauge the reading achievement of EFL learners. These tests are designed to assess various aspects of reading comprehension, including vocabulary acquisition, text interpretation, and inferential reasoning skills. By measuring learners' proficiency in navigating and comprehending English texts, the reading tests offer valuable insights into the effectiveness of the instructional interventions in improving reading comprehension abilities.

Furthermore, critical thinking tests are employed to evaluate EFL learners' critical thinking achievement, using validated indicators to measure their ability to analyze, evaluate, and synthesize information. These tests are carefully constructed to assess learners' capacity for logical reasoning, problem-solving, and independent thinking within the context of reading comprehension tasks. By incorporating reliable indicators of critical thinking, the
tests provide a robust measure of learners' cognitive abilities and their capacity to engage critically with academic materials. The research instruments utilized in this study have been rigorously selected and validated to ensure their suitability for assessing the intended research objectives. Through a combination of qualitative and quantitative measures, these instruments offer a comprehensive understanding of the impact of the instructional interventions on EFL learners' reading comprehension and critical thinking abilities.

**Technique of Data Analysis**

In the current study, both qualitative and quantitative data have been collected to provide a comprehensive understanding of the research phenomena. The qualitative data, obtained through observation activities, offer valuable insights into the implementation of the instructional interventions and the dynamics of the learning environment. To analyze the qualitative data, a systematic approach is adopted, involving data condensation, data display, and drawing conclusions. Data condensation involves the summarization and organization of observational notes, identifying key themes, patterns, and trends that emerge during the instructional sessions. Subsequently, data display techniques such as charts, tables, or matrices are employed to visually represent the qualitative findings, facilitating comparison and interpretation. Drawing conclusions involves synthesizing the qualitative findings to identify overarching themes, insights, and implications for practice. On the other hand, the quantitative data are derived from reading and critical thinking tests administered to the participants. These tests yield numerical data, typically in the form of scores or ratings, which are amenable to statistical analysis.

To analyze the quantitative data, statistical techniques are utilized to explore patterns, relationships, and trends within the dataset. Specifically, statistical analysis is conducted to calculate mean scores for reading comprehension and critical thinking abilities among the participants. These mean scores provide a quantitative measure of the participants' performance on the assessment tasks, allowing for comparisons across different groups or conditions. Additionally, inferential statistical methods may be employed to determine the significance of any observed differences or relationships within the quantitative data. By integrating both qualitative and quantitative data analysis approaches, the study aims to provide a nuanced and comprehensive understanding of the research phenomena. The qualitative analysis offers rich, contextualized insights into the instructional process and learner experiences, while the quantitative analysis provides objective, quantifiable measures of performance and outcomes. Together, these complementary approaches enable researchers to triangulate findings, validate interpretations, and draw robust conclusions regarding the efficacy and impact of the instructional interventions on EFL learners' reading comprehension and critical thinking abilities.

**RESEARCH FINDINGS AND DISCUSSION**

**Research Findings**

The CBL is conducted in six steps: analyzing learning cases, presenting learning cases, formulating learning objectives related to learning cases, dividing topics among EFL learners, reviewing the literature and educational materials by self-study, and sharing of opinions among the learners. These steps serve as a systematic framework for guiding learners through the process of analyzing, synthesizing, and applying knowledge within the context of real-world scenarios. Each learning activity emphasizes a certain learning objective to achieve. The learning activities of the CBL can be presented as follows.
Table 1
The CBL Teaching Steps and Its Learning Activities

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<td>Analyzing learning cases</td>
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<td>Formulating learning objectives related to learning cases</td>
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<td>Sharing of opinions among the learners</td>
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The data analysis of the learning activities within the CBL model highlights its efficacy in guiding learners to acquire knowledge content. Through six distinct steps, the CBL approach systematically facilitates EFL learners in achieving higher levels of reading comprehension. In the first step, learners are provided with a variety of texts pertaining to economic issues. These texts serve as the foundation for subsequent learning activities, offering learners exposure to real-world scenarios and authentic materials. Subsequently, learners are guided through reading strategies tailored to enhance their comprehension skills. By employing techniques such as skimming, scanning, and close reading, learners develop the ability to engage critically with the text, extracting key information and identifying main ideas. Furthermore, the CBL model encourages learners to utilize their critical thinking skills in deciphering and interpreting the content of the texts. Through analysis, evaluation, and synthesis, learners deepen their understanding of complex economic concepts and principles, thereby enhancing their reading comprehension abilities. As a result of engaging in these structured learning activities, learners demonstrate improved reading comprehension skills. The systematic integration of reading strategies, critical thinking, and authentic texts within the CBL model equips learners with the tools and confidence to navigate challenging reading materials effectively.
The data analysis underscores the effectiveness of the CBL approach in promoting meaningful learning experiences and fostering the development of essential reading comprehension skills among EFL learners. By providing a structured framework for engagement with authentic materials and guiding learners through targeted strategies and skills development, the CBL model emerges as a valuable tool for enhancing reading comprehension in language education contexts. The improvement can be reflected in reading achievement and critical thinking skills, which can be presented in Figure 1 as follows.

The research findings illustrated in Figure 1 demonstrate a notable improvement in students' reading comprehension. This enhancement is particularly evident in the areas of reading strategies and vocabulary acquisition. The data indicates that students with advanced critical thinking skills exhibit superior reading comprehension capabilities. These students are proficient in analyzing and evaluating information from texts, a skill that is essential for deep understanding. The correlation between critical thinking and reading comprehension was substantiated by critical thinking skills tests, which showed that students with high critical thinking abilities performed better in reading comprehension tasks. This improvement was achieved by integrating various case studies and practical examples into reading learning activities, which provided students with opportunities to apply their critical thinking skills in diverse contexts. Consequently, this approach not only strengthened their critical thinking abilities but also significantly enhanced their overall reading comprehension.

Discussion
This study aims to evaluate the efficacy of integrating a case-based learning model with critical thinking skills to enhance the reading comprehension of EFL learners in the accounting study program at Politeknik Negeri Malang. The research findings demonstrated that this teaching approach significantly improved students' reading comprehension abilities. Such positive outcomes align with the assertions of Haerazi et al. (2021), who contended that students exposed to diverse learning cases or projects during reading activities acquire sufficient vocabulary, which in turn supports their text comprehension. Case-based learning (CBL) is an instructional model that involves presenting students with real-life scenarios or cases to analyze and solve. This model encourages active learning, critical thinking, and the application of knowledge to practical situations. In the context of teaching reading skills, CBL engages students in meaningful reading tasks that are relevant to their field of study, making
the learning process more engaging and effective. For non-English study programs, such as accounting, the integration of CBL can help students see the relevance of language skills in their professional lives, thereby increasing their motivation to improve their reading comprehension.

The efficacy of the case-based learning model in this study underscores its potential as a valuable teaching strategy for English lecturers, particularly those working in non-English study programs. By incorporating CBL into their teaching methods, lecturers can provide students with a more interactive and applied learning experience. This approach not only enhances reading skills but also fosters critical thinking and problem-solving abilities (Haerazi & Irawan, 2020; Li et al., 2024), which are crucial for academic and professional success. The positive impact observed in the accounting study program at Politeknik Negeri Malang suggests that similar benefits could be achieved in other disciplines, making CBL a versatile and effective tool for improving EFL learners' reading comprehension. Moreover, the findings support the notion that case-based learning, when combined with critical thinking exercises, can significantly enhance students' vocabulary acquisition. As Li et al. (2024) highlighted, exposure to various learning cases enables students to encounter and learn new vocabulary in context, which is essential for understanding complex texts. This contextual vocabulary learning is particularly beneficial for students in non-English study programs, as it equips them with the language skills necessary to comprehend specialized texts within their field. Therefore, adopting a case-based learning model can be a strategic move for English lecturers aiming to improve their students' reading comprehension and overall language proficiency.

In learning practices, students are encouraged to critically examine materials, identify key issues, and gain a deeper understanding of the concepts. This critical engagement is particularly crucial in reading activities within non-English study programs, such as accounting. By providing students with texts related to economic issues and accounting problems, lecturers can foster an environment where students practice analytical skills and apply theoretical knowledge to real-world situations (Aynalem & Tesmand, 2023; Firman et al., 2021; Rafi et al., 2021). This method not only enhances their comprehension of the subject matter but also prepares them for the complexities of professional scenarios they will encounter in their careers. During reading activities in the accounting subject, students are presented with various economic and accounting challenges. These tasks are designed to train them to think critically and analytically.

By dissecting these problems, students learn to identify the core issues and understand the underlying principles that govern financial and economic practices. This process of critical examination helps students develop a nuanced understanding of the content, making them more adept at interpreting and applying information from diverse texts. Consequently, their reading skills are significantly improved, enabling them to navigate complex texts with greater ease. Properly structured reading activities are essential for students in non-English study programs to comprehend any text. According to Rafi et al. (2021), students who engage in essential learning activities, such as those involving critical analysis and problem-solving, find it easier to read and understand various texts. This is because these activities help students build a robust vocabulary and enhance their cognitive abilities to process and retain information (Alquraishy et al., 2020; Sudiatama et al., 2023). When students are regularly exposed to challenging materials that require them to think critically, they develop the skills necessary to decode and comprehend complex texts, regardless of the subject matter.

Incorporating critical thinking into reading activities also has the added benefit of making the learning experience more engaging and relevant for students (Haerazi & Irawan, 2020). When students see the practical application of their reading skills in their field of study, they are more motivated to participate and invest effort in their learning. This relevance
not only boosts their comprehension but also helps them retain information better. Therefore, English lecturers in non-English study programs should consider integrating proper reading activities that promote critical thinking. This approach will not only improve students' reading comprehension but also equip them with the analytical skills needed to excel in their academic and professional lives (Begum & Hamzah, 2018; Lee & Chen, 2019; Meguro, 2019).

After elaborating on learning cases provided by lecturers, students are asked to present these cases in a discussion session. This phase is crucial as it allows students to delve deeper into the material and view it from multiple perspectives (Haerazi et al., 2021; Li et al., 2024). By engaging in discussions, students enhance their understanding of the subject matter, which, in the context of an accounting program, means grappling with complex economic and financial issues. This engagement is not merely about understanding the content; it is also about developing the ability to articulate and defend their viewpoints based on the texts they have studied. During these discussion sessions, students are encouraged to explore the cases from different perspectives, which fosters a more comprehensive understanding of the issues at hand. This method of active learning ensures that students do not just passively consume information but actively interact with it, thereby deepening their comprehension (Asoodar et al., 2016; Maros et al., 2023).

Some students are able to provide viable solutions to the accounting issues discussed, demonstrating their grasp of the material and their ability to apply theoretical knowledge to practical problems. These sessions also serve as a platform for students to practice speaking English, which is particularly beneficial for those in non-English study programs. Although some students may still need to improve their speaking skills, the process of discussing and presenting in English based on their textual understanding helps in enhancing their language proficiency (Afifah & Devana, 2020; Rachmawati et al., 2024). Encouraging students to speak English based on their understanding of the texts provided is a key component of this learning approach. This practice not only improves their language skills but also boosts their confidence in using English in an academic and professional context. The act of articulating their thoughts and defending their viewpoints in English reinforces their learning and helps solidify their grasp of the content. It also prepares them for real-world situations where they may need to discuss complex issues in English, thus bridging the gap between academic learning and professional application.

After the discussion activities, students are asked to evaluate their views presented during the discussion sessions. This reflective phase is essential as it allows students to critically assess their performance and the validity of their arguments (Karim et al., 2023; Lukman, 2024). By reflecting on their presentations and the feedback received, students can identify areas for improvement, both in their understanding of the subject matter and their language skills. This continuous cycle of presenting, reflecting, and refining helps students develop a more nuanced understanding of the material and enhances their ability to comprehend and articulate complex texts. Therefore, proper reading activities, combined with discussion and reflection, are immensely beneficial for students in non-English study programs, enabling them to master both the content and the language skills necessary for their academic and professional success.

**CONCLUSION**

This study underscores the efficacy of integrating a case-based learning model with critical thinking skills to enhance the reading comprehension of EFL learners, particularly in the accounting study program at Politeknik Negeri Malang. The findings revealed that this approach significantly improves students' reading abilities because exposure to diverse learning cases or projects enhances vocabulary acquisition and text comprehension. Case-
based learning (CBL) encourages active learning, critical thinking, and practical application, making the learning process more engaging and relevant. For non-English study programs like accounting, CBL helps students see the practical relevance of language skills in their professional lives, thus motivating them to improve their reading comprehension. The positive outcomes observed in this study highlight the potential of the case-based learning model as a valuable teaching strategy for English lecturers in non-English study programs. By incorporating CBL, lecturers can provide a more interactive and applied learning experience, which not only enhances reading skills but also fosters critical thinking and problem-solving abilities essential for academic and professional success. Furthermore, the study supports the notion that case-based learning, combined with critical thinking exercises, significantly enhances vocabulary acquisition, enabling students to comprehend complex texts more effectively. This approach, therefore, is beneficial for students across various disciplines, equipping them with the necessary language and analytical skills to excel in both academic and professional contexts.

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