



CRITICAL LISTENING DEFICITS IN HIGHER EDUCATION: A SYSTEMATIC REVIEW OF METACOGNITIVE GAPS, ARGUMENT EVALUATION, AND LEARNING ANXIETY

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ABSTRACT

Critical listening is a high-level language skill that plays an important role in the academic success of students in higher education. However, research that explicitly discusses the problem of critical listening in students is still widespread and has not been systematically mapped. This research aims to identify and synthesize the problem of critical listening in university students through the Systematic Literature Review (SLR) approach. This study refers to the PRISMA 2020 guidelines with data sources coming from the ScienceDirect database, Taylor & Francis Online, and the Education Resources Information Center (ERIC). Literature searches are limited to peer-reviewed journal articles published in the 2021–2025 range. Of the total 674 articles identified, 9 articles met the inclusion criteria and were further analyzed. The results of the synthesis show that students' critical listening problems include the limitations of advanced metacognitive strategies, low evaluation ability of oral arguments, the influence of affective factors such as listening anxiety and cognitive load, and listening learning designs that are not yet oriented towards critical thinking. The contribution of this research lies in presenting the latest systematic mapping of the problems of critical listening in higher education students, as well as offering a conceptual framework based on literature findings that can be the basis for the development of a critical listening learning model that is integrated with metacognitive strategies, argumentative evaluation, and learning reflection. This research emphasizes the need to develop listening learning that explicitly integrates metacognitive strategies, critical evaluation, and reflection in the context of higher education.

Introduction

Listening skills represent a fundamental and indispensable component of language learning in higher education, serving as a critical gateway to students' academic success, professional competence, and lifelong learning capabilities. In contemporary applied linguistics and educational psychology, the conceptualization of listening has undergone a significant paradigm shift. It is no longer understood merely as a passive, receptive activity where information is absorbed linearly but rather as an active, complex cognitive and metacognitive process. This process involves intricate mental operations such as planning, monitoring, evaluating, and reflecting on auditory input (Pei et al., 2023). Empirical research increasingly indicates that metacognitive strategies, such as self-questioning, predicting content, and verifying comprehension, substantially correlate with students' critical listening attitudes and broader academic skills. These strategies enhance learners' ability to evaluate oral content more effectively, manage attentional resources, and construct meaning in dynamic learning environments (Shaojie et al., 2024). Furthermore, a systematic review of metacognition in university contexts confirms that improvements in student comprehension are heavily dependent on their ability to manage cognitive load through the self-regulation of the listening process, thereby preventing cognitive overload and facilitating deeper processing of complex academic discourse (Robillos & Bustos, 2022).

Within this evolving framework, the concept of critical listening emerges as a higher-order skill that transcends basic comprehension. Critical listening encompasses the rigorous processes of analyzing, evaluating, judging, and synthesizing oral messages, which directly enriches students' critical thinking skills and intellectual autonomy (Baki, 2025). In the context of higher education, this ability is essential not only for supporting lecture comprehension but also for engaging in sophisticated academic discussions, debating complex ideas, and critically interpreting nuanced oral content from diverse sources. Unlike general listening, which focuses on understanding what is said, critical listening focuses on assessing why it is said, how it is constructed, and whether it is valid, unbiased, and logically sound. Consequently, critical listening serves as a bridge between linguistic proficiency and critical pedagogy, empowering students to become discerning consumers of information in an increasingly saturated informational landscape.

Despite the recognized importance of these skills, a significant gap remains in the existing literature. Although many studies have extensively discussed listening comprehension and general metacognitive strategies, the explicit use of the term "critical listening" as a unified conceptual framework in the context of higher education is still limited and fragmented. Many existing studies focus narrowly on supporting procedural strategies, such as planning, monitoring, and evaluation plans, without conceptually integrating the higher-order critical listening skills that include the evaluation of arguments, detection of logical fallacies and biases, ethical reflection on oral content, and synthesis of conflicting viewpoints (Sihite et al., 2024). This separation creates a pedagogical disconnect where students may be trained to understand audio texts but not necessarily to critique them. In addition, the available literature is often fragmented across disparate teaching approaches, specific technological interventions, or isolated learning media, thus lacking a comprehensive, systematic map of how critical thinking skills are intrinsically connected to the holistic process of listening in university students (Calis, 2025; Sihite et al., 2024). As a result, educators lack a clear, evidence-based roadmap for integrating critical listening into curricula, leading to instructional practices that may inadvertently prioritize rote comprehension over critical engagement.

The novelty of this research lies precisely in addressing this fragmentation by integrating metacognitive and cognitive dimensions into a cohesive framework of critical listening, supported by systematic problem mapping based on the rigorous guidelines of PRISMA 2020. In contrast to previous reviews that focused on categories of listening strategies separately or examined them in isolation from critical theory, this study presents a holistic synthesis of relevant empirical findings and systematic reviews published in the 2021–2025 range, specifically within the university context. By summarizing strategic indicators such as oral content evaluation, critical reflection, argument analysis, bias detection, and complex information processing, this study seeks to bridge the conceptual gap between basic listening comprehension and advanced critical listening. Furthermore, it offers a stronger, empirically grounded theoretical foundation for the development of advanced pedagogy in the academic environment, moving beyond generic advice to specific, actionable insights for curriculum designers and language instructors (Polatkan, 2025).

The urgency of this research is escalating in parallel with the increasing complexity of oral information exposure faced by students in the 21st century. In both face-to-face lectures and the rapidly expanding realm of online learning, academic webinars, podcasts, and digital multimedia, students are inundated with vast amounts of uncurated audio-visual content. In the digital era, students do not merely listen to conventional, instructor-led learning; they navigate a decentralized ecosystem of online audio content that requires high-level evaluative skills to critically assess the accuracy, credibility, bias, and relevance of information. The absence of robust critical listening skills has the potential to render students passive recipients of information, vulnerable to misinformation, manipulation, and superficial understanding, failing to interpret discourse analytically and reflectively (Calis, 2025). Without explicit instruction in critical listening, students may struggle to distinguish between fact and opinion, identify rhetorical manipulations, or engage in meaningful intellectual dialogue. Therefore, systematic mapping of critical listening problems is not merely an academic exercise but a crucial imperative. It serves as the necessary basis for the development of innovative, contextual, and responsive learning models in higher education that prepare students to thrive as critical, autonomous, and ethically responsible communicators in a globalized knowledge society.

Materials and Methods

This study uses the Systematic Literature Review (SLR) design with the aim of identifying, evaluating, and critically synthesizing research findings related to critical listening problems in university students. The SLR approach was chosen because it is able to provide comprehensive, transparent, and replicative literature mapping through a systematic and clearly documented selection procedure. The implementation of this SLR refers to the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines which are widely recommended to improve the quality of systematic review reporting across disciplines (Page & McKenzie, 2021).

Data Source

The source of research data comes from three reputable international databases, namely ScienceDirect (Elsevier), Taylor & Francis Online, and the Education Resources Information Center (ERIC). The selection of this database was based on considerations of relevance and credibility, as all three consistently publish peer-reviewed articles in the fields of language education, applied linguistics, and listening skills learning in higher education. Literature searches are conducted systematically using keyword combinations with Boolean operators to guarantee the breadth and accuracy of search results, as recommended in contemporary SLR methodologies (Donthu dkk., 2021).

Search for articles using the phrases (“critical listening” OR “listening comprehension” OR “academic listening” OR “listening strategies”) AND (“higher education” OR “university students” OR “college students”) for Sciencedirect. Phrases ("critical listening") OR ("analytical listening") OR (All: "critical aural comprehension") AND (All: "difficulties" OR "challenges" OR "problems" OR "barriers") AND (All: "college students" OR "university students" OR "higher education" OR "undergraduate") for searching the Taylor and Francis database. To search for articles in the ERIC database, use the phrases ("critical listening" OR "analytical listening" OR "active listening" OR "critical aural comprehension") AND ("difficulties" OR "challenges" OR "problems" OR "barriers" OR "obstacles") AND ("college students" OR "university students" OR "higher education" OR "postsecondary" OR "undergraduate"). The search was limited to articles published between 2021 and 2025 to ensure that the studies analyzed represented the latest research developments.

Data Analysis

Inclusion and exclusion criteria were established from the beginning of the study to minimize selection bias and improve the validity of the synthesis. Inclusion criteria include: (1) scientific journal articles resulting from empirical research or systematic review; (2) focus on college students; (3) discussion of high-level cognitive aspects in listening, such as evaluation, reflection, metacognition, or listening strategies; (4) peer-reviewed articles published in the period 2021–2025; and (5) the availability of full text. Meanwhile, the exclusion criteria include: (1) research at the primary and secondary education levels; (2) studies that only discuss listening technically without critical or reflective dimensions; (3) conference proceedings, thesis, thesis, and dissertation; and (4) articles that are not relevant to the context of higher education.

The study selection procedure is carried out through four main stages according to the PRISMA 2020 flow, namely identification, screening, feasibility assessment, and inclusion (Page et al., 2021). At the identification stage, all articles obtained from all three databases are compiled and duplicates are removed. The screening stage is conducted by reviewing the titles and abstracts to assess the initial fit with the focus of the research. Articles that pass the screening are further analysed for their full text at the eligibility level to ensure fit for inclusion criteria. Articles that meet all the criteria are then put into the inclusion stage for further analysis.

Identification of studies via database and registers

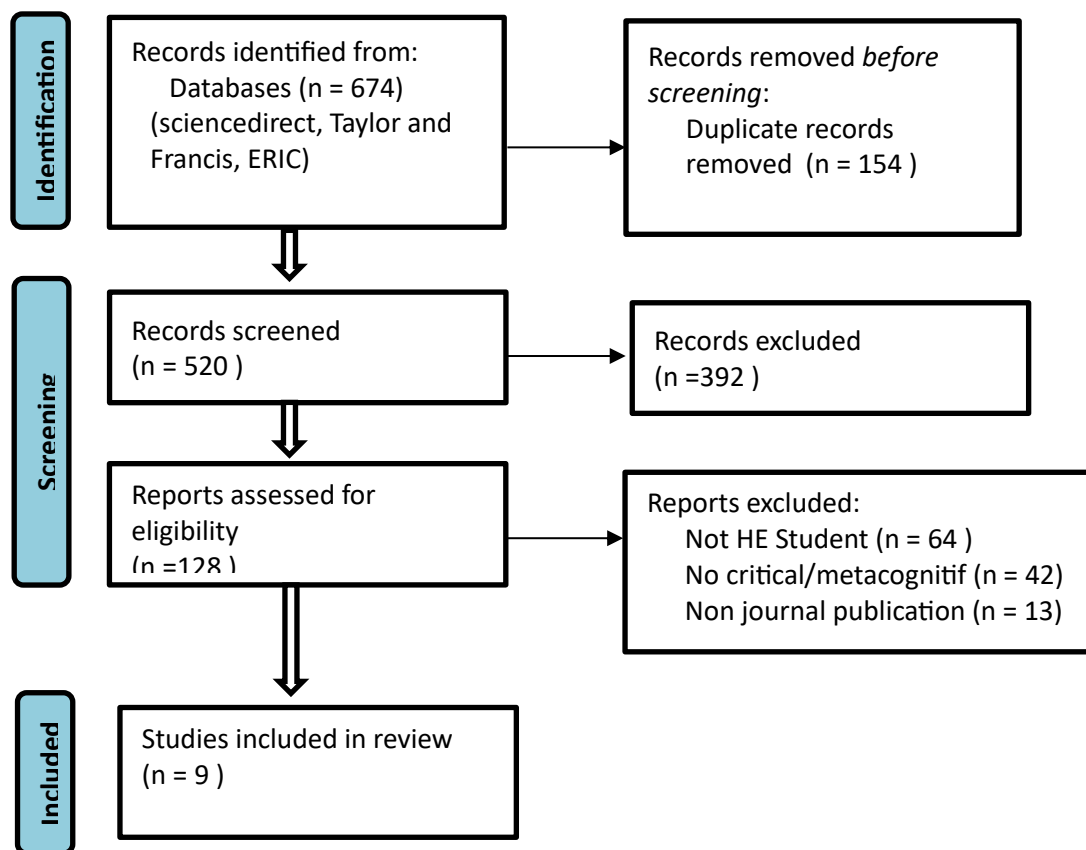


Table 1. Prisma Flow Diagram

Data analysis was carried out using a narrative and thematic synthesis approach. Each included article was analyzed to identify the research focus, study context, methods, and main findings related to the problem of critical listening of students. The findings are then grouped into main themes to reveal problem patterns, inhibiting factors, and research trends. This synthesis approach is in line with modern SLR methodological recommendations that emphasize the integration of findings across studies to build a stronger conceptual understanding (Donthu dkk., 2021; Page & McKenzie, 2021).

Results and Discussion

The literature selection process yielded a total of 674 identified records across three databases: ScienceDirect, Taylor & Francis Online, and ERIC. Following the removal of 154 duplicates (22.85% of total records), 520 unique records remained for screening. Title and abstract screening excluded 392 records (75.38% of screened records) as irrelevant to the research focus, resulting in 128 articles (19.0% of total) eligible for full-text assessment. Of these, 119 articles (92.97% of full-text assessed) were excluded for the following reasons: 64 articles (53.78%) did not focus on higher education students, 42 articles (35.29%) did not address critical or metacognitive dimensions of listening, and 13 articles (10.92%) were non-journal publications. Ultimately, 9 articles met all inclusion criteria and were included in the systematic review, representing 1.34% of the total identified records and 7.03% of the full-text assessed articles.

From these findings, as many as two articles highlight the importance of metacognitive strategies in supporting students' listening comprehension and evaluative abilities (Daljeet & Haida, 2025; Polatkan, 2025). Meanwhile, two studies found that college students face difficulty critically evaluating oral arguments in complex academic contexts (Himian & Elsaviana, 2025; Zhang & Liu, 2023). Other articles also emphasize the role of listening anxiety and cognitive load as significant affective barriers (Daljeet & Haida, 2025; Zhang & Liu, 2023). Furthermore, two articles show that

the current learning design still lacks to explicitly integrate critical listening exercises in the listening learning curriculum (Ningrum dkk., 2024; Sihite dkk., 2024).

No	Author	Year	Country	Method	Sample	Key Findings
1	Calis et al.	2025	Asia (multi-country)	Systematic Literature Review (SLR)	University students in higher education contexts across multiple Asian countries	Metacognitive strategies including planning, monitoring, and evaluation are the dominant approach in the literature for enhancing academic listening comprehension and oral evaluative skills among university students
2	Polatcan et al.	2025	Turkey	Quantitative (Structural Equation Modeling)	223 teacher candidates at four universities	Critical listening attitudes significantly predict academic listening performance; metacognitive listening strategies mediate this relationship and serve as a key predictor of listening success
3	Sihite et al.	2024	Indonesia (Medan)	Mixed-method (Survey and Interview)	EFL students in Medan, Indonesia	Planning and evaluation are the most frequently used and most influential metacognitive strategies in listening comprehension; students show high awareness of their importance but limited advanced application
4	Ningrum et al.	2024	Indonesia	Systematic Literature Review (SLR)	EFL students across multiple studies	Authentic audio media such as podcasts foster cognitive engagement and reflective listening; however, explicit critical listening objectives remain largely absent from current instructional design
5	Daljeet et al.	2025	Malaysia	Systematic Literature Review (SLR)	Malaysian ESL university students across reviewed studies	Cognitive load is a major barrier to critical listening development; explicit metacognitive strategy instruction significantly improves students' listening self-regulation and comprehension accuracy
6	Lase et al.	2025	Indonesia	Experimental	Undergraduate EFL students	Analytical task-based listening activities significantly improve students' oral inference ability and promote deeper

						critical engagement with spoken academic texts
7	Rahman et al.	2022	EFL context (multi-country)	Mixed-method	University EFL students	Speech rate and discourse complexity are the primary obstacles to academic listening comprehension; students struggle to critically process and evaluate complex oral input in real time
8	Zhang & Liu	2023	China	Quantitative	Chinese university students	Listening anxiety significantly inhibits students' capacity to critically evaluate oral messages; higher anxiety levels are associated with substantially reduced listening comprehension and reflective processing
9	Yusuf et al.	2024	Indonesia	Experimental	Undergraduate students	Project-based listening instruction enhances student engagement, reflective thinking, and active participation in critical listening tasks; self-directed projects promote deeper processing of oral content

Table 2. Summary of Included Tables

Discussion

Theoretically, critical listening is conceptualized as a higher-order language skill that necessitates the seamless integration of cognitive processing, metacognitive regulation, and evaluative reflection on oral information. Unlike basic comprehension, which primarily focuses on decoding and retaining explicit content, critical listening requires learners to actively interrogate the validity, relevance, underlying assumptions, and broader implications of spoken discourse (Calis, 2025; Polatkan, 2025). This perspective aligns with contemporary academic listening frameworks that position listeners not as passive recipients, but as active, analytical agents engaged in continuous meaning-making and critical appraisal (Daljeet & Haida, 2025). Despite this robust theoretical grounding, the findings of this systematic literature review reveal a persistent and pronounced misalignment between conceptual expectations and actual pedagogical practices in higher education. While curricula frequently acknowledge the importance of strategic listening, they rarely operationalize critical listening as a distinct, measurable instructional objective, leaving a substantial gap between theoretical ideals and classroom implementation.

This theory-practice divide is further complicated by significant affective and cognitive barriers that impede the development of critical listening competence. Empirical evidence consistently demonstrates that listening anxiety and cognitive overload substantially undermine students' capacity to engage in reflexive evaluation and deep processing of verbal content (Himian & Elsaviana, 2025; Zhang & Liu, 2023). When confronted with fast-paced, information-dense, or contextually complex spoken texts, many students experience cognitive saturation, which forces them to revert to surface-level comprehension strategies simply to manage the immediate processing load.

Consequently, the higher-order demands of critical analysis, such as detecting logical fallacies, identifying speaker bias, or synthesizing contradictory viewpoints, are frequently abandoned. These findings corroborate earlier research indicating that university-level listening instruction tends to prioritize answer accuracy and factual recall over the cultivation of analytical reasoning and reflective judgment (Ningrum et al., 2024; Rahman & Hossain, 2022). As a result, critical listening remains marginalized, treated as an implicit byproduct of general listening practice rather than an explicitly taught and scaffolded skill.

Within this context, the literature consistently highlights metacognitive awareness as a crucial enabler of advanced listening proficiency. Students who can consciously plan, monitor, and evaluate their listening processes are demonstrably better equipped to navigate complex auditory input and deploy strategic compensation when comprehension breaks down (Daljeet et al., 2025; Sihite et al., 2024). However, the synthesis reveals a critical limitation: metacognitive regulation alone is insufficient to guarantee critical listening outcomes. Several studies emphasize that without deliberate exposure to analytical tasks, argumentative discourse, and structured reflection, metacognitive strategies tend to remain procedural rather than transformative (Sedhu, 2025; Yusuf & Rahmawati, 2024). In other words, knowing how to monitor one's comprehension does not automatically equip learners with the critical frameworks necessary to question, evaluate, or synthesize oral arguments. This underscores the necessity of pedagogical designs that explicitly bridge metacognitive training with higher-order cognitive engagement, ensuring that strategic awareness translates into critical judgment.

Drawing upon the synthesized evidence, this review proposes an integrated conceptual framework that delineates four interdependent dimensions of critical listening challenges in higher education: metacognitive, evaluative, affective, and pedagogical. The metacognitive dimension encompasses learners' limited ability to self-regulate their listening processes through systematic planning, real-time monitoring, and post-listening evaluation, foundational capacities that prerequisite advanced critical engagement (Daljeet et al., 2025; Sihite et al., 2024). The evaluative dimension captures the persistent difficulty students face in critically appraising oral arguments, identifying rhetorical manipulation, recognizing ideological bias, and drawing evidence-based inferences from spoken discourse, competencies that remain underdeveloped in conventional listening curricula (Polatcan et al., 2023; Zhang & Liu, 2023). The affective dimension accounts for the psychological barriers, particularly listening anxiety and cognitive overload, that disrupt deep processing and inhibit reflective engagement with complex auditory input (Zhang & Liu, 2023; Himian & Elsaviana, 2025). Finally, the pedagogical dimension highlights the systemic absence of explicit critical listening objectives in instructional design, where tasks predominantly emphasize comprehension accuracy and factual retrieval rather than analytical deconstruction and critical reflection (Ningrum et al., 2024; Calis et al., 2025). Together, these dimensions form a dynamic, mutually reinforcing barrier complex that collectively stifles the development of critical listening competence at the tertiary level. Addressing this multidimensional challenge requires a paradigm shift in how critical listening is conceptualized and implemented within higher education pedagogy. The framework advocates for instructional interventions anchored in three strategic pillars: (1) the explicit integration of metacognitive strategy training into listening curricula, ensuring that students are taught not only what to listen for but how to regulate their cognitive and attentional resources; (2) the systematic implementation of analytical and argumentative tasks grounded in authentic oral texts, which compel learners to practice evaluation, inference, and critical dialogue rather than passive reception; and (3) the cultivation of a reflective learning environment that normalizes cognitive struggle, reduces listening anxiety through scaffolded exposure, and encourages metacognitive journaling and peer feedback. These pillars are not isolated components but interlocking mechanisms designed to transform listening from a receptive exercise into an active, critical, and self-regulated practice. Ultimately, the development of critical listening competence cannot be achieved through isolated skill drills or implicit exposure alone. It demands a deliberate, staged pedagogical architecture that acknowledges the intricate interplay between cognitive demands, affective states, and instructional

design. By progressively increasing discourse complexity, providing explicit strategy support, and fostering a psychologically safe learning climate, educators can mitigate anxiety and cognitive overload while nurturing students' capacity for deep, critical engagement with spoken information. This systematic review thus affirms that advancing critical listening in higher education requires a more explicit, integrative, and contextually responsive pedagogical approach, one that aligns theoretical aspirations with empirically validated instructional practices. As recommended by contemporary methodological standards in systematic reviews (Page & McKenzie, 2021), future curriculum development must operationalize these dimensions into measurable learning outcomes, ensuring that critical listening is no longer an overlooked byproduct of language instruction, but a central, deliberately cultivated pillar of academic literacy.

Conclusions

Based on the results of a systematic literature review of nine included articles, it can be concluded that the problems of critical listening in university students include the limitations of advanced metacognitive strategies, low evaluation ability of oral arguments, the influence of affective factors, and learning designs that are not oriented towards critical thinking. Although the term critical listening has not been used predominantly in the literature over the past five years, its components have been extensively discussed implicitly in studies of academic listening and metacognitive strategies. The theoretical implication of this study is the need to redefine critical listening as an integrative construct that includes cognitive, metacognitive, and reflective dimensions. Pedagogically, these findings affirm the urgency of developing listening learning that explicitly directs students to evaluation, reflection, and decision-making activities based on oral information. The critical listening learning model based on analytical tasks, reflective discussions, and self-regulation has the potential to be a relevant solution in higher education. This study has limitations on the number of databases used and does not include quantitative meta-analytical analysis. Therefore, further research is suggested to expand the scope of the database, test the effectiveness of experimental critical listening learning models, and integrate technology-based approaches and artificial intelligence to support the development of students' critical listening skills.

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