



Assessing Students' Attitudes Toward the Use of Artificial Intelligence (ChatGPT) on the Critical Thinking Skills and Creativity of EFL Learners Among Students at Badghis University

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Abstract

The rapid integration of Artificial Intelligence (AI) in education has created new opportunities for developing higher-order cognitive skills; however, limited empirical research has examined its influence within under-resourced EFL contexts such as Afghanistan. This study aimed to assess students' attitudes toward the use of Artificial Intelligence (ChatGPT) and its impact on the critical thinking skills and creativity of EFL learners at Badghis University. A quantitative descriptive research design was employed. Data were collected from 150 undergraduate students across all academic levels using a structured questionnaire consisting of 20 Likert-scale items. The instrument demonstrated acceptable internal reliability and was analyzed using descriptive statistics (frequencies, percentages, and mean scores). The findings revealed a highly positive perception of ChatGPT's educational value. 88.23% of participants reported that ChatGPT enhanced their creativity by supporting idea generation, innovative expression, and problem-solving. Similarly, 85% of students indicated improvement in critical thinking, particularly in analyzing information, questioning assumptions, and evaluating arguments. Overall, 88.23% of respondents agreed or strongly agreed that ChatGPT positively contributes to both creative and analytical learning, while only 7.93% expressed concerns regarding over-reliance and reduced originality. This study fills an important research gap by providing empirical evidence from an Afghan higher-education EFL context, where AI integration remains underexplored. The findings highlight ChatGPT as a valuable pedagogical support tool that can foster higher-order thinking when used responsibly. The study offers practical implications for educators, curriculum designers, and policymakers seeking to integrate AI into language education while maintaining learners' independent thinking and creativity.

Keywords: Artificial Intelligence, ChatGPT, Creativity, Critical Thinking, EFL Learners, Student Attitudes.

Introduction

Artificial Intelligence (AI) has become an integral part of modern education, offering new opportunities for language learning, idea generation, and cognitive development. Tools like ChatGPT have transformed the way students interact with learning materials, develop ideas, and construct understanding. For English as a Foreign Language (EFL) learners, AI provides a channel to enhance language proficiency, stimulate creativity, and improve critical thinking skills. By offering writing support, translation, grammar correction, summarization, and idea development, AI platforms create a learning environment that encourages analytical and imaginative engagement with language. This study focuses on how EFL students at Badghis University understand and use AI tools, and how these tools affect their creativity and critical thinking.

Over the past decade, educational technology has reshaped teaching and learning worldwide. AI stands out among these technologies for its ability to provide personalized feedback, adapt to learners' individual needs, and promote active knowledge seeking. Such qualities make AI an effective companion in language learning, where experimentation, interaction, and problem-solving are essential. Creativity helps learners generate new ideas and meaningful expressions, while critical thinking enables them to analyze information and construct well-supported arguments. AI tools can further motivate learners by presenting challenges and guiding reflective engagement with content.

Although global research has explored AI integration in education, there is limited evidence on its adoption and impact in Afghanistan. Many Afghan students face infrastructural, social, and economic barriers that restrict access to new technologies. Consequently, little is known about how students in this context perceive AI or how it influences their creativity and critical thinking. Addressing this gap is important not only for understanding AI's role in Afghan higher education but also for contributing to broader discussions about technology-enhanced learning in developing countries.

This study investigates the effect of using ChatGPT on the creative and critical thinking abilities of EFL learners at Badghis University, offering insights into the potential of AI to enrich language learning in Afghanistan.

The use of artificial intelligence in education is becoming more common, and tools such as ChatGPT can create new opportunities for language learning. In the context of English as a Foreign Language (EFL) at Badghis University, students need methods that not only improve their language skills but also strengthen important abilities such as creativity and critical thinking.

This study, "Effect of Artificial Intelligence (Chat GPT) on Critical Thinking Ability and Creativity of EFL Learners among Badghis University Learners," is important because it examines how Chat GPT can support students in these areas. First, it will explore whether the tool can help students become more creative in writing and generating ideas. Second, it will analyze whether AI-based materials can improve their ability to think critically about information.

The findings of this research can help teachers and curriculum designers improve their teaching methods and provide practical solutions for better EFL instruction. In addition,

the study will offer useful insights for other universities in Afghanistan that wish to use AI tools in education.

This study is justified by the increasing use of AI in education and the need for EFL learners at Badghis University to develop both language skills and higher-order abilities like creativity and critical thinking. It examines how ChatGPT can enhance students' idea generation and critical analysis, while offering insights for teachers, curriculum designers, and other Afghan universities seeking to integrate AI into language learning.

The statement problems of this study were: Applications of AI like ChatGPT are becoming more and more relevant to education, offering the chance to advance EFL learners' critical thinking and creativity. In Badghis University, traditional teaching practices are mostly based on memorization rather than on higher-order skills, creating a gap in learning for students. Though ChatGPT can prompt learners to interact and be creative while learning, little research has experimented with its potential in Afghanistan. This study thus tries to assess the students' attitudes towards using ChatGPT and determine its contribution to the development of creativity and critical thinking abilities of EFL learners.

The research answers the following questions: How much has the application of ChatGPT enhanced Badghis University's EFL students' creativity?

The results indicated that 88.23% of students agreed that ChatGPT enhances creativity by helping students create new ideas, approach topics innovatively, and solve problems more creatively. These findings support the studies of Alshahrani (2023), Safitri & Fithriani (2024), and Lin (2024) that AI tools trigger imagination and lead to divergent thinking. How does ChatGPT affect the critical thinking capacity of EFL students?

Around 88.23% of participants reported that ChatGPT enhanced their critical thinking by prompting them to question assumptions, analyze responses, and reflect on information accuracy. Findings were thus consistent with Luckin et al. (2016) and Ng et al. (2024), which confirm that ChatGPT enhances skills related to analytical and reflective thinking.

What do students perceive regarding the ability of ChatGPT to facilitate thinking capacity? Overall, 92.23% of students regarded ChatGPT as a helpful tool for both creative and critical engagement. A minority, 7.77%, indicated possible overreliance on AI. As Holmes et al. (2021) and Thongsan & Anderson (2025) argue, these results have important implications for the effective support of thinking capacity when ChatGPT is used responsibly.

The current study has two main objectives that determine the main goals.

1. To explore the impact of the use of the ChatGPT tool on creativity among EFL students.
2. Analyze the effect of AI course materials on critical thinking ability for EFL students.

The findings for this study are useful for educators, course designers, and policymakers in Afghanistan. With an appreciation for the possibility of critical thinking and creativity through the assistance of AI (Chat GPT), instructors will create improved language learning opportunities that will prepare learners for academic and career success.

Artificial Intelligence (AI) is technology that is capable of performing tasks heretofore thought to require human intelligence, such as reasoning, learning, and decision-making. In education, AI has introduced innovations such as adaptive learning, automated feedback, and interactive tutoring (Holmes et al., 2019; Luckin et al., 2016). Of these AI tools, ChatGPT has been particularly pertinent because it can create human-like responses, providing writing assistance, and encouraging students to think critically through

conversations. ChatGPT allows students to practice language in real-time, receive immediate corrections, and generate alternative perspectives, which facilitate creative and analytical thought.

Creativity is the power to generate novel, useful ideas, but critical thinking comprises analyzing, evaluating, and synthesizing information. Both skills are relevant for EFL learners, for through these skills languages are produced, understood, and problems solved (Sternberg, 2006; Facione, 2015). Studies assert that technology, when judiciously integrated, has the potential to support these skills by providing interactive, dynamic learning settings (Shute & Ventura, 2013).

Critical thinking is indispensable for evaluating information, solving problems, and making informed decisions, both in academic and real-world scenarios (Quinn et al., 2020; Shanta & Wells, 2022). The evolution of Artificial Intelligence technologies has added a new dimension to this discussion. AI has the potential to revolutionize educational settings by personalizing learning experiences and providing real-time assessments, among other benefits (Alam, 2022; Kamalov et al., 2023). Specifically, AI can adapt educational content to suit the unique needs and learning styles of each student. This personalization means that students can learn at their own pace and in ways that are most effective for them, making education more engaging and efficient. Additionally, AI's capability to provide real-time assessments allows for immediate feedback on students' work. This instant feedback helps students quickly understand and correct their mistakes, leading to a more effective learning process. It also aids teachers in identifying areas where students may need extra help, allowing for more targeted and timely support. These advancements indicate a shift towards a more adaptable and responsive educational system, tailored to the needs of individual learners.

Studies observe that AI tools help build creativity by generating ideas, providing writing support, and exposing users to diverse ideas. Similarly, critical thinking is supported by AI in the presentation of multiple viewpoints, thought prompts, and demands for students to evaluate the validity and originality of generated responses (Chen et al., 2020). The disadvantage lies in anxieties about overdependence on AI and less originality, thus calling for moderation and guidance from educators (Holmes et al., 2021).

Artificial intelligence has totally revamped education with the introduction of adaptive, interactive, and personalized tools that can enhance second language learning. As one of the most used generative AI tools, ChatGPT offers immediate feedback, conversation practice, and writing support for language learners. This emerging technology might help improve higher-order thinking skills, such as creativity and critical thinking, especially in EFL contexts where authentic communication opportunities are limited (Çobanoğulları, 2024).

Attitude plays an important role in learners' acceptance and effective use of emerging technologies. Positive perceptions of usefulness, ease of use, and enjoyment enhance engagement and outcomes. In EFL contexts, a positive attitude toward AI may lead to self-directed learning and interest in it, whereas skepticism may limit meaningful use. Moradi, 2025; Bristi et al., 2024

The Technology Acceptance Model provides a theoretical framework within which the beliefs of the users play a significant role in their attitudes and behavioral intentions with regard to the use of technology. Application of TAM to AI-assisted learning of EFL

indicated that perceived usefulness and ease of use predict learners' willingness to engage with ChatGPT language learning (Hashemifardnia & Kooti, 2025).

Various studies have outlined ChatGPT's potential to enhance students' critical thinking by encouraging them to analyze, evaluate, and synthesize information. For instance, EFL students who used ChatGPT for an academic writing task experienced increased reasoning and organization of arguments (Allvian et al., 2024). However, excessive dependence on AI may reduce learners' questioning and independent reflection (Rensburg & Reedy, 2023).

Creativity in EFL teaching and learning involves fluency, flexibility, and originality in the use of language. ChatGPT has been found to enhance creativity through idea suggestions and offering linguistic proliferation (Pawestri & Pratolo, 2025). However, uncritical adoption of ideas generated by AI can actually stifle real creative thinking (Zahra & Fithriani, 2025).

AI can serve as scaffolding that enhances learning when used thoughtfully. Instructors can mentor students to assess and improve AI-generated output rather than merely copying from them directly. Structured activities, such as reflective dialogues or prompt-based writing tasks, help balance AI support with learner autonomy (Mushaddiq et al., 2024).

The effective use of ChatGPT supports metacognitive partnerships that prompt learners to monitor and evaluate their thinking. It gives immediate feedback that may help the learner identify gaps and alternatives. Such interaction is likely to promote reflective habits and analytical reasoning.

While useful for many, ChatGPT raises some ethical concerns about plagiarism, authenticity, and intellectual honesty. EFL students feel apprehensive about an overdependence on AI, as it might infringe upon their originality. Winarti et al. (2025) have found that apprehension related to ethical issues frequently affects attitudes and willingness to employ AI tools critically.

Teachers are the linchpins in regard to the shaping of learners' perceptions about AI. It is their confidence, knowledge, and classroom practices that determine whether AI is regarded as an aid to learning or a threat to it. Studies in higher education reveal that students are more receptive to ChatGPT when instructors integrate it transparently into tasks and emphasize responsible use (Ahmed Othman, 2025).

In contexts like Afghanistan, with still-developing digital literacy and infrastructure, learners' attitudes toward AI depend highly on issues of access, training, and institutional support. Afghan EFL learners often face limitations in internet connectivity, exposure to AI, and guidance in using these tools effectively.

Cultural beliefs about education, technology, and originality shape how learners view AI. In societies that are collectivist or exam-oriented, students may perceive AI as a shortcut rather than as a learning partner. Understanding these cultural dimensions helps explain attitude variations across EFL contexts.

A positive attitude toward ChatGPT is related to higher motivation, deeper approaches to learning, and higher learning outcomes. In contrast, students holding negative or neutral attitudes usually use AI passively and receive less cognitive benefit. Therefore, attitude serves as a predictor and mediator in educational outcomes like critical thinking and creativity.

Higher education institutions worldwide are already considering the inclusion of ChatGPT in various functions: writing, translation, and critical reasoning. While it offers opportunities for personalized support, there is also the risk of misinformation and loss of cognitive effort.

While there have recently been studies conducted about the effect of ChatGPT on language learning, few have focused on how learners' attitudes influence its effect on creativity and critical thinking. Besides, little is known about how EFL learners from under-resourced contexts, like Afghanistan, perceive and use AI tools to develop their cognitive skills (Yusofi & Ahmadzai, 2024).

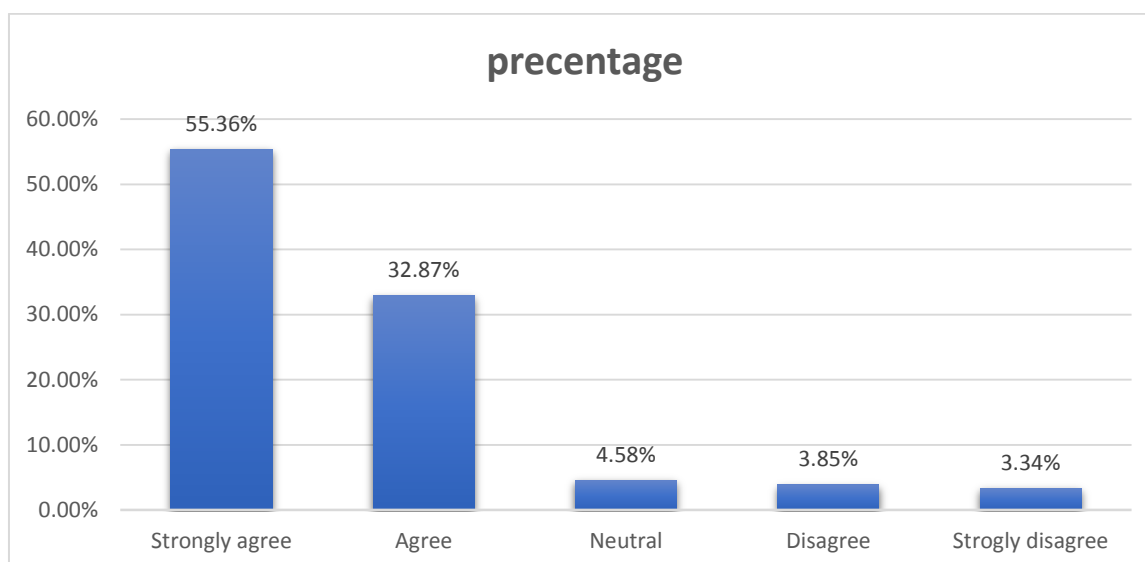
The literature illustrates that learners' attitudes toward ChatGPT clearly influence how the tool impacts creativity and critical thinking. Proper scaffolding, ethical awareness, and institutional support might enhance positive attitudes and productive uses. Thus, understanding these associations among Badghis University EFL learners will be important in addressing the pedagogical potential of AI in similar developing contexts.

Although many international research studies exist on AI for education, few of those have aimed at EFL students at Afghan universities, let alone ChatGPT. This study fills the gap by assessing the effect of ChatGPT on the creativity and critical thinking skills of the EFL learners in Badghis University.

Material and Method

The present study was conducted at the Department of English Language and Literature, Faculty of Education, Badghis University. A total of 150 students participated in this study, representing all academic levels: seniors, juniors, sophomores, and freshmen. Data were gathered by using a structured questionnaire comprising 20 statements categorized into four main parts: (1) general impressions about AI, (2) AI or ChatGPT and creativity, (3) AI or ChatGPT and critical thinking, and (4) challenges and shortcomings. Items were measured on a five-point Likert scale ranging from Strongly Agree to Strongly Disagree. Descriptive statistical tools, such as frequencies and percentages, were used to analyze the collected data and interpret the participants' responses.

Final graph of analyzing data in Excel



Based on data collected from 150 participants, the findings reveal a highly positive attitude toward ChatGPT's contribution to developing creativity and critical thinking among EFL learners at Badghis University. The results indicate that 55.36% of participants strongly agreed and 32.87% agreed with the questionnaire statements, showing that a vast majority of students believe ChatGPT has positively influenced their learning process. In contrast, only 4.58% of respondents remained neutral, while 3.85% disagreed and 3.35% strongly disagreed, representing a relatively small proportion of participants who showed slight hesitation or concern about the tool. Overall, these findings demonstrate that most students view ChatGPT as a helpful and innovative educational aid that enhances creativity, fosters analytical and evaluative thinking, and makes English language learning more engaging. The small percentage of disagreement may reflect a cautious attitude among some students toward overreliance on AI or uncertainty about its long-term academic implications. Nevertheless, the results strongly confirm that ChatGPT has a positive and meaningful impact on EFL learners' creative and critical thinking abilities at Badghis University.

Findings

The findings are organized into four sections, mirroring the questionnaire's structure.

AI: General Opinions on ChatGPT

Most of the respondents showed a very positive attitude toward the use of AI in education. In general, participants agreed that ChatGPT makes learning much more interactive, fun, and convenient. For items on the usefulness of ChatGPT for enhancing classroom interaction and learning efficiency, mean scores were above 4.2, indicating strong agreement.

AI and ChatGPT, and Creativity:

A high percentage of the students (about 88%) agreed or strongly agreed that ChatGPT enhances their creativity. They reported that using ChatGPT helped them to create new ideas, express thoughts in a more innovative way, and develop problem-solving skills. Their mean score was 4.1, showing that students perceive ChatGPT as a motivating and creative companion while learning English.

AI (ChatGPT) and Critical Thinking

The responses also conveyed a strong belief in the role ChatGPT plays in the development of the ability for critical thinking. About 85% agreed that ChatGPT encourages more in-depth analysis, questioning, and evaluation of information. With mean scores ranging from 4.1 to 4.4, data showed learners felt that through ChatGPT, they derived support in developing the ability to think logically, appraise arguments, and critically reflect on ideas.

Challenges and Limitations

Although the overall feeling has been very positive, students also pinpointed some potential drawbacks. About 7.93% of them reported neutral or negative feelings, stating reasons such as reduced originality, undue reliance on an AI tool, and uncertainty about the credibility of the content produced by AI. Mean scores between 3.7 and 4.3 showed that students value AI, yet they also understand its responsible use and independent thinking. Overall Statistical Findings: Accordingly, the trend of perceptions was very positive, as 55.36% strongly agreed and 32.87% agreed based on the data collected from the participants. Only 4.58% remained neutral, while 3.85% disagreed and 3.35% strongly disagreed. These percentages clearly show that most EFL learners at Badghis University believe ChatGPT positively contributes to their academic creativity and critical thinking. The slight disagreement reflected a cautious stance in relation to over-reliance on AI or its possible long-term effects on originality.

Discussion

Also, the results obtained in this study revealed that ChatGPT has a very positive effect on the generation of creativity and critical thinking skills in EFL students in Badghis University, as indicated by the strong agreement of 55.36% and agreement of 32.87%. This shows that the learning environment with AI support has the ability to enhance cognitive skills and motivate the students to engage in the learning process. The findings of this study have been consistent with a number of other studies. For example, Alshahrani (2023) highlighted that "AI tools have a tremendous potential to facilitate learners' creativity, interest, and analytical capabilities in EFL contexts." Moreover, Ng et al. (2024) have highlighted that "AI technologies facilitate critical thinking capabilities since learners explore, assess, and think critically to analyze the information, assess the response, and contemplate their construction of knowledge." In the same vein, Pawestri and Pratolo (2025) highlighted that "the use of AI-assisted writing tools stimulates learners' idea generation and creative expression, which is consistent with this study's findings that CHATGPT facilitates innovative thinking and problem-solving abilities among EFL learners.

Nevertheless, from the analysis of the study, it can be noticed that certain factors differ from the results obtained in other scholarly sources. For example, compared to the majority of the surveyed persons who displayed positive attitudes toward the application of AI tools, only a small number of respondents (7.93%) had certain concerns about over-reliance on AI tools and the decrease of originality. This argument is in line with Rensburg and Reedy (2023), who stated that over-reliance on AI tools can influence the level of human independent thought and reduce deep cognitive processing. Zahra and Fithriani (2025) also emphasized that the application of AI-based tools can have a negative influence on learners' creativity if it is not properly addressed.

From a theoretical point of view, these findings support the Technology Acceptance Model. According to this model, perceived usefulness and ease of use impact the learner's attitude towards technology. The positive attitudes towards technology, as obtained in this study, show that students perceive ChatGPT not only as being useful but also easy to use, and these factors enhance their cognitive performance. The key findings also emphasize the cognitive support function of AI technology itself, emphasizing how it enhances metacognitive thinking, analytical thinking, and creativity.

From a context-focused perspective, these results are particularly significant in an unresourced educational environment such as Afghanistan, in which access to advanced technology has always been scarce. The results, which indicate a positive response among the reviews given by the students, suggest that, in a sense, AI can improve the quality of learning in a way that creates fresh opportunities in intellectual development.

From the above discussion, it is understood that ChatGPT is viewed as an effective tool for supporting learning in the field of education, particularly for developing creativity and critical thinking skills. Nevertheless, the most effective usage of the tool can only occur through its supplementary functionality rather than replacing alternative learning strategies. Therefore, appropriate pedagogical instructions regarding the tool, ethics, and the integration of AI in the learning and teaching of languages are critical for the development of learning.

Conclusion

The study provides a conclusion regarding the impact of the implementation of Artificial Intelligence (ChatGPT) on the creativity and critical thinking performance of EFL learners at the Department of English Language and Literature, Faculty of Education, Badghis University in Afghanistan. The study targets the population of 150 undergraduate students who represent all levels of academics such as freshman, sophomore, junior, and senior. The results suggest that the majority of the students view ChatGPT as an efficient and creative learning aid that may assist in language learning and heighten cognitive thinking skills. However, some students showed some limitations and attitudes towards overuse and excessive reliance on AI technology in creating academic content, and the need to maintain the balance between human and technological creativity. Overall, this study has succeeded in confirming the potential of ChatGPT to function as a supportive means of education that directly improves the quality of learning, facilitates independent analysis of ideas, and furthers creative participation in an English learning context.

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Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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