

Research Article

ChatGPT-Assisted Literature Learning and Critical Thinking in EFL Contexts: A Survey Study of Student Perceptions

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Article Info	Abstract
Article History	This study examines undergraduate students' perceptions of ChatGPT -assisted literature learning and its relationship to critical thinking development in English as Foreign Language (EFL) contexts. Responding to growing interest in generative AI in humanities education, the study investigates how students perceive the contribution of ChatGPT to literary analysis, higher-order thinking, and reflective engagement, while also examining whether these perceptions vary by gender and academic level. Using a quantitative survey design, data were collected from 655 Kurdish EFL undergraduates through a structured Likert-scale questionnaire measuring five constructs: AI use in literature learning, literary analysis skills, critical thinking development, higher-order thinking, and reflection and dependency. Reliability and validity measures indicated good internal consistency and sampling adequacy. Findings revealed strongly positive perceptions of ChatGPT as a pedagogical support tool for literary interpretation, analytical reflection, and the development of critical engagement with multiple perspectives. Independent-samples t-tests and one-way ANOVA showed no statistically significant differences across gender or academic level, suggesting broad consistency in students' attitudes toward AI-assisted learning. While participants generally viewed ChatGPT as supportive of critical and reflective learning, they also emphasized its use as a complement rather than a substitute for independent reasoning. The study offers pedagogical implications for the critical integration of generative AI in EFL literature instruction and contributes to emerging scholarship on AI-mediated humanities education.
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1. Introduction

The emergence of generative artificial intelligence (AI) has sparked significant debate about the future of teaching and learning across disciplines, including the humanities. Among recent developments, ChatGPT (version 3.5), the model examined in this study, attracted sustained scholarly attention for its

potential to support dialogue, idea generation, feedback, and personalized learning, while also raising concerns about overreliance, diminished learner autonomy, and the erosion of independent thinking (Zhao et al., 2025). Recent scholarships have increasingly examined these tensions in relation to writing instruction, assessment, and language learning. Yet despite growing research on AI in education, its pedagogical role in literature teaching remains comparatively underexplored, particularly in English as a Foreign Language (EFL) context (Deng et al., 2025).

Literature learning in EFL settings extends beyond textual comprehension to involve interpretation, critical inquiry, and engagement with ambiguity and multiple meanings. Students are expected to analyze characterization, symbolism, voice, and thematic complexity while developing evidence-based interpretations (Barron, 2023).

These demands make literary study a particularly productive domain for examining whether AI can function not as a substitute for interpretation but as a scaffold for deeper analytical engagement. Recent studies have proposed that generative AI may support students in clarifying difficult passages, exploring alternative readings, comparing viewpoints, and refining interpretive arguments when integrated critically into instruction (Bellot et al., 2025; Oates & Johnson, 2025).

This possibility has prompted growing interest in AI-assisted literary pedagogy. Rather than reducing literary study to automated answers, AI has been proposed as a mediating tool that can prompt questioning, expand interpretive possibilities, and support reflective interaction with texts. Such possibilities may be especially relevant in EFL contexts, where students often benefit from additional linguistic and interpretive scaffolding while engaging with demanding literary works. At the same time, these pedagogical possibilities invite closer examination of whether students perceive AI support as contributing not merely to comprehension but to more complex forms of reasoning (Amir, 2026).

This question is particularly significant in relation to critical thinking development. In literary studies, critical thinking involves more than understanding textual content; it includes interpretation, evaluation, reasoned judgment, and the capacity to support claims with evidence. Relatedly, higher-order thinking refers more broadly to analytical and evaluative processes often associated with Bloom's taxonomy (Bloom, 1956). In this study, critical thinking refers primarily to evaluative reasoning and independent interpretive judgment, whereas higher-order thinking refers more broadly to processes such as analysis, synthesis, and evaluation. Distinguishing these concepts is important because, although related, they represent different

dimensions of literary cognition. This conceptual distinction also responds to recent educational research calling for greater precision in discussions of AI-supported cognitive development (Liu & Wang, 2024).

Emerging scholarship suggests that generative AI may support these dimensions of learning; however, much of this work has focused on writing support, general learning performance, or broad attitudes toward AI use. Comparatively little empirical research has examined students' perceptions of ChatGPT-assisted literature learning specifically, and fewer studies have explored its perceived relationship to critical thinking development in literary studies, especially in EFL contexts. Moreover, questions remain regarding whether such perceptions vary across demographic or academic variables, including gender and academic level (Ruiz Viruel et al., 2025; Stöhr et al., 2024). This gap is particularly important because the educational value of AI may depend not only on technological affordances but also on how learners perceive and engage with these tools.

Addressing this gap, the present study investigates undergraduate students' perceptions of ChatGPT-assisted literature learning and its relationship to critical thinking development in EFL contexts. Specifically, the study examines students' perceptions across five dimensions: AI use in literature learning, literary analysis skills, critical thinking development, higher-order thinking, and reflection and dependency. It also explores whether these perceptions differ according to gender and academic level. By focusing on students' perceptions rather than making causal claims about learning outcomes, the study contributes empirical evidence to ongoing discussions about the pedagogical role of generative AI in humanities-oriented language education.

The present study is significant for both theory and practice. Conceptually, it contributes to emerging scholarship on AI-mediated learning by extending inquiry into literary pedagogy, an area still underrepresented in the literature. Pedagogically, it offers insights into how ChatGPT may be integrated as a support for reflective analysis and critical engagement while foregrounding the importance of maintaining independent reasoning and avoiding uncritical dependency. In this sense, the study approaches AI not as a replacement for interpretive labor but as a potential scaffold within critically guided literature instruction.

Guided by these concerns, the study addresses the following research questions:

1. How do EFL undergraduate students perceive the role of ChatGPT-assisted literature learning in supporting literary analysis, critical thinking development, and higher-order thinking?
2. Are there statistically significant differences in students' perceptions of ChatGPT-assisted literature

learning according to gender?

3. Are there statistically significant differences in students' perceptions of ChatGPT-assisted literature learning according to academic level?

By addressing these questions, the study seeks to illuminate how students position generative AI within literary learning and what implications such perceptions may hold for the critical integration of AI in EFL literature education.

2. Literature Review

2.1. AI and Socio-Constructivist Scaffolding

The pedagogical value of ChatGPT in literature education lies in its function as a "More Competent Other," providing cognitive and dialogic scaffolding that facilitates learner autonomy. Grounded in socio-constructivist perspectives, AI-mediated learning serves as an interpretive bridge, assisting students as they move from basic textual comprehension toward complex analytical engagement (Barron, 2023). This is particularly vital in EFL contexts, where linguistic and cultural barriers often impede understanding. By integrating Amir's (2026) principles of dialogic feedback and Vendrell and Johnston's (2026) design principles, ChatGPT acts as a conversational partner that assists learners in refining meaning through active inquiry rather than passive reception. This scaffolding supports the "Zone of Proximal Development" by providing provisional support that enhances, rather than replaces, the student's interpretive labor.

2.2. Cognitive Affordances in Literary Analysis

Recent empirical evidence suggests that ChatGPT enhances higher-order thinking by assisting students in identifying themes, unpacking symbolism, and comparing critical perspectives. Rather than simply retrieving answers, students use the tool to rehearse interpretive reasoning and test evidence-based arguments (Colella, 2025). This exposure to multiple viewpoints encourages students to move beyond surface-level readings toward synthesis and evaluation—core components of Bloom's taxonomy. However, scholars such as Colella (2025) and Helal et al. (2025) inform that AI-generated content may inadvertently flatten literary ambiguity, offering overly coherent readings that discourage the "cognitive struggle" essential for deep reasoning. Consequently, while AI offers significant cognitive affordances, its effectiveness is contingent upon pedagogical framing that prioritizes interrogation over consumption (Nuangchalerm et al., 2024; Vendrell & Johnston, 2026).

2.3. Critical AI Literacy and Learner Autonomy

While students generally view ChatGPT as a beneficial support tool, there is a distinct tension between AI-assisted productivity and learner dependency (Helal et al., 2025). Recent surveys of higher education students reveal a "conditional acceptance" of AI: learners value its role in idea generation and self-correction but express significant concerns regarding the erosion of independent thinking and the risk of algorithmic bias. This highlights the necessity of "Critical AI Literacy"—a framework that shifts focus from technical usage to the ethical and reflective interrogation of AI outputs. In the context of literature, where multiplicity of meaning is central, maintaining learner autonomy is crucial. Students must be guided to treat AI outputs as provisional prompts for further reflection rather than authoritative endpoints, ensuring that technology supplements, rather than replaces, their own interpretive voice (Lukešová & Jennings, 2026).

2.4. Higher-Order Thinking and AI-Mediated Learning

Closely related to critical thinking is the question of higher-order thinking, commonly associated with analysis, synthesis, evaluation, and other advanced cognitive processes in Bloom's taxonomy. Recent research has begun to explore whether generative AI can support such processes by assisting learners in organizing complex ideas, comparing perspectives, and generating more elaborated reasoning (Darwin et al., 2024).

Darwin et al. (2024) report moderate positive effects of ChatGPT on higher-order thinking-related outcomes, while other studies suggest that AI may support exploratory cognition when learners actively interrogate rather than passively consume outputs. In literary learning, such support may be particularly relevant, as higher-order thinking often underpins comparative interpretation, thematic synthesis, and evaluative reading. Yet concerns remain similar to those surrounding critical thinking. If students treat AI outputs as authoritative endpoints rather than provisional prompts, opportunities for deeper cognitive engagement may be reduced. Consequently, current scholarships increasingly emphasize that higher-order thinking is not produced by AI itself but may be supported through critically designed AI-mediated learning practices (Li & Wilson, 2025).

2.5. Reflection, Dependency, and Critical AI Use

Alongside enthusiasm about AI-supported learning, a parallel body of scholarship has focused on

learner dependency, autonomy, and reflective use. This debate is especially important in humanities education, where independent interpretation remains central. Researchers have raised concerns that excessive reliance on AI may reduce cognitive effort, weaken originality, or encourage surface-level engagement (Ruiz Viruel et al., 2025).

At the same time, other scholarships suggest that AI can support reflective learning when used for feedback, revision, and self-questioning. In this view, the issue is not AI use versus non-use, but whether students employ AI as a reflective scaffold or as a substitute for thought. This distinction has become central to emerging discussions of critical AI literacy (Popalia et al., 2026; Salam & Ahmed, 2025).

Because the present study includes reflection and dependency as one of its core constructs, it responds directly to this debate by treating concern about overreliance not as external criticism but as part of students' own perceptions of AI-assisted learning.

2.6. Empirical Studies on Student Perceptions of ChatGPT in Higher Education

Beyond research on learning outcomes and pedagogical affordances, a growing body of empirical work has examined students' perceptions of ChatGPT in higher education. This line of research is particularly relevant to the present study because perceptions often shape patterns of adoption, trust, and critical engagement with educational technologies (Bellot et al., 2025). Recent studies generally report favorable student attitudes toward ChatGPT as a support tool for explanation, idea development, and academic assistance, while also documenting reservations related to dependency, accuracy, and ethical use (Ruiz Viruel et al., 2025; Stöhr et al., 2024).

An important feature of this scholarship is its mixed rather than uniformly celebratory character. Positive perceptions are often accompanied by conditional acceptance: students tend to value AI when it supplements learning, but express concern when it appears to displace independent effort (Lee et al., 2024). This tension closely aligns with the present study's inclusion of reflection and dependency as a core construct. It also suggests that students' perceptions of AI are not reducible to simple approval or rejection, but often reflect nuanced judgments about pedagogical usefulness, intellectual autonomy, and responsible use (Oates & Johnson, 2025).

Moreover, some studies have explored whether perceptions of AI vary according to gender, discipline, or academic experience, though findings remain inconclusive. Some report relatively homogeneous uptake across groups, whereas others identify contextual differences shaped by institutional culture, digital

familiarity, or disciplinary practices (Ruiz Viruel et al., 2025; Stöhr et al., 2024). These mixed findings further justify examining gender- and academic-level variation in the present study.

2.7. Research Gap and Conceptual Positioning

Taken together, the literature suggests growing recognition of ChatGPT's possible role in literature learning, literary analysis, critical thinking, and higher-order cognition. However, important gaps remain. First, much existing research focuses on writing, general educational outcomes, or broad attitudes toward AI rather than literature learning specifically (Oates & Johnson, 2025). Second, relatively few studies examine these issues in EFL literary contexts. Third, limited research has explored these dimensions together through the combined lens of analytical support, critical thinking development, higher-order thinking, and reflection/dependency (Liu & Wang, 2024).

The present study addresses these gaps by investigating students' perceptions across these five interrelated constructs while also examining possible variation across gender and academic level. In doing so, it positions ChatGPT-assisted literature learning not simply as a question of technological adoption, but as part of a broader inquiry into critical and reflective literary pedagogy.

3. Methodology

3.1. Design of the Study

The study explores undergraduate students' perceptions of ChatGPT-assisted literature instruction and its perceived contribution to literary analysis and critical thinking development through quantitative research design. Concerning the previous research questions, the study assessed whether gender-based and academic level-based differences exist in terms of their perceptions of AI-assisted instruction in literature and critical thinking.

3.2. Participant and Context

The study included 655 Kurdish EFL undergraduate students from two public higher education institutions. Participants reported prior experience using ChatGPT 3.5 for literature-related learning tasks. A snowball sampling approach was employed, initiated from a purposive sample of Kurdish EFL students. Data collection was conducted through a Google Forms survey disseminated to undergraduate participants.

3.3. Data Collection Tool

A survey questionnaire was employed in this study to assess the undergraduate students' perception

of the students regarding the effectiveness of AI-assisted instruction in literature and critical thinking. The survey's structure encouraged undergraduate students to consider their interactions with AI-assisted tools and share their practice while dealing with literary texts. There were two sections of the questionnaire utilized in this study. The first section requested demographic data from the participants, such as gender and their academic levels. The second section of the questionnaire comprised the questions developed by the researchers considering the Kurdish EFL context. The survey used a 5-Likert scale. Participants were asked to choose between the following options for each question: (strongly disagree = 1 to strongly agree = 5), which incorporated the participants' experiences and perceptions into their learning exposure with AI-assisted tools. The survey consisted of 29 items in total. The questions were separated into five primary categories: AI Use in Literature Learning (6 questions), Literary Analysis Skills (6 questions), Critical Thinking Development (8 questions), Higher-Order Thinking (5 questions), and Reflection & Dependency (4 questions). It is also worth mentioning that in this study, references to ChatGPT refer specifically to ChatGPT 3.5, the version available to participants during the data collection period.

Table 1. Demographic Profile of Participants by Gender and Qualification

Demographic Variable	Category	Frequency	Percent (%)
Gender	Female	410	62.6
	Male	245	37.4
	Total	655	100
Qualification	First year	240	36.6
	Second year	222	33.9
	Third year	103	15.8
	Fourth year	90	13.7
	Total	655	100

3.4. Data Collection Procedure

Regarding data collection from the participants, the researchers shared the link through social media applications and their institutional email addresses using Google Forms link. The participants were asked about their consent to participate in the study. Data was collected between January and March of 2026, a period of two months. Throughout the primary data collection procedure, the data were meticulously checked to guarantee completeness. When putting up the Google Forms link, the researchers ensured that each questionnaire required a response from the participants. A pilot study was carried out among 20 volunteer Kurdish EFL students to check for any errors in the questionnaire, estimate the time required to

complete the survey, and examine the feasibility of the data collection approach.

3.5. Data Analysis Procedure

The data were analyzed using the Statistical Package for the Social Sciences (SPSS). A one-way ANOVA was applied to examine differences across academic levels—first year, second year, third year, and fourth year—since it is appropriate for comparing the means of three or more independent groups.

3.6. Issues of Reliability and Validity

The findings indicated that the questionnaire achieved a Cronbach's alpha coefficient of .80, reflecting good internal consistency. This suggests that the instrument is reliable for measuring the target construct. The relatively high alpha value also implies that the items are closely related and that the questionnaire would be expected to produce consistent results if administered to the same participants over time. In addition, the Kaiser–Meyer–Olkin (KMO) value was .88, demonstrating strong sampling adequacy for factor analysis based on the shared variance among variables. According to Shrestha (2021), KMO values between .90 and 1.00 are considered excellent. Regarding the study context, the sample consisted exclusively of Kurdish EFL undergraduate students drawn from four academic levels. The survey was conducted by the researchers and approved by the scientific committee of the institution. Care was taken to ensure that none of the questionnaire items posed any harm to the participants. Finally, Large Language Models (LLMs) were used in certain parts of the study.

4. Results and Discussion

This section presents and discusses the findings of the study concerning students' perceptions of AI-assisted literature learning and its relationship with critical thinking. Quantitative data were analyzed using one-way ANOVA to examine potential differences across gender and academic levels.

4.1. Academic Level Based Differences

This section presents the results of the one-way analysis of variance (ANOVA) conducted to examine whether students' academic level influences their perceptions of AI-assisted literature learning and critical thinking-related constructs. The analysis compares mean scores across first-, second-, third-, and fourth-year students to identify any statistically significant differences among the groups.

Table 2 presents the results of the one-way analysis of variance (ANOVA) conducted to examine whether students' academic level (first year, second year, third year, and fourth year) influenced their

perceptions of AI-assisted literature learning and critical thinking-related constructs. The descriptive statistics showed that the mean scores across the four academic levels were generally similar for all five measures, indicating only minor variations among the groups. For AI Use in Literature Learning, the mean scores ranged from 23.54 for fourth-year students to 23.88 for second-year students. Likewise, the means for Literary Analysis Skills varied slightly across the four levels, with first-year students obtaining the highest mean score ($M = 23.32$, $SD = 2.08$) and third-year students the lowest ($M = 22.79$, $SD = 2.21$).

Table 2. The results of ANOVA of the Academic level variations

Measure	First Year		Second Year		Third Year		Fourth Year		F(3, 651)	p- value
	M	SD	M	SD	M	SD	M	SD		
AI Use in Literature Learning	23.65	2.05	23.88	1.88	23.7	1.97	23.54	2.36	.76	.516
Literary Analysis Skills	23.32	2.08	23.17	1.97	22.79	2.21	22.97	2.17	2.01	.111
Critical Thinking Development	30.54	2.57	30.3	2.43	30.35	2.46	30.53	2.55	.40	.753
Higher-Order Thinking	18.71	1.93	18.69	2.02	18.73	2.01	18.79	2.07	.08	.971
Reflection and Dependency	13.47	1.73	13.52	1.79	13.6	1.51	13.39	1.61	.45	.717

Note. η^2 = eta squared effect size.

The ANOVA results revealed that there were no statistically significant differences among the four academic levels in any of the measured constructs. Specifically, no significant variation was found in AI Use in Literature Learning, $F(3, 651) = 0.76$, $p = .516$, or in Literary Analysis Skills, $F(3, 651) = 2.01$, $p = .111$. Similarly, the results showed no significant differences in Critical Thinking Development, $F(3, 651) = 0.40$, $p = .753$, Higher-Order Thinking, $F(3, 651) = 0.08$, $p = .971$, or Reflection and Dependency, $F(3, 651) = 0.45$, $p = .717$. Since all obtained p values were greater than .05, the null hypothesis was retained for all five categories.

These findings suggest that students' academic level did not significantly affect how they perceived the role of AI in literature learning or its contribution to critical thinking-related skills. In other words, first-, second-, third-, and fourth-year students reported relatively comparable views regarding AI use in literature learning, literary analysis, critical thinking development, higher-order thinking, and reflection and dependency. This consistency across academic levels may indicate that AI-assisted learning tools are perceived similarly by undergraduate students regardless of their stage of study, which supports the view that the educational value of AI in literature instruction is not limited to a particular academic level.

These results indicated that academic level did not significantly influence students' perceptions of AI-assisted literature learning or its contribution to critical thinking-related constructs. One plausible

explanation is the widespread and early exposure to generative AI tools in higher education. Students across all academic levels increasingly use tools such as ChatGPT for academic support, which may reduce differences that would traditionally emerge with increased academic experience. Recent research suggests that university students, regardless of year of study, demonstrate similar patterns of AI usage and perceived usefulness, particularly when these tools are accessed informally rather than through structured curriculum integration (Sánchez-Rivas et al., 2025).

Another explanation is that AI tools function as adaptive and level-independent learning supports. In literature learning, tasks such as interpreting themes, analyzing characters, and evaluating multiple perspectives can be scaffolded effectively by AI regardless of students' academic stage. This may explain the minimal variation in mean scores across first- to fourth-year students. Supporting this view, Bellot et al. (2025) found that AI integration in literature courses enhanced students' engagement and analytical abilities across different levels, suggesting that AI can provide consistent cognitive support irrespective of academic progression.

From a theoretical perspective, the findings align with Schmidt's Noticing Hypothesis and Swain's Output Hypothesis, which emphasize processes that can occur at any stage of learning. AI tools can facilitate noticing by highlighting key textual features and interpretive possibilities, while also encouraging output through prompting students to articulate and refine their ideas. Because these processes are not inherently tied to academic level, it is reasonable that students across all years benefit similarly. Consistent with this, Oates and Johnson (2025) reported that AI tools have a moderate positive effect on higher-order thinking, independent of learner characteristics such as academic level.

However, the present findings contrast with some studies that report developmental differences across academic levels, where more advanced students demonstrate stronger analytical skills or more sophisticated use of educational technologies. Such differences are often attributed to accumulated academic experience and exposure to complex tasks. The absence of such differences in the current study may be explained by the homogeneity of the sample Kurdish EFL undergraduates and similar instructional environments, which can reduce variability across groups. Sánchez-Rivas et al. (2025) note that contextual factors such as institutional practices and access to technology can significantly influence whether academic-level differences emerge.

Finally, the non-significant results, combined with very small effect sizes, suggest that academic level

is not a strong predictor of students' perceptions of AI-assisted learning in this context. Instead, factors such as frequency of AI use, digital literacy, and pedagogical design may play a more critical role. This supports the growing view that the impact of AI in education depends more on how it is used rather than who uses it (Colella, 2025). Consequently, educators should focus on structured and critical integration of AI tools rather than assuming differences based on academic progression.

4.2. Undergraduate Students' Attitudes towards AI Use Tools

This section presents undergraduate students' overall attitudes toward the use of AI tools in literature learning and their perceived impact on critical thinking-related constructs. The findings are illustrated through percentage distributions (positive, neutral, and negative responses) to provide a clear overview of students' perceptions across key dimensions, including critical thinking development, higher-order thinking, and reflection and dependency.

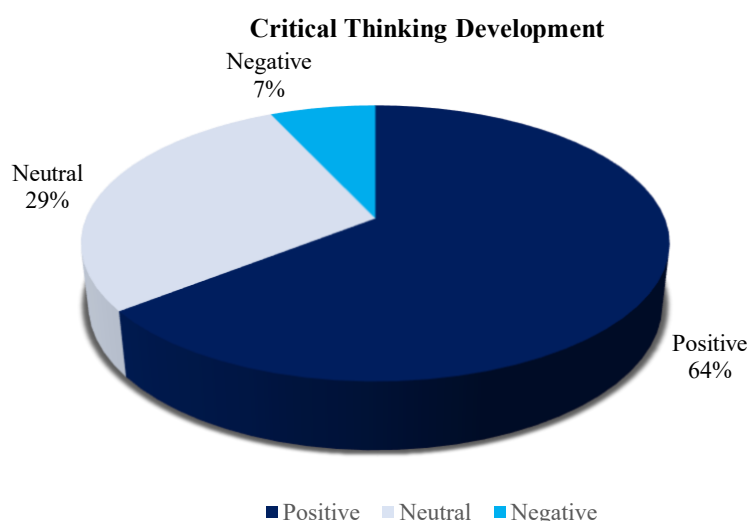


Figure 1. Students' Attitudes toward Critical Thinking Development

Figure 1 presents the results of undergraduate students' attitudes toward the use of AI tools in developing critical thinking skills. The findings reveal that a substantial majority of participants expressed a positive attitude toward the role of AI in supporting critical thinking development. Specifically, 64% of the students reported positive perceptions, indicating that they believe AI tools contribute effectively to enhancing their analytical abilities, interpretation of ideas, and deeper engagement with learning tasks. This result is consistent with recent research showing that generative AI tools, such as ChatGPT, are increasingly perceived as beneficial for learning and higher-order thinking in higher education contexts (De Bot, 1996; Schmidt, 2012).

In contrast, 29% of the participants demonstrated a neutral stance toward the use of AI tools. This group may represent students who are still in the process of evaluating the effectiveness of AI or who have limited structured experience with such tools in academic settings. Previous studies suggest that students' attitudes toward AI can vary depending on their familiarity, confidence, and the extent to which AI is integrated into formal instruction (Stöhr et al., 2024). Therefore, neutral responses may reflect a transitional stage of acceptance rather than rejection.

Only a small proportion of students (7%) expressed negative attitudes toward AI use in relation to critical thinking development. Although minimal, these responses may be linked to concerns about over-reliance on AI, reduced independent thinking, or doubts about the accuracy of AI-generated content. Similar concerns have been highlighted in recent literature, which emphasizes the importance of guiding students to use AI tools critically and responsibly to avoid passive learning behaviors (Sánchez-Rivas et al., 2025; Oates & Johnson, 2025).

Overall, the findings indicate that undergraduate students hold predominantly positive attitudes toward AI-assisted learning, particularly in relation to critical thinking development. This aligns with the growing body of research suggesting that AI tools can enhance engagement and support deeper learning when used appropriately in educational contexts (De Bot, 1996; Schmidt, 2012).

These attitudinal findings complement the earlier statistical results, which showed no significant differences across gender and academic levels. While students from different groups reported similar mean scores, the present results provide additional insight into the overall direction of these perceptions, revealing a strong positive tendency toward AI use. This suggests that the absence of significant differences is not due to indifference but rather reflects a shared and generally favorable view of AI-assisted learning among students. In other words, AI tools appear to be consistently accepted across demographic groups, reinforcing the idea that their perceived educational value is widely recognized regardless of gender or academic level.

The results presented in Figure X illustrate undergraduate students' attitudes toward the role of AI tools in enhancing higher-order thinking skills. The findings indicate that a clear majority of participants expressed positive perceptions of AI-assisted learning in this domain. Specifically, 61% of the students reported positive attitudes, suggesting that they perceive AI tools as effective in supporting advanced cognitive processes such as analysis, evaluation, and synthesis. This result aligns with recent research

highlighting that generative AI tools, such as ChatGPT, can facilitate higher-order thinking by enabling students to explore multiple perspectives, organize complex ideas, and engage in deeper levels of reasoning (Bellot et al., 2025).

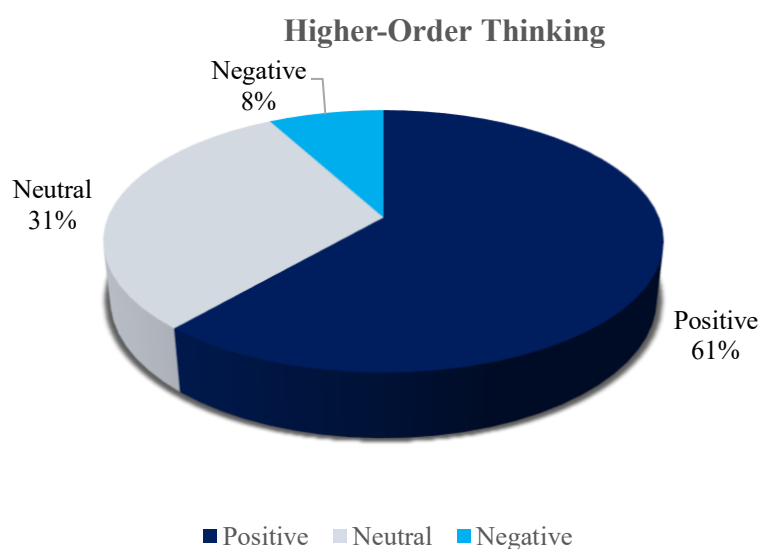


Figure 2. Students' Attitudes toward Higher Order Thinking

In addition to the positive responses, 31% of the participants indicated a neutral attitude toward the use of AI tools for higher-order thinking. This proportion suggests that a considerable number of students may still be uncertain about the extent to which AI contributes to deeper cognitive development. Such neutrality may reflect limited structured use of AI in academic tasks or a lack of explicit instructional guidance on how to use AI for critical and analytical purposes. Previous studies have emphasized that the effectiveness of AI in promoting higher-order thinking largely depends on how it is integrated into learning environments and whether students are encouraged to critically engage with AI-generated content rather than passively accept it (Sánchez-Rivas et al., 2025).

A relatively small percentage of students (8%) reported negative perceptions regarding the role of AI in higher-order thinking. Although minimal, this group may express concerns related to over-reliance on AI tools, reduced independent reasoning, or the potential for superficial engagement with learning materials. Similar concerns have been documented in recent literature, which cautions that unregulated use of AI may hinder the development of deep cognitive skills if students rely excessively on automated responses (Oates & Johnson, 2025).

Overall, the findings demonstrate that undergraduate students generally perceive AI tools as beneficial for higher-order thinking, although the presence of neutral and negative responses highlights the

need for pedagogical strategies that promote critical and reflective use of AI. These results further support the growing body of evidence suggesting that AI can serve as a valuable tool for fostering advanced cognitive skills when used in a structured and guided manner.

The predominance of positive responses suggests that many students view AI as a useful support for higher-order thinking, particularly in tasks that require analysis, evaluation, and synthesis. One likely reason is that generative AI can provide immediate explanations, alternative interpretations, and organizational support, which may help students develop more complex ideas and engage more deeply with academic tasks. This interpretation is consistent with recent evidence showing that ChatGPT can improve learning perception and higher-order thinking in educational settings (De Bot, 1996; Schmidt, 2012) and can enhance engagement and comprehension in undergraduate literature courses (Bellot et al., 2025). At the same time, the neutral responses may indicate that some students are still uncertain about the extent to which AI genuinely strengthens deep thinking, especially when its use is not systematically integrated into instruction. The small proportion of negative responses may reflect concerns about over-reliance, reduced independent reasoning, and superficial acceptance of AI-generated answers. Similar concerns have been noted in broader higher education research, which shows that although students widely use ChatGPT, its perceived value depends heavily on how critically and purposefully it is used (Deng et al., 2025).

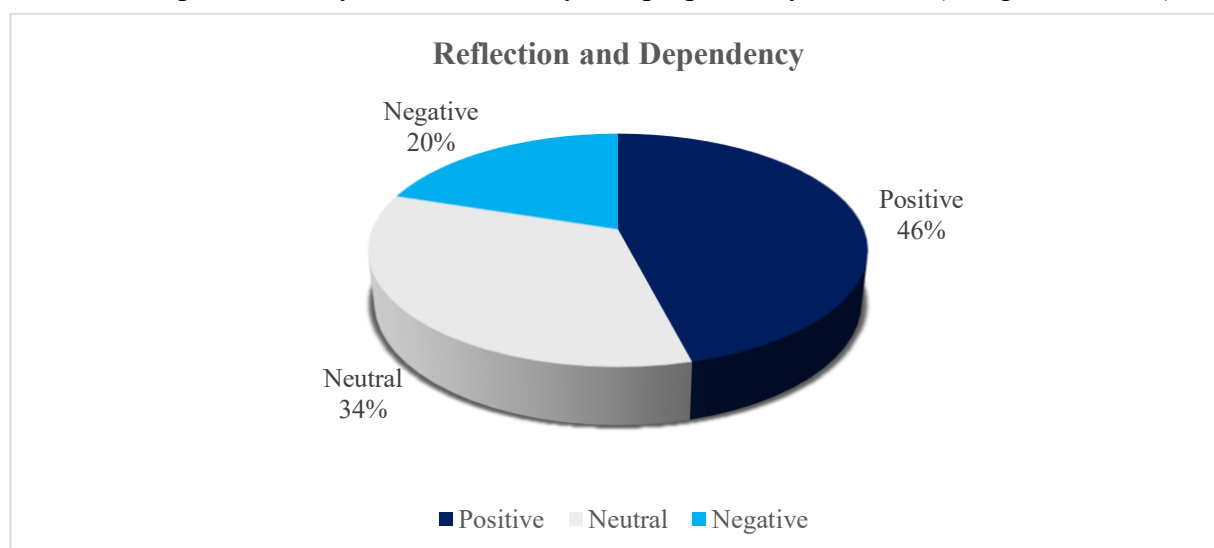


Figure 3. Students' Attitudes toward Reflection and Dependency

The results presented in Figure X illustrate undergraduate students' attitudes toward the use of AI tools in relation to reflection and dependency. The findings show a more varied distribution compared to other constructs, indicating a more cautious and nuanced perception among students. Specifically, 46% of

the participants expressed positive attitudes, suggesting that nearly half of the students perceive AI tools as supportive for reflective thinking, self-evaluation, and the development of ideas. This indicates that AI can play a constructive role in helping learners revisit, refine, and organize their thoughts during the learning process. Such findings are consistent with recent research highlighting that generative AI tools can facilitate reflective learning by providing feedback, alternative perspectives, and opportunities for self-correction (De Bot, 1996; Schmidt, 2012).

At the same time, a considerable proportion of students (34%) reported neutral attitudes toward AI use in this domain. This may reflect uncertainty regarding the balance between benefiting from AI support and maintaining independent thinking. Students in this group may recognize the usefulness of AI tools but remain unsure about their long-term impact on their ability to think critically and reflect autonomously. Previous studies suggest that students' perceptions of AI often depend on how it is integrated into learning activities, with structured and guided use leading to more positive outcomes (Sánchez-Rivas et al., 2025).

Notably, 20% of the participants expressed negative attitudes toward AI in relation to reflection and dependency. This relatively higher percentage, compared to other constructs, may indicate concerns about over-reliance on AI tools and the potential reduction of independent cognitive effort. Students may fear that excessive dependence on AI-generated responses could limit their ability to engage in deep reflection or develop original ideas. Similar concerns have been widely discussed in the literature, where researchers caution that uncritical or excessive use of AI may lead to surface-level learning and reduced autonomy if not accompanied by appropriate pedagogical guidance (Sánchez-Rivas et al., 2025; Oates & Johnson, 2025).

Overall, the findings suggest that while AI tools are generally perceived as beneficial for reflective learning, there is a noticeable level of concern regarding dependency. This highlights the importance of promoting balanced and critical use of AI in educational contexts, ensuring that students use these tools to support, rather than replace, their own thinking processes.

The mixed pattern for reflection and dependency suggests that students recognize both the benefits and risks of AI use. Positive responses likely reflect AI's value as a reflective scaffold that helps learners revise ideas, compare viewpoints, and improve coherence, which is consistent with evidence that ChatGPT can enhance learning perceptions and higher-order thinking. The sizeable neutral group may indicate uncertainty about whether these short-term benefits translate into stronger independent thinking, especially when AI use is not explicitly guided by instruction. Meanwhile, the relatively larger negative group likely

reflects concerns about over-reliance, reduced autonomy, and superficial acceptance of AI-generated responses. Similar concerns have been raised in recent higher education research, which shows that students' judgments of ChatGPT depend heavily on how critically and purposefully it is used.

5. Conclusion

This study investigated the role of AI-assisted learning in literature education and its relationship with critical thinking, with particular attention to differences across academic levels and gender. These findings highlight the universality of AI tools in contemporary education, suggesting that they are perceived similarly by diverse groups of learners. The study contributes to the growing body of literature on AI in education by emphasizing that AI technologies can serve as equitable learning tools, supporting students' engagement with literary texts and higher-order thinking processes regardless of demographic differences. This reinforces the idea that AI integration in education should focus more on pedagogical strategies rather than learner characteristics.

The findings of this study offer several important implications for educators and curriculum designers. First, since AI tools appear to benefit students equally across academic levels and gender, instructors can confidently integrate AI into literature courses as an inclusive teaching resource. This suggests that AI can be used to support literary analysis, interpretation, and critical discussion without reinforcing disparities among learners. Second, educators should focus on guided and structured use of AI to maximize its benefits. While AI can support idea generation and interpretation, students should be encouraged to critically evaluate AI-generated responses, compare multiple perspectives, and develop their own interpretations. This approach aligns with the goal of fostering independent critical thinking rather than passive reliance on technology. Finally, institutions should consider incorporating AI literacy training into their curricula. Helping students understand how to use AI effectively and ethically can enhance their learning experience and ensure that AI serves as a tool for intellectual development rather than dependency.

The findings should be interpreted in light of several limitations, including the self-reported nature of the data, the non-probability snowball sampling approach, and the study's focus on students' use and perceptions of ChatGPT 3.5 specifically, which may limit the generalizability of the findings to newer model iterations with different affordances. Future research may complement perception-based data with experimental or longitudinal designs to investigate how evolving generative AI models shape critical

thinking development in literature learning. Although the findings suggest that ChatGPT can support literature learning by helping students clarify difficult texts, generate interpretations, and organize ideas, its use also raises important concerns. Literature learning is not only about finding clear answers; it requires students to engage with ambiguity, multiple interpretations, emotional responses, cultural meanings, and textual complexity. Therefore, overreliance on ChatGPT may reduce students' willingness to struggle productively with literary texts and may encourage them to accept ready-made interpretations without developing their own critical voice. In EFL contexts, this risk may be stronger because students may depend on ChatGPT not only for language support but also for meaning-making and analysis. As a result, ChatGPT should not be treated as a replacement for close reading, classroom discussion, or independent interpretation. Instead, it should be used as a supplementary tool that encourages questioning, comparison, and reflection. Teachers need to guide students to evaluate AI-generated responses critically, compare them with textual evidence, and recognize that literary meaning is often open-ended rather than fixed. In this way, ChatGPT can contribute to literature learning while still preserving the interpretive uncertainty and multiplicity that are central to literary studies.

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