

LANGUAGE, APPLIED LINGUISTICS, AND CRITICAL THINKING: A COMPREHENSIVE APPROACH

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ABSTRACT

This qualitative study, grounded in applied linguistics and cognitive theory, explores the role of language in developing critical thinking skills. Using semi-structured, issue-focused interviews, the study examines the perspectives of 30 participants, including language educators, medical graduates, and professionals from diverse fields. Participants were selected through purposive sampling to provide insights into linguistic strategies that enhance analytical reasoning, problem-solving, and decision-making. Data were analyzed using Braun and Clarke's thematic analysis framework, resulting in 45 initial codes, 20 sub-themes, and 5 main themes. The first theme, "Linguistic Structures and Critical Thinking," highlights how syntax, lexical choices, and discourse organization shape reasoning. The second theme, "Effective Linguistic Strategies," focuses on rhetorical devices, argument mapping, and questioning techniques. The third theme, "Discourse Analysis and Cognitive Processing," explores how pragmatic awareness and contextual interpretation influence thought patterns. The fourth theme, "Perceptions of Critical Thinking in Language Education," identifies gaps in curricula and the need for assessment reform. The final theme, "Applying Applied Linguistics in Educational and Professional Contexts," discusses interdisciplinary approaches to integrating critical thinking into various domains. Findings indicate that applied linguistics significantly enhances cognitive processing and decision-making, yet traditional language curricula often fail to integrate critical thinking effectively. The study calls for educational reforms, professional training programs, and interdisciplinary applications to optimize linguistic strategies for cognitive development.

Keywords: Applied linguistics, critical thinking, discourse analysis, pragmatic awareness, cognitive processing, language education.

INTRODUCTION

Language and critical thinking are deeply intertwined, as language serves as a medium for expressing thoughts, constructing arguments, and analyzing information (Merta, Ratminingsih, & Budasi, 2023). Applied linguistics bridges theoretical linguistic principles with practical applications in language learning, teaching, and communication (A. J. C. I. i.

L. S. Pennycook, 2022) In contemporary academic and professional settings, the ability to think critically through language is essential for problem-solving, decision-making, and effective communication (Sultonova, Ubaydullaeva, & Abdullaeva, 2025). The relationship between language and critical thinking has been examined from various perspectives.

Research in cognitive linguistics suggests that linguistic structures influence thought processes, shaping the way individuals perceive and analyze information (Iskandarova, 2024). Studies in second language acquisition indicate that multilingual individuals develop enhanced critical thinking abilities due to their exposure to different linguistic structures and cultural perspectives (Silaban, Sayuti, & Hartati, 2024). Furthermore, applied linguistics has explored discourse analysis, pragmatics, and sociolinguistics to understand how language use reflects and influences cognitive processes (Issa, 2023). However, despite these insights, limited research has systematically analyzed how applied linguistic principles can be deliberately applied to enhance critical thinking skills in learners and professionals (A. Pennycook, 2021).

A significant gap in previous research is the lack of interdisciplinary approaches that integrate applied linguistics with critical thinking development. Most studies have either focused on linguistic theory or cognitive skills separately, without establishing a direct connection between them. Additionally, research has primarily concentrated on educational settings, neglecting its implications in professional and social contexts (Attardo, 2024; Newmeyer, 2023). There is also a paucity of empirical studies that assess how specific linguistic strategies, such as argumentation, discourse analysis, and metacognitive reflection, contribute to fostering critical thinking skills (Nykyoprets, Melnyk, Ibrahimova, Boiko, & Kukharchuk, 2023). Addressing these gaps is crucial for developing effective pedagogical models that integrate language education with cognitive skill enhancement. Given the existing research gaps, this study is grounded in the rationale that language is not merely a tool for communication but a fundamental medium for developing critical thinking (A. J. C. I. i. L. S. Pennycook, 2022). Applied linguistics, with its focus on language use, structure, and meaning-making, provides a robust framework for enhancing analytical reasoning and problem-solving abilities (Lee, Lo, & Chin, 2021). By examining how language structures, discourse strategies, and pragmatic awareness contribute to cognitive processing, this study aims to bridge the gap between linguistic theory and practical critical thinking applications. The findings will have implications for curriculum development, instructional methodologies, and workplace communication strategies.

This study is significant as it contributes to both theoretical and practical advancements in language education and cognitive skill development. By

integrating applied linguistic principles with critical thinking strategies, the research will offer valuable insights for educators, linguists, and professionals seeking to enhance analytical reasoning through language use. The study informs curriculum designers and policymakers on the importance of fostering linguistic awareness for cognitive development. Furthermore, its findings can be applied beyond academic settings, benefiting individuals in professional and interpersonal communication. The aim of this study is to explore the relationship between applied linguistics and critical thinking, identifying how linguistic structures, discourse analysis, and pragmatic awareness can enhance cognitive skills. By investigating this interplay, the research seeks to develop a comprehensive framework that integrates linguistic principles with critical thinking development.

The specific research questions of this study are given below:

1. How does applied linguistics contribute to the development of critical thinking skills?
2. What linguistic strategies are most effective in fostering analytical reasoning and problem-solving abilities?
3. How do discourse analysis and pragmatic awareness influence cognitive processing and decision-making?
4. What are the perceptions of language educators and professionals regarding the integration of critical thinking in language learning?
5. How can applied linguistics be effectively utilized in educational and professional settings to enhance critical thinking?

Methodology

This study employs a qualitative method to explore the role of applied linguistics in fostering critical thinking. To achieve this objective, a phenomenological approach was used, which focuses on studying phenomena from the participants' perspectives without relying on theoretical frameworks, deductive reasoning, or pre-existing assumptions. The study's population consisted of language educators, medical graduates, and professionals working in fields where critical thinking is essential. Purposive sampling was utilized to select participants 30 participants age range 25-45 years, who met the criteria of actively engaging in language use as a cognitive tool for reasoning, decision-making, and problem-solving. Those who met these criteria and volunteered to participate in the study were invited for interviews. Ethical

considerations were addressed before the research commenced by obtaining consent from the participants for both their involvement in the study and the recording of the interviews. Participants were informed about the study's aims, the purpose of recording the interviews, the confidentiality of their information, and the anonymity of their identities. After interviewing 30 participants, data collection reached saturation, indicating that no further interviews were necessary. The interviews were conducted in-depth, semi-structured, and face-to-face, with the sequence of questions adjusted as needed based on the interview process and each participant's responses to ensure consistent and comprehensive information was gathered. The demographic information of each participant is presented using pseudonyms.

Research Tools

1. Semi-Structured Interviews

The semi-structured interview form was designed with open-ended questions to explore how applied linguistics fosters critical thinking. The form included the research project title, interview details (time, date, and location), and a brief explanation of the research goals. The interviewer clarified these goals to the participants before asking the questions. Each interview lasted between 35 to 60 minutes, depending on the participants' conditions and willingness. Interviews were digitally recorded and transcribed verbatim immediately after the sessions. To ensure scientific rigor in qualitative research, the researcher maintained prolonged contact with participants to enhance data credibility and included a diverse group of participants.

2. Discourse Analysis

In addition to interviews, discourse analysis was conducted on classroom discussions, professional dialogues, and written texts to identify patterns of argumentation, rhetorical strategies, and pragmatic features that influenced cognitive processing. This analysis allowed for a deeper understanding of the

linguistic mechanisms that contribute to analytical reasoning.

Implementation Method

Participant Recruitment and Data Collection

Participants were recruited through academic networks, professional organizations, and university announcements. They were informed about the research goals and were asked to share their experiences regarding the role of applied linguistics in fostering critical thinking. The interviews began with a broad question: "Please describe how language influences your critical thinking and decision-making," and then explored specific linguistic strategies, reasoning processes, and problem-solving techniques. Interviews lasted between 35 to 60 minutes and were recorded and transcribed for analysis.

Data Analysis and Validation

Thematic analysis was used to interpret participants' experiences of language and critical thinking, following six stages: familiarization, coding, theme searching, theme reviewing, defining, and reporting. To ensure accuracy, the study validated data by returning interviews to participants for verification (truthfulness), maintaining extended contact with participants (prolonged engagement), and achieving credibility through member checks and methodological rigor. Member checks involved reviewing interviews and codes with participants, while confirmability minimized researcher bias. Additionally, peer checks were conducted by consulting linguistic experts to review transcripts and coding. NVivo software was used to assist in identifying key themes related to language use and critical thinking.

FINDINGS

The study included 30 participants from diverse backgrounds, including language educators, medical graduates and graduate language learners, and professionals from fields where critical thinking is essential. Below is a summary of their demographic characteristics.

Table-1; Participant Demographics (n=30)

Participant	Age	Education	Occupation
P1	28	Bachelor's	Language Educator
P2	35	Master's	Basic Sciences Teacher
P3	30	PhD	University Lecturer
P4	27	Bachelor's	Medical graduate
P5	40	Master's	Basic Sciences Teacher

Participant	Age	Education	Occupation
P6	32	PhD	University Lecturer
P7	29	Bachelor's	Medical graduate
P8	34	Master's	Medical Educationist
P9	31	PhD	Psychologist
P10	26	Bachelor's	Language Educator
P11	38	Master's	Basic Sciences Teacher
P12	33	PhD	University Lecturer
P13	29	Bachelor's	Medical graduate
P14	36	Master's	Medical Educationist
P15	27	Bachelor's	Medical graduate
P16	41	PhD	Psychologist
P17	30	Master's	Basic Sciences Teacher
P18	32	Bachelor's	Language Educator
P19	35	PhD	University Lecturer
P20	28	Master's	Medical Educationist
P21	37	Bachelor's	Medical graduate
P22	33	Master's	Basic Sciences Teacher
P23	29	PhD	Psychologist
P24	40	Bachelor's	Medical graduate
P25	26	Master's	Language Educator
P26	31	PhD	University Lecturer
P27	39	Bachelor's	Medical Educationist
P28	30	Master's	Basic Sciences Teacher
P29	34	PhD	Psychologist
P30	27	Bachelor's	Medical graduate

The demographic analysis of the participants reveals a diverse and intellectually robust sample comprising 30 individuals aged between 26 and 41 years, with the average age situated in the early thirties. This age range indicates a mature cohort likely to possess developed cognitive abilities and experiential depth relevant to critical thinking. In terms of educational attainment, most participants held postgraduate degrees, with 33.3% having completed a master's and 26.7% a PhD, while 40% held a bachelor's degree.

This distribution reflects a well-educated group, suitable for examining constructs related to higher-order thinking skills. The occupational background of

the participants further underscores the relevance of the sample to the study's focus. Respondents were drawn from professions that inherently demand critical thinking, including language educators, medical graduates, language learners, and professionals engaged in advanced studies. The presence of both professionals and learners provides a balanced representation across different stages of intellectual and career development. This heterogeneity not only enhances the credibility of the findings but also allows for a richer exploration of critical thinking practices within varied real-world contexts.

Table-2; Main Themes, Sub-Themes, and Initial Codes from Data Analysis (n=30)

The findings from the thematic analysis provide significant insights into the relationship between applied linguistics and critical thinking. By examining the themes, sub-themes, and initial codes, the study highlights key aspects of how linguistic structures, discourse strategies, and pragmatic awareness contribute to cognitive processing and analytical reasoning.

1. Linguistic Structures and Critical Thinking

The results indicate that syntax, lexical choices, and discourse organization play a fundamental role in shaping reasoning and argumentation. Participants emphasized that complex sentence structures and the use of precise terminology enhance clarity and depth in critical discussions. The analysis of discourse organization further revealed that well-structured narratives and cohesive argumentation improve logical consistency and reasoning processes.

2. Effective Linguistic Strategies

Findings show that rhetorical devices, argument mapping, and questioning strategies significantly enhance critical thinking. Participants reported that metaphors and analogies aid in abstract reasoning, while argument mapping techniques help in structuring logical arguments and recognizing fallacies. Socratic questioning and reflective inquiry emerged as essential tools in fostering deeper analysis and problem-solving abilities.

3. Discourse Analysis and Cognitive Processing

Pragmatic awareness and contextual interpretation were identified as crucial factors influencing cognitive processing. Participants highlighted that an understanding of implicatures, speech acts, and conversational maxims allows for more nuanced interpretation of discourse. Additionally, cultural and situational context played a major role in shaping thought patterns, suggesting that exposure to diverse discourse styles enhances inferencing and deductive reasoning skills.

4. Perceptions of Critical Thinking in Language Education

There was a consensus among participants that current curricula lack explicit training in critical thinking. Many educators noted that assessment methods do not effectively measure analytical reasoning, leading to a need for reform in evaluation techniques. Furthermore, teachers and professionals expressed

challenges in integrating critical thinking within existing syllabi, emphasizing the necessity for student engagement strategies and instructional adjustments.

5. Applying Applied Linguistics in Educational and Professional Contexts

The results suggest that applied linguistics can be effectively integrated into both academic and professional settings. In educational contexts, strategies such as structured classroom discussions and interdisciplinary curriculum design were identified as effective methods for enhancing critical thinking. In professional settings, participants noted that applied linguistics plays a key role in persuasive writing, negotiation, and structured communication. Moreover, professional development programs focusing on linguistic skill-building were recommended as an approach to improving cognitive flexibility in real-world applications.

DISCUSSION

The findings of this study highlight the intricate relationship between language, applied linguistics, and critical thinking, emphasizing how linguistic structures and discourse strategies contribute to cognitive development. The results align with prior research indicating that linguistic proficiency plays a pivotal role in shaping analytical reasoning, decision-making, and problem-solving abilities (Hoerudin, 2023).

Linguistic Structures and Critical Thinking

The study identified several linguistic structures that influence critical thinking, including syntax, lexical choices, and discourse organization. Previous research has emphasized the role of syntax in logical reasoning, with complex sentence structures fostering cognitive flexibility and nuanced argumentation (Huang, Bu, Qing, & Cui, 2023). The present study supports these findings, as participants highlighted the significance of syntactic complexity in enhancing analytical depth. Lexical choices were also found to be crucial in concept formation and knowledge structuring. Consistent with previous studies, precise vocabulary usage was linked to the ability to articulate abstract ideas and engage in sophisticated reasoning (Fallon, Lawrence, & Seifert, 2021). Similarly, discourse coherence markers, which facilitate logical argumentation, were recognized as essential for critical engagement with texts.

Effective Linguistic Strategies

The results indicate that rhetorical devices, argument mapping, and questioning strategies significantly enhance critical thinking. Prior research has highlighted the efficacy of metaphors and analogies in persuasive communication and conceptual understanding (Hua, 2021). The present study corroborates these findings, as participants frequently employed rhetorical strategies to strengthen their arguments. Argument mapping techniques, such as premise identification and counterargument analysis, were identified as vital tools for structuring logical discourse. This aligns with studies suggesting that visualizing argumentative structures improves reasoning skills (Blanco, Camargo, & Sequeiros, 2024). Additionally, these findings reinforcing study conducted by Xie, et al., (2025), who demonstrated that Socratic questioning and reflective inquiry emerged as effective methods for fostering critical engagement on the role of questioning in deep learning (Xie, Yang, & Cui, 2025).

Discourse Analysis and Cognitive Processing

The study found that pragmatic awareness and contextual interpretation play a crucial role in cognitive processing. Previous research has shown that speech acts and implicatures contribute to inferential reasoning and decision-making (Oswald, 2023). Participants demonstrated awareness of conversational maxims and discourse framing, supporting studies that link pragmatic competence to cognitive flexibility. Cultural and contextual interpretation was also noted as a determinant of analytical reasoning. Previous Studies have indicated that discourse framing and cultural references influence comprehension and judgment (Flusberg, Holmes, Thibodeau, Nabi, & Matlock, 2024). The current findings validate these assertions, as participants relied on contextual cues to derive meaning and construct logical arguments.

Perceptions of Critical Thinking in Language Education

A significant theme that emerged was the perceived gap in curricula regarding explicit critical thinking instruction. Similar concerns have been raised in previous studies, which argue that many language education programs lack structured components for fostering critical (Cosgun & Atay, 2021; Nykyporets et al., 2023). Thinking Participants emphasized the need for integrating critical thinking into syllabus design, echoing calls for curriculum reform in language

education. Assessment methods were another key concern, with participants advocating for evaluation techniques that measure reasoning skills rather than rote memorization. Research by conducted by Suryanti and Nurhuda (2021), supports this perspective, suggesting that rubrics emphasizing analytical reasoning yield better learning outcomes (Suryanti & Nurhuda, 2021).

Applying Applied Linguistics in Educational and Professional Contexts

The study underscores the relevance of applied linguistics in academic and professional settings. Participants reported that classroom discussions and interdisciplinary curriculum links enhance critical engagement, aligning with research on communicative competence and active learning (Shamsiddin, 2024). Workplace communication was another critical area, with findings supporting the notion that structured dialogues and persuasive writing improve negotiation and decision-making skills (Gentile, 2021). Professional training programs were also highlighted as essential for fostering linguistic and cognitive development. Studies suggest that targeted linguistic workshops can enhance problem-solving abilities and analytical reasoning (Markowitz, 2023; Nykyporets et al., 2023). The current findings reinforce this view, emphasizing the role of professional development in bridging the gap between theoretical knowledge and practical application.

CONCLUSION

The findings of this study contribute to the growing body of research on the intersection of language, applied linguistics, and critical thinking. By examining linguistic structures, effective strategies, and discourse analysis, this study provides insights into how language education can be optimized to foster analytical reasoning. Future research should explore longitudinal effects of applied linguistics interventions in diverse educational and professional contexts.

LIMITATION AND RECOMMENDATION OF THE FINDINGS

The study has certain limitations that should be acknowledged. One of the primary limitations is the relatively small sample size of 30 participants, which restricts the generalizability of the findings to a broader population. A larger sample with diverse linguistic and cultural backgrounds would provide more comprehensive insights. Additionally, the qualitative nature of the study introduces the possibility of

researcher bias in data interpretation, despite the use of thematic analysis and member checking for validation. Another limitation is the reliance on self-reported data, which may be influenced by social desirability or recall bias, potentially affecting the authenticity of responses. Furthermore, the study's contextual focus on university educators, medical graduates, and professionals in specific fields means that the findings may not be directly applicable to other populations or industries where language and critical thinking intersect. The study also lacks a longitudinal perspective, capturing only a single-time snapshot of participants' experiences rather than examining the long-term influence of applied linguistics on cognitive development.

Future research should consider expanding the sample size and including participants from diverse educational and professional backgrounds to enhance the generalizability of findings. A mixed-methods approach incorporating both qualitative and quantitative data collection methods, such as surveys and experimental studies, could provide a more comprehensive understanding of the relationship between applied linguistics and critical thinking. Comparative research across different cultural and linguistic settings would also be beneficial in identifying universal and context-specific linguistic strategies that contribute to analytical reasoning and problem-solving. Additionally, intervention-based studies could assess the impact of specific linguistic training programs on the development of critical thinking skills. Longitudinal research tracking participants over time could provide insights into how applied linguistics influences cognitive processes in the long run. The integration of technological advancements, such as artificial intelligence and digital learning platforms, into applied linguistics research could further enhance the understanding of how modern tools facilitate critical thinking development.

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