



Information Evaluation Skills in the Era of ChatGPT: Implications for Academic Writing and Language Education

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Abstract

Purpose – This study aims to examine the role of information evaluation skills in the use of ChatGPT and to explore their implications for academic writing and language education. The study addresses growing concerns regarding the credibility of AI-generated information, including hallucination, misinformation, and fabricated references, which may affect students' academic writing quality and learning outcomes.

Design/methods/approach – This study employs a qualitative approach using a library research method. Data were obtained from scholarly literature related to ChatGPT, information literacy, information evaluation skills, AI literacy, academic writing, and language education. The data were analyzed through content analysis and thematic analysis to identify key patterns, relationships, and conceptual connections among the reviewed themes.

Findings – The findings indicate that information evaluation skills are essential competencies that enable students to assess the credibility, accuracy, relevance, and reliability of AI-generated information before using it in academic work. These skills also support the development of critical thinking, academic integrity, AI literacy, and critical digital literacy in language learning. The study proposes a conceptual framework that positions information evaluation skills as a mediating competency linking ChatGPT usage with academic writing quality and language learning outcomes.

Research implications/limitations – This study is limited to literature-based analysis and does not involve empirical data from students, lecturers, or classroom practices. Future studies are recommended to test the proposed conceptual framework through empirical research.

Originality/value – This study contributes to AI-assisted language education by emphasizing information evaluation skills as a key competency for promoting the critical, responsible, and effective use of ChatGPT in academic contexts.

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INTRODUCTION

The rapid advancement of generative artificial intelligence (AI) has transformed the way information is created, accessed, and utilized across various sectors, including education. One of the most influential AI technologies in recent years is ChatGPT, a large language model developed to generate human-like responses based on user prompts. Since its public release, ChatGPT has gained widespread adoption among students, educators, and researchers due to its ability to provide instant explanations, summarize complex materials, generate ideas, and assist in academic tasks (Kim et al., 2025; Y. Liu et al., 2024; Naznin et al., 2025). The increasing accessibility and sophistication of generative AI tools have positioned ChatGPT as a significant component of contemporary learning environments, particularly in higher education where digital technologies are increasingly integrated into teaching and learning processes.

The growing use of ChatGPT has also transformed academic writing practices. Students frequently employ ChatGPT to support various stages of the writing process, including brainstorming, outlining, paraphrasing, language editing, and drafting academic texts (Alkamel & Alwagieh, 2024; Al-Sofi, 2024; Wang & Ren, 2024). In language education contexts, particularly among English as a Foreign Language (EFL) learners, ChatGPT has been recognized as a valuable tool for improving writing fluency, vocabulary development, and grammatical accuracy. Furthermore, AI-assisted writing technologies have the potential to reduce writing anxiety and enhance learner confidence by providing immediate feedback and linguistic support (Deep & Chen, 2025; Xiao et al., 2026). These developments suggest that ChatGPT is no longer merely a technological novelty but has become an influential educational resource that shapes how students engage with academic communication and writing tasks.

Despite these benefits, the integration of ChatGPT into academic writing raises significant concerns regarding the quality and reliability of information. Unlike conventional search engines that direct users to identifiable information sources, ChatGPT generates responses based on patterns learned from large datasets without consistently providing verifiable citations. Consequently, users may encounter inaccurate information, incomplete explanations, fabricated references, or biased outputs while interacting with the system (Monteith et al., 2024; Park & Nan, 2026; Shin et al., 2025). Such limitations create challenges for students who rely heavily on AI-generated content without critically assessing its credibility and accuracy.

One of the most widely discussed issues associated with generative AI is the phenomenon of hallucination. AI hallucination refers to the generation of information that appears plausible but is factually incorrect, misleading, or entirely fabricated. Previous studies have documented instances in which ChatGPT produced nonexistent references, inaccurate citations, and unsupported claims while responding to academic queries (Adel & Alani, 2025; Chelli et al., 2024). Similarly, Sharun et al. (2023) highlighted that AI-generated content may contain misinformation that can be difficult for inexperienced users to identify. These challenges are particularly problematic in academic writing because the quality of scholarly work depends heavily on the accuracy, credibility, and traceability of information sources. As a result, students must possess the ability to critically evaluate information before incorporating AI-generated content into their academic work.

In response to these challenges, scholars increasingly emphasize the importance of information literacy as a fundamental competency in the digital era. Information literacy

encompasses the ability to recognize information needs, locate relevant information, evaluate the credibility of sources, and use information ethically and effectively (Dalal et al., 2025; Hussain et al., 2022). Within this broader framework, information evaluation skills represent a crucial dimension that enables individuals to assess the quality, reliability, relevance, and trustworthiness of information obtained from various sources. Chyne et al. (2023) and Trixa & Kaspar (2024) argue that information evaluation skills have become increasingly important in environments characterized by information abundance, algorithmically generated content, and rapidly evolving digital technologies. In the context of ChatGPT, these skills allow students to verify AI-generated outputs, compare information across multiple sources, and make informed judgments regarding the appropriateness of using such information in academic writing.

Recent scholarship has also highlighted the need to expand traditional information literacy frameworks to address emerging AI technologies. Studies on critical information literacy and AI literacy emphasize that learners should not only understand how AI systems function but also develop the capacity to critically examine the information produced by these systems (Chaudhuri & Terrones, 2025; de Araujo & Schneider, 2025; Hirsh, 2025). AI literacy involves understanding the capabilities, limitations, ethical implications, and potential biases of AI tools, while critical information literacy focuses on questioning the authority, accuracy, and context of information. Together, these competencies contribute to more responsible and reflective use of generative AI in educational settings.

A review of existing literature reveals that most studies have focused on the effectiveness of ChatGPT in supporting learning activities, student perceptions of AI-assisted learning, and the role of generative AI in improving academic writing performance (Kim et al., 2025; Wang & Ren, 2024; Xiao et al., 2026). Other studies have explored AI literacy, digital literacy, and ethical considerations surrounding AI adoption in higher education (Azimi et al., 2026; Oladokun et al., 2026; Steinerová, 2026). While these studies provide valuable insights into the educational applications of ChatGPT, relatively limited attention has been given to information evaluation skills as a central competency for navigating AI-generated information. In particular, there remains a lack of comprehensive discussions regarding how information evaluation skills can support students in addressing the challenges of misinformation, hallucination, and source credibility when using ChatGPT for academic writing and language learning.

This gap is important because the educational value of ChatGPT does not solely depend on its technological capabilities but also on users' ability to critically assess and responsibly utilize the information it generates. Without adequate information evaluation skills, students may become passive consumers of AI-generated content, increasing the risk of academic inaccuracies and weakening critical thinking practices. Conversely, students who possess strong information evaluation skills are more likely to engage critically with AI outputs, verify information through credible sources, and produce higher-quality academic writing.

Therefore, this study aims to examine the role of information evaluation skills in the era of ChatGPT and explore their implications for academic writing and language education. By synthesizing literature on generative AI, information literacy, academic writing, and language education, this study proposes a conceptual understanding of how information evaluation skills function as a critical competency that mediates the relationship between ChatGPT use

and educational outcomes. The study contributes to the growing discourse on AI-enhanced learning by highlighting the importance of fostering critical information practices alongside technological adoption in contemporary educational environments.

METHOD

This study employed a qualitative approach using a *library research* method. This method was selected because the study aims to analyze and synthesize scholarly findings related to information evaluation skills, the use of ChatGPT in academic writing, and its implications for language education. Through library research, researchers can obtain a comprehensive understanding of concepts, issues, and research trends associated with the topic without conducting direct field data collection.

The data sources consisted of relevant academic literature, including journal articles, conference proceedings, and other scholarly publications addressing ChatGPT and generative artificial intelligence (AI) in education, information literacy, information evaluation skills, AI literacy, academic writing, and language education. The literature was retrieved from various academic databases using combinations of keywords related to *ChatGPT*, *information evaluation skills*, *information literacy*, *academic writing*, *AI literacy*, and *language education*. The search process considered topic relevance, publication quality, and the alignment of the literature with the objectives of the study.

Data collection was conducted through the identification, selection, and documentation of literature relevant to the research focus. During the identification stage, the researcher gathered publications discussing the use of ChatGPT in education and academic writing, challenges associated with generative AI, and the importance of information evaluation skills in digital learning environments. Subsequently, a selection process was carried out to ensure that the chosen literature was highly relevant to the research topic. The selected studies were then classified into several thematic categories, including the use of ChatGPT in education, AI hallucination and misinformation, information evaluation skills, AI literacy, academic writing, and language education.

Data analysis was conducted using *content analysis* and *thematic analysis*. Content analysis was employed to identify key concepts, arguments, and findings within the selected literature. Meanwhile, thematic analysis was used to categorize and synthesize the findings into meaningful themes, enabling a systematic understanding of the relationships among ChatGPT usage, information evaluation skills, academic writing, and language education. Through this analytical process, conceptual patterns emerging from the literature were identified and synthesized to explain the role of information evaluation skills as a critical competency for addressing the challenges posed by generative AI in academic environments.

To enhance the credibility of the study, source triangulation was applied by comparing findings from multiple scholarly sources. This process was intended to obtain a more comprehensive understanding of the topic and minimize potential bias that might arise from relying on a single source or perspective. The findings were then presented descriptively and interpretively to provide an in-depth explanation of the importance of information evaluation skills in supporting the critical, responsible, and effective use of ChatGPT in academic writing and language education.

RESULTS AND DISCUSSION

Information Evaluation Skills in the Digital Information Environment

The rapid expansion of digital technologies has significantly transformed the way individuals access, consume, and utilize information. The internet and digital platforms provide unprecedented access to information from diverse sources, enabling users to obtain knowledge quickly and efficiently. However, this abundance of information is accompanied by challenges related to information quality, credibility, and reliability. The ease of publishing and disseminating content in digital environments has resulted in the proliferation of inaccurate information, misinformation, and unverified claims, making it increasingly difficult for users to distinguish trustworthy information from unreliable content (Bobkowski & Younger, 2020; Georgopoulou et al., 2025). Consequently, individuals are required not only to access information but also to critically evaluate its quality before using it for academic, professional, or personal purposes.

Within the broader framework of information literacy, *information evaluation skills* have emerged as one of the most essential competencies for navigating contemporary information environments. Information literacy generally refers to an individual's ability to recognize information needs, locate relevant information, evaluate information sources, and use information ethically and effectively. Among these competencies, information evaluation skills specifically focus on assessing the credibility, accuracy, authority, relevance, and timeliness of information obtained from various sources (Habib et al., 2026; Rieh et al., 2022). These skills enable users to make informed judgments regarding whether information can be trusted and appropriately applied in decision-making or knowledge construction processes.

The growing complexity of digital information ecosystems has further increased the importance of information evaluation skills. Unlike traditional information environments, where information was largely mediated by editors, publishers, and academic institutions, digital environments allow information to be generated and distributed by virtually anyone. As a result, users are exposed to a wide range of information sources with varying levels of quality and credibility. According to Bobkowski & Younger (2020), evaluating source credibility has become a critical component of digital information behavior because users frequently encounter conflicting information and competing truth claims. Similarly, Georgopoulou et al. (2025) argues that digital literacy extends beyond technical abilities and increasingly requires critical evaluation competencies that enable individuals to assess information validity in rapidly changing online environments.

In academic contexts, information evaluation skills play a particularly important role because scholarly work relies heavily on the use of accurate, credible, and evidence-based information. Students are expected to identify reliable sources, assess the authority of authors, verify factual claims, and distinguish scholarly evidence from opinion-based content. Zhao & Liao (2024) highlights that effective evaluation of academic literature is fundamental to the development of high-quality academic writing, as it helps students build arguments based on trustworthy evidence. Likewise, Habib et al. (2026) emphasizes that students who possess strong information literacy competencies are more capable of selecting credible academic resources and avoiding the use of questionable information sources in their scholarly work.

The significance of information evaluation skills has become even more pronounced with the increasing use of artificial intelligence (AI)-powered information systems. Contemporary digital tools, including search engines, recommendation algorithms, and generative AI applications, frequently mediate access to information and influence users' information-seeking behaviors. While these technologies provide convenience and efficiency, they also introduce new challenges regarding information transparency and reliability. Users may receive information that appears authoritative and convincing without having clear insight into how the information was generated or whether it is supported by credible evidence. Consequently, information evaluation skills are no longer limited to assessing traditional information sources but also involve evaluating information produced or curated by intelligent technologies.

Chyne et al. (2023) argues that information evaluation should be viewed as a dynamic and reflective process rather than a simple verification activity. Effective information evaluation requires individuals to critically examine the source of information, identify potential biases, compare information across multiple sources, and assess the context in which information is produced. This perspective aligns with contemporary approaches to information literacy that emphasize critical thinking and informed judgment as essential competencies for lifelong learning. In this regard, information evaluation skills function as a protective mechanism that enables individuals to navigate complex information environments while minimizing the risks associated with misinformation and unreliable content.

Based on the reviewed literature, information evaluation skills can be understood as a multidimensional competency comprising several interrelated components. These components include assessing source credibility, verifying factual accuracy, evaluating relevance to information needs, identifying potential bias, and determining the overall reliability of information. In digital environments characterized by information abundance and technological mediation, these competencies have become increasingly indispensable for students and educators alike. Therefore, information evaluation skills serve as a foundational element of information literacy that supports critical engagement with information and contributes to informed academic decision-making.

The importance of these skills becomes even more evident in the context of emerging generative AI technologies such as ChatGPT. As AI-generated information becomes more prevalent in educational settings, students must possess the ability to critically assess the accuracy and credibility of AI-generated outputs before incorporating them into academic work. Thus, information evaluation skills provide the conceptual foundation for understanding how learners can engage responsibly with AI-generated content.

The Transformation of Academic Writing in the Era of ChatGPT

The emergence of ChatGPT has brought significant changes to academic writing practices in higher education. As a form of generative artificial intelligence (AI), ChatGPT is capable of generating coherent texts, providing writing suggestions, paraphrasing content, creating outlines, and assisting users in developing ideas based on specific prompts. These capabilities have made ChatGPT an increasingly popular tool among students and academics for supporting various stages of the academic writing process. Unlike conventional word-processing or grammar-checking software, ChatGPT offers a more dynamic interaction by

responding to users' needs in a contextual and adaptive manner (Dergaa et al., 2023; van Niekerk et al., 2025).

In academic writing, ChatGPT provides several benefits that can enhance both efficiency and productivity. The technology can assist students in overcoming difficulties during the initial stages of writing, such as generating ideas, selecting topics, and organizing arguments. Furthermore, ChatGPT can be used to improve grammar, enhance paragraph coherence, and simplify explanations of complex concepts. Maphoto et al. (2024) found that the integration of AI into writing instruction has the potential to improve students' ability to organize ideas and construct arguments more systematically. Similarly, Cheung & Crosthwaite (2025) argued that generative AI serves as a supportive tool that enables students to produce academic texts more efficiently and with greater structural clarity.

The transformation introduced by ChatGPT extends beyond the technical aspects of writing and influences how students interact with information and knowledge. Traditionally, academic writing required students to independently search for information, read various sources, synthesize evidence, and construct original arguments. With the advent of ChatGPT, some of these activities can now be facilitated by AI-generated responses. Students can obtain literature summaries, conceptual explanations, and examples of academic arguments through simple prompts. This shift suggests that ChatGPT has altered knowledge production practices in academic environments, positioning AI as a cognitive partner that supports users' thinking and writing processes (Mo & Crosthwaite, 2025; van Niekerk et al., 2025).

Another notable contribution of ChatGPT is its potential to increase the accessibility of academic writing, particularly for students who face challenges in writing or who use a second language. In language learning contexts, ChatGPT provides immediate feedback on sentence structure, vocabulary choice, and grammatical accuracy. Such support can help students overcome linguistic barriers and improve the overall quality of their written work. Consequently, several studies have highlighted the potential of ChatGPT to enhance writing skills and increase learners' confidence in completing academic tasks (Cheung & Crosthwaite, 2025; Maphoto et al., 2024).

Despite these advantages, the transformation of academic writing through ChatGPT also raises several critical concerns. Excessive reliance on AI may reduce students' engagement in the processes of critical thinking, analysis, and information synthesis, which are fundamental elements of academic writing. Dergaa et al. (2023) emphasized that the use of ChatGPT should be accompanied by critical awareness to ensure that the technology supports rather than replaces intellectual development. If students merely accept and utilize AI-generated content without evaluating it critically, academic writing may shift from a process of knowledge construction to one of information reproduction.

Moreover, the use of ChatGPT in academic writing has generated debates regarding academic integrity. The ability of AI systems to produce human-like texts raises concerns about plagiarism, intellectual ownership, and transparency in the use of technology for academic assignments. As a result, many educational institutions have begun developing policies and guidelines to regulate the use of generative AI, ensuring that it functions as a learning aid rather than a substitute for students' intellectual efforts (Dergaa et al., 2023; Mo & Crosthwaite, 2025). In this context, academic writing competence is no longer limited to the

ability to produce written texts but also includes the capacity to use AI technologies ethically and responsibly.

Based on the literature reviewed, it can be concluded that ChatGPT has transformed academic writing from a process that relies solely on individual capabilities into one characterized by collaboration between humans and AI technologies. This transformation offers substantial opportunities to improve the efficiency, accessibility, and quality of academic writing. However, it also introduces new challenges related to information quality, academic integrity, and technological dependency. Therefore, the effective use of ChatGPT in academic writing requires competencies that enable users to critically assess and validate AI-generated content. In this regard, information evaluation skills become increasingly important, as they allow students to ensure that the information incorporated into their academic work remains accurate, credible, and academically sound.

Challenges of Information Evaluation in AI-Generated Content

The increasing adoption of generative artificial intelligence (AI) in educational environments has created new opportunities for accessing and producing information. Tools such as ChatGPT enable users to obtain explanations, summaries, and written content within seconds, making information retrieval more efficient than ever before. However, alongside these benefits, the widespread use of AI-generated content has also introduced significant challenges related to information quality, reliability, and credibility. Unlike traditional information sources that can be traced to identifiable authors and publications, AI-generated responses are often produced through probabilistic language modeling processes that do not always guarantee factual accuracy. Consequently, users must navigate a complex information environment in which the convenience of AI-generated content may be accompanied by substantial risks.

One of the most frequently discussed challenges in the literature is the phenomenon of AI hallucination. Hallucination refers to situations in which an AI system generates information that appears plausible and convincing but is actually inaccurate, misleading, or entirely fabricated. Athaluri et al. (2023) noted that generative AI systems may produce responses that contain incorrect facts, invented details, or unsupported claims while presenting them with a high degree of confidence. Because these outputs often resemble legitimate academic or professional information, users may find it difficult to distinguish between accurate and erroneous content. This challenge is particularly problematic in educational settings, where students may rely on AI-generated information without conducting further verification.

The issue of hallucination becomes even more concerning in academic writing contexts because it often involves the creation of fabricated references and citations. Several studies have documented instances in which ChatGPT generated references that appeared authentic but did not actually exist in academic databases. (Metze et al., 2024) described this phenomenon as *bibliographic hallucination*, where AI systems produce fictitious citations, inaccurate publication details, or nonexistent scholarly sources. Similarly, Boretti (2026) argued that the generation of fabricated references poses a serious threat to academic integrity because students and researchers may unknowingly incorporate unreliable sources into their work. Such practices undermine the credibility of academic writing and may lead to the dissemination of inaccurate information within scholarly communities.

Beyond hallucination, misinformation represents another significant challenge associated with AI-generated content. Although ChatGPT is designed to provide informative and coherent responses, the information it generates may not always reflect the most accurate or up-to-date knowledge available. Simon et al. (2023) emphasized that generative AI systems can unintentionally reproduce misinformation present in their training data or generate misleading interpretations of complex issues. As a result, users who accept AI-generated content without critical evaluation may unknowingly adopt incorrect information and propagate it through academic assignments, research reports, or other forms of scholarly communication.

Another challenge relates to the perceived credibility and trustworthiness of AI-generated information. Research suggests that users often attribute a high level of authority to information produced by advanced AI systems because the outputs are linguistically sophisticated and presented in a confident manner. Jacob et al. (2025) found that users may develop excessive trust in AI-generated responses, particularly when they lack sufficient expertise to independently verify the information provided. This tendency can create a false sense of reliability, leading users to overlook potential inaccuracies or inconsistencies within AI-generated content. In educational contexts, such overreliance may reduce critical engagement with information and weaken students' ability to independently assess source quality.

Furthermore, the increasing integration of AI into information-seeking practices has altered how users evaluate and interact with information. Traditionally, information evaluation involved examining the credibility of authors, publishers, and source documents. In AI-mediated environments, however, users often receive synthesized responses without direct access to the original sources from which information may have been derived. According to Lee et al. (2025), this shift requires users to adopt new evaluation strategies that extend beyond traditional source assessment. Students must not only evaluate the content itself but also critically consider the limitations, biases, and uncertainties inherent in AI-generated outputs.

The challenges associated with AI-generated information highlight the growing importance of information evaluation skills in contemporary academic environments. While ChatGPT and similar technologies can enhance learning efficiency and support academic writing, their outputs should not be accepted uncritically. Instead, users must develop the ability to verify factual claims, cross-check information with credible sources, assess the validity of references, and recognize the potential limitations of AI-generated content. These competencies are essential for ensuring that AI functions as a tool that supports learning rather than a source of misinformation and academic inaccuracies.

Based on the reviewed literature, it is evident that the challenges of information evaluation in AI-generated content extend beyond technical concerns and have broader implications for academic integrity, critical thinking, and knowledge construction. Hallucination, misinformation, fabricated references, and excessive trust in AI systems collectively demonstrate that technological advancement alone cannot guarantee the quality of information used in academic contexts. Therefore, effective engagement with generative AI requires a strong foundation in information evaluation skills, enabling students to critically

assess AI-generated information before incorporating it into academic writing and learning activities.

Information Evaluation Skills as a Critical Competency in Academic Writing

The advancement of generative artificial intelligence has fundamentally transformed the landscape of academic writing. On the one hand, technologies such as ChatGPT provide users with efficient access to information, support idea generation, and assist in producing written content within a relatively short period of time. On the other hand, these advantages are accompanied by increased risks related to the use of inaccurate, unreliable, or even fabricated information. In this context, information evaluation skills emerge as a critical competency for ensuring that information incorporated into academic writing meets scholarly standards of quality and credibility. These skills enable students and researchers to assess the validity of information, verify sources, and identify potential inaccuracies that may exist in information obtained from various media, including generative AI systems.

Academic writing is fundamentally a process of knowledge construction that relies on the use of valid and trustworthy evidence. Consequently, the quality of academic work is highly dependent on the quality of the information sources utilized. Zhao & Liao (2024) emphasized that the ability to evaluate academic literature is one of the essential prerequisites for producing high-quality scholarly writing. Students are expected not only to locate relevant information but also to assess author credibility, publication reputation, data validity, and the relevance of information to their research context. Without these competencies, academic writing may be based on weak arguments and insufficient evidence, ultimately compromising the credibility of scholarly work.

Within increasingly complex digital information environments, information evaluation skills are closely associated with critical thinking. Information evaluation is not merely a process of checking factual accuracy; it also involves analyzing, interpreting, and assessing the overall quality of information. Chyne et al. (2023) argued that effective information evaluation requires users to consider multiple factors, including source authority, potential bias, contextual relevance, and the circumstances under which information is produced. From this perspective, information evaluation skills can be understood as a practical manifestation of critical thinking within information-seeking and knowledge-construction processes.

The importance of information evaluation skills becomes even more evident when students use ChatGPT as a tool for academic writing. Unlike traditional scholarly sources, which typically provide clear information regarding authorship, publication dates, and publication venues, AI-generated content is not always accompanied by transparent and verifiable source information. As a result, users must independently verify the information generated by AI before incorporating it into academic work. Habib et al. (2026) found that students with stronger information literacy competencies are generally more capable of distinguishing between credible and questionable information, enabling them to utilize digital information sources more effectively in academic contexts.

Beyond source verification, information evaluation skills also play a crucial role in maintaining academic integrity. Academic integrity extends beyond the avoidance of plagiarism and includes the responsibility to use accurate and reliable information in scholarly work. In the context of generative AI, students must ensure that information, citations, and references generated by systems such as ChatGPT are carefully verified through legitimate

academic sources. Bobkowski & Younger (2020) highlighted that the ability to assess source credibility is a key factor in preventing the dissemination of inaccurate or unreliable information. Therefore, information evaluation skills function as an important safeguard that helps students uphold academic standards throughout the writing process.

Furthermore, information evaluation skills contribute significantly to the development of independent learning. Students who possess strong evaluation skills are less likely to accept information passively and are more inclined to compare multiple sources, examine supporting evidence, and develop informed conclusions based on rational analysis. Such dispositions are particularly important in contemporary learning environments characterized by information abundance and the widespread integration of AI technologies. Consequently, information evaluation skills not only support the production of high-quality academic writing but also foster learners' autonomy and intellectual responsibility.

Based on the reviewed literature, information evaluation skills can be positioned as a mediating competency that connects ChatGPT usage with academic writing quality. While ChatGPT can provide information and facilitate various stages of the writing process, the quality of the final academic output ultimately depends on the user's ability to critically evaluate the information generated. From this perspective, the relationship between ChatGPT use and academic writing quality is not direct; rather, it is mediated by users' capacity to assess information critically and responsibly. The stronger an individual's information evaluation skills, the more likely generative AI technologies will be used effectively to support scholarly work.

Therefore, information evaluation skills should be regarded as a core competency for students in the era of generative AI. These skills not only help users address challenges related to hallucination, misinformation, and fabricated references but also support the development of critical thinking, academic integrity, and scholarly writing competence. As generative AI becomes increasingly integrated into educational practices, strengthening information evaluation skills should be a priority for higher education institutions to ensure that students can benefit from technological innovations while maintaining the academic rigor required for effective knowledge creation and communication.

Implications for Language Education: Toward a Conceptual Framework of Information Evaluation Skills in the Era of ChatGPT

The rapid integration of generative artificial intelligence into educational settings has created new opportunities and challenges for language education. Technologies such as ChatGPT are increasingly being utilized to support language learning activities, particularly in reading, writing, vocabulary development, and language practice. Through interactive and immediate responses, ChatGPT enables learners to access linguistic support more efficiently than traditional learning resources. As a result, language education is undergoing a significant transformation in which AI is becoming an important component of the learning process. However, the educational benefits of AI technologies depend not only on their technical capabilities but also on learners' ability to critically evaluate the information generated by these systems.

In language learning contexts, particularly in English as a Foreign Language (EFL) education, ChatGPT has demonstrated considerable potential to support academic writing and language development. Students can use AI-generated feedback to improve sentence

structure, grammar, vocabulary selection, and overall writing organization. Furthermore, AI-assisted learning environments encourage students to engage in self-directed learning by providing on-demand explanations and examples. Nevertheless, the increasing reliance on AI-generated content also raises concerns regarding learners' critical engagement with information. If students accept AI-generated responses without questioning their accuracy or credibility, opportunities for critical thinking and independent knowledge construction may be diminished (Y. Liu et al., 2024).

Recent scholarship emphasizes that language education in the AI era requires the integration of new forms of literacy that extend beyond traditional linguistic competencies. One of these emerging competencies is *AI literacy*, which refers to an individual's ability to understand, evaluate, and responsibly use AI technologies. According to Karaduman (2025), AI literacy has become an essential skill for future educators and students because AI tools are increasingly embedded in educational practices. Similarly, Tacosky et al. (2025) argues that critical AI literacy should focus not only on technological proficiency but also on the capacity to critically assess the outputs, limitations, and ethical implications of AI systems.

The growing importance of AI literacy is closely related to the concept of *critical digital literacy*. Darvin (2025) explains that critical digital literacy involves the ability to critically interpret, evaluate, and use digital information within specific social and educational contexts. In AI-mediated learning environments, learners must develop the capacity to question the reliability of AI-generated content, recognize potential biases, and verify information through credible sources. This perspective highlights that effective language learning is no longer solely concerned with mastering linguistic forms but also involves developing critical competencies for navigating increasingly complex digital information ecosystems.

Information evaluation skills play a central role within this broader framework of AI literacy and critical digital literacy. As discussed in previous sections, information evaluation skills enable learners to assess source credibility, verify factual accuracy, identify misinformation, and make informed judgments about information quality. In language education, these skills are particularly important because students frequently interact with textual information while developing reading comprehension, writing proficiency, and communication abilities. Huang et al. (2024) emphasizes that critical engagement with AI-generated information can support learners in becoming more reflective and responsible users of digital technologies. Therefore, information evaluation skills serve as a bridge between technological adoption and meaningful learning outcomes.

The literature further suggests that strengthening information evaluation skills may contribute to the development of critical thinking in language learning environments. W. Liu (2025) found that the integration of AI-supported learning activities can foster critical thinking when students are encouraged to evaluate and compare information from multiple sources rather than relying exclusively on AI-generated responses. Likewise, Meng et al. (2025) argues that AI literacy and critical thinking are interconnected competencies that support learners in making informed decisions within digital learning environments. These findings indicate that information evaluation skills can help transform AI from a passive information provider into a catalyst for deeper cognitive engagement and reflective learning.

Based on the synthesis of the reviewed literature, this study proposes a conceptual framework that explains the role of information evaluation skills in mediating the relationship

between ChatGPT use, academic writing quality, and language learning outcomes. The framework suggests that while ChatGPT provides learners with rapid access to information and writing support, its educational value is largely determined by users' ability to critically evaluate the information generated. Without adequate evaluation skills, learners may become vulnerable to misinformation, hallucination, and fabricated references. Conversely, learners who possess strong information evaluation skills are more likely to utilize AI-generated information effectively, resulting in higher-quality academic writing and more meaningful language learning experiences. The conceptual relationships identified in this study are illustrated in Figure 1.

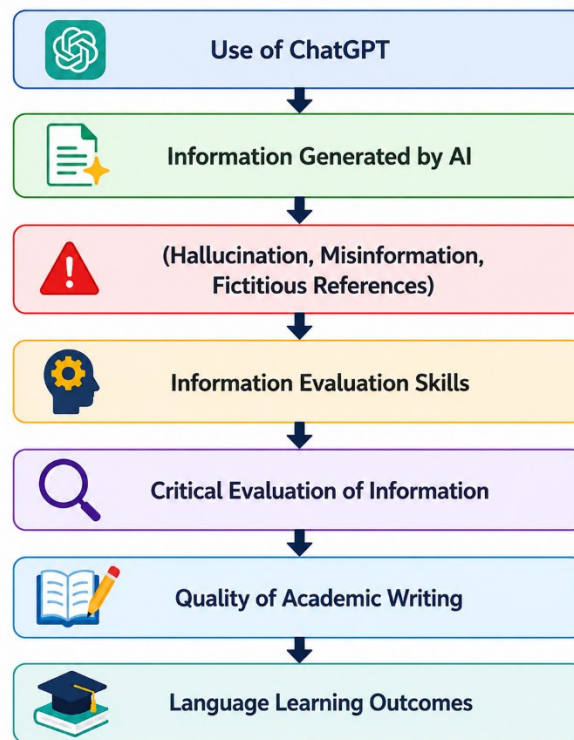


Figure 1. Conceptual Framework of Information Evaluation Skills in the Era of ChatGPT

The framework depicted in Figure 1 shows that information evaluation skills serve as a crucial intermediary competency between information generated by artificial intelligence and learning outcomes. Rather than viewing ChatGPT as either a threat or a solution, the framework emphasizes that the effectiveness of AI in education depends on learners' capacity to critically assess and responsibly use the information it provides. Consequently, educational institutions should prioritize the integration of information evaluation skills, AI literacy, and critical digital literacy into language education curricula. Such efforts will help ensure that students are equipped not only to use AI technologies effectively but also to engage with them critically and ethically.

Overall, the findings of this study suggest that the future of language education in the AI era should focus on balancing technological innovation with critical literacy development. As generative AI continues to reshape educational practices, information evaluation skills will become increasingly important for supporting academic integrity, fostering critical thinking,

and promoting effective language learning. Therefore, developing these competencies should be regarded as a strategic priority for educators, curriculum developers, and higher education institutions seeking to prepare students for the evolving digital knowledge landscape.

CONCLUSION

The rapid development of generative artificial intelligence, particularly ChatGPT, has significantly transformed the way students access, process, and utilize information in academic environments. This study demonstrates that while ChatGPT offers substantial benefits for academic writing and language learning, its use is accompanied by various challenges related to information quality, including hallucination, misinformation, fabricated references, and excessive reliance on AI-generated content. The findings indicate that information evaluation skills play a crucial role in enabling students to critically assess the credibility, accuracy, relevance, and reliability of information generated by AI systems. As a result, information evaluation skills should be viewed as a fundamental component of information literacy that supports responsible and effective engagement with AI technologies in educational settings.

The synthesis of the reviewed literature further reveals that information evaluation skills function as a mediating competency between ChatGPT usage and educational outcomes. Students who possess strong information evaluation skills are more capable of verifying information, evaluating sources, identifying potential inaccuracies, and utilizing AI-generated content appropriately in academic writing. Moreover, these skills contribute to the development of critical thinking, academic integrity, AI literacy, and critical digital literacy, all of which are increasingly important in contemporary language education. Therefore, the integration of information evaluation skills into language education curricula can help ensure that technological innovation enhances rather than diminishes students' capacity for critical inquiry, reflective learning, and effective academic communication.

Despite these contributions, this study is limited by its reliance on a library research approach, which focuses on the analysis and synthesis of existing literature without empirical investigation of learners' actual experiences and behaviors when using ChatGPT. Consequently, the proposed conceptual framework has not yet been empirically tested in specific educational contexts. Future studies are encouraged to employ quantitative, qualitative, or mixed-methods approaches to examine the relationships among ChatGPT usage, information evaluation skills, academic writing quality, and language learning outcomes. Further research may also explore the roles of mediating and moderating variables such as AI literacy, critical thinking, digital literacy, and academic integrity to provide a more comprehensive understanding of how students can effectively and responsibly engage with generative AI technologies in higher education.

DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

The author(s) utilized ChatGPT during the manuscript preparation process to support language editing, sentence refinement, and the improvement of textual coherence. All suggestions generated with the assistance of AI were reviewed, verified, and revised by the author(s), who take full responsibility for the final published content.

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