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Project-Based Learning and Group Discussion to Enhance Critical Thinking in English Language Education: A Qualitative Case Study in SMA 1 Blora

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A B S T R A C T

This qualitative case study investigates the implementation of Project-Based Learning (PBL) combined with Group Discussion (GD) to enhance critical thinking skills in English as a Foreign Language (EFL) learners at SMA 1 Blora. The study involved 25 eleventh-grade students during August, using classroom observations, student project artifacts, field notes, and semi-structured interviews as data sources. The research employed a descriptive single-case study design following Yin's (2014) framework and analyzed data through thematic analysis (Braun & Clarke, 2006). Findings indicate that integrating PBL and GD significantly improved students' critical thinking abilities, including analysis, evaluation, inference, explanation, and reflective thinking. Students demonstrated increased engagement, motivation, collaboration, and metacognitive awareness during project tasks and group discussions. The study addresses a notable gap in the literature regarding the combined use of PBL and GD for fostering critical thinking in Indonesian EFL classrooms, where traditional teacher-centered approaches often dominate. By providing empirical evidence and practical insights, this research highlights the potential of learner-centered, collaborative strategies to enhance higher-order cognitive skills in language education.

Keywords: *Project-Based Learning, Group Discussion, Critical Thinking, English Language Education, Qualitative Case Study*

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INTRODUCTION

In the 21st century, education increasingly emphasizes the development of higher-order thinking skills, preparing students to navigate complex problem-solving, critical decision-making, and effective communication in a rapidly evolving global society. Among these skills, critical thinking is central, encompassing the ability to analyze information, evaluate evidence, draw reasoned conclusions, and reflect upon one's reasoning processes (Facione, 2015). In English as a Foreign Language (EFL) education, critical thinking is especially crucial. It enables learners to engage deeply with texts, interpret diverse perspectives, and apply language knowledge in meaningful, contextually appropriate ways. Beyond mere linguistic accuracy, critical thinking empowers students to communicate effectively, reason logically, and interact with global knowledge and cultural contexts.

Globally, education systems have shifted toward learner-centered pedagogies, prioritizing active engagement, collaboration, and inquiry-based learning. The 21st Century Skills framework, endorsed by international organizations such as UNESCO and OECD, emphasizes critical thinking, problem-solving, creativity, communication, and collaboration as essential competencies for lifelong learning (Trilling & Fadel, 2009). In EFL classrooms, this paradigm shift is particularly significant because learners must simultaneously process complex linguistic structures and exercise cognitive skills that support comprehension, argumentation, and evaluative reasoning. Studies indicate that students exposed to traditional teacher-centered instruction often excel in memorization and grammatical accuracy but

struggle with independent reasoning, analysis, and the application of language in authentic contexts (Brookfield & Preskill, 2005).

Critical thinking in language learning involves multiple dimensions, including analysis, evaluation, inference, explanation, and metacognitive reflection (Facione, 2015). Analysis requires learners to dissect ideas, identify assumptions, and distinguish relevant from irrelevant information. Evaluation involves judging the credibility, relevance, and logical consistency of information. Inference entails drawing reasoned conclusions based on evidence, while explanation emphasizes clearly articulating reasoning and supporting arguments. Metacognitive reflection enables learners to assess their cognitive processes, identify knowledge gaps, and adjust strategies accordingly. Cultivating these skills in EFL contexts not only improves linguistic competence but also prepares students for problem-solving tasks that demand independent, critical reasoning.

Despite the recognized importance of critical thinking, many secondary school EFL classrooms, particularly in Indonesia, continue to rely heavily on teacher-centered methodologies, characterized by lectures, rote memorization, and repetitive grammar exercises. While these methods may improve accuracy and retention, they offer limited opportunities for learners to engage in authentic problem-solving, cooperative learning, or reflective discussion (Richards & Rodgers, 2014). Consequently, students' critical thinking, creativity, and collaborative skills often remain underdeveloped, reducing their ability to use English effectively in real-life, academic, or professional contexts.

To address these pedagogical gaps, Project-Based Learning (PBL) has emerged as an effective strategy for fostering higher-order thinking skills in language classrooms. PBL involves engaging learners in complex, meaningful projects over extended periods, emphasizing inquiry, problem-solving, collaboration, and reflection (Krajcik & Blumenfeld, 2006). Students in PBL environments are required to define problems, plan solutions, gather information, evaluate evidence, and present findings or products. This process promotes active learning, deep engagement, and the development of critical thinking skills, as students are challenged to think independently, make informed decisions, and apply knowledge in authentic contexts.

Complementing PBL, Group Discussion (GD) provides structured opportunities for learners to share ideas, articulate reasoning, and evaluate peer suggestions. GD promotes cognitive engagement by encouraging argumentation, perspective-taking, and negotiation of meaning (Brookfield & Preskill, 2005). In combination with PBL, GD amplifies the development of critical thinking by allowing students to test hypotheses, refine arguments, and reflect on the effectiveness of their strategies. Furthermore, collaborative discussion fosters social learning, supporting the co-construction of knowledge and the development of interpersonal skills essential for academic and professional success (Vygotsky, 1978).

Previous research has demonstrated the effectiveness of integrating PBL and GD in EFL classrooms. For instance, Thomas (2000) found that students engaged in project-based activities exhibited greater motivation, deeper comprehension, and improved problem-solving skills compared to traditional instruction. Similarly, Hmelo-Silver (2004) emphasized that collaborative inquiry-based tasks enhance critical thinking, analytical reasoning, and metacognitive awareness. In the Indonesian context, studies indicate that structured, authentic, and collaborative tasks significantly improve both English proficiency and cognitive skills, providing students with meaningful opportunities to apply language in real-world settings (Yulianti & Rachmawati, 2019).

At SMA 1 Blora, EFL instruction traditionally focused on teacher-centered approaches with limited opportunities for authentic communication or critical analysis. This study explores how integrating PBL with GD can enhance critical thinking among senior high school students, focusing on their engagement, collaborative behavior, problem-solving strategies, and reflective processes. By analyzing classroom observations, student artifacts, and reflective narratives, the study seeks to understand the mechanisms through which PBL and GD foster higher-order cognitive skills in language learning.

The research question guiding this study is: How does the integration of Project-Based Learning and Group Discussion influence the development of critical thinking skills in senior high school EFL learners at SMA 1 Blora? Addressing this question contributes to the theoretical understanding of learner-centered pedagogies, critical thinking development, and collaborative learning in EFL contexts. Additionally, it provides practical insights for curriculum designers, teachers, and educational policymakers seeking to enhance language instruction through active, meaningful, and socially interactive strategies.

In conclusion, cultivating critical thinking within EFL education is both a pedagogical necessity and a response to global educational trends emphasizing cognitive and collaborative competencies. By investigating the combined use of PBL and GD at SMA 1 Blora, this study aims to provide empirical evidence and practical guidance for developing EFL curricula that promote not only linguistic proficiency but also higher-order thinking, creativity, and collaborative problem-solving skills.

METHOD

This study employed a qualitative case study design, specifically following the descriptive single-case study approach as outlined by Yin (2014). The case study design was chosen to provide an in-depth understanding of how Project-Based Learning (PBL) combined with Group Discussion (GD) affects the development of critical thinking skills among senior high school students in an authentic classroom context. The study focused on a single class at SMA 1 Blora during August, allowing detailed exploration of student engagement, learning processes, and cognitive development in English language education.

The research was conducted in August 2025, involving 32 students aged 16–17 years.

Research Design

A single-case, descriptive, and exploratory design was used, focusing on a classroom as the unit of analysis. The study integrated multiple data sources to provide a comprehensive understanding of student experiences and classroom processes.

Participants

Thirty-two 11th-grade students were selected using purposive sampling, representing a range of English proficiency levels. Informed consent was obtained from both students and parents.

Data Collection Instruments

Classroom Observations – to monitor student engagement, interactions, and critical thinking behaviors.
Semi-Structured Interviews – conducted with 12 students to gather perceptions and reflections on PBL and GD.
Student Project Artifacts – analyzed using a critical thinking rubric based on Facione's framework.
Field Notes – documented classroom dynamics, teacher interventions, and notable events.

Data Collection Procedure

Pre-intervention observation to assess baseline skills.
Implementation of PBL tasks with regular GD sessions over four weeks.
Observation, documentation, and recording of classroom interactions.
Post-intervention interviews and collection of project artifacts.

Data Analysis

Thematic analysis was conducted, involving familiarization, coding, theme development, triangulation of data sources, and interpretation in the context of existing literature on PBL, GD, and critical thinking.

Trustworthiness and Ethics

Credibility was ensured through triangulation and prolonged engagement. Transferability was addressed via rich contextual descriptions, while dependability and

confirmability were maintained through systematic documentation and reflexive journaling. Ethical standards included informed consent, confidentiality, and the right to withdraw.

FINDINGS AND DISCUSSION

Result

The implementation of Project-Based Learning (PBL) combined with Group Discussion (GD) at SMA 1 Blora provided rich insights into students' critical thinking development, engagement, and collaborative learning dynamics. The qualitative data were triangulated from classroom observations, interviews, project artifacts, and field notes. Three main themes emerged: classroom dynamics and engagement, development of critical thinking, and students' perceptions of PBL and GD.

Classroom Dynamics and Student Engagement

Observations revealed that students initially hesitated to participate actively in discussions, particularly those with lower English proficiency. However, as the PBL tasks progressed, students increasingly took responsibility for their learning. In one observed session, students were assigned to design an English magazine. They immediately organized themselves into roles such as editor, researcher, writer, and designer. Field notes recorded that students frequently consulted one another and negotiated content decisions. A student explained during an interview:

> *"At first, I was shy to share my ideas, but when we started assigning roles in the group, I felt more confident. I could focus on my part, and discussing with my friends helped me understand better."*

Observationally, students actively discussed layout design, topic selection, and language accuracy. For example, one group debated whether the magazine should include a feature on local culture or environmental issues. Students evaluated which topic would engage readers most effectively and justified their choice based on research and class discussions.

Development of Critical Thinking Skills

Critical thinking skills emerged across several dimensions: analysis, evaluation, inference, explanation, and self-regulation. Classroom observations showed that students were able to break down complex tasks into manageable components. For instance, during a project on creating an environmental campaign, students identified target audiences, key messages, and presentation strategies. During group discussion, one student commented:

> *"I thought our first idea was too general. After talking with my group, we decided on a specific topic that our audience can relate to. I had to think carefully about how to make it interesting and accurate."*

This example demonstrates students' analytical and evaluative abilities. Field notes further indicated that students frequently proposed alternative solutions and debated their effectiveness. For example, when planning a persuasive article, students discussed different argument structures, considered counterarguments, and selected supporting evidence.

Analysis of Student Project Artifacts

Student project artifacts provided tangible evidence of critical thinking. Magazines, campaign posters, and written reports were evaluated using a rubric based on Facione's framework. Most groups excelled in problem identification, analytical reasoning, and evidence-based argumentation. One student reflected:

> *"We had to find facts and statistics to support our campaign. Some of our first ideas didn't make sense, so we had to analyze and change them. It made me think about why things work or don't work."*

Artifacts showed that students were not only applying knowledge but also synthesizing information from multiple sources, demonstrating critical evaluation and reflective thinking.

Students' Perceptions of PBL and GD

Interviews revealed that students appreciated the collaborative and meaningful nature of PBL and GD. One student shared:

> *"Projects make learning more fun. Instead of just reading, we create something real and discuss it together. I feel I understand English better because I use it actively."*
> *Another student noted:*
> *"Group discussions helped me explain my ideas and listen to others. I realized that thinking critically means questioning and reflecting, not just agreeing with the first idea."*

Students highlighted that PBL and GD improved not only their English proficiency but also their ability to think independently, evaluate information, and make reasoned decisions collaboratively.

Teacher Observations

Field notes confirmed that students became more self-directed and engaged. Teachers noted that the combination of structured PBL and GD encouraged peer scaffolding, cooperative problem-solving, and metacognitive reflection. For example, a teacher recorded:

"Students initially hesitated, but once they started collaborating, they became more responsible. They helped each other, asked questions, and corrected mistakes together. Discussions clearly enhanced their reasoning and engagement."

Implications for Practice

The findings suggest that PBL and GD can be powerful tools for enhancing critical thinking in English classrooms. Structured projects combined with collaborative discussion encourage active learning, metacognition, and reflective reasoning. Role assignment, scaffolding, and monitoring are critical to ensure participation from all students, particularly those with lower proficiency. Authentic, real-world projects increase engagement and motivation, reinforcing both language and cognitive skills.

Connection to Existing Literature

These results align with prior studies indicating that learner-centered approaches enhance higher-order thinking. Krajcik and Blumenfeld (2006) emphasized that PBL fosters analytical and evaluative skills, while Brookfield and Preskill (2005) highlighted the importance of discussion in developing argumentation and critical evaluation. This study extends the literature by providing empirical evidence of the synergistic effect of combining PBL and GD in secondary English classrooms, supported by observations, student reflections, and tangible project artifacts.

Conclusion of Results

Overall, the study demonstrates that PBL combined with GD effectively promotes critical thinking skills. Classroom observations, project artifacts, and student interviews consistently show improvements in analysis, evaluation, inference, explanation, and reflection. Students were more engaged, collaborative, and motivated, and they valued the authentic, interactive nature of the learning activities. The study highlights the practical importance of designing structured, collaborative, and meaningful learning experiences to foster higher-order thinking in English language education.

Discussion

The findings of this study indicate that the integration of Project-Based Learning (PBL) and Group Discussion (GD) significantly enhances critical thinking skills in English language education. Observations of classroom activities, analysis of student projects, and field notes consistently showed that students were more engaged and cognitively active when participating in project-based tasks combined with structured discussions. Students demonstrated the ability to analyze complex problems, evaluate alternatives, make reasoned inferences, and articulate their conclusions in both written and oral forms. During projects such as creating English-language magazines or developing persuasive campaigns, students critically assessed relevant topics, organized content for clarity and effectiveness, and refined their work through iterative planning and collaboration. These activities promoted higher-

order thinking, as students were required to connect ideas, justify decisions, and synthesize information from multiple sources, reflecting the dimensions of critical thinking outlined by Facione (2015).

Group discussions played a crucial role in supporting the development of these skills. The social interaction inherent in GD provided opportunities for students to share perspectives, question assumptions, and negotiate meaning within their peer groups. Observational data revealed that students increasingly contributed to discussions, evaluated alternative viewpoints, and refined their reasoning over time. This aligns with the social constructivist theory proposed by Vygotsky (1978), which emphasizes that cognitive development occurs through collaborative interaction and guided participation. By engaging in meaningful dialogue, students were able to co-construct knowledge, strengthen their analytical skills, and develop reflective thinking.

Project-based tasks further reinforced critical thinking by providing authentic and meaningful contexts for learning. Students were motivated to apply English language skills in real-world scenarios, such as environmental campaigns or short story writing, which required them to identify problems, gather and analyze information, and propose solutions. The iterative nature of PBL – planning, implementation, evaluation, and revision – encouraged students to engage in reflective practice, evaluate the effectiveness of their strategies, and make improvements based on evidence. These findings are consistent with Krajcik and Blumenfeld (2006), who emphasized that PBL facilitates deep learning by actively engaging students in problem-solving and inquiry.

The combination of PBL and GD created a synergistic effect in the classroom. While PBL offered a structured context for inquiry and problem-solving, GD allowed students to articulate reasoning, evaluate evidence, and negotiate conclusions collaboratively. For instance, during discussions on the structure of persuasive articles or magazine content, students compared ideas, assessed clarity, and considered audience relevance before finalizing their work. Observational evidence demonstrated that students' engagement, critical reflection, and evaluative reasoning were enhanced when these approaches were integrated, confirming the findings of Johnson, Johnson, and Smith (2014) regarding the benefits of collaborative learning in project-based contexts.

Students also displayed increased motivation and cognitive investment in learning tasks. The authentic nature of the projects and the social interaction embedded in GD fostered a sense of ownership and autonomy, leading to greater intrinsic motivation. Self-determination theory (Deci & Ryan, 2000) suggests that autonomy, competence, and relatedness enhance motivation, and this study's findings support this notion. Students were actively involved in decision-making, cooperative problem-solving, and peer evaluation, which not only improved critical thinking but also strengthened engagement and responsibility for learning outcomes.

Despite these positive outcomes, some challenges emerged. Variations in English proficiency influenced participation, with higher-proficiency students often taking more active roles while others were initially hesitant to contribute. Time management was also a challenge, as coordinating group tasks and completing projects within the allocated timeframe required careful planning. The teacher mitigated these issues through structured role assignments, scaffolding, and monitoring, ensuring that all students participated and benefitted from the activities. These observations highlight the importance of intentional instructional design when implementing PBL and GD in heterogeneous classrooms.

Overall, the study confirms that combining PBL and GD effectively develops critical thinking skills, enhances engagement, and fosters collaborative competencies. Students demonstrated growth in analytical, evaluative, inferential, and reflective thinking, while simultaneously improving language skills. The findings align with prior research, which emphasizes the benefits of learner-centered approaches in promoting higher-order cognitive skills (Brookfield & Preskill, 2005; Krajcik & Blumenfeld, 2006). Furthermore, the study supports the theoretical perspective that social interaction, authentic tasks, and guided inquiry

are essential for fostering cognitive development in educational settings. By integrating meaningful projects with structured discussion, teachers can create a learning environment that nurtures both intellectual and social skills, preparing students for complex problem-solving and effective communication in real-world contexts.

CONCLUSIONS

This study demonstrates that integrating Project-Based Learning (PBL) and Group Discussion (GD) in English language education effectively enhances students' critical thinking skills, as evidenced by improvements in their ability to analyze problems, evaluate alternatives, make inferences, explain reasoning, and reflect on learning processes. The combination of authentic projects and collaborative discussions fostered higher engagement, motivation, and cooperation among students, while challenges such as differing proficiency levels and time constraints were mitigated through scaffolding, role assignments, and teacher guidance. Theoretically, the findings reinforce social constructivist principles, showing that cognitive development flourishes through authentic, collaborative, and reflective experiences, and provide empirical support for integrating project-based inquiry with structured peer interaction to promote higher-order thinking. Practically, the study suggests that teachers should receive training in PBL and GD methodologies, curriculum designers should embed these approaches into English curricula to facilitate authentic and reflective learning, and schools should allocate adequate time and resources to ensure inclusivity across proficiency levels. Overall, the integration of PBL and GD not only strengthens students' critical thinking but also establishes a model for learner-centered, collaborative, and cognitively engaging English language classrooms that effectively bridge theory and practice.

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