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THE IMPACT OF DEBATE INSTRUCTION ON THE CRITICAL THINKING AND SPEAKING SKILLS OF 21ST CENTURY EFL STUDENTS

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ABSTRACT

In today's rapidly evolving academic and technological environment, English learners are expected not only to master language skills but also to think critically and communicate effectively. However, many EFL instructional practices still focus heavily on memorization, leaving students underprepared for real-world communication demands. To address this gap, alternative teaching strategies that promote both reasoning and speaking performance are needed. This study investigates the impact of structured debate instruction on the speaking and critical thinking skills of EFL undergraduate students of Universitas Muhammadiyah Kalimantan Timur. Using a pre-experimental one-group pre-test and post-test design, 26 fourth-semester English education students participated in a five-meeting intervention. Their performances were assessed using rubrics adapted from the IELTS Speaking Band Descriptors and the Watson-Glaser Critical Thinking Appraisal framework. Data were analyzed using descriptive statistics, the Shapiro-Wilk test for normality, paired samples t-tests. The results showed significant improvement in both speaking and critical thinking skills ($p < .001$). Among the rubric indicators, inference and fluency showed the highest post-test scores, while deduction and grammatical accuracy showed the lowest. These findings suggest that debate can be an effective pedagogical tool for enhancing spontaneous reasoning and communicative clarity in EFL settings, while also highlighting areas that may require additional support.

Keywords: *Debate, Critical Thinking, Speaking Skill, EFL, Higher Education*

INTRODUCTION

In recent years, English language instruction, particularly in EFL contexts, has faced increasing demands to equip students with both language proficiency and real-world communication skills. For non-native English speakers, especially in countries like Indonesia, English proficiency is often not only a learning objective but also a key to accessing broader opportunities. However, achieving effective communication in English goes beyond mastering grammar and vocabulary; it requires the ability to think critically, express opinions clearly, and engage in meaningful interaction (Wardani & Fiorintina, 2023).

Despite increasing demands for 21st century competencies, traditional English language instruction in many EFL contexts including Indonesian universities remains focused on memorization and accuracy, limiting students' ability to think analytically and speak spontaneously. This challenge has been compounded by the rapid rise of AI tools like ChatGPT. While such tools can

enhance efficiency, they have also led to concerns about reduced cognitive effort, critical thinking, and originality in student work (Basha, 2024; Moybeka et al., 2023). As students become more reliant on AI-generated content, there is a pressing need for pedagogical strategies that promote active thinking and communication. Debate has emerged as one of the most effective instructional approaches for developing both critical thinking and speaking skills in EFL settings.

As a structured form of project-based learning, debate demands that learners defend arguments, respond to opposing views, and organize ideas under pressure, all of which promote spontaneous use of language, deep reasoning, and confidence in public speaking (Fauzan, 2016; Rao, 2019). Compared to other PBL methods like group presentations or inquiry-based tasks, debate offers a unique blend of cognitive rigor and communicative challenge (Permatasari et al., 2021; Pham, 2024).

This study aims to examine the effect of structured debate instruction on the speaking and critical thinking skills of Indonesian EFL students at the university level. While previous research has explored the use of debate to improve language proficiency or reasoning skills separately, few studies have examined its combined impact on both domains within a single intervention. Moreover, limited research focuses specifically on university-level learners in the Indonesian EFL context. This makes the study urgent and relevant, especially in light of the increasing influence of AI tools on academic performance and the growing need for students to develop original thinking and real-time communication skills. The findings of this study are expected to offer insights into whether debate can serve as an effective, integrative instructional strategy in higher education language classrooms.

METHOD

This study employed a quantitative, pre-experimental one-group pre-test and post-test design to investigate the impact of debate instruction on EFL students' critical thinking and speaking skills. This research design is commonly applied in educational settings to evaluate instructional effectiveness, particularly when random assignment is not feasible due to the use of intact classroom groups (Cranmer, 2017). The participants were 26 fourth-semester undergraduate students enrolled in the English Education Program at Universitas Muhammadiyah

Kalimantan Timur (UMKT). All participants were enrolled in the Teaching English as a Foreign Language (TEFL) course during the semester of data collection. Due to the small population size, the study employed total sampling by including the entire class as the study sample.

The design involved three stages: a pre-test to establish baseline performance, a treatment phase using structured debate instruction, and a post-test to measure improvement. This design allowed the researcher to assess differences in performance before and after the instructional intervention, without involving a control group.

To assess students' critical thinking skills, the research adopted a rubric adapted from the Watson-Glaser Critical Thinking Appraisal (WGCTA) framework. This rubric evaluates five key dimensions of critical thinking through spoken responses: inference, recognition of assumptions, deduction, interpretation, and evaluation of arguments. Each dimension was rated on a scale from 1 (Very Weak) to 5 (Excellent), allowing for a comprehensive profile of each participant's critical thinking ability.

Speaking skill was evaluated using a rubric based on the IELTS Speaking Band Descriptors, adapted for a debate context. The rubric focused on four components: fluency and coherence, lexical resource, grammatical range and accuracy, and pronunciation. Like the critical thinking rubric, each element was scored on a scale from 1 to 5.

Data collection occurred over five meetings. In the first meeting, all participants completed a one-on-one oral pre-test. Students were offered four debate prompts and collectively chose the topic "*Social media has made relationships harder for Gen Z*" for both the pre- and post-test, ensuring consistency of content. Each participant had a maximum of five minutes to express their opinion and construct an argument based on the topic. All responses were audio-recorded and assessed using the two rubrics.

The treatment phase occurred over three consecutive meetings (Meetings 2-4) and consisted of structured debate instruction. In Meeting 2, students engaged in opinion-based discussions, perspective shifting, and critical thinking through the analysis of everyday issues. In Meeting 3, the concept of counterarguments was introduced, and students practiced constructing and responding to opposing views.

Meeting 4 introduced the AREL framework (Assertion, Reason, Example, Link-back) as a tool for building strong arguments. Academic language and discourse markers relevant to debating were also emphasized. In the final meeting (Meeting 5), students completed the post-test using the same topic and format as the pre-test. All responses were scored by trained evaluators using the same rubrics applied in the pre-test.

Data were analyzed using SPSS version 29. Descriptive statistics (mean and standard deviation) were calculated to summarize participant performance. The Shapiro-Wilk test was applied to assess data normality. Given that the data met the assumption of normality, paired-sample t-tests were conducted to evaluate significant differences between pre- and post-test scores. Additionally, descriptive statistics were used to analyze individual rubric indicators in both skill domains, allowing the researcher to identify which dimensions showed the highest and lowest mean scores after the intervention.

RESULTS

The results of this study reveal a significant improvement in both critical thinking and speaking skills following the implementation of structured debate instruction. Data were analyzed using SPSS version 29 through descriptive statistics and paired samples t-tests, supported by post-test analysis of specific rubric indicators.

Before conducting the paired samples t-tests, a normality check was performed using the Shapiro-Wilk test. The results indicated that both the pre-test and post-test scores for critical thinking and speaking skills were normally distributed ($p > .05$), meeting the assumptions required for parametric testing.

Table 1. Normality Test for Pre-Test and Post-Test with Critical Thinking and Speaking Skill Rubrics

CT_PRE	CT_POST	Statistic	df	Sig.	Statistic	Shapiro-Wilk df	Sig.
	15	.260	2	.			
	20	.206	5	.200	.943	5	.687
	22	.213	5	.200	.963	5	.826
	23	.260	2	.			
	24	.364	4	.	.840	4	.195

SK_PRE	SK_POST						
	11	.	2	.			
	14	.298	4	.	.849	4	.224
	17	.250	4	.	.945	4	.683
	18	.250	8	.150	.915	8	.388
	19	.441	4	.	.630	4	.011

The descriptive statistics show that students' overall performance in both domains increased considerably. The average post-test score for critical thinking rose from 13.31 to 20.00 out of a maximum score of 25, while the speaking skill score improved from 11.12 to 15.04 out of 20.

Table 2. Paired Samples Statistics for Pre-Test and Post-Test with Critical Thinking and Speaking Skill Rubrics

Pair		Mean	N	Std. Deviation	Std. Error Mean
Speaking Skill Rubrics					
Pair 1	SK_PRE	11.96	26	2.986	.586
	SK_POST	15.99	26	3.141	.616
Critical Thinking Skill Rubrics					
Pair 2	CT_PRE	12.54	26	4.012	.787
	CT_POST	19.23	26	4.348	.853

These improvements were statistically confirmed through a paired sample t-test, which indicated significant differences between the pre- and post-test scores for both critical thinking and speaking ($p < .001$ in both cases). These findings support previous research suggesting that debate instruction is effective in enhancing reasoning and oral communication skills (Iman, 2017; Rao, 2019).

Table 3. Paired Samples Test for Pre-Test and Post-Test with Critical Thinking and Speaking Skill Rubrics

Pair	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	One-sided P	Two-sided P
Critical Thinking Skill Rubric									

CT_PRE-CT_POST	-6.692	2.328	.457	-7.633	-5.752	-14.656	25	<.001	<.001
Speaking Skill Rubric									
SK_PRE-SK-POST	-3.923	2.115	.415	-4.777	-3.069	-9.457	25	<.001	<.001

Further analysis was conducted on the individual components of both rubrics to identify which specific aspects benefited most from the instructional treatment. In the critical thinking rubric, inference had the highest post-test mean score (M = 3.96), indicating students' increased ability to draw logical and well-supported conclusions from available information. This aligns with the description of a level 4 scorer, who is usually able to draw reasonable conclusions with only minor gaps in reasoning. This finding reflects Iman's (2017) argument that debate promotes analytical processing, which enhances students' inference-making abilities. Similarly, Wardani & Fiorintina (2023) suggest that debate encourages learners to evaluate competing claims critically and justify their stance, which supports the improvement observed in this indicator.

On the other hand, deduction received the lowest mean score (M = 3.73), although it still reflected progress from the pre-test results. Deduction requires students to apply general rules to reach specific conclusions using structured logic. The relatively lower score may indicate that while students gained surface-level logical thinking skills, applying them rigorously remains a challenge. As Watson-Glaser's framework outlines, deduction demands structured application of reasoning, which often requires extended training and repeated exposure more than what can be achieved in a limited intervention period.

In the speaking rubric, the highest scoring indicator was fluency and coherence, with a post-test mean of 4.15. This score reflects that most students were able to speak fluently with only minor hesitation, and present ideas in an organized and clear manner. This improvement is consistent with the findings of Fauzan (2016) and Rao (2019), who emphasized that structured debate activities help students think while speaking, leading to greater fluency and cohesion. It also supports the theoretical claim that repeated argumentative speaking improves not just accuracy but overall delivery Iman (2017).

Conversely, the lowest mean score was found in grammatical range and accuracy, with an average post-test score of 3.81. This may suggest that while students became more fluent, their attention to grammatical precision remained somewhat limited. According to the IELTS rubric descriptors, a score of 3–4 in this range reflects the use of mostly simple sentence structures with occasional errors, which may be attributed to the cognitive load required during live debate sessions. This reflects prior findings by Ahmed (2018), who noted that spoken fluency can improve faster than grammatical control when learners focus on content delivery.

Table 4. Mean Score from Critical Thinking and Speaking Skill Rubrics

Indicator	Mean Score	N
Critical Thinking Skill Rubric (Post-Test)		26
Inference	3.96	
Recognition of Assumptions	3.81	
Deduction	3.73	
Interpretation	3.88	
Evaluation of Arguments	3.85	
Speaking Skill Rubric (Post-Test)		
Fluency and Coherence	4.15	
Lexical Resource	3.81	
Grammatical Range and Accuracy	3.81	
Pronunciation	4.12	

Overall, the findings demonstrate that debate instruction not only fosters overall gains in critical thinking and speaking abilities but also selectively benefits components most aligned with real-time expression, such as inference and fluency and coherence. These outcomes support the argument that debate is a high-impact instructional strategy for EFL learners, particularly in enhancing cognitive engagement and spoken performance.

DISCUSSION

This study found that debate instruction significantly improved students' critical thinking and speaking skills. The increase in total scores for both domains was statistically significant, confirming the effectiveness of structured argument-based activities in promoting reasoning and oral fluency.

The highest-scoring indicator in critical thinking was *inference*, suggesting students become better at drawing logical, evidence-based conclusions. This aligns with Watson-Glaser's framework and supports previous findings by Iman (2017) and Wardani & Fiorintina, (2023), which emphasize the role of debate in developing analytical thought. Meanwhile, *deduction* had the lowest post-test score, possibly reflecting the challenge of applying structured logic without targeted instruction. This may indicate that while debate supports spontaneous reasoning, further instruction is needed to strengthen formal logical thinking.

In speaking, fluency and coherence showed the greatest improvement, indicating that students communicated with minor hesitation and organized ideas more clearly. This is consistent with findings by Rao (2019) and Fauzan (2016), who highlight debate's role in promoting real-time idea development. The lowest-scoring aspect was grammatical range and accuracy, suggesting that fluency gains may outpace accuracy when learners focus on spontaneous expression. These results affirm that debate is a high-impact strategy for improving critical thinking and speaking among EFL students, particularly in areas that involve real-time language production and reasoning.

Beyond test scores, these findings offer pedagogical insights for instructors navigating EFL contexts in the digital age. As AI-generated writing tools become increasingly prevalent, concerns have emerged regarding students' over-reliance on such technologies, which may diminish opportunities for authentic idea generation and critical analysis (Basha, 2024; Moybeka et al., 2023). Debate, as an interactive and cognitively demanding strategy, counters these effects by requiring real-time thought formulation, logical structure, and persuasive delivery, elements that AI tools cannot fully replicate or replace in human learning processes. Therefore, embedding debate activities into EFL curricula can serve as a safeguard against passive learning and foster more active, mindful engagement with language.

Moreover, the structure and scaffolding used in this study including the use of frameworks like AREL and guided exposure to counterarguments played a crucial role in student development. The pedagogical implication is that debate should not be used in isolation, but rather as part of a broader instructional design that includes language scaffolding, critical thinking tasks, and feedback-rich environments. Teachers must strike a balance between encouraging spontaneous

expression and reinforcing formal accuracy through targeted grammar and logic support activities.

The results also highlight the importance of addressing individual components of skill development. For instance, the relatively low performance in deduction and grammatical accuracy suggests that while debate promotes high engagement and cognitive activation, certain sub skills may require additional, focused intervention. Future curriculum planners should consider integrating complementary strategies such as explicit instruction in logical reasoning and grammar workshops to support more balanced growth.

Finally, the success of this five-meeting intervention indicates that even short-term, focused implementations of debate instruction can yield measurable outcomes. This has implications for programs with limited contact hours or resources, demonstrating that meaningful gains in EFL performance can still be achieved through well-structured, intensive strategies.

CONCLUSION

This study concludes that structured debate instruction significantly enhances EFL students' critical thinking and speaking skills. The statistical improvement observed from pre-test to post-test indicates that debate not only improves students' ability to construct arguments and evaluate information but also strengthens their fluency and coherence in spoken English.

The indicator-level analysis further reveals that *inference* and *fluency and coherence* benefited the most from debate instruction, suggesting that debate supports skills related to spontaneous idea generation and logical reasoning. However, the lower scores in *deduction* and *grammatical accuracy* highlight areas that may require additional, targeted instruction beyond debate activities.

These findings support the use of debate as an engaging and effective instructional strategy for EFL classrooms, particularly in promoting active language use and critical engagement with ideas. Teachers are encouraged to integrate debate with focused grammar and logic activities to achieve more balanced skill development.

Future studies could explore the long-term impact of debate instruction across more diverse proficiency levels, or compare debate with other

communicative approaches to identify optimal combinations for classroom practice.

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