IJLHE: International Journal of Language, Humanities, and Education
ISSN: 2986-0369 (e) I 2963-4520 (p)
2025, Vol. 8, No. 1, page 335-344
https://jurnal.stkippgribl.ac.id/index.php/ijlhe/index

Critical Thinking and Productive Language Skills: A Literature-Based Approach

Eka Margianti Sagimin[1*]
[1]Universitas Pamulang

[*]dosen00481@unpam.ac.id

ABSTRACT

In the evolving landscape of higher education, the development of critical thinking (CT) has emerged as a fundamental educational objective, particularly in foreign language instruction. While considerable attention has been given to integrating CT into receptive language activities such as reading and listening, productive skills—namely speaking and writing—remain underexplored in this regard. This article investigates the effectiveness of targeted instructional strategies and technologies designed to foster CT during productive language learning tasks. Drawing on a structured framework encompassing mental operations and cognitive phases (activation, comprehension, and reflection), this study identifies and systematizes pedagogical methods that simultaneously develop linguistic proficiency and CT competencies. These include essay writing, structured discussion, conceptual mapping, clustering, annotation, forecasting, and project-based learning, all aligned with higher-order cognitive functions such as analysis, synthesis, evaluation, and decision-making. The study concludes that intentional integration of CT-promoting strategies into productive language skills instruction significantly enhances learner engagement, autonomy, and cognitive agility. The findings underscore the need for continued pedagogical innovation and offer practical implications for language educators aiming to bridge linguistic and critical competencies in university settings.

ARTICLE INFO

Keywords:
Critical Thinking;
Foreign Language Education;
Higher Education;
Productive Language Skills;
Speaking and Writing Instruction

How to Cite in APA Style:
Sagimin, E. M. (2025). Critical Thinking and Productive Language Skills: A Literature-Based Approach. *IJLHE: International Journal of Language, Humanities, and Education, 8*(1), 335–344.
https://doi.org/10.52217/ijlhe.v8i1.1851

This is an open access article under CC-BY-NC 4.0 license.

INTRODUCTION

The significance of critical thinking (CT) skills in contemporary education is widely acknowledged, and their absence is increasingly recognized as a contributing factor to

various global challenges. In an era marked by rapid information exchange, complex societal issues, and shifting professional demands, the ability to think critically has become an indispensable competency. Educators, regardless of discipline or learner demographic, are thus entrusted with the crucial task of cultivating these skills. This responsibility extends equally to foreign language instructors, whose pedagogical approach must move beyond linguistic competence to include the promotion of higher-order cognitive abilities (Brookfield, 2012; Paul & Elder, 2019).

The concept of critical thinking has evolved significantly since its classical philosophical origins. Foundational contributions by thinkers such as Socrates, Thomas Aquinas, Francis Bacon, René Descartes, and Isaac Newton laid the groundwork for systematic inquiry and reasoned judgment. In the modern educational context, the idea has been reframed under various terminologies, including "reflective thinking" (Dewey, 1933; Vygotsky, 1978) and "higher-order thinking" (Manzo et al., 2013). One of the most enduring frameworks in this field is Bloom's Taxonomy (1956), which categorizes cognitive operations into hierarchical levels—analysis, synthesis, and evaluation being particularly relevant to the cultivation of critical thinking (Krathwohl, 2002).

Subsequent scholarship has further conceptualized the nature and function of CT. Influential figures such as Vygotsky, Brookfield, Facione, and Halpern have explored its cognitive structure, evaluative standards, and pedagogical applications (Facione, 2011; Halpern, 2014). Their contributions have informed numerous empirical and theoretical studies aimed at integrating CT into educational practice across diverse learning contexts (Bezanilla et al., 2019; Ennis, 2018). Researchers such as Pometun, Romanova, Yakovenko, and others have advanced this body of work by examining specific strategies for fostering critical thinking in classroom environments.

More recently, a growing number of scholars have turned their attention to the development of CT in higher education, highlighting its role in preparing students for complex professional and societal roles. Studies by Ivleva, Kostyuchenko, Pelepeichenko, and Royafar emphasize the necessity of embedding CT instruction into university curricula to enhance students' analytical, reflective, and decision-making capabilities (Akpur, 2020).

Despite the wealth of existing literature, critical thinking remains a dynamic and ongoing area of inquiry, particularly in the context of second or foreign language education. Within the communicative language teaching (CLT) framework, learners are expected to engage in authentic interactions that mirror real-life communication. These interactions often require negotiating meaning between the known (native language) and the unknown (target language), thereby activating CT processes such as inference, evaluation, and argumentation (Gkonou & Mercer, 2017; González-Lloret, 2020).

While technologies supporting receptive language skills—such as reading and listening—have seen substantial advancement, the integration of CT-enhancing strategies into productive skills instruction (i.e., speaking and writing) remains underdeveloped, particularly in university-level settings. This gap underscores the need

for targeted pedagogical interventions that align language instruction with critical thinking development (Hastomo et al., 2025).

This study aims to explore the effectiveness of implementing CT-based instructional technologies in higher education, specifically within the foreign language classroom. It seeks to identify and systematize practical methods that support the development of productive language skills while simultaneously nurturing students' critical thinking capacities. In doing so, the study contributes to bridging the theoretical and practical dimensions of language learning and cognitive skill formation.

METHOD

This study employs a qualitative, literature-based approach grounded in an interpretive paradigm. It synthesizes findings from contemporary scholarship in cognitive psychology, pedagogy, and applied linguistics to identify instructional practices that align with the development of critical thinking (CT) through productive language skills in higher education settings. The methodological framework is organized around three cognitive phases—activation, comprehension, and reflection—commonly used in CT instruction, and applies these to language teaching strategies. Drawing on a wide range of peer-reviewed research from the past decade, the study categorizes relevant teaching techniques based on their cognitive function, instructional design, and language modality. Examples include essay types (e.g., argumentative, analytical, and problem-solution), oral academic discussion, brainstorming, annotation, and conceptual table creation. The analysis is further informed by CT frameworks from scholars such as Paul and Elder (2019), Halpern (2014), and Ennis (2018), alongside pedagogical models such as Bloom's revised taxonomy. Through this synthesis, the study aims to construct a systematized pedagogical model that supports both linguistic and cognitive development in foreign language classrooms.

RESULTS AND DISCUSSION

Critical thinking (CT) has been examined across a range of disciplines, most notably psychology and education. Scholars conceptualize CT variously—as an individual cognitive disposition (Vygotsky, 1978), a set of mental abilities and intellectual competencies (Kiely, 2023), and a foundational educational construct with both personal and societal significance (Dewey, 1933; Facione, 2011). Despite diverse interpretations, there is consensus that critical thinking is essential for fostering meaningful, high-quality education and active learner engagement in complex problem-solving.

Although numerous definitions of CT exist, they typically converge around key attributes. CT may be broadly defined as independent and context-sensitive reasoning grounded in reflective analysis. This includes processes such as comparison, evaluation, interpretation, and informed judgment (Paul & Elder, 2019;

Halpern, 2014). From a cognitive perspective, CT involves a sequence of mental operations that occur at multiple levels of complexity. These operations include information gathering from varied sources, analyzing and organizing data, testing hypotheses, recognizing logical inconsistencies, drawing conclusions, and making well-supported decisions (Ennis, 2018).

Accordingly, the educational process should deliberately facilitate the development of CT through targeted skill-building. Contemporary frameworks identify a broad spectrum of critical thinking competencies, including the ability to: assimilate new information, extract key ideas from texts, evaluate contrasting viewpoints, distinguish facts from opinions, identify causal relationships, detect bias and fallacies, construct coherent arguments, revise beliefs based on new evidence, and apply conclusions to practical scenarios (Abrami et al., 2015; Heijltjes et al., 2014).

Recent literature advocates for the use of a structured, three-phase instructional model—activation, comprehension, and reflection—as a foundation for CT development (Bezanilla et al., 2019; Choy & Cheah, 2009). This triadic model provides a pedagogical scaffold for implementing CT strategies, particularly in foreign language (FL) instruction. Each stage is aligned with specific cognitive and linguistic goals that support both language acquisition and higher-order thinking.

In the activation phase, the objective is to engage learners' prior knowledge and stimulate curiosity. Techniques such as “Brainstorming,” “K-W-L Charts” (Know–Want to Know–Learned), “Prediction from Visuals,” “Word Association,” “Thick vs. Thin Questions,” and the “Tree of Assumptions” are frequently employed to encourage active inquiry and early analytical engagement (Chamot & O'Malley, 1994).

During the comprehension phase, students deepen their understanding through interactive analysis. Methods like “Six Thinking Hats” (de Bono, 2000), “Jigsaw,” “INSERT” (Interactive Noting System for Effective Reading and Thinking), “Carousel Discussions,” and Bloom’s “Taxonomy Flower” help learners organize, synthesize, and interpret complex information (Anderson & Krathwohl, 2001; González-Lloret, 2020).

The reflection phase consolidates learning and encourages metacognitive awareness. Activities such as “Cinquains,” “Clustering,” argumentative and expository essay writing, and conceptual mapping tasks promote critical evaluation, comparative analysis, and personal response formulation. Dialogic strategies—such as academic discussion, structured debates, and opinion-based tasks—further enhance students’ ability to articulate and critique viewpoints (Mercer & Howe, 2012).

Across all phases, various tools and strategies are especially prominent in foreign language classrooms for promoting CT. These include semantic mapping, fishbone diagrams, the “Press” method, problem-solving activities, and student-led

discussions. Such approaches not only improve language proficiency but also cultivate learners' abilities to assess evidence, construct reasoned arguments, and develop independent viewpoints (Yu & Lee, 2016).

Specifically, strategies found effective in foreign language contexts include annotation, text previewing, contextualization, question generation, reflective journaling, summarization, précis writing, source comparison, and evaluative judgment. These methods help learners process information critically while advancing their speaking and writing competencies in the target language (Mandasari et al., 2025).

In the context of foreign language instruction at the tertiary level, it is imperative to employ not only the widely acknowledged strategies for critical thinking (CT) development but also a range of targeted tools and pedagogical techniques tailored to the different stages of the learning process. These may include concept clustering at the beginning of a lesson to stimulate associative thinking—a variant of structured brainstorming—as well as tasks such as identifying causal relationships in narrative structures, making interpretive inferences, creating media texts or advertisements, developing alternative endings to literary works, distinguishing fact from fiction, and relating textual content to learners' lived experiences or real-world contexts (González-Lloret, 2020).

Contemporary academic literature provides comprehensive analysis of methods designed to cultivate CT, many of which have been validated for their effectiveness in promoting active learning, deeper engagement, and intellectual autonomy across disciplines (Abrami et al., 2015; Bezanilla et al., 2019). Among the most impactful are tools that blend cognitive scaffolding with creative and reflective strategies.

One such method is the "Basket of Ideas or Concepts," which enables instructors to assess students' prior knowledge and conceptual frameworks related to a particular theme. This approach encourages open classroom dialogue and assists in the personalization of instruction (Choy & Cheah, 2009).

The "Cluster" technique is another effective tool that facilitates visual organization of information. By mapping out associations and relationships, this method supports knowledge construction, reinforces memory retention, and stimulates analytical thinking (Chamot & O'Malley, 1994).

"Margin Notes" serve as a metacognitive reading strategy in which learners annotate texts with questions, reflections, and clarifications. This technique fosters active engagement with content and enhances comprehension through ongoing self-monitoring (Heijltjes et al., 2014).

The creation of "Cinquains"—a structured five-line poetic form—is also an effective reflective activity. It challenges learners to synthesize and condense complex ideas into a concise format, promoting both conceptual clarity and critical synthesis (Halpern, 2014).

"Guided Brainstorming" techniques are valuable for nurturing creative and divergent thinking. By structuring idea generation around specific themes, students are encouraged to think expansively while maintaining academic relevance (Paul & Elder, 2019).

Finally, "Essay Writing" remains a foundational practice in CT development. Through various essay genres—expository, argumentative, analytical—students learn to construct coherent arguments, assess and synthesize evidence, and express informed positions on complex topics (Facione, 2011; Ennis, 2018).

Collectively, these methods illustrate the diverse and dynamic strategies through which critical thinking can be integrated into language instruction and broader educational settings. While CT skills can be cultivated across all four language domains—listening, reading, speaking, and writing—the range and frequency of CT-oriented technologies in receptive skills (reading and listening) tend to surpass those employed in productive skills (speaking and writing). This disparity indicates a need for further empirical analysis and pedagogical innovation, especially in developing strategies that equally prioritize critical thinking in oral and written expression(Paul & Elder, 2019).

Thus, continued scholarly investigation into CT development in productive language activities remains essential for advancing both theoretical understanding and instructional effectiveness in higher education language programs.

The subsequent section elaborates on how critical thinking (CT) skills and their corresponding cognitive operations can be methodically cultivated through pedagogical practices that emphasize productive language skills—specifically speaking and writing. These instructional strategies are intended not only to reinforce linguistic competence but also to deepen learners' cognitive engagement through processes of inquiry, reflection, and argumentation (Paul & Elder, 2019; Ennis, 2018).

The development of CT begins with the accumulation of information from diverse sources, which constitutes a fundamental mental operation. This process supports a range of critical thinking capacities, including the identification of novel ideas, discerning relevant information from various texts, distinguishing fact from opinion, and balancing logic with emotional nuance. In writing-based instruction, these skills are fostered through descriptive, narrative, and informative essay writing, annotation tasks, written forecasting, associative field generation, and personal reflections. In speaking activities, similar operations are employed through interviews, oral surveys, spoken forecasting, verbal associative exercises, and personal storytelling. These tasks enable learners to collect, organize, and interpret input in ways that promote expressive and analytical language use (Abrami et al., 2015; Halpern, 2014).

The second major domain entails the processing and analysis of information, involving cognitive functions such as comparison, evaluation, classification, and

hypothesis testing. These operations underpin higher-order CT skills, including identifying main ideas, comparing divergent perspectives, analyzing causal relationships, constructing reasoned arguments, and evaluating the reliability and validity of evidence. In writing, these operations are operationalized through activities such as synthesizing content from multiple sources, comparative and contrastive analysis, investigative writing, and the creation of causal diagrams or conceptual tables. Various essay formats—analytical, argumentative, comparative, hypothetical, and explanatory—are particularly effective in promoting these abilities. Additionally, integrated writing tasks modeled after standardized assessments like the TOEFL (e.g., reading a passage, listening to a lecture, and synthesizing information) are widely recognized for their cognitive rigor (Bezanilla et al., 2019; González-Lloret, 2020). In speaking, learners may engage in verbal summaries, oral analysis of data, and spoken reports based on comparative research or survey results to practice these skills in dialogic contexts.

The final domain focuses on justification, inference, and decision-making, which represent the most advanced cognitive operations within the CT framework. This stage involves resolving problems, drawing and validating conclusions, anticipating potential outcomes, identifying fallacious reasoning, correcting one's own misconceptions, and articulating a coherent, evidence-based position. In written form, these competencies are typically developed through tasks such as analytical error identification, predictive writing, and persuasive or problem-solution essays. Discussion-based and opinion essays further enable learners to explore and defend perspectives using structured argumentation. Online academic forums—requiring students to respond to peer comments or instructor prompts within limited timeframes—also provide authentic opportunities for written CT development (Heijltjes et al., 2014). In spoken communication, these skills are honed through oral error correction, predictive discussions, and structured academic dialogues. Additionally, collaborative project-based learning tasks, which require students to identify problems, analyze contributing factors, formulate strategies, and present conclusions orally, are especially effective in fostering real-time decision-making and argument construction.

In sum, instructional activities that target both writing and speaking not only bolster language production but also nurture fundamental components of critical thinking. Through sustained and intentional engagement with cognitively demanding tasks, learners develop the ability to analyze, synthesize, and evaluate information while expressing themselves clearly and persuasively. These practices thereby serve as a dual mechanism for enhancing linguistic fluency and cultivating the intellectual dispositions necessary for academic and professional success.

CONCLUSION

The integration of tools aimed at developing critical thinking (CT) skills in higher education has proven to be both effective and impactful. The skills and competencies acquired by students throughout this process improve their ability to process information efficiently, increase overall engagement in learning, and foster a stronger sense of responsibility for self-development.

A critically thinking individual is better equipped to survive in the complexities of the modern world. The comprehensive list of instructional technologies used in the formation of productive language skills (speaking and writing), aligned with CT skills and mental operations, can be applied in every foreign language class within higher education institutions.

The systematic implementation of these methods promotes independent thinking in a foreign language, based on the analysis of fundamental information, perspectives of others on the same topic, error analysis, logical conclusions, and the resolution of a wide range of issues.

Further research should focus on the development of innovative instructional technologies aimed at fostering critical thinking under modern conditions. These technologies should enhance communicative competence, strengthen both intrinsic and extrinsic motivation, positively influence students' social interaction, and account for their individual characteristics.

REFERENCES

Abrami, P. C., Bernard, R. M., Borokhovski, E., Waddington, D. I., Wade, C. A., & Persson, T. (2015). Strategies for teaching students to think critically: A meta-analysis. *Review of Educational Research, 85*(2), 275–314. https://doi.org/10.3102/0034654314551063

Akpur, U. (2020). Critical, reflective, creative thinking and learning dispositions: Predictive study. *Thinking Skills and Creativity, 37*, 100684. https://doi.org/10.1016/j.tsc.2020.100684

Anderson, L. W., & Krathwohl, D. R. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Longman.

Bezanilla, M. J., Fernández-Nogueira, D., Poblete, M., & Gallego, M. J. (2019). Methodologies for teaching-learning critical thinking in higher education: The teacher's view. *Thinking Skills and Creativity, 33*, 100584. https://doi.org/10.1016/j.tsc.2019.100584

Brookfield, S. D. (2012). *Teaching for critical thinking: Tools and techniques to help students question their assumptions*. Jossey-Bass.

Chamot, A. U., & O'Malley, J. M. (1994). *The CALLA handbook: Implementing the cognitive academic language learning approach*. Addison Wesley Longman.

Choy, S. C., & Cheah, P. K. (2009). Teacher perceptions of critical thinking among students and its influence on higher education. *International Journal of*

Teaching and Learning in Higher Education, 20(2), 198–206. https://eric.ed.gov/?id=EJ864337

De Bono, E. (1985). *Six thinking hats*. Penguin Books.

Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the educative process*. D.C. Heath & Co Publishers.

Ennis, R. H. (2018). *Critical thinking across the curriculum: A brief edition of The nature of critical thinking*. Rowman & Littlefield. https://doi.org/10.1007/s11245-016-9401-4

Facione, P. A. (2011). *Critical thinking: What it is and why it counts*. Insight Assessment.

Gkonou, C., & Mercer, S. (2017). *Understanding emotional and social intelligence among English language teachers*. British Council ELT Research Papers.

González-Lloret, M. (2020). *Technology and task-based language teaching*. John Benjamins.

Halpern, D. F. (2014). *Thought and knowledge: An introduction to critical thinking* (5th ed.). Psychology Press.

Hastomo, T., Sari, A. S., Widiati, U., Ivone, F. M., Zen, E. L., & Andianto, A. (2025). Exploring EFL teachers' strategies in employing AI chatbots in writing instruction to enhance student engagement. *World Journal of English Language, 15*(7), 93–102. https://doi.org/10.5430/wjel.v15n7p93

Heijltjes, A., van Gog, T., Leppink, J., & Paas, F. (2014). Improving students' critical thinking: Empirical support for explicit instructions combined with practice. *Applied Cognitive Psychology, 28*(4), 518–530. https://doi.org/10.1002/acp.3025

Kiely, K. M. (2023). Cognitive function. In F. Maggino (Ed.), *Encyclopedia of quality of life and well-being research*. Springer. https://doi.org/10.1007/978-3-031-17299-1_426

Mandasari, B., Basthomi, Y., Hastomo, T., Afrianto, Hamzah, I., & Aminatun, D. (2025). The snapshots of Indonesian pre-service English teachers' perspectives on integrating technology-based tools to rural schools. *Voices of English Language Education Society, 9*(1), 42–57. https://doi.org/10.29408/veles.v9i1.27965

Mercer, N., & Howe, C. (2012). Explaining the dialogic processes of teaching and learning: The value and potential of sociocultural theory. *Learning, Culture and Social Interaction, 1*(1), 12–21. https://doi.org/10.1016/j.lcsi.2012.03.001

Paul, R., & Elder, L. (2008). *The miniature guide to critical thinking: Concepts and tools*. Foundation for Critical Thinking Press. http://www.criticalthinking.org

Paul, R., & Elder, L. (2019). *The miniature guide to critical thinking concepts and tools* (8th ed.). Foundation for Critical Thinking.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Yu, S., & Lee, I. (2016). Peer feedback in second language writing classrooms. *Language Teaching, 49*(4), 461–493. https://doi.org/10.1017/S0261444816000034