

Dilemmas in the Classroom: A Study on the Efficacy of Scenario-Based Learning in Critical Thinking Enhancement

Received: November 21, 2023
Revised: November 29, 2023
Accepted: November 29, 2023

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Abstract

This research explores the relationship between students' critical thinking abilities and their English language competency, as well as the effectiveness of dilemma-based learning in developing critical thinking skills in an EFL classroom. Using a mixed-methods approach, 45 third-year undergraduate students from a private Thai institution participated in the study. The technique included both quantitative and qualitative components, such as a 52-item critical thinking assessment and English-speaking evaluations used for pre-and post-intervention analysis. Students' perspectives on the learning process and its results were further illuminated by the qualitative data collected through student interviews, which supplemented the quantitative study.

The study's conclusions were noteworthy and comprehensive. The average critical thinking score increased from 66.07 pre-test to 74.33 post-test, indicating a significant improvement in students' critical thinking abilities following the intervention. Additionally, the study showed that critical thinking and English language proficiency were positively correlated, as seen by the correlation coefficient rising from 0.14 (p-value 0.36) to 0.39 (p-value 0.01). These findings demonstrate the powerful effect that dilemma scenarios have on developing both linguistic competency and critical analytical abilities at the same time. The study adds to the increasing amount of evidence supporting integrated learning methodologies' benefits in higher education, especially in EFL contexts.

Keywords: Critical Thinking, Dilemma Scenarios, English, Foreign Language, Learning.

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Introduction

The importance of the English language has been greatly emphasised in the twenty-first century, serving as an essential tool of communication as well as an important centre that influences global relationships (Crystal, 2012). In the modern age of global interdependence, the English language, often referred to as the "global language," plays an important role in facilitating international discussions across a variety of domains, particularly but not exclusively business and academia. According to Hayes (2017), in the context of globalization, countries such as Thailand consider English proficiency to be not only desirable but also necessary. This perception regards English as necessary for obtaining international opportunities and achieving successful economic growth.

Aside from language proficiency, the current era emphasizes the importance of a third essential educational requirement: the development of critical thinking skills. Given the rapidly increasing proliferation of knowledge, technological advancements, and the complexities of global concerns, learners must demonstrate effective critical thinking skills (Trilling & Fadel, 2009). Proficiency in characteristics such as decision-making, analysis, and critical thinking is especially important for people navigating the complexities of the modern digital era, which is characterised by an abundance of information.

This study's theoretical framework is derived from Vygotsky's sociocultural theory, which highlights the significance of social interaction in the cognitive development process. This is consistent with the usage of dilemma scenarios, in which language serves as a medium for cognitive development as well as a tool for communication (Vygotsky, 1978). Bloom's taxonomy of educational aims also offers a framework for comprehending the shift from acquiring knowledge to critical thinking. According to Bloom's 1956 taxonomy, language learners must master six levels of cognitive capabilities, ranging from basic recollection (knowledge) to complicated evaluation (evaluation). These levels are essential for the development of

higher-order thinking abilities. Furthermore, the combination of language proficiency and critical thinking becomes more complicated in the context of English as a Foreign Language (EFL). For students to actively participate in English speaking in a meaningful way, they must have not only excellent speaking skills but also the cognitive ability for nuanced and critical thinking. However, a significant dilemma has emerged within Thailand's educational framework. Traditional teaching methods that emphasise language accuracy may unintentionally neglect the comprehensive development of cognitive and analytical abilities (Darasawang & Reinders, 2010). The consequences of this potential omission become apparent when students, despite demonstrating language proficiency, are unable to express complex and critical opinions in English.

Moving beyond rote memorization and grammar rules to create an atmosphere where students can analyse, evaluate, and create using their second language is the problem of incorporating critical thinking into EFL instruction. This change calls for an overhaul of teaching strategies, moving away from conventional lecture-based methods and towards more participatory, student-centered instruction (Freire, 1970). There is a disconnect between language proficiency and the capacity to use the language for sophisticated cognitive processes in Thailand because of the educational system's strong emphasis on exam-oriented learning and linguistic accuracy, which frequently ignores the development of analytical and critical skills (Khamkhien, 2010).

Recognizing this challenge and drawing on personal experiences as an English as a Foreign Language (EFL) teacher in Thailand, the author focuses on an innovative learning approach: the use of dilemma scenarios. Scenario-based learning offers a potentially effective approach, particularly when combined with moral quandaries. The aforementioned scenarios, filled with uncertainties and moral quandaries, necessitate careful consideration, assessment, and expression, providing a challenging structure for encouraging the development of critical thinking and speaking skills.

As a result, this research is recognised by the convergence of global needs, specific complexities, and individual educational perspectives. The primary goal of this research is to investigate the use of dilemma scenarios in undergraduate English classrooms to improve students' critical thinking abilities. Furthermore, this study investigates the complex relationship between critical thinking and English-speaking competency, intending to determine how scenario-based learning could facilitate the mutually beneficial enhancement of both cognitive abilities.

Objectives of Research

1. To examine how dilemma scenarios in an EFL classroom influence undergraduate students critical thinking skills.
2. To investigate the relationship between students, English language skills and critical thinking abilities.

Research Methodology

This study used a mixed-methods approach, which included collecting and analysing both quantitative and qualitative data. The primary justification for this design decision is to provide a comprehensive understanding of the effect of dilemma scenarios on undergraduate students' critical thinking abilities. Although quantitative data provides statistical validity, qualitative analyses illuminate the individuals' complex scenarios, perspectives, and environments. Collectively, these methodologies cover the entire scope and profundity of the research entities.

The main tool used for quantitative analysis is a 52-item multiple-choice assessment designed specifically for evaluating undergraduate students' critical thinking skills. Panjandee A.'s (2013) establishing work has been modified, with Ennis' Framework of Critical Thinking serving as the foundation for its development. Simultaneously, the findings of students in a speaking assessment will be compared to their scores in a critical thinking assessment to investigate the component of a correlation. Furthermore, the

students' performance in a speaking evaluation was analyzed alongside their results in the critical thinking assessment using SPSS in order to examine the association between these two competencies.

Additional research into sensory and perceptual aspects aided in the development of a set of four semi-structured interview questions. The goal of these inquiries is to elucidate students' experiences and perceptions of incorporating dilemma scenarios into their educational paths. The interviews have been arranged in a way that emphasises two main points. Initially, the researcher must assess the students' perspectives on how much the dilemma scenarios improved their critical thinking abilities. Furthermore, their goal is to understand the potential consequences of these occurrences on the level of student involvement and motivation during classroom instruction. The qualitative data was applied to thematic analysis intended to attentively investigate and obtain an achieved understanding of the students' perspectives.

The participants in this study were 45 third-year undergraduates from a well-known private university in Northern Thailand. They were enrolled in the course "Listening and Speaking in Daily Life" during the first semester of the 2023 academic year. The selection of these students was based on their enrolment in this specific course, which served as the primary criterion for inclusion in the investigation.

This course was not just an academic requirement; it was the key factor for their participation in the study. Being enrolled in this course meant that these students were actively involved in ethical dilemma scenarios, applying their experiences, perceptions, and performances. This active engagement was crucial for understanding how scenario-based learning contributes to the enhancement of critical thinking skills.

The utilization of various methodologies and strategies in a research investigation holds significant importance in the acquisition of accurate, relevant, and effective data. This research utilized a combination of four instruments to comprehensively acquire data: a critical thinking test, semi-structured interviews, dilemma scenarios, and six lesson plans.

The primary instrument used to collect quantitative data was a 52-item multiple-choice test based on the well-regarded Ennis' Framework of Critical Thinking. This exam was designed to assess undergraduate students' critical thinking abilities, based on Panjandee A.'s work (2013). This evaluation was conducted following the participants' interaction with the dilemma scenarios to determine whether there was an improvement in their cognitive capacities, specifically attributable to the intervention. The test's reliability and effectiveness for this study were enhanced by basing it on a well-known framework and validating it through previous research.

The study also used semi-structured interviews with four carefully designed questions to investigate the experiential and reflective dimensions. The goal of these inquiries was to shed light on the participants' perspectives, encounters, and understandings of the provided dilemma scenarios. The inquiries were specifically designed to assess the impact of the scenarios on the development of critical thinking skills, as well as their contribution to the promotion of involvement and motivation. A comprehensive validation procedure using the Index of Item-Objective Congruence was used to determine the alignment and appropriateness of these questions (IOC). Three English education experts were needed to assess the alignment and relevance of each interview question in relation to the research objectives. After establishing an acceptance baseline of 0.5, the validation procedure concluded with a semi-structured interview that resulted in a perfect IOC value of 1.00. The findings revealed a strong alignment between the interview approach and the research objectives.

Dilemma scenarios

The main element of the strategy used in this research consisted of a collection of six dilemma scenarios, customized for the "Listening and Speaking in Daily Life" course. The proposed scenarios were carefully designed to align with real-life situations, to create a meaningful connection with the participants of the course. To enhance the reliability and significance of the scenarios, a comprehensive validation experiment was conducted. The index of item-objective congruence (IOC) has emerged as

the primary means of validation. The evaluation of the relevance and effectiveness of each scenario was assigned to an evaluation committee of three English teaching specialists. The applicability of each scenario was assessed by the experts using a 5-point Likert scale, which included responses ranging from "Strongly Disagree" to "Strongly Agree." The minimum acceptability standards were established as a benchmark score ranging from 3.51 to 4.50.

The conclusion of this validation experiment experienced the dilemma scenarios obtaining an outstanding average IOC score of 5.00, indicating their exceptional alignment with the educational objectives and their potential effectiveness in the teaching approach.

In "Listening and Speaking in Daily Life" course is designed to provide a comprehensive learning experience through the implementation of six meticulously developed lesson plans. These lesson plans revolve around specific scenarios that are filled with challenging circumstances and scenarios. The comprehensively designed scenarios were designed to reflect the regular interactions of participants, while also developing their critical thinking skills. By incorporating actual scenarios into these lesson plans, they were designed to establish a strong connection with students, resulting in a learning experience that is both meaningful and impactful. To ascertain the pedagogical soundness of these lesson plans, they underwent a thorough validation procedure using the Index of Item-Objective Congruence (IOC). Distinguished scholars, with expertise in the field of English language training, were assigned the responsibility of evaluating the degree to which each scenario exhibited alignment, clarity, relevance, and overall efficacy in fostering critical thinking skills.

To provide a methodical and uniform assessment, a 5-point Likert scale was used. The conclusion of this thorough assessment procedure resulted in the attainment of an exceptional IOC score of 5.00 for the lesson plans. The experts' unequivocal agreement not only confirmed the pedagogical effectiveness of the lesson plans but also emphasized their capacity to fulfil, and maybe beyond, the instructional goals of the course.

The research procedures used in this study have been carefully designed to emphasise accuracy and reliability, and they are guided by a well-established and approachable methodology. The preliminary phase included a thorough review of existing literature, which guided the development of the study instruments, which included a critical thinking assessment based on Ennis' Framework, semi-structured interview inquiries, and ethical dilemma scenarios. To ensure their relevance and suitability for the research, these instruments were rigorously validated using the Index of Item-Objective Congruence (IOC). Following that, participants were chosen on purpose from a pool of 45 third-year undergraduate students enrolled in the "Listening and Speaking in Daily Life" course at a private institution in Northern Thailand.

In addition to data collection, the students first took the critical thinking test, which served as a quantitative assessment of their current abilities. Following that, they were confronted with dilemma scenarios that were included in their course, to completely immerse them in situations designed to improve their abilities in both speaking communication and critical thinking. Following this interaction, the critical thinking exam was given again to see if their ability had changed. Concurrently, qualitative data was gathered through semi-structured interviews, allowing for a more in-depth understanding of the students' experiences and perspectives. A mixed-methods approach was used for a comprehensive study, with quantitative data providing quantifiable evidence of skill enhancement and qualitative data providing insights into the complexities of students' engagement with the dilemma scenarios. The final step involved integrating the collected data, concluding the effectiveness of scenario-based learning, and summarising the findings in a coherent report.

Results of Research

The results are presented in an organised manner in the following analysis, which is divided into two major components. The first category

examines how participants improved their ability to speak English and think critically while engaging in challenging scenarios in their language lessons. The following section looks into the relationship between English-speaking test results and critical thinking abilities. The primary goal of this organisation is to provide a thorough and methodical understanding of the findings obtained from the instructional approaches used.

The result of Research objective 1:

The first research objective is to examine how dilemma scenarios in an EFL classroom influence undergraduate students critical thinking skills. This study aimed to evaluate the impact of dilemma scenarios on undergraduate students' critical thinking abilities in English as a Foreign Language (EFL) classes. Scenario-based learning was used in the intervention. Students' critical thinking skills significantly improved, according to the post-intervention analysis. An rise in the average critical thinking scores from 66.07 (pre-test) to 74.33 (post-test) provided quantifiable evidence of this improvement. These findings unequivocally show that using problem scenarios in EFL instruction is a successful strategy for fostering critical thinking abilities. Thus, the study emphasises how important scenario-based learning is for enhancing cognitive abilities in a language learning environment.

The primary goal of this study is to look into whether or not students' critical thinking and English-speaking skills improve after engaging in dilemma scenarios in the classroom. Table 1 provides a thorough examination of this goal, demonstrating the relationship between advancements in fluent communication skills and improvements in critical thinking abilities as a result of challenging scenarios. Table 1 depicts the collaboration between speaking skills and critical thinking that is enhanced by dilemma scenarios that require critical thinking. The study included 45 participants.

Table 1 Correlation between Speaking Proficiency and Critical Thinking Enhanced by Dilemma Scenarios

Speaking proficiency Scores	Critical Thinking (n=45)		
	Correlation Coefficient	P-Value	Correlation Level
Pre-Test	0.14	0.36	Low Level
Post-Test	0.39**	0.01	High Level

**P<.01

As shown in Table 1, this table depicts the detailed relationship between student speaking and critical thinking. The correlation is assessed both before and after the student participates in dilemma scenarios. Pre-Test Findings: The preliminary assessments show a correlation coefficient of 0.14. This numerical representation depicts a shaky relationship between verbal ability and analytical reasoning. The statistical p-value of 0.36 is greater than the 0.05 threshold, indicating a moderate correlation between the variables. This implies that the ability to refine linguistic expression and critical thinking is hampered in the presence of difficult scenarios. Post-intervention assessments, also known as post-tests, are evaluations carried out following the implementation of an intervention or treatment. As shown in Table 1, this table depicts the detailed relationship between student speaking and critical thinking. The correlation is assessed both before and after the student participates in dilemma scenarios. Pre-Test Findings: The preliminary assessments show a correlation coefficient of 0.14. This numerical representation depicts a shaky relationship between verbal ability and analytical reasoning. The statistical p-value of 0.36 is greater than the 0.05 threshold, indicating a moderate correlation between the variables. This implies that the ability to refine linguistic expression and critical thinking is hampered in the presence of difficult scenarios. Post-intervention assessments, also known as post-tests, are evaluations carried out following the implementation of an intervention or treatment. The correlation value

risers to 0.39 when dilemma scenarios are included in instructional contexts. The significant value indicates a strong relationship between speaking ability and cognitive analytical evaluation. The p-value falls dramatically to 0.01, well below the 0.05 threshold. This statistical discovery provides strong evidence for a compelling conclusion: dilemma scenarios have improved the relationship between oral communication skills and critical thinking.

The analysis after the intervention reveals that dilemma scenarios enhance the correlation between the two previously weak skills. Their significance in enhancing the connection between speaking communication and analytical reasoning is evident and substantiated.

The result of Research objective 2:

The second research objective is to investigate the relationship between students, English language skills and critical thinking abilities. In this section of the study, the relationship between students' critical thinking abilities and their English language competency was examined. Results showed that there was a significant positive association between these two factors. In the pre-test, the correlation coefficient was initially 0.14 (with a p-value of 0.36), indicating a rather weak association. This coefficient, however, significantly increased to 0.39 (with a p-value of 0.01) following the intervention, suggesting a substantial association. These results imply a direct correlation between increases in critical thinking abilities and gains in English language competency. Thus, this study clarifies how language proficiency and cognitive capacity are related in learning environments.

Table 2 Critical Thinking Evaluation Among University Students

Sample Group	Critical Thinking Score	Panjandee's criteria	Interpretation
1	31	63	critical thinking is at a good level
2	42	70	critical thinking is at an excellent level
3	38	66	critical thinking is at an excellent level
4	36	66	critical thinking is at an excellent level

Table 2 Critical Thinking Evaluation Among University Students (*Cont.*)

Sample Group	Critical Thinking Score	Panjandee's criteria	Interpretation
5	34	65	critical thinking is at an excellent level
6	34	65	critical thinking is at an excellent level
7	34	65	critical thinking is at an excellent level
8	38	66	critical thinking is at an excellent level
9	40	68	critical thinking is at an excellent level
10	39	67	critical thinking is at an excellent level
11	37	66	critical thinking is at an excellent level
12	30	62	critical thinking is at a good level
13	37	66	critical thinking is at an excellent level
14	37	66	critical thinking is at an excellent level
15	39	67	critical thinking is at an excellent level
16	33	65	critical thinking is at an excellent level
17	35	65	critical thinking is at an excellent level
18	38	66	critical thinking is at an excellent level
19	30	62	critical thinking is at a good level
20	38	66	critical thinking is at an excellent level
21	34	65	critical thinking is at an excellent level
22	37	66	critical thinking is at an excellent level
23	34	65	critical thinking is at an excellent level
24	35	65	critical thinking is at an excellent level
25	35	65	critical thinking is at an excellent level
26	37	66	critical thinking is at a good level
27	42	70	critical thinking is at an excellent level
28	38	66	critical thinking is at an excellent level
29	34	65	critical thinking is at an excellent level
30	34	65	critical thinking is at an excellent level
31	33	65	critical thinking is at an excellent level
32	41	69	critical thinking is at an excellent level
33	37	66	critical thinking is at an excellent level
34	43	71	critical thinking is at an excellent level
35	34	65	critical thinking is at an excellent level
36	34	65	critical thinking is at an excellent level
37	37	66	critical thinking is at an excellent level

Table 2 Critical Thinking Evaluation Among University Students (*Cont.*)

Sample Group	Critical Thinking Score	Panjandee's criteria	Interpretation
38	37	66	critical thinking is at an excellent level
39	38	66	critical thinking is at an excellent level
40	44	74	critical thinking is at an excellent level
41	41	69	critical thinking is at an excellent level
42	37	66	critical thinking is at an excellent level
43	40	68	critical thinking is at an excellent level
44	35	65	critical thinking is at an excellent level
45	30	62	critical thinking is at a good level
M	36.47	66.07	critical thinking is at an excellent level
S.D.	3.37	2.24	

The results of an assessment of critical thinking administered to 45 undergraduates enrolled in the "Listening and Speaking in Daily Life" course at the University of Phayao are presented in Table 2. This cohort was evaluated using a modified variation of an assessment of critical thinking created under Panjandee's 2013 criteria.

The student's achievement on the critical thinking test demonstrated a range of scores from 30 to 44, indicating a certain level of variability. The scores revealed a range between 62 and 74 when compared to Panjandee's adjusted criteria. The average score for Panjandee's criteria was around 66.07, whereas the average value for the critical thinking test was around 36.47. The level of achievement observed indicates a widespread demonstration of advanced critical thinking skills across all participants. Both the standard deviations of the critical thinking scores (3.37) and Panjandee's criteria (2.24) indicate a narrow range of values around the mean, indicating that most scores are closely grouped collectively.

The table provides a remarkable insight into the consistency of student performance, with almost every student scoring "very good" on the adapted Panjandee criteria for critical thinking abilities. In specific: Only two

individuals were identified as having "good" critical thinking. The remaining 43 individuals, representing a large majority, all demonstrated "very good" levels of critical thinking. The high percentage of "very good" scores indicates that students in this class have demonstrated strong critical thinking skills. The high mean scores and minor standard deviations might indicate that "Listening and Speaking in Daily Life" improves the critical thinking abilities of all students. In addition, a modified version of Panjandee's 2013 criteria was effectively employed, offering a comprehensive and contextually suitable measure to evaluate and elucidate the students' performance. The table illustrates the common pattern of high performance, which highlights the potential advantages of incorporating dilemma scenarios into the instructional strategy.

Finally, the data in Table 2 demonstrate the importance of using teaching strategies such as dilemma scenarios to encourage students' critical thinking. These findings highlight the importance of ongoing research and development of educational resources like the Panjandee criterion to ensure their continued relevance in the face of changing educational environments and student populations.

Conclusion and Discussion

This study demonstrates the potential of innovative teaching methods, such as dilemma scenarios, for encouraging students' critical thinking skills. As education evolves in response to constantly changing global contexts, these findings highlight the importance of constantly modifying and improving our instructional strategies to meet the needs of students. Improving critical thinking skills is critical in the fast-paced world of modern higher education. The investigation of undergraduate students' critical thinking skills at the University of Phayao, specifically in the "Listening and Speaking in Daily Life" course, yielded encouraging results and valuable observations.

This has become clear how effectively this course has been constructed to achieve these objectives by utilising adapted iterations of Panjandee's 2013 criteria for evaluating students' skills. The significant prevalence of "excellent" critical thinking evaluations across the entire group suggests the possibility of incorporating dilemma scenarios into the curriculum. Approaches like these not only improve cognitive abilities but also help them integrate with other important skills like language proficiency. Although this study is limited to a specific group of students at a specific school, the insights it provides on the importance of contextual flexibility in the classroom apply to everyone. Although standardized testing has advantages, this might be enhanced with minor adjustments to ensure its relevance to a specific group of students.

This ensures dependable outcomes by enhancing the relevance of assessments. The course's generalizability is evidenced by the comparable performance of students from diverse populations. This consistency serves as a basis for additional improvement and fine-tuning of the curriculum, demonstrating the robustness and variety of the methods employed in the classroom.

However, as with any other study, this finding is subject to conditions or limitations. Our study's findings are promising and informative, but their applicability is limited to the specific circumstances under which they were obtained. Additional research is needed to determine the overall applicability and efficacy of these instructional endeavours, and this research should include other colleges and environments. This study focuses on the effectiveness of experiential education, specifically dilemma-based learning, in developing individuals with strong analytical skills, reflective abilities, and the ability to make informed and reasonable decisions. This study emphasises the importance of continuous pedagogical innovation in maintaining a flexible, accurate, and efficient educational system in cultivating future generations' intelligence. The objectives of this study are 1) to examine how dilemma

scenarios in an EFL classroom influence undergraduate students' critical thinking skills. And 2) to investigate the relationship between students' English language skills and critical thinking abilities.

The main objective of this study was to evaluate the critical thinking skills of third-year "Listening and Speaking in Daily Life" students at the University of Phayao, by modifying Panjandee's 2013 standards.

The overwhelming majority of students receiving "very good" ratings demonstrated a high level of critical thinking, indicating the effectiveness of the course's instructional methods. The incorporation of problem scenarios may have played a significant role in the development of these skills. This is consistent with previous research demonstrating the potential for experiential and hypothetical learning to improve memory, attention, and reasoning.

This was an important decision to modify Panjandee's criteria to make them more appropriate to this particular population. This ensured that the test was pertinent, enabling a more accurate evaluation of the student's abilities. This emphasizes the need for context-specific assessments in education and suggests that generic methods might not always produce accurate data.

Collective Consistency and Implications The slight variation in scores suggests that the course had a uniform influence. This demonstrates the course's efficacy in developing the critical thinking skills of a diverse group of students. This exceptional harmony is indicative of the prospective strength and diversity of the strategies used in instructional methods.

Given the significant increase in the correlation between speaking ability and critical thinking after being presented with dilemma scenarios, teachers and curriculum designers should consider incorporating more experiential learning modules into future curriculum design. They enhance students' critical thinking and might even promote the combination with other skills for a more comprehensive learning environment.

Even though this study provides valuable insights, it is critical to recognise its limitations. The evaluation was limited to a small number of undergraduates from a single institution, limiting the results' generalizability. Replicating the study at other institutions and in different scenarios would help researchers assess the results' applicability. Furthermore, a more in-depth examination of the specific dilemma scenarios used, as well as the extent to which they correspond to real-world occurrences, could provide complex insights into their utility.

New Body of Knowledge

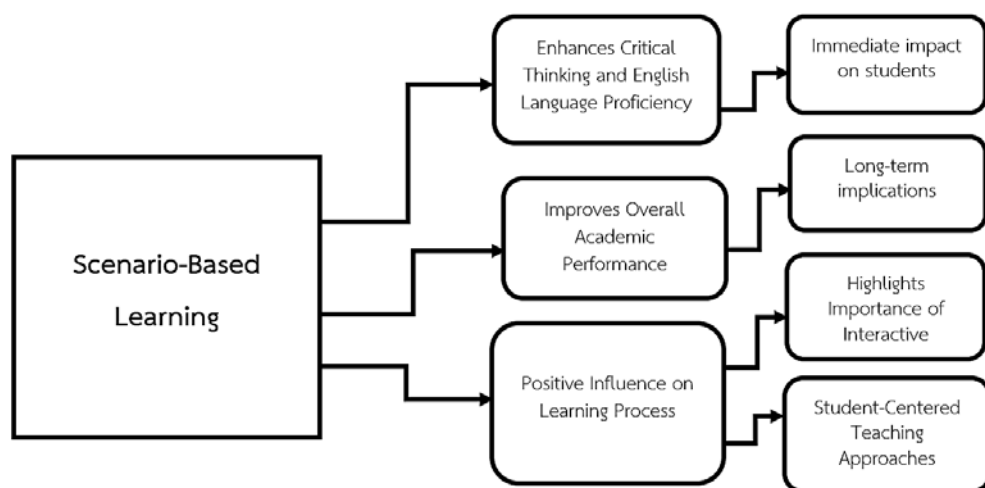


Diagram 1 New Body of Knowledge

This study has added fresh information to the world of education, especially in the areas of language acquisition and developing critical thinking skills. First of all, it has demonstrated how well scenario-based learning works as a potent instrument for enhancing undergraduate students' critical thinking and English language proficiency. This method has demonstrated a strong positive influence on the relationship between these two crucial abilities, suggesting a revolution in the process of learning. Additionally, the study has highlighted the significance of interactive and

student-centered teaching approaches in higher education. The findings show that putting students in real-life situations not only improves their language skills but also helps them build critical thinking skills more effectively than standard teaching techniques.

The study sheds new light on the long-term ramifications of such innovative teaching strategies. This implies that the benefits of scenario-based learning may go beyond immediate improvements in language and critical thinking skills, potentially improving students' overall academic performance and readiness for real-world difficulties. In conclusion, this study contributes to a better understanding of how scenario-based learning can be used effectively in higher education to improve critical thinking and language abilities, giving significant insights for educators and curriculum makers around the world.

Suggestions of Research

Future research should consider investigating the longitudinal effects of dilemma-based teaching methods to understand their long-term impact on student's critical thinking and language skills. To gain a comprehensive understanding of how different learning environments respond to these methods, it would be beneficial to expand this research to include public universities and high schools. Comparative studies, particularly those that include control groups that use traditional teaching methods, could provide a clearer picture of the efficacy of interactive teaching strategies. This is also critical to investigate the role of cultural factors in the adoption and success of these methods, as cultural contexts can significantly influence learning outcomes. Future research should consider investigating the longitudinal effects of dilemma-based teaching methods to understand their long-term impact on student's critical thinking and language skills. To gain a comprehensive understanding of how different learning environments respond to these methods, it would be beneficial to expand this research to include public universities and high

schools. Comparative studies, particularly those that include control groups that use traditional teaching methods, could provide a clearer picture of the efficacy of interactive teaching strategies. It is also critical to investigate the role of cultural factors in the adoption and success of these methods, as cultural contexts can significantly influence learning outcomes.

The use of technology, such as digital platforms or virtual reality, in implementing dilemma scenarios opens up an exciting new avenue for future research, with the potential to revolutionize the way language is taught and learned. Furthermore, broadening the scope of study to include a broader range of skill development, such as collaborative problem-solving and empathy, may provide insights into the overall benefits of these teaching methods. To maximize the potential of these innovative strategies, research dedicated to teacher training and curriculum development is required. Investigating students' points of view and accommodating different learning styles would also contribute to more personalized and effective teaching methods. Concentrating on specific language skills, such as writing or listening, may provide more in-depth insights into the multifaceted benefits of interactive teaching methods.

Finally, assessing these methods' applicability across various academic disciplines may reveal their potential in a broader educational context, far beyond language learning. These recommendations seek to deepen and broaden understanding of effective teaching strategies, with the goal of eventually contributing to the evolution of educational practices in a rapidly changing global landscape.

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