

Exploring EFL Students' Digital Literacy Practices in Navigating Digital Resources for Academic Writing

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ABSTRACT

Background. The rapid development of digital resources and artificial intelligence (AI) technology has changed the way English as a Foreign Language (EFL) students' access, evaluate, and utilize information for academic writing. Although digital literacy is increasingly important in higher education, research exploring how EFL students navigate digital resources during the academic writing process is still limited.

Purpose. This study aims to explore EFL students' digital literacy practices in navigating digital resources for academic writing.

Methods. This study uses a qualitative approach with a case study design involving 15 students of the English Education master's program at one of the universities in Indonesia. Data were collected through semi-structured interviews and document analysis, then analyzed using thematic analysis based on Braun and Clarke's framework.

Results. The research findings reveal four main themes, namely accessing digital resources for academic writing, evaluating the credibility of digital sources, utilizing digital resources and AI-based tools in academic writing, and ethical challenges and considerations in the use of digital resources. Students utilize academic databases and AI-based platforms, evaluate the credibility of sources through academic indicators and verification strategies, and use AI as a cognitive and linguistic support in the writing process. However, they also face challenges related to information credibility, the abundance of digital information, technical constraints, and ethical issues in the use of AI.

Conclusion: EFL students' digital literacy practices are multidimensional and include technical, cognitive, and ethical dimensions. These findings affirm the importance of integrating digital literacy and AI literacy in academic writing learning to encourage critical, responsible, and effective use of digital technology in higher education.

KEYWORDS

Digital literacy, academic writing, EFL students, digital resources, artificial intelligence.

INTRODUCTION

Academic writing is one of the most challenging skills for students learning

English as a Foreign Language (EFL). In the context of higher education, students are required not only to have good language skills, but also to be able to develop logical

arguments, synthesize various sources of information, and apply academic conventions such as citations and references appropriately. However, various studies show that EFL students still have difficulty developing ideas, organizing arguments, integrating sources, and avoiding plagiarism in academic writing (Asnas & Hidayanti, 2024; Ho, 2024). In addition, the use of sources in academic writing is also a challenge because students must be able to choose and process information from various references effectively (Makovskaya & Radjabzade, 2022).

The development of digital technology has changed the way students access and utilize information to support academic writing. Various digital resources such as electronic journals, digital libraries, academic databases, search engines, and online learning platforms are now an important part of the writing process. This condition requires students to have adequate digital literacy skills to search, evaluate, manage, and use information effectively (Nabhan, 2021). In the context of academic writing, digital literacy plays an important role in helping students identify credible sources, assess the reliability of information, and use information ethically. However, research shows that EFL students still have difficulty in evaluating the credibility of online sources and distinguishing trustworthy information from less valid information (Haliq et al., 2023; Silvhiyani et al., 2021). The findings of McGrew et al. (McGrew et al., 2019) also show that college students often face difficulties in assessing the reliability of information found on the internet.

Digital literacy in academic writing is not only related to the ability to find information, but also includes the ability to select, synthesize, and integrate various sources into writing. Overstreet (Overstreet, 2025) emphasized that the ability to evaluate online sources and develop networked literacy is an important part of academic literacy in the digital era. However, various studies show that EFL students still face challenges in synthesizing information,

maintaining coherence of writing, and integrating evidence from various sources effectively (Chen & Wang, 2022; Makovskaya & Radjabzade, 2022). In addition, the issue of academic integrity is also still a concern because students often have difficulties in applying the right citations and using sources responsibly (Çelik & Razi, 2023).

The latest developments in educational technology are marked by the emergence of various writing aids based on artificial intelligence (AI) such as ChatGPT, Grammarly, and QuillBot. Various studies show that this technology can help improve grammar accuracy, vocabulary mastery, writing fluency, and student motivation and confidence in academic writing (Mahapatra, 2024; Song & Song, 2023). (Ary, M. A. A., 2025) also found that AI-based writing aids provide instant feedback, help the revision process, and increase EFL students' confidence in completing academic assignments. However, the use of AI also has the potential to cause dependence, reduce critical thinking skills, and raise problems related to academic integrity if used without adequate evaluation. Therefore, digital literacy skills are increasingly important so that students are able to navigate various digital resources, including information generated by AI technology, critically and responsibly.

Although research on digital literacy, academic writing, and educational technology is constantly evolving, most previous research has focused on the level of digital literacy, the effectiveness of technology use, or student learning outcomes. Research that specifically explores EFL students' digital literacy practices in navigating digital resources during the academic writing process is still relatively limited. In fact, understanding how students search, evaluate, select, and utilize various digital resources and overcome the challenges they face is very important to understand the implementation of digital literacy in the context of academic writing. Therefore, this

study aims to explore the digital literacy practices of EFL students in navigating digital resources for academic writing in order to gain a deeper understanding of the experiences, strategies, and challenges they face.

Research Questions

This study aims to explore EFL students' digital literacy practices in navigating digital resources for academic writing. To achieve this objective, the study addresses the following research questions:

RQ 1 : How do EFL students access and navigate digital resources for academic writing?

RQ 2: How do EFL students evaluate the credibility and reliability of digital sources used in academic writing?

RQ 3: How do EFL students utilize digital resources and AI-based tools throughout the academic writing process?

RQ 4: How do EFL students utilize digital resources and AI-based tools throughout the academic writing process?

LITERATURE REVIEW

Digital Literacy

Digital literacy has become an essential competency in higher education as the integration of digital technology in the learning process increases. The concept of digital literacy was first introduced as the ability to understand and use information obtained from various digital sources (Gilster, 1997). The concept then developed into the ability to access, manage, integrate, evaluate, and create information through digital technology (Martin, 2006). A more comprehensive framework divides digital literacy into three main dimensions, namely technical literacy, cognitive literacy, and socio-emotional literacy (Ng, 2012).

The development of the concept of digital literacy shows a shift from mere technical

skills to critical thinking skills and responsible use of technology. Recent systematic reviews show that digital literacy is currently seen as a combination of technical skills, evaluative abilities, digital communication, as well as ethical awareness in a digital environment (Tinmaz et al., 2022).

In the context of higher education, digital literacy plays an important role in supporting students' academic success. Students with higher levels of digital literacy tend to have better abilities to access, evaluate, and utilize academic information (Nkansah & Oldac, 2024). Similar findings show a positive relationship between digital literacy, research competence, and critical thinking skills of EFL students in Indonesia (Indah et al., 2022).

In learning foreign languages, digital literacy is becoming increasingly important because the learning process is no longer limited to the classroom. Digital skills allow students to access more diverse learning resources and increase learning independence (Makhachashvili & Semenist, 2021). In addition, digital literacy also contributes to the effectiveness of learning English as a foreign language through the use of various educational technologies (Deen & Mahmoud, 2025).

EFL Students and Digital Learning Environment

EFL (English as a Foreign Language) students are learners who learn English in an environment that does not use the language as the primary language of daily communication. This condition often poses various challenges, such as limited exposure to authentic language, difficulty developing academic skills, and low opportunities to interact in the target language.

Digital transformation has significantly changed the learning environment of EFL students. Access to learning materials, academic reference sources, and various communication and collaboration platforms is becoming wider through digital

technology. According to Bećirović et al. (Bećirović et al., 2021), digital technology has expanded language learning opportunities through access to authentic and interactive learning resources. In addition, digital competence has been shown to be positively related to a more in-depth learning approach (Niu et al., 2022). EFL students also view information and communication technology as a means of increasing learning engagement, although challenges related to access and technological readiness are still found (Cakrawati & Lestari, 2025).

The role of technology in EFL learning continues to evolve through the presence of innovative learning environments such as the metaverse, collaborative platforms, and artificial intelligence-based applications. Metaverse-based learning, for example, has been proven to be able to improve English language skills while strengthening students' digital literacy (Prabakaran et al., 2025).

Digital Resources for Academic Writing

Digital resources refer to various sources of information and digital tools used to support the learning process and academic writing. In the context of academic writing, digital resources include online journals, e-books, academic databases, academic search engines, reference management tools, and artificial intelligence-based writing tools. Online journals and academic databases are the main sources of scientific information because they provide access to the latest research that has gone through a peer-review process.

Additionally, academic search engines such as Google Scholar help students find relevant literature more efficiently. Recent developments show the increasing use of AI-based writing tools in academic writing. AI-based tools can help with aspects of grammar, writing organization, and idea development (Roe et al., 2023). Other research shows that collaboration between humans and AI in academic writing results in a variety of interaction patterns, from the

use of AI as a revision tool to brainstorming partners (Nguyen et al., 2024).

In addition, reference management tools such as Mendeley and Zotero help students manage citations more systematically. The use of various online writing tools is also reported to be able to increase the efficiency of the academic writing process of graduate students (Yakubu et al., 2025). However, the use of digital resources presents a number of challenges, including reliance on AI, information validity, and potential violations of academic integrity if technology is used without critical evaluation (Oubibi et al., 2025).

Academic Writing in EFL Context

Academic writing is a form of written communication that is used to convey ideas in a systematic, objective, and scientific evidence-based manner. Academic writing is characterized by the use of formal language, clear structure, logical argumentation, and credible reference support. For EFL students, academic writing is often the most challenging skill because it involves mastering academic vocabulary, grammar, organization of ideas, and the proper use of reference sources.

This challenge is even greater when students have to integrate various digital information sources into their academic writing. Digital writing skills have now become an integral part of modern academic writing so that students are not only required to produce quality writing, but also be able to navigate the complex digital environment to acquire and manage information (Johinke et al., 2023). The use of multimodal digital workbooks has also been proven to increase student involvement in the academic writing process while developing their digital literacy and multimodal literacy (Yana et al., 2025).

Digital Literacy Practices in Academic Writing

Digital literacy practices refer to the real activities that individuals do when using

digital technology to access, evaluate, manage, and produce information. In the context of academic writing, the practice includes searching for digital information, evaluating the credibility of sources, managing references, integrating information into writing, and using technology for the revision process.

Various studies show that EFL graduate students utilize a variety of digital strategies to search and use academic information, including the use of academic search engines, journal databases, academic social media, and online collaborative tools (Rinekso et al., 2021). Evaluation of digital sources is an important part of the practice because students need to assess the credibility, relevance, and quality of information before using it in academic writing. This evaluative ability is part of the cognitive dimension of digital literacy (Ng, 2012).

In the writing process, students also utilize various digital tools to compile, revise, and improve their writing. The use of AI in academic writing is increasingly common and can support the process of brainstorming, editing, and developing ideas (Nguyen et al., 2024). However, the use of such technology needs to be accompanied by awareness of academic integrity and the risk of excessive dependence (Roe et al., 2023).

The ethical aspect is also an important concern in the use of digital resources. Students need to understand the importance of correct citations, avoid plagiarism, and use digital tools responsibly. Therefore, digital literacy includes not only technical ability, but also ethical awareness in utilizing technology for academic purposes.

Previous Studies

Various studies show that digital literacy has an important role in supporting the academic success of EFL students. A positive relationship has been found between digital literacy, critical thinking skills, and EFL students' research competencies (Indah et al., 2022). In addition, EFL students are

known to actively utilize various digital platforms to support their academic activities (Rinekso et al., 2021).

Research on the use of digital resources in academic writing shows that digital technology can increase the effectiveness of the writing process. The integration of digital learning resources is reported to be able to increase student involvement in academic writing (Yana et al., 2025). Meanwhile, the use of AI-based tools is increasingly playing a role in supporting the academic writing process, both as a tool for revision and idea development (Nguyen et al., 2024; Oubibi et al., 2025). A positive relationship was also found between students' digital literacy levels and their perception of academic writing skills (Angguni et al., 2026).

Nonetheless, most previous research has still focused on the level of digital competence or the effectiveness of technology use in general. Research that specifically explores EFL students' digital literacy practices when navigating various digital resources to support academic writing is still relatively limited. Therefore, this study seeks to fill this gap by exploring in depth how EFL students search, evaluate, select, and utilize digital resources in their academic writing process. Focusing on digital literacy practices in the context of academic writing is expected to provide a more comprehensive understanding of EFL students' experiences in the digital.

METHOD

Design

This study used a qualitative approach with a case study design to explore the digital literacy practices of EFL (English as a Foreign Language) students in navigating various digital resources for academic writing. The case study design was chosen because it allows researchers to deeply understand the phenomena that occur in real context and provide a comprehensive picture of the participants' experiences (Yin, 2018). This research focuses on how students search, evaluate, select, and utilize

digital resources during the academic writing process.

Participants

The research was carried out in the Postgraduate Program in English Language Education, Makassar State University. Participants were selected using purposive sampling techniques by considering several criteria. The criteria for participants are; Active students of the English Education Study Program, have taken Academic Writing courses, and have experience using various digital resources in completing academic writing assignments. The number of participants was 15 students involved in this study. This amount is considered adequate to obtain in-depth data in accordance with the characteristics of qualitative research.

Instruments

The main instrument in this study was a semi-structured interview which was used to delve deeply into the digital literacy experiences and practices of EFL students in navigating digital resources for academic writing. The interview guidelines are prepared based on a research focus that includes how students search, evaluate, select, and utilize digital resources in the academic writing process. In addition to interviews, this study also uses document analysis as a supporting instrument. The documents analyzed included students' academic writing assignments and digital sources used during the writing process. Document analysis was carried out to strengthen and verify the data obtained through interviews so as to produce a more comprehensive understanding of students' digital literacy practices.

Data Collection Procedure

Research data was collected through semi-structured interviews and document analysis. Semi-structured interviews were used to explore students' digital literacy experiences and practices in academic writing. Some of the topics explored include: Types of digital resources used in academic writing, online academic information search

strategies, how to evaluate the credibility and relevance of digital resources, the use of digital tools (including AI-based technology), obstacles faced in utilizing digital resources, students' perceptions of the contribution of digital resources to the quality of their academic writing. To strengthen the data from the interviews, the researcher also analyzed relevant documents, such as academic writing assignments, reference lists used by students, and examples of digital sources that they accessed during the writing process. Document analysis aims to identify how digital resources are actually used in academic writing practices.

Data Analysis

The data were analyzed using thematic analysis developed by Braun and Clarke (Braun & Clarke, 2006). The analysis process is carried out through six stages. (1) Read and understand all interview data and documents repeatedly; (2) Conduct initial coding of data relevant to the focus of the research; (3) Grouping similar codes into initial themes; (4) Review and improve the themes that have been formed; (5) Define and name each theme; (6) Prepare a report on the results of the research based on the themes found. Thematic analysis was chosen because it allows researchers to identify patterns that emerge from participants' experiences related to digital literacy practices in academic writing.

RESULTS

The research data was analyzed using a thematic analysis approach (Braun & Clarke, 2006). Based on the data coding and grouping process, four main themes were found that describe EFL students' digital literacy practices in navigating digital resources for academic writing. These themes include: (1) accessing digital resources for academic writing, (2) evaluating the credibility of digital sources, (3) utilizing digital resources and artificial intelligence (AI)-based tools in academic writing, and (4) ethical challenges and considerations in the use of digital

resources. Table 1 reveals a summary of the themes identified from the data.

Table 1. Summary of Themes

Theme	Description
Accessing Digital Resources for Academic Writing	(1) Reliance on Academic Databases; (2) AI-Assisted Information Access
Evaluating Source Credibility	(1) Evaluation Based on Traditional Academic Indicators; (2) Verification of AI-Generated Information
Utilizing Digital Resources and AI Tools in Academic Writing	(1) AI as Cognitive Support; (2) AI as Linguistic Support
Challenges and Ethical Considerations	(1) Challenges in Navigating Digital Information; (2) Ethical Concerns in the Use of AI

Accessing Digital Resources for Academic Writing

The first theme relates to the digital resources that students use to support academic writing. Analysis of participants' responses showed that there were two main patterns in accessing digital resources. The first pattern shows a reliance on academic databases and scientific sources, especially Google Scholar and online journals. The second pattern shows the increasing use of artificial intelligence (AI)-based platforms, such as ChatGPT, Perplexity, and DeepSeek, as an initial means to explore ideas and seek information.

a. Reliance on Academic Databases

Most participants reported that Google Scholar was the main source for finding academic information. Participants view Google Scholar as an easily accessible platform, providing diverse scholarly references, as well as being relevant to their academic writing needs.

One of the participants stated:

"Google Scholar, because you can get a lot of journal references." (P10)

Another participant explained:

"I use Google Scholar most often because it's easily accessible and provides a lot of academic references from different fields." (P5)

Similar views were also expressed by other participants who emphasized the benefits of Google Scholar in obtaining information and references relevant to their writing topic.

"Google Scholar, get more information and references about what I'm writing." (P2)

"I use Google Scholar most often because it provides reliable, searchable, and relevant scholarly sources to support academic writing." (P8)

b. Access AI-Assisted Information

In addition to utilizing academic databases, some participants also used AI-based platforms in the early stages of the writing process. The platform is generally used to explore topics, generate initial ideas, and help overcome difficulties encountered during the writing process. One of the participants stated:

"I use ChatGPT and Perplexity the most because they are the easiest to use and practical." (P1)

Another participant explained:

"I use ChatGPT to brainstorm or look for ideas. Then, I used Consensus and Google Scholar to search for articles." (P4)

Some participants even explicitly mentioned AI as the main source of initial ideas and information.

"For the most part, I use AI to overcome my difficulties in writing assignments or articles." (P6)

"AI. I use it to get ideas. I'm always discussing and brainstorming with some type of AI." (P7)

Overall, the findings show that participants access digital resources through two main pathways, namely academic databases to obtain scientific references and AI-based platforms to support the exploration of ideas as well as the search for initial information in the academic writing process.

Evaluating Source Credibility

The second theme describes how students evaluate the credibility of digital sources before using them in academic writing. Analysis of participant responses shows two main patterns in the source evaluation process. The first pattern relates to the use of traditional academic indicators to assess the quality of sources. The second pattern relates to the practice of re-verifying information obtained from artificial intelligence (AI)-based platforms.

a. Evaluation Based on Traditional Academic Indicators

Most participants reported that they used a variety of academic indicators to determine the credibility of a source. The most frequently mentioned indicators include journal indexation, publication reputation, authors' credibility, year of publication, and relevance of sources to the research topic.

One of the participants stated:

"I usually check whether the journal or article is a reputable article such as indexed by Scopus or Sinta 1 and 2." (P1)

Other participants revealed:

"Check the article whether it has ISSN or SINTA." (P3)

In addition to indexation, participants also considered the credibility of the author and the origin of the publication.

"I choose a trustworthy digital source by looking at the author's credibility, the origin

of the publication, and the year of publication." (P8)

"I choose sources that come from scientific journals and trusted official websites. I usually check the author, the year of publication, as well as the relevance of the source to the research topic." (P5)

These findings show that students use a variety of academic indicators to assess the quality and feasibility of a source before using it in academic writing.

b. Verify AI-Generated Information

In addition to evaluating conventional academic sources, some participants also reported re-verifying information obtained from AI platforms. This practice is done to ensure that the information provided by AI matches credible academic sources.

One participant explained:

"For example, I get a reference from ChatGPT, I don't take it right away, but I first check the validity and reputation of the reference in Google Scholar." (P4)

Other participants stated:

"I overcome this by verifying information from several trusted academic sources." (P9)

These findings show that participants not only rely on AI-generated information, but also carry out verification processes through other academic sources before using them in academic writing.

Overall, the results of the study show that students apply two main strategies in evaluating the credibility of digital sources, namely through the examination of traditional academic indicators and through re-verification of information obtained from AI-based platforms.

Utilizing Digital Resources and AI Tools in Academic Writing

The third theme relates to how students utilize digital resources and artificial intelligence (AI)-based tools during the

academic writing process. Analysis of participants' responses showed two main patterns of use of AI and digital resources. The first pattern shows the use of AI as cognitive support in the process of developing ideas and understanding concepts. The second pattern shows the use of AI as linguistic support to help the process of revision and improvement of writing.

a. AI as Cognitive Support

Most participants leveraged digital resources and AI to support the thought process during academic writing. Information obtained from digital sources is used to strengthen arguments, search for supporting theories, understand concepts, and obtain references relevant to the research topic.

One of the participants stated:

"I use that information to strengthen arguments, look for supporting theories, and obtain references that are relevant to the research topic." (P9)

Another participant explained:

"I use information from digital sources as a reference to strengthen arguments, explain concepts or theories, and support the results of analysis in academic writing." (P12)

In addition, some participants explained that they still process information before using it in academic writing.

"I still paraphrase, not necessarily 100 percent include the source in my writing." (P1)

"I read it and I understood what it meant, and then I processed it based on my understanding." (P4)

Regarding the use of AI, most participants reported using ChatGPT for brainstorming, developing ideas, understanding material, and drafting a writing framework.

"Chat GPT and Perplexity. I use Chat GPT to brainstorm and come up with ideas." (P1)

"I use ChatGPT to brainstorm ideas before I start writing." (P9)

"ChatGPT helps me understand the material and develop ideas." (P12)

"Yes, I use ChatGPT to create an outline." (P7)

These findings suggest that AI is used as a tool to support the thought process and development of ideas during academic writing.

b. AI as Linguistic Support

In addition to supporting the idea development process, participants also utilize AI to help linguistic aspects in academic writing. Some participants used Grammarly and QuillBot to check grammar, improve word choices, and paraphrase.

One of the participants stated:

"Grammarly helps me detect incorrect writing or word choices." (P3)

Another participant explained:

"I often use ChatGPT to paraphrase sentences to make them easier to understand and Grammarly to improve my writing." (P2)

In addition, QuillBot is also used to help with the paraphrasing process.

"QuillBot helps me paraphrase to make my writing more varied." (P8)

These findings show that students are utilizing various AI-based tools to support the process of revising and refining linguistic aspects in academic writing.

Overall, the results of the study show that students utilize digital resources and AI tools through two main functions, namely as cognitive support in the development of ideas and concept understanding, and as linguistic support in the process of revising and improving academic writing.

Ethical Challenges and Considerations in the Use of Digital Resources

The last theme is related to the various challenges and ethical considerations faced by students in using digital resources for academic writing. Analysis of participants' responses showed two main patterns of challenges faced by students. The first pattern has to do with the difficulty in navigating digital information and choosing credible sources. The second pattern relates to ethical concerns related to the use of AI in academic contexts.

a. Challenges in Navigating Digital Information

Most participants reported that the amount of information available online was a challenge in the academic writing process. Participants expressed difficulties in determining which sources are truly accurate, relevant, and trustworthy.

One of the participants stated:

"There is so much information available that it can sometimes be difficult to determine what is truly accurate and relevant." (P8)

Another participant explained: "The biggest challenge is choosing credible sources and avoiding inaccurate information." (P9)

Similar difficulties were also expressed by other participants who found it difficult to find suitable sources amid the abundance of information available on the internet.

"The biggest challenge for me was finding a relevant and reliable source among the wealth of information available on the internet." (P10)

In addition to information-related challenges, some participants also mentioned technical obstacles that affect the use of digital resources.

"There is usually an error in the use of the application." (P2)

"It requires adequate internet access." (P1)

These findings show that students face various challenges in managing and selecting the digital information available during the academic writing process.

b. Ethical Concerns in the Use of AI

In addition to the challenges in accessing and evaluating information, participants also expressed various concerns related to the use of AI in academic writing. Some participants admitted to being worried about the possible reliance on AI and the use of AI without a critical thinking process.

One of the participants stated:

"I'm quite tempted to use AI to create academic writings or articles 100 percent without going through a thought process and cross-checking." (P1)

Other participants expressed concerns that the writing they generated could be considered the result of AI even if it was written independently.

"If our original writing is considered the answer to the AI results." (P7)

Another concern relates to similarity checks and AI detection in academic contexts. "Similarity and AI checks are very challenging." (P3)

These findings show that students not only face technical challenges in the use of digital technology, but also face various ethical considerations related to academic integrity and the use of AI in academic writing. Overall, the results show that the challenges faced by students include two main aspects, namely difficulties in navigating digital information and various ethical concerns related to the use of AI in academic contexts.

DISCUSSION

The results of this study aim to explore the digital literacy practices of EFL students in navigating digital resources for academic writing. The findings of the study show that students' digital literacy practices include

four main interrelated activities, namely accessing digital resources, evaluating the credibility of sources, utilizing digital resources and artificial intelligence (AI)-based tools in the writing process, and facing various ethical challenges and considerations that arise during the use of digital technology. More specifically, students access information through two main channels, namely academic databases and AI-based platforms. In evaluating information, students use traditional academic indicators while verifying the information generated by AI. In addition, students utilize AI not only as a source of information, but also as a cognitive and linguistic support during the academic writing process. However, they also face various challenges related to the abundance of information, credibility of sources, technical constraints, and ethical issues in the use of AI.

The findings of the study show that the digital literacy of EFL students is not only limited to the ability to access information online. Students show active and strategic involvement in utilizing digital resources by selecting appropriate platforms, evaluating the quality of information, and integrating various digital tools into their academic writing practices. The simultaneous presence of academic databases and AI-based platforms shows that students are adapting to an increasingly complex digital environment, where information can be obtained through various interconnected sources. Instead of relying solely on conventional academic sources, students seem to combine various digital tools according to their needs. This pattern shows a shift in information search behavior, where academic writing is no longer only supported by scientific databases, but also by AI technology that helps with the exploration of ideas, the search for initial information, and support in the writing process.

Another important finding relates to students' ability to critically evaluate digital information. Although research participants

often use AI-based tools, they do not receive AI-generated information directly without evaluation. Instead, many participants reported that they verified the information obtained from AI by comparing it to Google Scholar, journal articles, or other trusted academic sources. These findings suggest that students are aware of the limitations of AI-generated information and understand the importance of validating information before using it in academic writing. The practice reflects the development of critical thinking skills in the digital environment, particularly in evaluating the credibility, relevance, and reliability of information. In addition, these findings also indicate that students are trying to balance the convenience offered by technology with academic demands that require the use of valid and reliable sources.

The research also shows that AI has become an important part of students' academic writing processes. Interestingly, students use AI more as a support tool than as a substitute for the writing process. The identification of two main functions of AI, namely as a cognitive supporter and a linguistic supporter, shows that AI has a diverse role in supporting students' academic activities. As a cognitive support, AI is used to brainstorm, understand concepts, develop ideas, and draft a writing framework. Meanwhile, as a linguistic supporter, AI is used to check grammar, improve word choices, and help with the paraphrasing process. These findings show that students view AI as a tool that can improve the quality of the writing process, not as a substitute for the ability to write itself. These findings are important because they provide a different perspective on concerns that the use of AI will make college students passive or dependent entirely on technology. On the other hand, students in this study still showed active involvement in reading, understanding, processing, and adjusting information before incorporating it into their writing.

The findings of this study are in line with various previous studies on digital literacy

and the use of AI in academic writing. The use of various digital resources supports the findings of Rinekso et al (2021), which show that EFL students actively use various digital platforms to support their academic activities. These findings are also consistent with the concept of networked literacy put forward by Overstreet (2025), which emphasizes that academic literacy in the digital age involves the ability to navigate various interconnected information networks. The study expands on that concept by showing that AI-based platforms have now become part of the information networks that students use along with traditional academic databases. In addition, the findings regarding source evaluation support the research of Silvhiany et al. (2021) and Haliq et al. (2023), which emphasize the importance of the ability to evaluate the quality of information and the reliability of sources in an academic context. The tendency of students to verify the information that AI generates before using it shows that evaluative skills are becoming increasingly important amid the development of AI technology.

The findings on the use of AI also support recent research on AI-assisted academic writing. Song and Song (2023) found that ChatGPT can improve students' motivation and writing skills through support for the development of ideas and language use. The results of this study are also in line with Mahapatra (2024) who reported that the AI-based learning environment makes a positive contribution to the development of students' academic writing skills. In addition, Nguyen et al. (2024) explain that AI can support the development of written content, revision, and organization of ideas in the writing process. The study enriched these findings by showing that students utilize AI in a variety of functions, from cognitive support to linguistic support. At the same time, students remain aware of the limitations of AI and continue to carry out verification and revision processes independently, which shows the relatively critical and responsible use of AI.

From a theoretical perspective, the results of this study strengthen the view that digital literacy is a multidimensional concept. The research findings support the digital literacy framework developed by Ng (2012), which includes technical, cognitive, and social-emotional dimensions. Students in this study show technical competence in using various digital platforms, cognitive competence in evaluating and processing information, and ethical awareness in considering the implications of using AI in academic writing. In addition, the results of this study also contribute to the discussion about AI literacy by showing that digital literacy in the AI era is no longer only related to the ability to use technology, but also the ability to understand, evaluate, and utilize the information generated by AI critically and responsibly.

Practically, the results of this study show the importance of integrating digital literacy and AI literacy in academic writing learning. Lecturers not only need to teach how to find relevant academic sources, but also need to guide students in evaluating the quality of information, verifying AI-generated results, and using AI ethically and responsibly. Learning academic writing needs to pay greater attention to resource evaluation skills, proper use of AI, correct citation practices, and strategies for utilizing AI without compromising academic integrity. In addition, educational institutions also need to develop clear guidelines regarding the use of AI in academic assignments so that students have a better understanding of the limitations and responsibilities in its use.

Although this research contributes to understanding the digital literacy practices of EFL students, there are several limitations that need to be considered. First, the number of participants in this study is relatively limited and comes from one particular educational context so the research findings cannot be generalized widely. Second, the research data was obtained through written interviews using Google Forms so that the depth of information obtained may not be as comprehensive as in-depth interviews in

person. Some participants may give relatively short answers so that their experiences and views cannot be explored in more depth. Therefore, further research could involve a larger and more diverse number of participants, using in-depth interviews, as well as exploring how digital literacy practices and the use of AI have evolved over time. Future research can also examine the relationship between the use of AI in academic writing and improving the quality of student writing more specifically so that it can provide a more comprehensive understanding of the contribution of AI to the development of academic literacy of EFL students.

CONCLUSION

This study aims to explore EFL students' digital literacy practices in navigating digital resources for academic writing. The results of the study show that students utilize various digital resources through two main paths, namely academic databases such as Google Scholar and artificial intelligence (AI)-based platforms such as ChatGPT and Perplexity. These findings show that students' digital literacy practices have evolved from simply searching for information through conventional academic sources to the use of a broader and integrated digital ecosystem. In addition, students not only access information, but also actively evaluate the quality and credibility of sources before using them in academic writing.

This research also found that students show critical thinking skills in utilizing digital resources. They use a variety of academic indicators, such as journal reputation, indexation, author credibility, and information relevance to assess the quality of the sources used. In the context of using AI, students do not receive the information generated directly, but rather re-verify it through trusted academic sources. In addition, AI is used in two main functions, namely as a cognitive support to help develop ideas, understand concepts, and draft writing, and as a linguistic support to help the revision, grammar, and

paraphrasing process. These findings suggest that AI is positioned more as a support tool in the writing process than as a substitute for students' academic abilities.

While it provides a variety of benefits, the use of digital resources also presents a number of challenges. Students face difficulties in selecting credible information amid the abundance of digital information, as well as facing various ethical considerations related to the use of AI, such as the risk of technology dependence, academic integrity, and detection of the use of AI in writing. Overall, this study confirms that EFL students' digital literacy is a multidimensional practice that includes technical, cognitive, and ethical aspects. Therefore, the integration of digital literacy and AI literacy in academic writing learning is increasingly important to help students use technology critically, responsibly, and maintain academic integrity in an ever-evolving digital environment.

REFERENCES

- Angguni, P. E., Saputri, M., & Sugesti, N. (2026). The Relationship Between Digital Literacy and Self-Perceived Academic Writing Ability Among EFL University Students. *Journal of Language and Literature Studies*. <https://doi.org/10.36312/jolls.v6i1.4496>
- Ary, M. A. A., et al. (2025). *The SWOT Analysis of EFL Learners' Aaptation to AI- Based Writing Tools in Academic Contexts*. 4(2), 931-944.
- Asnas, S. A. M., & Hidayanti, I. (2024). Uncovering EFL students' frequent difficulties in academic writing and the coping strategies: The case of a college in Indonesia. *Journal on English as a Foreign Language*. <https://doi.org/10.23971/jefl.v14i1.7472>
- Bećirović, S., Brdarević-Čeljo, A., & DeliĆ, H. (2021). The use of digital technology in foreign language learning. *SN Social*

- Sciences, 1.
<https://doi.org/10.1007/s43545-021-00254-y>
- Braun, V., & Clarke, V. (2006). *Using thematic analysis in psychology*. 3, 77–101.
- Cakrawati, L. M., & Lestari, I. S. (2025). Students' Voice in ICT-Enhanced Learning in English as a Foreign Language (EFL) Classroom: Benefits and Challenges. *Jurnal Vokasia*. <https://doi.org/10.20884/1.vokasia.2025.5.2.18833>
- Çelik, Ö., & Razi, S. (2023). From transgressors to authors promoting EFL writing through academic integrity integrated instruction. *System*. <https://doi.org/10.1016/j.system.2023.103101>
- Chen, W., & Wang, J. (2022). Understanding Source Use by Undergraduate Post-Novice EFL Writers for the Sustainability Development of Academic Literacy: Abilities, Challenges, and Strategies. *Sustainability*. <https://doi.org/10.3390/su14042108>
- Deen, A. A. M. M. A. El, & Mahmoud, M. M. A. (2025). Instructional Technology and Learning English as a Foreign Language (EFL): Insights Into Digital Literacy From Saudi Environment. *Theory and Practice in Language Studies*. <https://doi.org/10.17507/tpls.1502.13>
- Haliq, A., Zamzani, Z., Wiedarti, P., & Akhiruddin, A. (2023). Self-Access in Digital Literacy: Evaluating the Quality of Information and Reliability of Sources in Writing Academic Essay. *Interference: Journal of Language, Literature, and Linguistics*. <https://doi.org/10.26858/interference.v4i1.44561>
- Ho, T. Le. (2024). Problems with Academic Writing Encountered by EFL Postgraduate Students at a University in the Mekong Delta. *International Journal of Language Instruction*. <https://doi.org/10.54855/ijli.24311>
- Indah, R., Toyyibah, Budhiningrum, A. S., & Afifi, N. (2022). The Research Competence, Critical Thinking Skills and Digital Literacy of Indonesian EFL Students. *Journal of Language Teaching and Research*. <https://doi.org/10.17507/jltr.1302.11>
- Johinke, R., Cummings, R., & Di Lauro, F. (2023). Reclaiming the technology of higher education for teaching digital writing in a post—pandemic world. *Journal of University Teaching and Learning Practice*. <https://doi.org/10.53761/1.20.02.01>
- Mahapatra, S. (2024). Impact of ChatGPT on ESL students' academic writing skills: a mixed methods intervention study. *Smart Learning Environments*, 11. <https://doi.org/10.1186/s40561-024-00295-9>
- Makhachashvili, R., & Semenist, I. (2021). E-Skills and Digital Literacy for Foreign Languages Education: Student Case Study in Ukraine. *Proceedings of the 15th International Conference on E-Learning (EL 2021)*. https://doi.org/10.33965/el2021_2021041001
- Makovskaya, L., & Radjabzade, S. (2022). Source Use by EFL Undergraduate Students: Challenges and Success in Process-based Writing. *Language Related Research*. <https://doi.org/10.52547/lrr.13.3.11>
- Martin, A. (2006). A European framework for digital literacy. *Nordic Journal of Digital Literacy*, 1, 151–161. <https://doi.org/10.18261/issn1891-943x-2006-02-06>
- McGrew, S., Smith, M., Breakstone, J., Ortega, T., & Wineburg, S. (2019). Improving university students' web savvy: An intervention study. *The British Journal of Educational Psychology*. <https://doi.org/10.1111/bjep.12279>
- Nabhan, S. (2021). Pre-Service Teachers'


- Conceptions and Competences on Digital Literacy in an EFL Academic Writing Setting. *Indonesian Journal of Applied Linguistics*, 11. <https://doi.org/10.17509/ijal.v11i1.34628>
- Ng, W. (2012). Computers & Education Can we teach digital natives digital literacy? *Computers & Education*, 59(3), 1065–1078. <https://doi.org/10.1016/j.compedu.2012.04.016>
- Nguyen, A., Hong, Y., Dang, B., Huang, X., Hong, Y., & Dang, B. (2024). Human-AI collaboration patterns in AI-assisted academic writing. *Studies in Higher Education*, 49(5), 847–864. <https://doi.org/10.1080/03075079.2024.2323593>
- Niu, L., Wang, X., Wallace, M., Pang, H., & Xu, Y. (2022). Digital learning of English as a foreign language among university students: How are approaches to learning linked to digital competence and technostress? *J. Comput. Assist. Learn.*, 38, 1332–1346. <https://doi.org/10.1111/jcal.12679>
- Nkansah, J. O., & Oldac, Y. (2024). Unraveling the attributions of digital literacy skills and knowledge gap in Ghana's higher education: Undergraduate students voices in a phenomenological study. *Education and Information Technologies*, 29, 15249–15268. <https://doi.org/10.1007/s10639-024-12483-8>
- Oubibi, M., Hryshayeva, K., & Huang, R. (2025). Enhancing postgraduate digital academic writing proficiency: the interplay of artificial intelligence tools and ChatGPT. *Interactive Learning Environments*, 33, 3940–3958. <https://doi.org/10.1080/10494820.2025.2454445>
- Overstreet, M. (2025). Cultivating networked literacy: Second language writers and the development of online source evaluation strategies. *Computers and Composition*. <https://doi.org/10.1016/j.compcom.2025.102914>
- Prabakaran, N., Patrick, H., & Kareem, J. (2025). Enhancing English Language Proficiency and Digital Literacy Through Metaverse-Based Learning: A Mixed-Methods Study in Higher Education. *J. Inf. Technol. Educ. Res.*, 24, 10. <https://doi.org/10.28945/5484>
- Rinekso, A. B., Rodliyah, R. S., & Pertiwi, I. (2021). Digital literacy practices in tertiary education: A case of EFL postgraduate students. *Studies in English Language and Education*, 8, 622–641. <https://doi.org/10.24815/siele.v8i2.18863>
- Roe, J., Renandya, W., & Jacobs, G. (2023). A Review of AI-Powered Writing Tools and Their Implications for Academic Integrity in the Language Classroom. *Journal of English and Applied Linguistics*. <https://doi.org/10.59588/2961-3094.1035>
- Silvhiany, S., Huzaifah, S., & Ismet, I. (2021). Critical Digital Literacy: EFL Students' Ability to Evaluate Online Sources. *Indonesian Journal of EFL and Linguistics*. <https://doi.org/10.21462/ijefl.v6i1.364>
- Song, C., & Song, Y. (2023). Enhancing academic writing skills and motivation: assessing the efficacy of ChatGPT in AI-assisted language learning for EFL students. *Frontiers in Psychology*, 14. <https://doi.org/10.3389/fpsyg.2023.1260843>
- Tinmaz, H., Lee, Y.-T., Fanea-Ivanovici, M., & Baber, H. (2022). A systematic review on digital literacy. *Smart Learning Environments*, 9. <https://doi.org/10.1186/s40561-022-00204-y>
- Yakubu, M. A., Sain, Z., Lawal, U. S., Budiman, S. A., & Permana, D. (2025). Analysis of

Online Academic Writing Tools Usage among Postgraduate Students in North-west Nigeria. *Kharisma: Jurnal Administrasi dan Manajemen Pendidikan*.

<https://doi.org/10.59373/kharisma.v4i1.69>

Yana, D., Rozimela, Y., & Hamzah, H. (2025). Implementation of a Digital Multimodal Workbook in EFL Academic Writing: Enhancing Students Engagement, Digital and Multimodal Literacies. *Forum for Linguistic Studies*. <https://doi.org/10.30564/fls.v7i12.11652>

Yin, R. k. (2018). *Case Study Research and Applications design and methods*.

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