AT-TAJDID - Jurnal Ilmu Tarbiyah
e-ISSN: 2477-295X
Volume 2, Issue. 2, 2025, pp. 105-122
https://jurnal.isimupacitan.ac.id/index.php/attajdid

Optimizing ChatGPT as a Means of Digital Literacy for 21st Century Students

Anas Sofyan*[1], Munawir Hasan[2], Maftuhah[3]

[1,2] *IAIN Pontianak, Kalimantan Barat, Indonesia.*
[3] *STIT Muhammadiyah Paciran, Jawa Timur, Indonesia.*
e-mail:
[1]ibnumiyahanassofyan@gmail.com
[2]munawirhasan98@gmail.com
[3]kireina1704@gmail.com

Submitted: 02-01-2025 Revised : 22-02-2025 Accepted: 27-04-2025

ABSTRACT. The era of artificial intelligence (AI) presents challenges as well as opportunities for the development of 21st century student literacy. ChatGPT as a form of generative AI can be used as a digital literacy medium that is able to facilitate access to information, expand insights, and foster a reading culture. This article aims to analyze reading habituation strategies by utilizing ChatGPT optimally and identify opportunities and risks that arise in the context of academic literacy. The research method used is qualitative descriptive with a case study approach through interviews with students and lecturers. The results of the discussion show that ChatGPT can function as a literacy facilitator, especially as an entrance to understanding initial concepts before students deepen with credible academic reading. However, there are risks such as dependence, low information verification, and reduced critical thinking skills when used passively. Therefore, the optimization of ChatGPT must be directed at critical, evaluative, and creative reading habits so that students are able to develop digital literacy competencies in a balanced manner. In conclusion, reading habituation by utilizing ChatGPT in the AI era can be an effective strategy to form a literacy generation that is productive, adaptive, and ready to face the challenges of the 21st century.

Keywords: *ChatGPT, Digital Literacy, 21st Century College Student.*

https://doi.org/10.52640/attajdid.128
How to Cite Sofyan, et.al. (2025). Optimizing ChatGPT as a Means of Digital Literacy for 21st Century Students *AT-TAJDID - Jutrnal Ilmu Tarbiyah,* Volume 2(2), 105-122.

INTRODUCTION

Reading is the main foundation in the formation of a person's character, thinking skills, and literacy skills. In the world of education, reading habits have a central role in supporting a meaningful and sustainable learning process. Reading activities not only function as a means of obtaining information, but also as a process of internalizing values, sharpening analytical power, and developing critical reasoning (Putri & Siahaan, 2022). Reading helps a person form his or her intellectual identity and becomes an important part of the lifelong learning process. With the habit of reading, it must be instilled from an early age, both in the family, school, and community. Then in the context of modern education, reading habits are an important indicator in assessing the quality of learning carried out, the higher the reading culture of an individual or society, the greater the opportunity to face the challenges of the times (Kuijpers and Douglas 2020).

The fast-paced and instant digital era is currently one of the causes of problems with reading interest, especially among the younger generation, which has decreased significantly. Information that is widespread on the internet is more consumed in the form of short visuals,

such as short videos, infographics, and instant summaries, rather than through whole, in-depth reading. This tendency creates a culture of "scrolling" without deep information processing. This phenomenon is known as "reading avoidance behavior", which is the tendency to avoid long reading because they are used to instant access to information. As a result, the ability to read in depth, discourse analysis, and reading endurance has become weaker, in fact, reading texts that could previously be enjoyed slowly, are now considered boring and impractical, even though complete and reflective reading is the core of the development of critical thinking (Kuijpers et al., 2020).

One of the main challenges in reading habituation in the digital era is to re-cultivate a sustainable and contextual reading culture, reading culture is not only about the technical ability to understand words and sentences, but also the skills to dive, interpret, and connect reading with social and personal reality. In the midst of exposure to digital information flows, readers are required to be able to sort out and understand the meaning contained in the text (Parijkova, 2019). This is where artificial intelligence technology, such as ChatGPT, can be seen as both an opportunity and a challenge in the literacy process. The emergence of AI must be seen critically and strategically so that it can be used productively, not instead of reinforcing instant habits, in this context, ChatGPT can be a bridge between readers and texts through interactive dialogue that sharpens reasoning (Karaali, 2023).

ChatGPT as a generative AI product based on the Large Language Model (LLM) provides extraordinary capabilities in answering questions, explaining concepts, and compiling text that resembles human writing, this model is trained with very large language data so that it is able to understand user requests and respond with coherent and relevant language. This tool is now starting to be used in various fields, including in the world of education to support teaching and learning activities and knowledge exploration. With these features, ChatGPT can be an effective learning tool, especially for students who need additional explanations. However, its effectiveness depends largely on how it is used by students and teachers. Without proper control and direction, this interaction with AI can become passive and not stimulate active learning (Hariri, 2023).

Research Amien & Kusumawati, (2024) with the title *The Utilization of ChatGPT in Language Learning and Literacy*, in its research reveals that through a literature study, this article concludes that ChatGPT can improve students' reading, writing, and critical thinking skills. The advantages include personalized, responsive, and flexible interactions. However, challenges such as the limitations of the cultural context and the need for verification still need to be considered (Amien & Kusumawati, 2024). Then in the research of Umi Rachmawati, et al,. (2025) with *The TechnologyEnhanced Teaching Reading of English in Junior High School Level: Teachers' Perspectives*, the researcher noted that, based on a case study in junior high school, this study found that the integration of digital technology including AI adapts reading learning to students' multimodal style, as well as demands a more contextual and strategic approach in the use of AI in the classroom (Rachmawati, et al., 2025). And also in the research of Hasanah & Degeng (2025 with the title *Rethinking AI literacy: How high school students navigate ChatGPT in English language learning*, in his research revealed that students with high AI literacy are able to utilize ChatGPT for deep learning. In contrast, students with low AI literacy tend to use it passively and only for basic tasks (Hasanah and Degeng 2025).

Reading habits in the 21st century in the context of learning, students are getting used to using ChatGPT to answer assignments, understand material, or search for quick references, this interaction provides a practical, efficient, and extensive learning experience in terms of access to information sources. However, this habit also carries risks if it is not accompanied by critical reflection and a deep rereading process. Although technology has accelerated access to information, not all students are able to process and understand the content in its entirety, many simply copy the answers without paying attention to the structure of the argument or the

accuracy of the content produced. This shows that literacy skills do not automatically increase just because of technology.

Facts in the field show that most students in the 21st century tend to copy the results of ChatGPT without rereading, understanding the context, or criticizing the content provided, this phenomenon causes anxiety in the world of education because it can dull the thinking and reading ability of students in this 21st century era. Literacy, in this context, is not just reading texts, but reading reflectively, critically, and transformatively. Healthy literacy education requires active involvement between the reader and the text, if students are only passive recipients of the answers provided by AI, then the learning process becomes superficial, especially when students are not invited to analyze, evaluate, and rewrite with personal understanding.

This phenomenon is a particular concern in the world of education, especially in an effort to improve literacy in the modern era, various reports show that students' reading comprehension skills are still at the middle to lower level in several developing countries, including Indonesia. In fact, the results of ChatGPT can actually be used as active learning materials, reflective reading sources, and spark analytical discussions. Digital literacy should not only be about accessing information, but also about processing, understanding, and synthesizing this information responsibly.

This study shows that the guided use of ChatGPT can improve students' reading comprehension skills. The senior in student affairs who facilitated his junior interaction with ChatGPT to analyze text and compile summaries, successfully cultivated an interest in reading and critical thinking skills. However, the researcher emphasized the importance of senior mentoring so that juniors not only copy, but also understand the content of the text. The study found that junior students' reading motivation tended to increase if they were given access to AI technology such as ChatGPT, which is able to simplify text and provide quick explanations. However, literacy improvement only occurs if junior students are directed to analyze the results of AI, rather than passively using it. In the context of learning reading habits in the 21st century, ChatGPT has proven to be effective as an exploratory tool for students, especially junior students, in understanding complex texts and developing their literacy understanding. The seniors in the study used ChatGPT as a "text discussion opener", and the results showed improvements in listening and critical reading skills.

This research aims to examine the potential, challenges, and strategies in optimizing the results of ChatGPT as a literacy medium that can shape reading habits in the era of artificial intelligence. With a strong theoretical foundation and an experiential case study approach in various types of students in the 21st century. This research seeks to contribute to the development of literacy practices in the digital era, literacy must be returned to its essence as a process of liberating the mind, not just a tool to absorb information. Through reading habituation supported by AI technology, literacy education will be more adaptive to the times without losing human values. Therefore, synergy between technology, pedagogy, and education policy is needed to make ChatGPT not just a tool, but a partner in creating a literate and intelligent learning ecosystem.

METHOD

This study employs a qualitative descriptive approach with a case study design to examine how ChatGPT can be optimized as a literacy medium to encourage reading habits among students in the artificial intelligence (AI) era. A qualitative descriptive approach was selected because it enables the researcher to explore participants' experiences, perceptions, and practices in using ChatGPT to support reading activities. The case study design allows the phenomenon to be examined in its specific educational context through the collection and comparison of information from multiple sources. According to Creswell (2018), case study research facilitates

an in-depth investigation of a phenomenon within its real-life context using diverse sources of evidence. In this study, the primary focus is to understand how students use ChatGPT to access reading materials, comprehend information, and support their literacy practices.

The participants were selected using purposive sampling, a non-probability sampling technique in which participants are deliberately chosen based on their relevance to the research objectives. This technique was considered appropriate because the study required participants who had experience using ChatGPT and could provide information about its use in reading-related activities. Three students participated in the study and were identified using pseudonyms to protect their identities: Participant A, Participant B, and Participant C. These participants were selected based on their experience using ChatGPT, their involvement in reading activities supported by the platform, and their ability to describe their experiences and perceptions. The selection was intended to obtain information-rich accounts rather than to achieve statistical representativeness. Consequently, the findings are interpreted within the context of the selected case and are not intended to represent all students who use ChatGPT.

The study used both primary and secondary data. Primary data were obtained through interviews with the three participants and observations of their practices when using ChatGPT for reading-related activities. The interviews explored participants' experiences, purposes for using ChatGPT, strategies for understanding reading materials, perceived benefits, and difficulties encountered during the process. Observations focused on how participants interacted with ChatGPT, formulated prompts, accessed explanations, and used the generated responses to support their reading activities. Secondary data were obtained from relevant ChatGPT conversation records produced or managed by the participants, together with supporting academic literature on literacy, reading habits, digital learning, and the use of artificial intelligence in education. The conversation records were examined as documentary evidence of actual interactions with ChatGPT and were compared with the interview and observation findings.

Data collection was conducted through three complementary procedures. First, semi-structured interviews were used to obtain detailed descriptions of participants' experiences and perspectives. This format provided a consistent focus across interviews while allowing follow-up questions to clarify relevant responses. Second, observations were conducted to identify patterns in participants' interactions with ChatGPT during reading-related activities. Third, documentary analysis was undertaken to examine selected conversation records and identify how ChatGPT was used to explain unfamiliar concepts, clarify information, and support comprehension. Combining these techniques enabled the researcher to compare what participants reported with their observed practices and the documentary evidence available.

The collected data were analyzed using the interactive model of qualitative data analysis developed by Miles, Huberman, and Saldaña (2014). The model consists of three interconnected activities: data condensation, data display, and conclusion drawing and verification. These activities were conducted iteratively throughout the analysis rather than as strictly sequential stages. The first stage, data condensation, involved selecting, organizing, coding, and summarizing information relevant to the research questions. Interview transcripts, observation notes, and ChatGPT conversation records were reviewed to identify meaningful information concerning reading practices, comprehension support, perceived usefulness, and challenges associated with ChatGPT use. Similar statements and observed behaviors were grouped into preliminary codes, which were subsequently organized into broader categories.

The second stage, data display, involved organizing the coded information into descriptive summaries and comparative matrices. The information from each participant was compared across interviews, observations, and documentary records to identify recurring patterns, similarities, and differences. This stage helped the researcher examine how ChatGPT supported

reading activities, which features participants considered useful, and what limitations emerged during its use.

The third stage, conclusion drawing and verification, involved interpreting the identified patterns in relation to the research objectives and relevant literature. Preliminary conclusions were examined against the available interview data, observation notes, and conversation records to determine whether the interpretations were adequately supported by the evidence. Contradictory or inconsistent information was also considered to avoid relying exclusively on positive accounts of ChatGPT use. Through these interconnected stages, the analysis developed from raw qualitative data into evidence-based findings regarding the potential of ChatGPT as a literacy medium for developing reading habits.

To strengthen the credibility of the findings, the study employed data triangulation by comparing information obtained through interviews, observations, and documentary analysis. The comparison was intended to identify areas of convergence and divergence across the data sources. The researcher also maintained a clear connection between the collected evidence, the coding process, the resulting categories, and the final interpretations. This procedure supported a more systematic and transparent analysis of the participants' experiences.

Ethical considerations were addressed by protecting participants' identities through the use of pseudonyms and limiting the reporting of personally identifiable information. The use of ChatGPT conversation records was also treated carefully to protect personal information contained in the documents. Participants' statements and recorded interactions were interpreted in their research context and were not used to make claims beyond the evidence collected. These measures were intended to preserve confidentiality and support responsible qualitative research practices.

The method section describes the steps that were passed in executing the research or study. Therefore, it is necessary to show in detail to the reader why the method used is reliable and valid in presenting research findings. The research methods section should be able to explain the research methods used, including how the procedures are implemented, an explanation of the tools, materials, media or instruments used, an explanation of the research design, population and sample (research targets), data collection techniques, instrument development, and technique of data analysis. Writing subtitles in the method should be included in the paragraph instead of bullets, or numbering. For qualitative research such as classroom action research, case studies, etc., it is necessary to add the presence of researchers, research subjects, and informants who helped along with ways to explore research data, location and duration of research as well as a description of checking the validity of research results.

RESULT AND DISCUSSION

Result

The findings indicate that the use of ChatGPT has influenced how students access and understand academic information. Participants described ChatGPT as a convenient tool for obtaining explanations and completing initial stages of academic tasks. However, their experiences also revealed that quick access to information did not always lead to a comprehensive understanding of the material.

Participant A, a seventh-semester student, explained that ChatGPT had become one of the first tools used when working on university assignments. The participant stated:

"Now if I have a lecture assignment, I often go straight to ChatGPT. It is very helpful because the answer comes out quickly. But sometimes I realize, if I just read the results without opening another book or journal, I don't understand the details" (Interview, June 12, 2025).

This account illustrates a distinction between obtaining information efficiently and developing a deeper understanding through sustained reading. The participant acknowledged that ChatGPT provided convenient explanations but recognized the limitations of relying exclusively on its responses.

A similar concern emerged from Participant B, a fourth-semester student, who highlighted difficulties in determining the accuracy and academic credibility of information generated by ChatGPT:

"ChatGPT is good for helping to understand the material. But if the lecturer asks for a clear reference, I am still confused because AI does not always provide an accurate source" (Interview, June 13, 2025).

Participant C, a third-semester student, also described how access to summarized information could reduce the motivation to read original academic texts. The participant explained:

"Sometimes I get lazy to read books. Because with ChatGPT, everything has been summarized. But during class discussions, it turned out that I had a bit of trouble developing ideas" (Interview, June 14, 2025).

These interview accounts identify three recurring issues in the participants' experiences: the convenience of obtaining academic information, the difficulty of verifying its credibility, and the possibility that dependence on summarized responses may limit engagement with longer texts. The findings suggest that students' experiences with ChatGPT involve both opportunities for understanding academic material and challenges in maintaining independent reading practices.

The participants also described ChatGPT as a tool that could help them approach unfamiliar or complex academic topics. Its explanatory responses allowed them to obtain an initial overview before consulting more detailed references.

Participant A described this practice as follows:

"If I am confused about the lecture material, I usually ask ChatGPT first. The answer is easier to understand, so after that I can look for a more detailed book or journal" (Interview, June 12, 2025).

This account suggests that ChatGPT can function as an initial learning resource that helps students identify and understand key concepts before engaging with more comprehensive academic literature.

Participant B similarly described using ChatGPT to obtain a summary before reading journal articles:

"I like to use ChatGPT because it can give you a quick summary. But after that, I usually keep opening journal articles, so that they are more complete and I can quote them in assignments" (Interview, June 13, 2025).

The participant's experience demonstrates a pattern in which AI-generated summaries are used to support, rather than entirely replace, subsequent reading. By obtaining an initial explanation, students may find it easier to identify relevant information in academic publications.

Nevertheless, the participants recognized the limitations of AI-generated responses. Participant C stated:

"ChatGPT answers are helpful, but sometimes there is no source. So I still have to check again in journals or books to be more sure" (Interview, June 14, 2025).

The participants' accounts therefore reveal different ways of engaging with ChatGPT. While its explanations can make academic content more accessible, the participants also identified the need to consult original references and verify the information provided. These experiences indicate that the educational value of ChatGPT depends partly on how students incorporate its responses into their reading activities.

The findings identify the use of AI-generated summaries followed by more extensive reading as one strategy employed by the participants. This practice involves using ChatGPT to understand the general outline of a topic and then consulting books, journals, or scientific articles to obtain more detailed explanations.

Participant A explained:

"Usually I look for a summary in ChatGPT first so that I understand the outline, then I open a book or journal to make it more complete" (Interview, June 12, 2025).

Participant B also described using additional academic references when completing university assignments:

"When it comes to college assignments, I don't just use AI. After getting a brief explanation, I looked for another original reference so that I could quote it" (Interview, June 13, 2025).

These accounts indicate that the participants recognized the importance of moving beyond preliminary explanations and consulting original academic sources. Such practices can provide opportunities to compare explanations, identify supporting evidence, and develop a more complete understanding of a subject.

Participant C reported that lecturers' requirements to include journal references also encouraged further reading:

"My lecturers usually allow me to use ChatGPT, but I still have to include journal sources. So I'm used to reading more than one reference" (Interview, June 14, 2025).

This statement highlights the potential role of academic assignments in directing students toward more extensive reading. When students must support their work with credible references, they have a reason to examine sources beyond AI-generated responses.

The findings suggest that reading habits can be supported when ChatGPT use is accompanied by activities that require students to consult, compare, and evaluate academic literature. However, the extent to which these practices develop into consistent long-term reading habits requires further investigation beyond the experiences reported in this case study.

The participants' experiences revealed both potential benefits and risks associated with using ChatGPT for academic literacy. The perceived benefits included easier access to explanations, assistance in understanding unfamiliar material, and support in identifying topics for further reading. Participant A explained that shorter and more accessible explanations could encourage the participant to search for additional sources when dealing with difficult lecture material (Interview, June 12, 2025).

At the same time, dependence on immediate responses could reduce the motivation to engage with original academic texts. Participant B acknowledged this risk:

"Sometimes I get too quickly satisfied with the answers from AI. Finally, I was lazy to open a book or a long article because I felt that the answer was enough" (Interview, June 13, 2025).

This statement illustrates how convenience can become a barrier to deeper reading when students regard AI-generated responses as sufficient for completing an academic task. It also indicates that the usefulness of ChatGPT does not automatically translate into improved reading engagement.

The participants further emphasized the need to verify information. Participant C explained that responses without identifiable references required additional checking through books and journals (Interview, June 14, 2025). This concern was consistent with the participants' accounts of using ChatGPT as an initial source of explanation rather than as the final authority for academic information.

Taken together, the findings show that ChatGPT can support students' access to academic knowledge while also creating challenges related to reading persistence, source verification, and independent comprehension. The participants' experiences point to the need for literacy practices that combine the accessibility of AI-generated explanations with sustained engagement with reliable academic literature.

The findings indicate that the participants viewed ChatGPT as a supporting tool for understanding academic concepts, generating initial ideas, and identifying directions for further reading. Their accounts suggest that the platform was most useful when its responses served as the beginning of a learning process rather than the final product.

Participant A described ChatGPT as a preliminary learning resource:

"If I use ChatGPT, it is usually to understand the initial concept. For example, the theory of digital literacy. But after that, I kept reading journals to go deeper. So I think ChatGPT is like a gateway to learning, not the end goal" (Interview, June 12, 2025).

Participant B similarly explained:

"I think ChatGPT is good for brainstorming, especially if you are confused about where to start. But for paper assignments, I always double-check with a clear source. So I think of ChatGPT as an initial draft that I have to develop" (Interview, June 13, 2025).

Participant C emphasized the importance of critical evaluation when using the platform:

"ChatGPT can be an effective 21st century literacy tool, as long as students are not lazy to verify. Precisely with ChatGPT, students can learn to compare sources and get used to reading more. The challenge is how do we educate students to not only accept raw information, but to be able to analyze it critically" (Interview, June 14, 2025).

These accounts suggest that the participants recognized the importance of combining AI-assisted learning with independent reading and information verification. In this context, ChatGPT was perceived as a tool for initiating inquiry, while further reading and critical evaluation remained necessary for developing a more comprehensive understanding of academic topics.

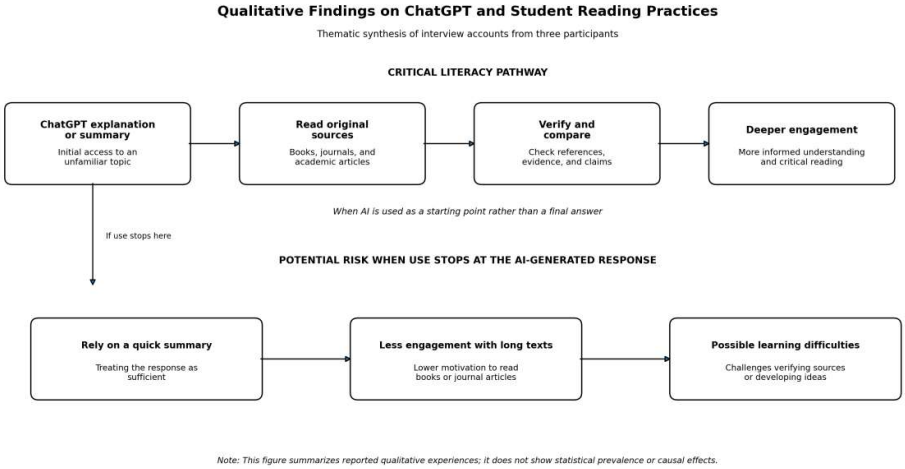


Figure 1 Qualitative Findings on ChatGPT and Student Reading Practice

Figure 1 illustrates the key themes identified in the participants' interview accounts. The findings indicate that ChatGPT can support initial understanding and facilitate access to academic information when students proceed to read original sources and verify the information obtained. However, when students regard AI-generated summaries as sufficient, they may become less engaged with academic texts and encounter difficulties in verifying information or developing their own ideas. These findings suggest that the contribution of ChatGPT to student literacy depends on how its use is integrated with independent reading and critical evaluation.

Discussion

The findings illustrate a central tension in digital literacy: the same technology that makes academic information more accessible may also encourage superficial engagement when students rely excessively on summarized responses. The participants' experiences show that ChatGPT can simplify the initial stages of reading, particularly when students encounter unfamiliar concepts. However, easier access to explanations does not necessarily ensure that students understand arguments in depth or can independently develop ideas from the material they read.

This finding is consistent with the concern raised by Nasrullah (2023) regarding the challenges of critical literacy in an AI-supported information environment. When students receive immediate answers, they may be less inclined to examine the reasoning, evidence, and context underlying those answers. The experience described by Participant A, who recognized difficulty understanding details without consulting books or journals, illustrates this distinction between immediate comprehension and deeper academic understanding.

Similarly, the experience reported by Participant C suggests that dependence on summarized content may affect students' ability to elaborate ideas during academic discussions. This observation supports the argument that reading literacy involves more than obtaining information. Students must engage with arguments, identify relationships between concepts, and

develop interpretations through sustained interaction with texts. Fauzi and Nurhadi (2022) emphasize the need to develop students' capacity to evaluate and manage information critically rather than accept digital content without further examination. Nevertheless, the findings do not establish that ChatGPT necessarily reduces students' reading habits. Instead, they indicate that its influence depends on how students use the platform and whether their learning practices include further reading. ChatGPT may encourage shallow engagement when its responses replace original texts, but it may also facilitate more purposeful reading when students use its explanations to prepare for a deeper examination of academic literature.

The participants' accounts indicate that ChatGPT can function as an entry point to digital literacy by helping students approach complex material through accessible explanations. Participants A and B described using the platform to obtain an initial understanding before consulting books or journal articles. This pattern suggests a complementary relationship between AI-assisted explanations and conventional academic reading. Rahman (2023) discusses the potential of ChatGPT to facilitate access to information and support learning activities. The present findings provide contextual evidence of how this function may operate in students' reading practices. By obtaining an initial explanation, students may be better prepared to identify relevant concepts and formulate questions when reading more complex sources.

However, digital literacy requires more than the ability to access and understand online information. It also involves assessing credibility, examining evidence, comparing different accounts, and identifying unsupported claims. Participant C's concern about responses without clear references demonstrates the importance of these evaluative skills. This result is consistent with the perspective presented by Fadhilah (2021), which emphasizes the importance of evaluating information credibility in digital environments. The implication is that ChatGPT should not be treated as an independent guarantee of accuracy. Instead, students should use its responses as provisional explanations and assess their reliability against identifiable academic sources.

The findings also suggest that the effectiveness of ChatGPT as a literacy medium should be evaluated through students' subsequent reading practices, not merely through the speed or accessibility of its answers. A student who reads an AI-generated summary and then examines the original academic text engages in a different learning process from a student who submits the summary without further verification. One recurring pattern in the findings is the use of ChatGPT summaries followed by reading from original academic sources. This approach can be described as a double-reading strategy because students engage first with a preliminary explanation and subsequently with a more comprehensive text.

The experiences of Participants A and B demonstrate how this strategy may support the transition from introductory understanding to deeper engagement. An initial explanation can help students identify the main concepts, while subsequent reading enables them to examine supporting evidence, understand theoretical details, and construct their own arguments. This process may also create opportunities for students to compare the AI-generated explanation with the original source. The strategy is consistent with the concept of blended literacy discussed by Siregar (2022), which emphasizes the relationship between digital literacy and engagement with conventional written materials. Rather than positioning AI-assisted reading and academic reading as competing practices, the strategy integrates them into a broader learning process.

Nevertheless, obtaining a summary before reading an original text is not sufficient by itself to establish a lasting reading habit. Reading habituation requires repeated engagement over time, and the current findings primarily describe the participants' reported practices and perceptions. Further research would be needed to determine whether the strategy leads to sustained increases in reading frequency, reading duration, or comprehension.

The role of lecturers is also relevant. Participant C's account indicates that assignments requiring journal references encouraged engagement with multiple sources. This suggests that lecturers can structure learning activities in which ChatGPT supports initial exploration but cannot substitute for evidence-based academic work. For example, assignments can require students to identify an AI-generated claim, locate a relevant academic source, compare the two accounts, and explain any differences. Such tasks directly connect the use of AI with critical reading and evidence evaluation.

The study identifies opportunities to make academic information more accessible and to help students begin reading subjects that initially appear difficult. Interactive explanations may reduce barriers to understanding unfamiliar terminology and allow students to clarify concepts before reading more advanced material. These affordances may support motivation to explore academic topics, as reflected in Participant A's account. However, the findings also identify risks associated with excessive reliance on immediate answers. Participant B's experience illustrates how satisfaction with an AI-generated response may discourage further reading. This issue is particularly relevant when students interpret fluency and apparent completeness as evidence of accuracy.

Dwivedi et al. (2023) discuss the opportunities and challenges presented by generative AI across different contexts. In the context of student literacy, these opportunities should be considered alongside the need for critical evaluation and responsible use. The participants' experiences suggest that the educational value of ChatGPT depends on whether students maintain responsibility for checking information and developing their own understanding. Source verification is therefore a central component of AI-supported literacy. Students should check bibliographic details, examine original publications, and avoid citing references they have not consulted or cannot verify. They should also recognize that generated explanations may omit relevant qualifications or present information without sufficient evidence.

The findings do not demonstrate that all students will experience these risks in the same way. The study involves three participants, and their accounts provide contextual insights rather than statistically generalizable evidence. The results should therefore be understood as an exploration of possible benefits and difficulties within the case under investigation.

The findings suggest that optimizing ChatGPT for twenty-first-century literacy requires a shift from answer-oriented use to inquiry-oriented learning. Rather than using the platform exclusively to obtain completed responses, students can use it to generate preliminary explanations, identify unfamiliar concepts, formulate questions, and determine which topics require further investigation.

This approach is consistent with the framework presented by Fadel et al. (2015), which emphasizes skills associated with critical thinking, creativity, communication, and collaboration. These skills require students to do more than receive information. They must analyze information, evaluate its relevance, develop arguments, and communicate conclusions supported by evidence. The participants' accounts also reinforce the view that ChatGPT-generated content should serve as a starting point rather than a substitute for academic reading. Participant A used ChatGPT to understand initial concepts, while Participant B described checking its responses against identifiable sources. Participant C emphasized the importance of verification and comparison. Together, their accounts suggest that AI-supported literacy can be organized around a cycle of initial explanation, independent reading, source comparison, and critical interpretation.

The educational implication is that students need explicit guidance on how to evaluate AI-generated information and integrate it responsibly into academic work. Lecturers can support this process by designing assignments that require primary-source consultation, evidence-based argumentation, and reflection on discrepancies between AI-generated responses and published literature. These practices can preserve the accessibility of ChatGPT while maintaining the

academic value of independent reading. ChatGPT should therefore be understood as a supplementary literacy medium whose educational contribution depends on students' reading strategies and critical judgment. Its use becomes more consistent with twenty-first-century literacy when students actively verify, compare, interpret, and develop the information they receive, rather than accepting generated responses as final and authoritative answers.

The discussion section aims to: (1) answer the problem formulation and research or study questions; (2) shows how the findings were obtained or found; (3) interpret the findings; (4) linking research findings or studies with established knowledge structures; and (5) bring up new theories or modifications to existing theories, by comparing the results of previous studies that have been published in reputable journals.

In answering the formulation of the problem or research questions, the results of the study must be concluded explicitly regarding previous research. Interpretation of research findings or studies can be done using empirical logic based on existing theories or previous research results in reputable journals both international and national, while findings in the form of reality in the field are integrated or linked to the results of previous studies or with existing theories. For this purpose, the author is required to refer to international journals (Scopus) and national journals (Sinta). In bringing up new theories, old theories can be confirmed or rejected by the author, some may need to modify theories from old theories, and reference the results of research or studies used by the author, must reference the last 10 (ten) years.

The discussion section is expected to contribute and new colors for the development of science. Therefore, the authors are expected to pay special attention to ensure that the discussion is written is an important part of the entire contents of the article, which can improve the quality of science in the field of educational management science. Articles are written in Tarbawi: Jurnal Keilmuan Pendidikan, social, budaya, dan keagamaan ranging from 5000 to 8000 words or equivalent to 15 to 20 pages according to the provisions in this template.

CONCLUSION

This study found that ChatGPT can serve as a supporting medium for student literacy by providing accessible explanations, simplifying unfamiliar concepts, and helping students identify topics for further reading. Interviews with the three participants revealed that ChatGPT was often used to obtain an initial understanding of academic material before consulting books and journal articles. However, the findings also highlighted several challenges, including the risk of dependence on AI-generated summaries, difficulties in verifying information, and reduced engagement with original academic texts when students considered AI responses sufficient. These findings indicate that the contribution of ChatGPT to reading practices depends on how students integrate its use with independent reading and critical evaluation.

The study identifies a double-reading strategy as a potential approach to optimizing ChatGPT for reading habituation. Through this approach, students first use ChatGPT to obtain an overview of a topic and subsequently examine credible academic sources to verify information, deepen their understanding, and develop their own arguments. Nevertheless, the participants' experiences do not establish that this strategy automatically produces sustained reading habits. Its effectiveness depends on students' continued engagement with academic literature and their willingness to evaluate AI-generated information critically.

Teachers and lecturers also play an essential role in optimizing the educational use of ChatGPT. Rather than simply permitting or prohibiting AI use, educators need to design learning activities that require students to verify AI-generated claims against credible academic sources, compare explanations with original publications, and develop evidence-based arguments in their

own words. Assignments may require students to identify the sources supporting an AI-generated response, evaluate the accuracy of its claims, and explain any discrepancies between the response and the academic literature. Such pedagogical designs position ChatGPT as a starting point for inquiry rather than a substitute for independent reading and critical thinking.

Since this study involved three student participants, the findings provide contextual insights into their experiences rather than statistically generalizable conclusions about all students. Further research involving more diverse participants and systematic measures of reading frequency, reading comprehension, and source-evaluation skills would help establish how AI-assisted reading practices relate to longer-term literacy development. ChatGPT can therefore contribute to twenty-first-century literacy when its accessibility is combined with sustained reading, source verification, and pedagogical practices that strengthen students' intellectual independence.

REFERENCE

Abdelrahman, M, S Hu, O Al-Shamaileh, R Hammady, and N Nizamuddin. 2026. "The Role of ChatGPT in Higher Education: A Systematic Literature Review of Applications, Perceptions and Ethical Implications." *Journal of Information, Communication and Ethics in Society*: 1–31. doi:10.1108/JICES-09-2025-0261.

Abdian Amien, Andito, and Hesti Kusumawati. 2024. "Optimalisasi CHATGPT Dalam Pembelajaran Bahasa Indonesia Berbasis Ekologi Di SMAN 4 Pamekasan." *GHANCARAN: Jurnal Pendidikan Bahasa dan Sastra Indonesia*: 63–76. doi:10.19105/ghancaran.vi.17181.

Abdulrahman, A A, and S K Ahmed. 2026. "Mapping Generative AI Governance Readiness in Kurdistan Region Universities." *Discover Education* 5(1). doi:10.1007/s44217-026-02242-x.

Acuyo Cespedes, A, and M Gordon Ray Courtney. 2026. "Student AI Resistance: Status Anxiety and Trust in Kazakhstani Higher Education." *Asian Education and Development Studies*. doi:10.1108/AEDS-11-2025-0604.

Akter, M S, F Yeasmin, U Golder, and M T Islam. 2026. "Determinants of ChatGPT Adoption and Educational Level Gap: Evidence from Bangladesh." *Asian Education and Development Studies*: 1–27. doi:10.1108/AEDS-10-2025-0531.

Al-Dosari, M N A, A Lamouchi, A N A Aldwsri, M S Abdellatif, R N A Aldosari, and H M Ibrahim. 2026. "ChatGPT and the Digital Humanities: A Cross-Domain Review of Human-AI Collaboration in Education, Work, and Culture, and the Question of Trust for Advancing SDG 4." *Research Journal in Advanced Humanities* 7(4). doi:10.58256/8h63pn25.

Al-Sayid, F, H Alpago, and G Kirkil. 2026. "Exploring Student Motivations for AI Usage in Education: Nisantasi in Turkey, a Case Study." *Acta Psychologica* 266. doi:10.1016/j.actpsy.2026.106852.

Alam, M, and S Dubey. 2026. "Ethical and Cultural Perspectives on ChatGPT Use in Higher Education." *International Journal of Evaluation and Research in Education* 15(4): 3576–82. doi:10.11591/ijere.v15i4.37857.

Alzoubi, H, S A Ba-shammakh, S Khasawneh, O Mahrouq, K Alomari, A Almomani, D Thalji, et al. 2026. "Exploring the Use of AI Methods and Chatbots in Medical Education among Medical Students in Jordan: A Cross-Sectional Study." *BMC Medical Education* 26(1). doi:10.1186/s12909-026-08836-1.

Anggraini, C N, N Rachmadania, C Nugroho, A Wulandari, and N Rina. 2026. "How Students Make Sense of ChatGPT in Digital Literacy Education: Reflections on Ethics, Dependency, Emotion, and Evaluation." *Frontiers in Political Science* 8. doi:10.3389/fpos.2026.1784691.

De Asis, R D. 2026. "Generative AI as a Writing Scaffold: Use, Perceptions, and Writing Quality among Pre-Service Teachers in the Philippines." *Social Sciences and Humanities Open* 14. doi:10.1016/j.ssaho.2026.103275.

Ball, C, K.-T. Huang, X Nie, E Kong, and J M S Dilinika. 2026. "The Generative Artificial Intelligence (GenAI) Divide: Exploring the Individual Factors Influencing GenAI Competency, Adoption Readiness, and Psychological Barriers." *Cyberpsychology, Behavior, and Social Networking* 29(3): 184–91. doi:10.1177/21522715261423789.

Cascella, P W. 2026. "Graduate Students' Perspectives on a Constructivist and Personalized App Literacy Educational Workshop." *Communication Disorders Quarterly* 47(3): 151–59. doi:10.1177/15257401251380238.

Chang, Q. 2026. "ChatGPT:Https://Chatgpt.Com." *RELC Journal* 57(1 Feedback in writing: Perspectives, Opportunities, and Challenges in the Globalized Era): 269–75. doi:10.1177/00336882251399226.

Creswell, J. W. (2018). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (5th ed.). Thousand Oaks: SAGE Publications

Dwivedi, Y. K., Hughes, L., Baabdullah, A. M., Ribeiro-Navarrete, S., Giannakis, M., Al-Debei, M. M., & Wamba, S. F. (2023). So what if ChatGPT wrote it? Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management, 71*, 102642. https://doi.org/10.1016/j. ijinfomgt.2023. 102642

Fadhilah, N. (2021). Strengthening Digital Literacy in Higher Education in the Era of Technological Disruption. Journal of Islamic Education, 12(2), 145–160. https://doi.org/10. 19109/jpi.v12i2.7654

Farhat, Z. 2026. "When AI Thinks for Us: Unveiling the Cognitive and Social Toll of ChatGPT Over-Reliance." *Applied Cognitive Psychology* 40(3). doi:10.1002/acp.70205.

Fauzi, A., & Nurhadi. (2022). Digital Literacy and the Challenges of Higher Education in the Era of Disruption. Journal of Education and Technology, 5(2), 101–115. https://doi.org/10.31004/jpt.v5i2.5432

Güler, M A, S Dağ, S Kayal, M Can, and S N Şimşekkaya. 2026. "Physiotherapy Students' Acceptance of AI-Based Chatbots (Including ChatGPT) in Education: A Multi-Institutional Study from Turkey." *BMC Medical Education* 26(1). doi:10.1186/s12909-025-08535-3.

Hariri, W. (2023). Unlocking the Potential of ChatGPT: A Comprehensive Exploration of its Applications, Advantages, Limitations, and Future Directions in Natural Language Processing. *arXiv.Org, ABS/2304.02017*. https://doi.org/10. 48550/arXiv.2304.02017

Hasanah, F. F., & Degeng, P. D. D. (2025). Rethinking AI literacy: How high school students navigate ChatGPT in English language learning. *English : Journal of Language, Education, and Humanities*, *12*(2), 237. https://doi.org/10.22373/ej.v12i2.29157

Hamamra, B, Z N. Khlaif, and N Mahamid. 2026. "AI Literacy and Mediated Learner Autonomy in ChatGPT-Supported EFL Writing: A Qualitative Study at a Palestinian University." *International Journal of Educational Technology in Higher Education* 23(1). doi:10.1186/s41239-026-00597-7.

Hamsiah, A, A Rizal, and A R Malik. 2026. "ChatGPT Use in Higher Education Writing and Its Relationship with Critical Thinking Autonomy Struggle and Authorship." *Discover Education* 5(1). doi:10.1007/s44217-026-01627-2.

Hasanah, Farah Faridatul, and Putu Dian Danayanti Degeng. 2025. "Rethinking AI Literacy: How High School Students Navigate ChatGPT in English Language Learning." *Englisia : Journal of Language, Education, and Humanities* 12(2): 237. doi:10.22373/ej.v12i2.29157.

Hua, J, and J Cunningham. 2026. "Two Years after ChatGPT: A Thematic Analysis of First-Year Students' Reflections on AI Tool Use in Higher Education." *Journal of Information, Communication and Ethics in Society* 24(3): 458–73. doi:10.1108/JICES-05-2025-0118.

Huang, W, Y Jiang, J Lin, T Qiao, and X Liang. 2026. "How Motivation to Use Artificial Intelligence Technology Influences Business Students' Self-Efficacy through AI Literacy." In *Proceedings of 2026 International Conference on Big Data and Informatization Education, ICBDIE 2026*, School of Business, Xiamen Institute of Technology, Fujian, Xiamen, China: Association for Computing Machinery, Inc, 157–64. doi:10.1145/3806980.3807006.

Jácome-Vásconez, S, D Diaz-Bedoya, R Roig-Vila, M González-Rodríguez, and P Acosta-Vargas. 2026. "Explaining ChatGPT Adoption in Higher Education: Insights for AI Literacy, Educational Practice, and Responsible AI." *Education Sciences* 16(9). doi:10.3390/educsci16091432.

Jamal Eddine, R, E Gide, and A Al-Sabbagh. 2026. "Systematised Evidence Mapping of Generative Artificial Intelligence (GenAI) and Digital Divide Phenomena in Higher Education." *Discover Computing* 29(1). doi:10.1007/s10791-026-10044-w.

Józsa, G, T Z Oo, B Vallent, and K Józsa. 2026. "School-Level and Demographic Differences in the Use of Artificial Intelligence Among Hungarian Elementary and High School Students." *Education Sciences* 16(2). doi:10.3390/educsci16020240.

Karaali, G. (2023). Artificial Intelligence, Basic Skills, and Quantitative Literacy. *Numeracy*, *16*(1). https://doi.org/10.5038/1936-4660.16.1.1438

Kandirou, R, S El Youssfi, M Elatlassi, A Dahman, and M M El Hammoumi. 2026. "Perceptions of AI-Assisted Learning and Learner Development among Moroccan Secondary School Students." *Discover Education* 5(1). doi:10.1007/s44217-026-02109-1.

Kaplan, K, N E Özen, and H Z Özcan. 2026. "The Impact of ChatGPT-Integrated Reading Activities on the Reading Attitudes and Habits of Middle School Students." *Journal of Pedagogical Sociology and Psychology* 8(1). doi:10.33902/JPSP.202641122.

Korucu-Kış, S, and A Bakla. 2026. "Exploring Pre-Service EFL Teachers' Perceptions, Use Cases and Questioning Practices of ChatGPT during Practicum: A Critical Digital Pedagogy Perspective." *Instructional Science* 54(1). doi:10.1007/s11251-026-09783-6.

Krasniqi, E, A Kasumi, A Kuçi, E Murić, E Ahmeti, L Naka, and A Boshnjaku. 2026. "Generative AI and Knowledge Management in Health Education: A Cross-Sectional Study

of Students' Digital Literacy and Attitudes from a Developing-Country Context." *BMC Medical Education* 26(1). doi:10.1186/s12909-026-09373-7.

Kuijpers, Moniek M, and Shawn Douglas. 2020. "Capturing the Ways We Read: Introducing the Reading Habits Questionnaire." *Anglistik: International Journal of English Studies* 31(1): 53–69.

Kurniawan, B R, D Sumardani, C.-J. Sui, and C.-Y. Chang. 2026. "FROM ENTHUSIASM TO INITIAL INTEGRATION: EDUCATORS' PERCEPTIONS AND PROMPT-DESIGN SKILLS IN USING CHATGPT FOR TEACHING." *Turkish Online Journal of Distance Education* 27(2): 71–90. doi:10.17718/tojde.1766875.

Li, S. 2026. "Constructing an AI Literacy Curriculum for Non-STEM Students: A TPACK-Based Approach in Tourism Management Education." In *Proceedings of 2026 3rd International Conference on Informatics Education and Computer Technology Applications, IECA 2026*, School of Management, Guangdong University of Education, Guangdong, Guangzhou, China: Association for Computing Machinery, Inc, 1050–58. doi:10.1145/3802133.3802301.

Liu, J C, A C K Cheung, and H Yang. 2026. "Do School-Based ChatGPT Policies Bridge or Widen Gaps in Students' Computer and Information Literacy across Gender, Socioeconomic Status, and Immigration Backgrounds." *Computers and Education* 244. doi:10.1016/j.compedu.2025.105536.

López-Fernández, R, C E George-Reyes, R A Sorhegui-Ortega, and L F Sandoval-Benítez. 2026. "Artificial intelligence in higher education: a gender analysis of ethical and regulatory perspectives across five international scenarios." *Edutec* 2026-June(96). doi:10.21556/edutec.2026.96.4421.

Marienko, M V, O M Markova, and S O Semerikov. 2026. "AI Literacy in Secondary Education: Framework, Assessment, and Professional Development in the Ukrainian Context." *Computers and Education: Artificial Intelligence* 10. doi:10.1016/j.caeai.2026.100605.

Michel, F. 2026. "Investigating Adult Learners' Perceptions of Artificial Intelligence in Relation to Knowledge, Trust, Learning Outcomes, and Workforce Preparedness." *Discover Education* 5(1). doi:10.1007/s44217-026-02134-0.

Nuñez, P, J Argüelles, and C Perillan. 2026. "Integration of Artificial Intelligence as a Self-Directed Learning Tool in an Undergraduate Physiology Course." *Advances in Physiology Education* 50(2): 413–21. doi:10.1152/advan.00174.2025.

Nurrochmansyah, B, Z Y Lin, and S Anwar. 2026. "Generative AI Adoption in Indonesian Higher Education: A Sociotechnical Analysis of Student Engagement, Digital and AI Literacy, and Academic Integrity." *Daengku* 6(4): 847–67. doi:10.35877/454RI.daengku5039.

Nusantara, T, and L Anwar. 2026. "Mapping Pre-Service Teachers' Experiences in Integrating Design Thinking and ChatGPT: An Analysis of 21st-Century Learning Tools Development." *Pertanika Journal of Social Sciences and Humanities* 34(3): 1405–22. doi:10.47836/pjssh.34.3.14.

Pacaol, N. 2026. "Doubting AI and Infrastructure Literacy: Response to 'Schooling the (Artificially) Intelligent Writer: GenAI Technologies as Thinking Infrastructures in School Education' (Tierens et Al. 2025)." *Postdigital Science and Education* 8(2): 621–27. doi:10.1007/s42438-026-00626-8.

Pattier, D. 2026. "Perceptions, Uses, and Attitudes Towards ChatGPT Among University Students in the Field of Education." *Journal of Interdisciplinary Studies in Education* 15(2): 147–68. doi:10.32674/nh8hdt53.

R, N K, J M, and S B G. 2026. "ChatGPT for Academic Assignments: Opportunities, Challenges, and Student Perspectives in the Digital Classroom." *Journal of Research in Innovative Teaching and Learning*: 1–17. doi:10.1108/JRIT-08-2025-0202.

Saranrom, A. 2026. "AI Literacy in Marketing Education: Insights from Thai University Students and Implications for Digital Pedagogy." In *ICEMT 2025 - 2025 9th International Conference on Education and Multimedia Technology*, Sukhothai Thammathirat Open University, Bangkok, Thailand: Association for Computing Machinery, Inc, 405–9. doi:10.1145/3761843.3761875.

Shishakly, R, and M Nachouki. 2026. "Academic Integrity and Students' Ethical Use of ChatGPT in Higher Education." *Journal of Information Technology Education: Research* 25: 1–29. doi:10.28945/5730.

Simons, A, M Zichert, and A Wüthrich. 2026. "Large Language Models for History, Philosophy, and Sociology of Science: Interpretive Uses, Methodological Challenges, and Critical Perspectives." *Studies in History and Philosophy of Science* 117. doi:10.1016/j.shpsa.2026.102151.

Singh, M P, and A Kumar. 2026. "Digital Literacy, ChatGPT Adoption and AI Integration Among Lis Research Scholars in Selected Central Universities in North India." *International Information and Library Review*. doi:10.1080/10572317.2026.2722824.

Song, C, and S Zhou. 2026. "Push or Pull? Understanding Switching Intentions from Human Services to GAI Agents through the PPM Framework." *Computers in Human Behavior* 176. doi:10.1016/j.chb.2025.108874.

Suwardika, G, A T Sopandi, I P O Indrawan, and K Masakazu. 2026. "Flipped Design Thinking with Generative AI for Digital Literacy in ODL." *Asian Association of Open Universities Journal* 21(1): 48–64. doi:10.1108/AAOUJ-11-2025-0206.

Thi, T N, G H Hai, L N Hoang, and D H Minh. 2026. "Future Pharmacists in the Age of Artificial Intelligence: A Mixed-Methods Study of First-Year Students in Vietnam." *BMC Medical Education* 26(1). doi:10.1186/s12909-026-09368-4.

Valero-Ancco, V N, and Y Lujano-Ortega. 2026. "ChatGPT in the University Classroom: Perceptions, Perceived Usefulness and Use Intentions among Undergraduate Students." *International Journal of Evaluation and Research in Education* 15(3): 2073–81. doi:10.11591/ijere.v15i3.38709.

Wehlie, M A, A A Mohamud, A A Addow, M A Mohamud, and M D M Adam. 2026. "Associations of ChatGPT Familiarity, Student Perceptions and Learner Digital Literacy with Perceived Effectiveness and Self-Reported Academic Writing Proficiency among University Students in Mogadishu Somalia." *Discover Sustainability* 7(1). doi:10.1007/s43621-026-03951-x.

You, L, and S Xie. 2026. "Research on Network Health Rumor Recognition Based on Explainable GAN and ChatGPT Collaboration." *Journal of Modern Information* 46(4): 183–97. doi:10.3969/j.issn.1008-0821.2026.04.016.

Zavaleta-Monestel, E, J M Chaverri-Fernández, A Ortiz-Ureña, L E Hernández-Soto, J Mora-Jiménez, A Chaves-Arroyo, L Rodríguez-Yebra, et al. 2026. "Knowledge, Use, and Perceptions of Artificial Intelligence Among Health Sciences Students: Evidence from Costa Rican Universities." *International Medical Education* 5(1). doi:10.3390/ime5010013.

Zhang, C, R E Rice, and L H Wang. 2026. "College Students' Literacy, ChatGPT Activities, Educational Outcomes, and Trust from a Digital Divide Perspective." *New Media and Society* 28(2): 673–95. doi:10.1177/14614448241301741.