Dynamics of Critical Thinking in Addressing Speaking Skills: A Comprehensive Study Utilizing a Problem-Based Learning Approach

Rizky Imam Saputra[1], Faiqotur Rizkiyah[2]
[1][2] Universitas KH. Mukhtar Syafaat Banyuwangi, Indonesia

Corresponding Email: rizzzky477@gmail.com

Abstract. The purpose of this study is to detect the characteristics that enable and hinder the adoption of problem-based learning (PBL) in developing students' speaking abilities through critical thinking. It is expected that by understanding these elements, a successful approach can be formulated to improve educational quality and student outcomes. This study utilizes qualitative research methods along with descriptive techniques. Information was collected through interviews, observation, and analysis of documents. The researchers focused on 27 students in 5th-semester English Education at KH. Mukhtar Syafaat University. As a result, the researchers identified various elements that promote the implementation of PBL aimed at improving students' speaking skills through critical thinking. These factors include available resources and infrastructure, teamwork among group members, and students' inclination toward solving problems as a group. For hindering factors are time management, prior knowledge, formulating hypotheses, and environment. This environmental factor will affect students' critical thinking and speaking skills. And it is the main factor why most of the 5th semester TBIG students are still lacking in critical thinking.

Keywords: PBL, Critical Thinking, Speaking Skills

Introduction

In recent years, experts and scholars have illustrated the importance of teachers engaging their students in a new approach to learning reform. This strategy tries to build critical thinking talents in pupils to strengthen their problem-solving capabilities, which can, in turn, benefit the greater community. (Richardson, 2022). It is clear that in the twenty-first century, critical thinking skills are needed because this skill will be indispensable for students to students and even college graduates who will step into the world, especially with the changing times, especially in the field of technology that is fast and global. (Roohr et al., 2019). As a result, developing critical thinking abilities is crucial for the achievement of capable students and the anticipated learning results. (Utami et al., 2024; Maksum et al., 2021).

Furthermore, during high school, students must not only cultivate critical thinking abilities but also communicate their ideas clearly through spoken language. (Hasanah & Malik, 2020). Those who possess both critical thinking and strong speaking skills can better equip themselves to adapt to the changing world. (Melani et al., 2023). Therefore, it is beneficial for students to keep refining their critical thinking and speaking abilities. In order to implement critical thinking effectively in academic settings, a strategy that enhances students' capacity for critical thought is necessary, such as learning through problems. PBL is a method of

instruction that involves students in problem-solving exercises to enhance their learning (Apriani et al., 2024; Simanjuntak et al., 2021).

There are various research results connected to this study. The first is by Irawati (2018) According to the research, PBL implementation went easily in this study. Did not, however, look at additional elements, such as the instructors' prior teaching experience, that might have an impact on how well the PBL approach fosters critical thinking abilities. The second is by Tai (2022)This study indicates that students acknowledge the significance of critical thinking. Nevertheless, they continue to exhibit passive learning behaviors. The third is by Idris (2021). This study reveals a relationship between students' critical thinking skills and their speaking proficiency, and it suggests the prospect that problem-based learning might boost critical thinking abilities. Quantitative information was gathered through evaluations and questionnaires.

Although various studies have examined the implementation of Problem-Based Learning (PBL) in the context of English language learning, a significant gap is still identified regarding the specific development of speaking skills through the integration of critical thinking. Most studies focus on the development of writing. Therefore, this study aims to explore in depth the contextual factors that facilitate or hinder the implementation of PBL, with the aim of providing a comprehensive picture of the relevant conditions. Furthermore, through in-depth qualitative analysis, including in-depth interviews and focus group discussions, this study seeks to uncover how these factors complexly influence the implementation of critical thinking in university students' speaking skills, thereby gaining a richer understanding of their learning experiences and cognitive processes.

Based on observations and reflection on the English language learning practices in the TBIG 22 course over the past two years, this study is motivated to critically analyze whether and how students have developed their speaking skills through the application of a critical thinking framework. Given the assumption that this development potential has not been fully realized, this study adopted a descriptive qualitative research approach, focusing on PBL practices applied in the context of the TBIG 22 class. This approach was chosen to allow for in-depth exploration of the dynamics of student learning and interaction, with the aim of describing in detail the learning processes and outcomes that occur.

Theoretical Framework
Critical Thinking

A methodical review process with its objectives and guiding principles, critical thinking is characterized by its emphasis on interpretation, analysis, evaluation, and inference. (Golden, 2023). This involves considering evidentiary, primary, methodological, or contextual elements that form the foundation of a core assessment. While Samaras (2022) Explain that critical thinking is the process of challenging presumptions, assessing the evidence at hand, and then rationally testing the suggested modification.

Critical thinking can be a comprehensive or partial process that includes investigation, analysis, synthesis, interpretation, inference, both deductive and inductive reasoning, intuition, application, and creativity. (Seibert, 2021). It is an evaluative (judgment-based) activity aimed at reaching a conclusion. Furthermore, critical thinking is defined as a multifaceted process that entails receiving and mastering information, analysing this information, evaluating it by taking into account both qualitative and quantitative elements, and making choices or decisions based on the outcomes of the evaluation. (Silva Pacheco & Iturra Herrera, 2021; Sanjaya et al., 2020).

The goal of critical thinking is to enable students to approach problems positively and constructively as they arise and change, enabling them to make the required adjustments to meet emerging societal challenges. (Rivas et al., 2022). Remain focused on supporting students in responding to and preventing evolving challenges such as changes in the world, markets, renewable technologies, and even politics and the environment. But Golden (2023)

proposes that thinking is not enough just to be critical because of the goal, but one must have competent abilities.

The significance of critical thinking in the academic realm cannot be overstated. This is due to the fact that critical thinking enhances students' cognitive skills. Cultivating critical thinking abilities is a crucial intellectual competency necessary to meet the academic challenges faced by each individual. (Mahanal et al., 2019). Academic ability can be seen as proficiency in skills and knowledge, encompassing mastery of specific concepts learned. Students with high academic ability tend to have an enhanced capacity to analyze information and apply it based on their experiences. (Hernandez-de-Menendez, 2020).

Septiany (2024) offers a detailed look at the essential elements of critical thinking. The capacity to thoroughly analyse information, consider diverse perspectives, and assess evidence impartially forms the basis of critical thinking. Furthermore, the framework underscores the significance of recognizing bias, identifying mistakes in reasoning, and being adept at formulating compelling arguments. By honing these abilities, we can enhance our independence, criticality, and rationality when addressing different situations.

Critical thinking has a crucial influence on the communication skills of students. One of the skills itself is the speaking skill. (Idris et al., 2021). The act of speaking can be seen as the capability to communicate a thought or convey an idea through verbal abilities. This skill is crucial for anyone studying English, as it can enhance our careers, businesses, and self-assurance; additionally, proficiency in speaking enables us to engage in occasions like interviews, debates, group discussions, and more. (Wati et al., 2023).

Critical thinking influences speaking skills.

Speaking is a dynamic exchange of creating meaning that includes both generating and receiving processed information. (Syafryadin et al., 2020; D. Ali & Souisa, 2019). This suggests that when students wish to share their thoughts on a topic, they need to process information to derive meaning based on their individual context of understanding.

To become fluent in English, it is essential to think critically and express our ideas effectively. Students must practice speaking while utilizing critical thinking skills. (Chen & Hwang, 2020). Language, especially English, acts not just as a mode of communication but also as a resource for intellectual exploration. This suggests that students can utilize English to scrutinize and contemplate the circumstances or challenges they face. Therefore, developing critical thinking skills is crucial for speaking fluently and accurately. (Nangimah, 2020).

In speaking practice, learners typically develop critical thinking skills during discussions that follow presentations, delivering speeches, engaging in debates, negotiating assignments, and rephrasing the content. (El Majidi et al., 2024). As a result, the author intends to investigate how contact in educational contexts fosters critical thinking in students. While also considering the advantages and disadvantages of implementing critical thinking among vocational school students (Melani et al., 2023). Those who possess critical thinking abilities know how to convey their ideas clearly, resulting in better communication. Critical thinking enables individuals to explore information more thoroughly within discussions, which helps them make well-informed choices and enhances their speaking abilities over time. (Hervina et al., 2023).

Moreover, as reported by (Khatam Ol-Anbia et al., 2019)The pupils' critical thinking skills had a significant influence on their speaking proficiency. When compared to students with lesser critical thinking skills, those with excellent critical thinking skills showed significant disparities in their speaking ability. Strong critical thinking abilities also make students more adaptable communicators who can modify their delivery to fit different audiences or contexts. On the other hand, students with weaker critical thinking abilities might struggle to organize their ideas, answer questions effectively, and speak with confidence. They may tend to reiterate information without offering thorough analysis or evaluation, and they find it more challenging to adapt to different communication scenarios.

PBL

Moore (2021) Delivered PBL is a student-centred teaching and curriculum method. It enables students to carry out research, connect theory to real-world applications, and use their knowledge and abilities to create workable solutions for particular issues.

PBL is an educational method focused on the learner that is predominantly utilized in universities globally. In PBL, students engage in discussions about a problem that relates to their professional skills within a small group setting. To tackle the problem, it is crucial to initiate a conversation before students start their independent study, as this helps to stimulate their existing insight. (Dolmans, 2019).

In problem-based learning (PBL), students must work in small groups, talking about what information they require to address an issue. (S. S. Ali, 2019). Serving as a facilitator, the teacher is in charge of guiding the student's educational path. The key to the success of the Problem-Based Learning (PBL) method is the use of open-ended questions and an instructor who facilitates the student's learning process and conducts a debriefing session for all participants after the learning experience. (Moore, 2021). The challenge that needs to be embraced when they implement the PBL approach is to transition from teachers being sources of knowledge to also being tutors who act as managers and facilitators of learning.

Abidin & Sulaiman (2024) Shares in detail what abilities PBL develops, teaching techniques for PBL teachers, and PBL tasks. PBL not only provides students with academic knowledge but also fosters essential life skills that are important in the workplace. Through PBL, students learn to listen actively, solve problems, create strategic plans, manage stress, and adapt to changes. Furthermore, PBL encourages students to engage in critical and creative thinking, collaborate with teammates, perform self-assessments, and use their time wisely. Interpersonal skills such as empathy, respect for differing opinions, and conflict resolution abilities are also developed during this educational process. As a result, PBL not only transfers information but also develops students into self-sufficient, flexible people who are equipped to face obstacles in the future.

The process begins with a real-world or simulated problem scenario. Students are then asked to identify relevant facts related to the problem. They will formulate a hypothesis or temporary assumption as a potential solution. The process of formulating a hypothesis encourages students to think critically and creatively. Next, students will identify their knowledge gaps related to the problem. This will trigger independent learning to find the information needed. After gaining new knowledge, students will apply that knowledge to evaluate the hypothesis they have created. Students will draw broad conclusions from their learning experiences in the last level, abstraction. Students are at the core of PBL, a teaching and curriculum method that enables them to engage in research, connect theory to practice, and use their knowledge and abilities to create practical solutions for particular issues. (Moore, 2021).

In PBL, self-directed learning is crucial since students take complete ownership of their education. They encounter specific problem constraints and have the liberty to select issues according to their available resources, and they have to learn at their own pace. (Dolmans, 2019). PBL aims to develop students' intrinsic motivation. Learners experience intrinsic motivation when they engage with challenges, have a sense of self-determination, and find interest in the tasks they are performing. (Cordeiro et al., 2022).

PBL is seen to be a successful strategy for enhancing students' capacity for critical and creative thought (Kardoyo et al., 2020; Viona Delfiza & Fuadiyah, 2024). PBL in its teaching does not directly involve students in facing real problems, and also trains students to find solutions to problems they face, starting from small, quite challenging, and even complex problems. So, PBL will require students to enter into active learning. (Ahmad et al., 2020).

Finally, the most important reflection on PBL learning is problem-solving and interconnected learning to support broad and flexible knowledge construction. Reflecting enables students to connect their new knowledge to their existing understanding, think critically about the information they have learned, and recognize how they can apply their

Rizky Imam Saputra & Faiqotur Rizkiyah, 2025

Dynamics of Critical Thinking in Addressing Speaking Skills: A Comprehensive Study Utilizing a Problem-Based Learning Approach

learning and problem-solving skills in the future. PBL integrates reflective practices at various stages of the tutorial process and when solving problems (Fitriani et al., 2020; Muchtar et al., 2023). This approach may be used to link students' speaking and critical thinking skills.

Method

This study's methodology is qualitative. To investigate natural events, this qualitative approach was used. Therefore, this method is commonly called naturalistic inquiry. Qualitative approaches depend on textual and visual data, involve distinct phases of data analysis, and utilize various design frameworks. (Creswell, 2018). The study's participants were 27 students of KH University, Mukhtar Syafaat Banyuwangi, fifth semester, English education department. The researcher used interviews, observations, and document analysis to obtain data. The researcher observed the behavior of students in discussing and solving a problem in a small group. In addition, the researcher investigated how students used English to present their ideas about the issues in front of the class. The researcher is also interested in knowing how they use English to convey the results of their critical thinking. In addition, the researcher conducts interviews with students to find out their knowledge, experiences, and opinions about critical thinking, as well as with course lecturers on how to think critically in the classroom. The researcher then examined the documents reflecting the outcomes of the student discussions to determine how effectively students can engage in critical thinking when addressing problems. The data-gathering process is conducted in multiple phases. Initially, information was collected through observations in the TBIG 2022 class to determine how the PBL method enhances the critical thinking abilities of TBIG 22 students based on the theory of Abidin & Sulaiman (2024) for PBL and the theory of Septiany et al., (2024) For critical thinking. The following data comes from interviews conducted with two students and lecturers who instruct on critical thinking. The researcher also gathered data through document analysis regarding students' critical thinking after engaging in PBL activities. In order to identify the factors that support and hinder the use of PBL in enhancing students' critical thinking abilities, the data must be examined in the next step. The focus will next turn to how critical thinking affects students' English-speaking skills. Therefore, in the data display, a categorization code is employed to outline source information, encompassing participants, subjects, and specifics derived from the findings reported in discussions about the application of PBL.

Results And Discussion
Results

Information obtained from observations, interviews, and document analysis is presented in this section. The study's research question, which concerns the elements that help or hinder PBL adoption and how these elements affect this data, focuses on how students' speaking skills enhance critical thinking.

Factors Supporting PBL to Improve Students' Critical Thinking

In light of the findings of observations regarding how students behave in dealing with a problem using the PBL method, several factors supporting students in using the PBL method were foundFirst, there is infrastructure and facilities for locating information sources, like wifi, computers, and cellphones. Students participate in conversations regarding the issues that are presented to them, which is essential for the successful implementation of PBL in the classroom. With sufficient facilities and infrastructure, they can better access information sources related to these issues. This support will lead to broader and more detailed discussions. Additionally, good facilities and infrastructure enhance their ability to cooperate by allowing them to manage their time more efficiently. For example, a reliable Wi-Fi connection is crucial for accessing detailed information from various online sources. It also helps them identify gaps in the information, which can be filled to address any biases in the case.

Second, group members work well together; namely, before the discussion begins, the students have set clear goals for the ongoing learning, so that in a small group, the division of tasks is carried out effectively. After this, another important aspect related to successful group cooperation was looked at, namely the quality of interaction among members. Natural leadership that develops within the group is crucial for coordinating activities and keeping the focus on shared goals. Open and honest communication among members is essential for reaching agreements and resolving issues.

Third, students prefer to solve problems in groups.

"For me, I like groups because the group has thoughts that we discuss, well maybe I think so. Because if we are alone, we just get stuck there. But if there is a stimulus from a different argument, we can think more."

In addition, students are critical and active toward the opinions of one group, as seen by having given constructive feedback to its members. Such as debating each other's opinions. Learners are generally more engaged and motivated when collaborating in groups. This can be observed through their eagerness to take part in discussions, pose questions, and give feedback. Such heightened motivation leads to a better understanding and retention of concepts. Furthermore, working in groups can enhance students' communication skills, negotiation abilities, and conflict-resolution techniques. This indicates that collaborative learning not only enhances academic performance but also fosters the soft skills necessary for the professional environment.

Factors Hindering PBL from Developing Students' Critical Thinking

In light of the findings of observations regarding how students behave in dealing with a problem using the PBL method, several factors inhibiting students from using the PBL method were found. First, because during the discussion, they debate too much with each other, the time management looks bad. So that the utilization of the time that has been determined is not well managed with the existing resources.

Second, prior knowledge is still minimal. Prior knowledge is very important in critical thinking. Because it will be the basis for the emergence of thoughts from the problem at hand.

"The biggest obstacle in critical thinking is reading, knowledge, because when we don't have enough knowledge, what do we want to talk about? It's different when someone has a lot of knowledge/experience, then they will have many options and ways to solve a problem wisely."

In addition, from the process of their discussion, they were arguing too much about the problems presented, without searching in various existing sources. It demonstrates that pupils have not been able to analyze the authenticity of their information sources; they merely accept the information obtained. So, in presenting the argument, they have not been able to identify a bias.

Third, hypotheses are formulated. It can be seen when they collect the results of the framework (mapping) and the results of their critical thinking in their report, which is then presented in front of the class. In problem-solving, they have not broken down into smaller and more detailed parts. In solving problems, students should make a map of their critical thinking into more detailed parts. By dividing the problem into smaller parts. So, the main problem faced will result in views from various perspectives, new ideas, or even ways to solve the problem.

Fourth is the environment. The results of interviews conducted with lecturers teaching Critical thinking courses stated that one of the reasons why they could not develop their thinking skills was environmental factors.

"So curiosity because there is little environment to discuss the things they want to discuss. So here the environment is very influential, not the people who want to tinker with something."

A less stimulating environment can reduce students' motivation to explore a topic in depth. The absence of interaction with peers or lecturers during challenging discussions also plays a role. When the atmosphere is not conducive to the open exchange of ideas, students may feel uncomfortable expressing different questions or opinions in their circle.

Critical Thinking Influences Students' Speaking Skills

Based on the observation of their speaking ability. In terms of fluency and clarity in English pronunciation has been done well. So is their intonation when speaking. However, the accuracy of the use of grammar, sentence structure, grammatical adjustments, and word usage is still not correct. It was also found that many students were still minimal in mastering the diversity of their vocabulary. So, there are several times when students still mix English with Indonesian when delivering information.

A limited vocabulary can be a significant obstacle for students. A broad vocabulary not only enables them to express themselves more diversely but also helps them select the appropriate words to convey specific meanings. When students have a restricted vocabulary, they often struggle to find suitable replacements for words they don't know, which can obscure the message they intend to communicate.

The students still seemed to have difficulty connecting the results of their discussion ideas. As a result, in delivering information, they experienced several difficulties, such as the lack of mastery of a broad vocabulary, as mentioned above. Then, some students also have difficulty choosing the right words to convey these ideas.

Limitations in critical thinking can hinder verbal expression and the ability to connect ideas during discussions. This directly impacts their effectiveness in conveying information. When students struggle to organize their thoughts and construct coherent arguments, they tend to use convoluted language, choose inappropriate words, and even mix languages.

Alongside the challenges of effectively conveying information verbally, the struggle to connect ideas significantly affects the quality of student presentations. Many students often share information in a disjointed way, lacking a coherent progression. Consequently, the intended message becomes less effective and harder for the audience to grasp. Furthermore, the inability to link ideas detracts from the presentation's engagement and persuasiveness.

The challenges in connecting ideas have long-term effects on student learning. The capacity to relate ideas is a crucial skill required in various areas, such as problem-solving, decision-making, and scientific writing. If these issues are not promptly addressed, they can impede students' cognitive growth and restrict their ability to achieve higher academic success. As a result, a more structured approach is needed to enhance students' communication and critical thinking abilities.

Discussion

Based on the data above, it seems that there are several supporting and inhibiting factors for students in applying PBL learning to improve their critical thinking skills. Supporting factors include infrastructure such as cell phones, laptops, and wifi. The existence of adequate infrastructure will greatly affect the course of PBL. As we know in PBL, we have to solve a problem with information from various existing sources. This is in line with research by Cahyani et al. (2024)One of the supporting factors for PBL is infrastructure.

In addition, the active role in the discussion is also a supporting factor for PBL learning, with the activeness of students in the discussion. Students' enthusiasm for collaboratively addressing a problem is essential for the effective implementation of PBL. Without student activity, it means that students have determined clear goals for the learning being carried out.

That way, PBL will be carried out well. However, if the student's mood is bad, it will still interfere with the PBL process in class.

Even so, there are several factors inhibiting student PBL, such as managing time well. Most students spend too much time arguing, without seeking wider information. The essence of a discussion is not only arguing between one opinion and another, but also digging up information from various sources to get new information. It can also be the foundation of our argument.

Additionally, a common issue is the absence of prior knowledge, which aligns with research that the lack of basic information is an inhibiting factor for PBL. Students still cannot apply the core points of the learning process with the method, namely PBL. There are many actions that students fail to take, such as their difficulty in developing hypotheses that address the issue at hand. Additionally, the information they gather often lacks completeness, meaning there are still aspects they remain unaware of. We need to find a knowledge gap that hasn't been investigated in PBL before. Their discussion only included information that they were already familiar with. This means that there is still no knowledge gap they are attempting to address based on the outcomes of the discussion. This aligns with earlier research by Abidin & Sulaiman (2024).

Students' critical thinking abilities are greatly impacted by this. Consequently, when examining students' thought processes, it appears that they still struggle to effectively develop critical thinking abilities. The framework (mapping) of their critical thinking outcomes in a report they gathered serves as the evidence, and it was clear that students were still having trouble coming up with ideas for their hypotheses. The framework is very influential in finding contrasts from various perspectives. Because the framework (mapping) helps students formulate their ideas. So that the delivery of their ideas will seem broad and not monotonous. And will show ideas from existing perspectives. As stated by Septiany et al., (2024)Critical thinking has several indicators that must be met.

The reason why critical thinking in the students above looks so weak namely the learning process carried out. This is consistent with earlier studies by Irawati (2018)One of the elements that affects the deficiencies in critical thinking is the educational process. The learning process should involve student activeness, such as PBL here, but why students' thinking skills are still lacking, based on interviews with lecturers teaching critical thinking courses, one of the factors is the environment.

Research by Warliati & Rafli (2019) Indicates that students taught using discussion strategies can enhance their speaking skills, particularly those with strong critical thinking abilities. The lack of an environment for discussion is a major factor in how critical thinking skills are formed. Because later, that environment will form a habit for students to discuss. At least they discuss the information around them. In order to evaluate the trustworthiness of the information source, and should not take it at face value. They tend to like to be in groups, but do not discuss how information is processed together, which creates a critical thinking process. They tend to group together just to hang out and discuss things that are not important.

The lack of critical thinking skills also affects students' speaking skills. The observations of students during their presentations show that they still struggle to link the outcomes of their discussed ideas. In conveying information, they experienced several difficulties, such as the lack of mastery of a broad vocabulary, as mentioned above. Then, some students also have difficulty choosing the right words to convey these ideas.

As a result, in the course of education for the last 2 years, the level of English speaking ability of TBIG 22 is still classified as basic and intermediate. This is evidenced when they convey ideas from the results of their discussions, and they still experience a lot of difficulties. Such as not understanding the vocabulary, still mixing with other languages, and having difficulties when providing an understanding of their ideas to the audience using English.

It is realized by the researcher realized that critical thinking can improve students' speaking skills. It is proven that critical thinking in dealing with a problem involves using new and unfamiliar vocabulary. Also, the thing discussed is a fairly complicated problem. Their

Rizky Imam Saputra & Faiqotur Rizkiyah, 2025

Dynamics of Critical Thinking in Addressing Speaking Skills: A Comprehensive Study Utilizing a Problem-Based Learning Approach

critical thinking abilities are combined here, and their speaking abilities will be used to communicate the outcomes to others.

So, the more difficult the problem faced improves students' speaking skills. Students are not only fluent in speaking English on a daily basis but also practice speaking to express their arguments, which are the result of their critical thinking. The more often they are invited to think critically and convey their ideas in public, the more their speaking level will increase, and of course, continuous practice is needed. This is in line with previous research by (Kuhn, 2019)Critical thinking can aid them in enhancing their speaking abilities through ongoing practice.

Conclusion

This study shows that there are supporting and inhibiting factors for PBL. Supporting factors such as infrastructure, active student roles, and student preferences for group work. The inhibiting factors are time, formulating hypotheses, prior knowledge, mood, and the crucial thing is the environment. The environment significantly impacts students' cognitive abilities. This is because critical thinking necessitates that students actively engage in exploring information. Using active learning strategies, such as PBL, is a helpful way to increase critical thinking skills. In addition to developing critical thinking abilities, students must also be able to articulate the findings of their critical analyses. The findings indicate that the speaking proficiency of TBIG 22 students has not improved. Many of them still struggle to express the outcomes of their critical thinking effectively. This variation in ability among students plays a crucial role. Conveying insights derived from critical thinking is inherently different from discussing everyday topics. The depth of critical thinking surpasses that of casual conversations. To enhance speaking proficiency, students need to face challenges. One such challenge can be presented through critical thinking exercises. Engaging in critical thinking stimulates the generation of new ideas that can aid students in refining their speaking abilities. This includes expanding their vocabulary and acclimating to new and unfamiliar concepts. Naturally, as students engage in more discussions and critically analyze information or problems, their speaking skills will also likely improve.

Acknowledgment

References

Abidin, Z., & Sulaiman, F. (2024). The Effectiveness of Problem-Based Learning on Students' Ability to Think Critically. *Zabags International Journal of Education*, *2*(1), 1–6. https://doi.org/10.61233/zijed.v2i1.13.

Ahmad, K., Nurkhin, A., Muhsin, M., & Pramusinto, H. (2020). Problem-Based Learning Strategy: Its Impact on Students' Critical and Creative Thinking Skills. *European Journal of Educational Research*, *9*(3), 1141–1150. https://doi.org/10.12973/eu-jer.9.3.1141.

Ali, D., & Souisa, T. R. (2019). The Influence of Debate Technique and Students' Critical Thinking on Their Speaking Ability. *PEDAGOGIKA: Jurnal Pedagogika Dan Dinamika Pendidikan*, *7*(1), 28–44. https://doi.org/10.30598/pedagogikavol7issue1page28-44.

Ali, S. S. (2019). Problem-Based Learning: A Student-Centered Approach. *English Language Teaching*, *12*(5), 73. https://doi.org/10.5539/elt.v12n5p73.

Apriani, E., Santiana, S., & Harmi, H. (2022). Investigating the Role of ICT toward Students' Higher Order Thinking in Writing Skills at the Islamic University Students. *Al-Ishlah: Jurnal Pendidikan*, 14(2), 2213-2224. https://doi.org/10.35445/alishlah.v14i2.2260.

Cahyani, M., Mustari, M., Kurniawansyah, E., & Sawaludin, S. (2024). PPKn Teachers' Efforts in Improving Students' Critical Thinking Skills Through Problem-Based Learning in Grade VIII Students at SMP Negeri 17 Mataram. *Jurnal Ilmiah Profesi Pendidikan*, *9*(3), 1534–1540. https://doi.org/10.29303/jipp.v9i3.2490.

Chen, M. A., & Hwang, G. (2020). Effects of a concept mapping-based flipped learning approach on EFL students' English-speaking performance, critical thinking awareness, and speaking anxiety. *British Journal of Educational Technology*, *51*(3), 817–834. https://doi.org/10.1111/bjet.12887.

Cordeiro, G. P., Carvalho, A. P. D., Rego, S. C. A., Melo, R. S., Raposo, M. C. F., Silva, T. C. L. D., & Soares, D. M. (2022). Assessment of the intrinsic motivation of dental students to problem-based learning remotely. *Research, Society and Development*, *11*(12), e114111234169. https://doi.org/10.33448/rsd-v11i12.34169.

Creswell, J. W., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (Fifth).* Sage Publications.

Dolmans, D. H. J. M. (2019). How theory and design-based research can mature PBL practice and research. *Advances in Health Sciences Education*, *24*(5), 879–891. https://doi.org/10.1007/s10459-019-09940-2.

El Majidi, A., De Graaff, R., & Janssen, D. (2024). Debate as a pedagogical tool for developing speaking skills in second language education. *Language Teaching Research*, *28*(6), 2431–2452. https://doi.org/10.1177/13621688211050619.

Fitriani, A., Zubaidah, S., Susilo, H., & Muhdhar, M. H. I. A. (2020). The Effects of Integrated Problem-Based Learning, Predict, Observe, Explain on Problem-Solving Skills and Self-Efficacy. *Eurasian Journal of Educational Research*, *20*(85), 45–64. https://doi.org/10.14689/ejer.2020.85.3.

Golden, B. (2023). Enabling critical thinking development in higher education through the use of a structured planning tool. *Irish Educational Studies*, *42*(4), 949–969. https://doi.org/10.1080/03323315.2023.2258497.

Hasanah, H., & Malik, M. N. (2020). Blended learning in improving students' critical thinking and communication skills at university. *Cypriot Journal of Educational Sciences*, *15*(5), 1295–1306. https://doi.org/10.18844/cjes.v15i5.5168.

Hernandez-de-Menendez, M. (2020). Educational experiences with Generation Z. *International Journal on Interactive Design and Manufacturing*.

Hervina, H., Ridianto, R., & Fajar, F. (2023). THE CORRELATION BETWEEN STUDENTS' CRITICAL THINKING SKILL AND THEIR SPEAKING ABILITY AT STKIP ABDI PENDIDIKAN PAYAKUMBUH. *ELP (Journal of English Language Pedagogy)*, *8*(2), 235–246. https://doi.org/10.36665/elp.v8i2.768.

Idris, W., Ahmad, S., & Balango, M. (2021). *Developing Students' Critical Thinking In English Speaking Skills by Using the Problem-Based Learning Method*.

Irawati, T. N. (2018). Developing students' critical thinking skills through the application of Problem-Based Learning (PBL). *AXIOMA Jurnal Program Studi Pendidikan Matematika Universitas Islam Jember*, *Volume 3 No 1*.

Kardoyo, K., Nurkhin, A., Muhsin, M., & Pramusinto, H. (2020). Problem-Based Learning Strategy: Its Impact on Students' Critical and Creative Thinking Skills. *European Journal of Educational Research*, *volume–9–2020*(volume–9–issue–3–July–2020), 1141–1150. https://doi.org/10.12973/eu-jer.9.3.1141.

Khatam Ol-Anbia University, Tehran, Iran. mojtaba_aghajani45@yahoo.com, Aghajani, M., Gholamrezapour, E., & Vali-e-Asr University, Rafsanjan, Iran, e.gholamrezapour91@gmail.com. (2019). Critical Thinking Skills, Critical Reading, and Foreign Language Reading Anxiety in the Iranian Context. *International Journal of Instruction*, *12*(4), 219–238. https://doi.org/10.29333/iji.2019.12414a.

Kuhn, D. (2019). Critical Thinking as Discourse. *Human Development*, *62*(3), 146–164. https://doi.org/10.1159/000500171.

Mahanal, S., Zubaidah, S., Prof., Department of Biology Education, Universitas Negeri Malang, Indonesia, siti.zubaidah.fmipa@um.ac.id, Sumiati, I. D., Graduate School of Universitas Negeri Malang, Indonesia, Sari, T. M., Graduate School of Universitas Negeri Malang, Indonesia, Ismirawati, N., & Dr., Department of Biology Education, Universitas Muhammadiyah Pare-Pare, Indonesia. (2019). RICOSRE: A Learning Model to Develop Critical Thinking Skills for Students with Different Academic Abilities. *International Journal of Instruction*, *12*(2), 417–434. https://doi.org/10.29333/iji.2019.12227a.

Maksum, A., Widiana, I. W., Department of Primary Education, Faculty of Education, Ganesha University of Education, Indonesia, wayanwidiana85@undiksha.ac.id, Marini, A., & Department of Primary Education, Faculty of Education, Jakarta State University, Indonesia, aritamarini@unj.ac.id. (2021). Path Analysis of Self-Regulation, Social Skills, Critical Thinking, and Problem-Solving Ability on Social Studies Learning Outcomes. *International Journal of Instruction*, *14*(3), 613–628. https://doi.org/10.29333/iji.2021.14336a.

Melani, T. A., Adiantika, H. N., & Charisma, D. (2023). The Implementation of Students' Critical Thinking Toward Speaking Skills in an EFL Classroom. *National Conference on Language, Education, and Technology Proceeding*, *2*(1), 88–93. https://doi.org/10.32534/nacolet.v2i1.3441.

Moore, S. W. (2021). Adopting a Project-Based Learning Framework in an Online Course to Enhance the Quality of Student Projects. *International Conference on Social and Education Sciences*, 144–149.

Muchtar, S. F. M. M., Indrawati, I. P. T., & Sukanadi, N. L. (2023). Implementation of a Problem-Based Learning Model on Speaking Skills to Improve Students' Critical Thinking Skills in Ma Ruhul Amin for the 2022/2023 Academic Year. *Jurnal Ilmiah Pendidikan Bahasa Dan Sastra Indonesia (JIPBSI)*, *Volume 7 no. 2*.

Nangimah, M. (2020). Developing Engineering Students' Critical Thinking for Public Speaking Through Problem-Based Learning. *LLT Journal: A Journal on Language and Language Teaching*, *23*(1), 80–88. https://doi.org/10.24071/llt.v23i1.2472.

Richardson, C. (2022). Supporting collaborative creativity in education with *the i5 Framework*. *Educational Action Research*, *30*(2), 297–312. https://doi.org/10.1080/09650792.2020.1810731.

Rivas, S. F., Saiz, C., & Ossa, C. (2022). Metacognitive Strategies and Development of Critical Thinking in Higher Education. *Frontiers in Psychology*, *13*, 913219. https://doi.org/10.3389/fpsyg.2022.913219.

Roohr, K., Olivera-Aguilar, M., Ling, G., & Rikoon, S. (2019). A multi-level modeling approach to investigating students' critical thinking at higher education institutions. *Assessment & Evaluation in Higher Education*, *44*(6), 946–960. https://doi.org/10.1080/02602938.2018.1556776.

Samaras, S. A., Adkins, C. L., & White, C. D. (2022). Developing critical thinking skills: Simulations *vs.* cases. *Journal of Education for Business*, *97*(4), 270–276. https://doi.org/10.1080/08832323.2021.1932703.

Sanjaya, H. K., Apriani, E., & Edy, S. (2020). Using web blogs in teaching writing for EFL students. J*ournal of English Education and Teaching (JEET)*, 4(4), 516-535. https://doi.org/10.33369/jeet.4.4.516-535.

Seibert, S. A. (2021). Problem-based learning: A strategy to foster Generation Z's critical thinking and perseverance. *Teaching and Learning in Nursing*, *16*(1), 85–88. https://doi.org/10.1016/j.teln.2020.09.002.

Septiany, L. D., Puspitawati, R. P., Susantini, E., Budiyanto, M., Purnomo, T., & Hariyono, E. (2024). Analysis of High School Students' Critical Thinking Skills Profile According to Ennis Indicators. *IJORER: International Journal of Recent Educational Research*, *5*(1), 157–167. https://doi.org/10.46245/ijorer.v5i1.544.

Rizky Imam Saputra & Faiqotur Rizkiyah, 2025

Dynamics of Critical Thinking in Addressing Speaking Skills: A Comprehensive Study Utilizing a Problem-Based Learning Approach

Silva Pacheco, C., & Iturra Herrera, C. (2021). A conceptual proposal and operational definitions of the cognitive processes of complex thinking. *Thinking Skills and Creativity*, *39*, 100794. https://doi.org/10.1016/j.tsc.2021.100794.

Simanjuntak, M. P., Hutahaean, J., Physics Education Study Program, Universitas Negeri Medan, Indonesia, junhut@unimed.ac.id, Marpaung, N., Science Education Study Program, Universitas Negeri Medan, Indonesia, nurlianamarpaung@unimed.ac.id, Ramadhani, D., & Physics Education Study Program, Universitas Negeri Medan, Indonesia, dewiramadhani47@gmail.com. (2021). Effectiveness of Problem-Based Learning Combined with Computer Simulation on Students' Problem-Solving and Creative Thinking Skills. *International Journal of Instruction*, *14*(3), 519–534. https://doi.org/10.29333/iji.2021.14330a.

Syafryadin, S., Chandra, W. D. E., Apriani, E., & Noermanzah, N. (2020). Maxim variation, conventional and particularized implicature in students' conversation. *International Journal of Scientific and Technology of Research*, 9(02), 3270-3274. https://doi.org/10.31219/osf.io/cza8y.

Tai, N. H. (2022). Students' perceptions of applying critical thinking to learning and practicing English speaking skills. *Ho Chi Minh City Open University Journal of Science - Social Sciences*, *12*(2), 135–146. https://doi.org/10.46223/HCMCOUJS.soci.en.12.2.2421.2022.

Utami, P., Karolina, A., & Apriani, E. (2024). *Application of the Project-Based Learning (PjBL) Model to Develop Critical Thinking and Computational Thinking Skills of PAI Postgraduate Students IAIN CURUP* (Doctoral dissertation, Institut Agama Islam Negeri Curup).

Viona Delfiza, M., & Fuadiyah, S. (2024). The Influence of the Problem-Based Learning Model on the Critical Thinking Ability of Students: Literature Review: (The Influence of the Problem-Based Learning Model on Students' Critical Thinking Ability: Literature Review). *BIODIK*, *10*(2), 221–228. https://doi.org/10.22437/biodik.v10i2.34041.

Warliati, A. E., & Rafli, Z. (2019). *Discussion and Think-Pair-Share Strategies on Enhancement of EFL Students' Speaking Skills: Does Critical Thinking Matter?*

Wati, W. S., Dj, M. Z., & Hasanah, U. (2023). *Thinking in English is a strategy for creating better performance for the students' critical speaking skills*. *4*(2).