

From Automation to Agency: Designing a ChatGPT-Assisted Writing Prototype Test for Algerian EFL Students – A Case Study

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Abstract

As Artificial Intelligence tools become increasingly embedded in higher education, the focus is shifting from mere technological integration to potentially influencing students' learning and autonomy. This study examines the impact of ChatGPT on students' autonomous learning and overall language proficiency in the EFL classroom. Employing a mixed-methods approach, a questionnaire was distributed to thirty English teachers to elicit their perceptions of ChatGPT's impact on learner agency and to identify pedagogically grounded strategies for its integration in the classroom. Additionally, a ChatGPT-assisted writing prototype test was conducted to evaluate the extent to which the tool enhances autonomy and linguistic proficiency, followed by a classroom observation to systematically monitor their progress under the teacher's guided supervision. The results figure out that teachers viewed ChatGPT as a two-sided coin; while it positively affects students' language learning process, it may hinder their autonomy if not used critically and thoughtfully, emphasising the need for a strategic pedagogical approach to preserve their autonomous learning. Furthermore, the test revealed that combining ChatGPT scaffolding with strategic pedagogical instructions led to considerable improvements in students' independence and writing skills. The research concludes with suggestions for further empirical investigation of AI-assisted similar tools to promote learners' autonomy and language learning.

Keywords: Algerian EFL learners; Artificial Intelligence; ChatGPT; Learner autonomy; overall language proficiency

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Introduction

As Artificial Intelligence transcends its role as a mere technological novelty, it stands as an indispensable agent in higher education and pedagogy. In particular, the advent of AI systems have provided unprecedented potential to EFL classrooms by providing dynamic, interactive, and personalised learning experiences. Among these systems, ChatGPT is a prominent generative language technology tool that has quickly and extensively taken off in EFL classrooms due to its capacity to improve language acquisition and facilitate individualized learning initiatives. Within the Algerian higher educational context, ChatGPT's integration remains in its infancy, as teachers and students begin to use it for diverse purposes, such as practising language skills, fostering critical thinking, and generating creative language output. - Though challenges regarding digital literacy and ethical use persist-. However, despite its benefits, it often promotes learner automation, thereby hindering the development of learner agency.

This study responds to the need to reassess the role of ChatGPT by shifting focus from mere automation toward supporting learner autonomy. To that end, the research implemented a ChatGPT autonomy-based writing test as a scaffold to develop learners' autonomy and overall linguistic competence, targeting 100 L2 students in the English Department of Ahmed Zabana University of Relizane. Additionally, a classroom observation was conducted to track students' engagement and interaction alongside the teacher's instructions and guidance, and a questionnaire was distributed to gather teachers' perspectives on the overall impact of ChatGPT on students' autonomy and learning, as well as to identify the strategies needed to enhance students' autonomous learning through ChatGPT's use. Accordingly, this study seeks to address the following research questions;

- Can ChatGPT promote learner autonomy in the EFL classroom?
- To what extent does the use of ChatGPT-assisted writing prototype test affect students' critical engagement, independence, and overall language proficiency?

Based on the research questions, the formulated hypotheses are as follows:

- ChatGPT significantly enhances learner autonomy if used in mediation
- ChatGPT- assisted writing prototype test significantly improves critical engagement, autonomy, and overall language proficiency in the classroom.

1. Literature Review

1.1 AI Integration in Language Learning and Education

Recently, AI integration has been significantly recognised in higher education, exerting a noticeable influence on students' language learning. As stated by UNESCO Director-General Audrey Azoulay "*Education will be profoundly transformed by AI. Teaching tools, ways of learning, access to knowledge, and teacher training will be revolutionised*" (2023, para 1). To that end, AI technology integration in language teaching and learning has garnered noticeable attention in educational research, as these technological tools have led to the development of automated feedback, AI-driven conversational agents, and adaptive learning platforms (Mehlthron et al., 2018). For example, studies have shown that AI-driven feedback systems may deliver timely and personalised feedback tailored to students' learning needs (Rivzi, 2023, p. 68). However, it is worth noting that, despite its recognised advantages, AI integration in education is not devoid of limitations. Concerns, such as teacher training needs, data privacy concerns, ethical guidelines, and equitable access to digital resources, remain significant (Adiguzel et al., 2023, p. 5). To address these challenges, several studies have proposed a range of strategies to successfully implement different AI tools in language learning and education. Key measures encompass the need for continuous professional development for teachers to incorporate AI

tools into their pedagogical practices, the development of ethical and pedagogical guidelines to promote informed use of AI in the classroom, and the implementation of pedagogical approaches that enhance students' autonomy and engagement (Mananay, 2024, p. 379).

Though, AI integration in education remains a contested terrain. Studies, such as Berse (2024) and Marlowe (2023), have highlighted AI's positive contribution to language education, as it can seemingly enhance students' language skills, including writing proficiency, communication, listening comprehension, and vocabulary enhancement. However, Ilkka (2018) further demonstrates that overreliance may potentially limit learner autonomy, leading to poor self-regulated learning strategies. Such contradictions urge for a balanced approach, where AI is integrated to enhance students' learning experience without compromising their autonomy and critical thinking (Selwyn, 2019).

Despite the rapid adoption of AI in education, existing literature predominantly focuses on AI-driven technologies and their associated challenges (see Dignum, 2021, p. 6; Adnani & Haounani, 2024, p. 3; Zhai et al., 2021, p. 14). However, a significant gap remains in understanding how AI integration, particularly that of ChatGPT, can transition learners from passive recipients of automated instruction to active agents, particularly within the Algerian EFL classroom context, which highlights the need for research that bridges the divide between automation and learner agency through AI-assisted tools.

1.2 ChatGPT as a Scaffolding Tool for Learner Autonomy

The effectiveness of autonomous learning in the EFL classroom has been a central focus of numerous studies. Benson (2013) notes that learner autonomy is “*complex, multidimensional, and variably manifested*” (p. 840), meaning that its definition remains fluid due to a range of cultural, individual, and pedagogical factors, which makes it challenging to establish a universally accepted definition. However, the overall definition of learner autonomy involves students taking control of their learning progress without relying solely on the teacher (Holec, 1981; Firat, 2023; Cekaite & Schubert, 2019). Hence, its significance is well-documented. ChatGPT, which has demonstrated state-of-the-art performance in natural language processing (NLP) (Agustini, 2023), notably functions as an intelligent dialogic partner that may support autonomous learning, further allowing students to monitor their progress, refine their linguistic output, and engage critically with language use. These affordances concurrently cultivate learner agency and facilitate personalised learning experience, with the potential to achieve positive outcomes for students' language learning. Its ability to simulate authentic interaction and provide instant, tailored responses makes it suitable for such pedagogical goals, which in turn facilitates the process of language learning (Wang & Xue, 2024; Abas et al., 2023). Hence, it is worth mentioning that ChatGPT can provide a supportive environment for students to inquire without the concern of being perceived as trivial (Chen, 2023). Yet, concerns persist regarding the accuracy of generated content, plagiarism, the potential erosion of critical thinking and engagement, and its impact on students' intrinsic motivation (Sok & Heng, 2023).

AI could hallucinate or oversimplify information, misleading learners and hindering their problem-solving skill development. This suggests a need for curriculum and assessment design changes that incorporate more training and skill development for learners to work in effective partnership with AI. When reliance on AI undermines student learning, they should be taught to reject it. Only by learning to experiment with, and understand how to and how not to use AI, can we expect learners to harness the potential for AI to support learning and cognition (Shibani et al., p. 6, 2024)

The role of teachers here remains significant in mediating its use (Arthin, 2024; ESSEL et al., 2023; Ferreira, 2023), as they are notably aware of students' language skills and learning needs. As such, their guidance is essential in ensuring a balanced integration of ChatGPT to reinforce their critical

engagement and autonomy (Fikri, 2024; Zhai, 2024; Dhamija & Dhamija, 2025). Hence, ChatGPT should be regarded as a complementary pedagogical tool; one that enhances but does not replace.

1.3 ChatGPT's Influence on Students' Writing

The influence of ChatGPT on students' writing skills is paradoxical. ChatGPT can be of great importance in leveraging students' writing potential and linguistic competence. (Tajik, 2024). Its merit pertaining to writing enhancement lies in its ability to provide immediate, context-aware feedback that helps students to enhance their vocabulary repertoire, grammatical accuracy and overall language proficiency (Albert, 2023). Of equal importance, ChatGPT promotes metacognitive engagement by prompting students to reflect on their writing and linguistic structure. As a conversational AI-driven agent, ChatGPT helps students to efficiently develop their writing (Tajik, 2024). That is to say, it serves as a writing assistant for students seeking to improve their writing in terms of academic writing support, grammar and syntax correction, vocabulary enhancement, and tone adjustment. However, it is also worth noting that as much as it is advantageous for students to use the tool throughout their academic journey, overreliance may hinder original writing skills, critical engagement, and the ability to organise ideas coherently without external assistance. Moreover, it can lead to reduced academic integrity, plagiarism, limit creativity, and create foundational learning gaps, as they may bypass the cognitive skills needed for mastering writing (Wang & Fan, 2025). To mitigate these issues, teachers should encourage process-based assessment to help them develop their ideas and writing skills progressively. In addition to this, promoting a balanced approach can enhance critical thinking and learner autonomy, allowing students to critically analyse ChatGPT's suggestions and make informed decisions about their writing (Yu, 2024). Striking this balance may elevate students' writing skills without compromising their learning independency (Tajik, 2024).

2. Methodology

The research adopted a mixed-methods approach to examine students' autonomy through the use of ChatGPT as a scaffold for their writing skills. To ensure both qualitative depth and quantitative breadth in addressing the research questions, a ChatGPT-based writing autonomy test alongside classroom observation were implemented in the classroom to examine learner autonomy during the writing process. The test was evaluated through a two-phase testing procedure; a pre-test consisting of a writing task for students to fulfil without the use of ChatGPT, and a post-test was conducted to analyse how critically students engaged with ChatGPT as a complementary writing assistant. Hence, the evaluation emphasised students' ability to integrate ChatGPT thoughtfully and autonomously in their writing workflow. Additionally, classroom observation was conducted to observe students' autonomy-related behaviours and the teacher's instructional approach to mitigate or reduce students' dependence on the tool. On the other hand, a questionnaire was administered to 30 teachers to investigate their perceptions of how ChatGPT's use can be optimised through a balanced pedagogical approach. The questionnaire comprised two sections; the first section focused on ChatGPT benefits and potential risks for learner autonomy, and the second one examined the strategies needed for a balanced approach to enhance students' self-directed learning.

The study targeted L2 students, with a total of 100 participants from the English Department of Ahmed Zabana University of Relizane. Since L2 students are still in the process of developing learner autonomy, and based on their continuous engagement with academic writing tasks, the sample was deemed as suitable to analyse whether ChatGPT can effectively enhance that autonomy. To assess students' baseline autonomous writing abilities, learners were asked to complete their writing tasks without any assistance from ChatGPT. Subsequently, they participated in a two-week intervention where they were exposed to ChatGPT as a writing assistance tool for their writing skills and critical engagement. Prior to the intervention, students were instructed to use ChatGPT solely as a scaffolding tool to write, as the teacher encouraged them to generate their own ideas and critically evaluate ChatGPT's generated

content. To assess the impact of both phases, the writing scores were analysed using Cohen's *d* to determine the effect size of the observed improvement to track any noticeable changes between pre- and post-test scores. Together, the mixed-methods approach provided a comprehensive analysis of ChatGPT's role in enhancing learner autonomy.

3. Results Discussion and Analysis

3.1 Analysis

3.1.1 Teachers' Questionnaire

The questionnaire was designed to elicit teachers' perceptions regarding the overall impact of ChatGPT on students' language proficiency and autonomy. Adding to that, it critically examined their perspectives on pedagogically informed strategies to curtail their dependence on the tool to enhance autonomous learning practices. Teachers' responses are subsequently subjected to both thematic and statistical analyses in the following section.

- **Q1:** Does ChatGPT have a positive impact on students' language proficiency?

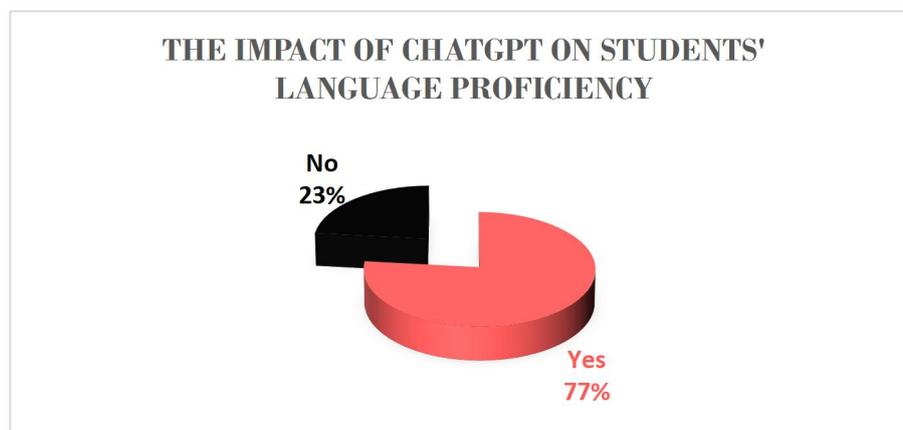


Figure 1: The Impact of ChatGPT on Students' Language Proficiency

Figure 1 examines the potential impact of ChatGPT use on students' language proficiency. As illustrated above, 77% ($N = 23$) of teachers agreed that ChatGPT has a positive impact on enhancing language proficiency. This suggests that ChatGPT can noticeably influence students' linguistic skills, such as vocabulary enhancement, coherence and cohesion, grammatical accuracy, language fluency, and overall communicative competence. However, the 23% ($N=7$) of teachers who expressed a differing view believe that the tool primarily influences students' language use in informal contexts rather than academic proficiency. That is to say, while ChatGPT can enhance students' overall fluency and language production, it may also expose learners to colloquial expressions and hallmarks, as students may adopt such expressions in their academic writing.

- **Q2:** Does ChatGPT enhance students' creativity and originality in writing?

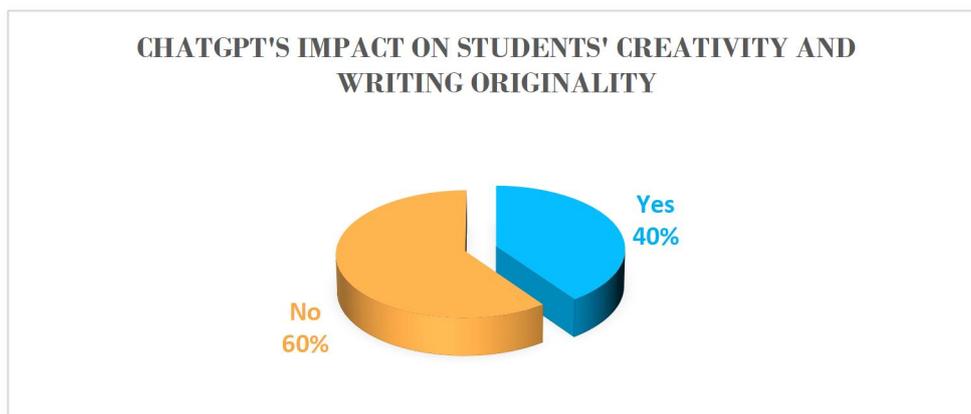


Figure 2: ChatGPT's Impact on Students' Creativity and Writing Originality

Figure 2 investigates the influence of ChatGPT on students' creativity and writing originality. The data revealed that 60% (N=18) of teachers believed that ChatGPT may reduce students' creative capacity and writing authenticity. The result suggests that ChatGPT may lead to an overreliance, whereby students depend on the tool to generate ideas rather than critically analysing the content. This concern highlights the risk of students neglecting essential cognitive and creative stages of writing. On the other hand, 40% (N=12) viewed it as a helpful tool for supporting and enhancing learners' creativity and originality in writing, suggesting that ChatGPT, when used with teachers' guidance and pedagogical instructions, may serve as a scaffolding tool for stimulating creativity and authenticity in academic writing, thereby improving coherence and overall language proficiency.

- **Question 3:** Have you noticed any potential risks related to students' use of ChatGPT on language learning and autonomy?

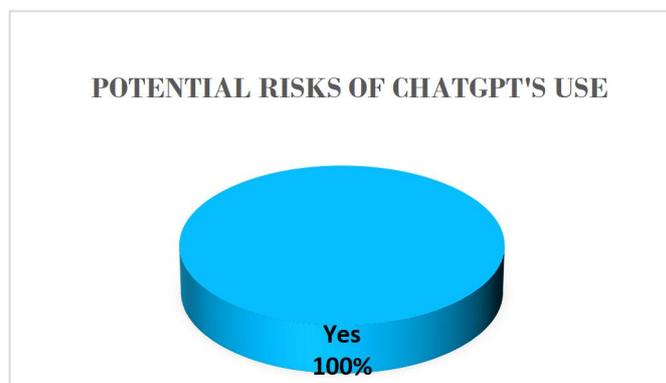


Figure 3: Potential Risks of ChatGPT's Use

As shown in Figure 3, which illustrates the potential negative impact of ChatGPT on language learning, all teachers (N=30), representing 100% of the sample, acknowledged the potential risks associated with ChatGPT. The unanimous agreement indicates a professional consensus, reflecting a collectively shared recognition of its challenges. Potential detriments, such as overreliance, reduced critical engagement and creativity, plagiarism, weakened problem-solving skills, decreased language accuracy, and content falsification, may reduce students' autonomy, thereby reducing their ability to independently generate ideas and critically evaluate their writing.

- **Question 4:** Have you observed your students' dependent use of ChatGPT as a tool for academic writing and language learning?

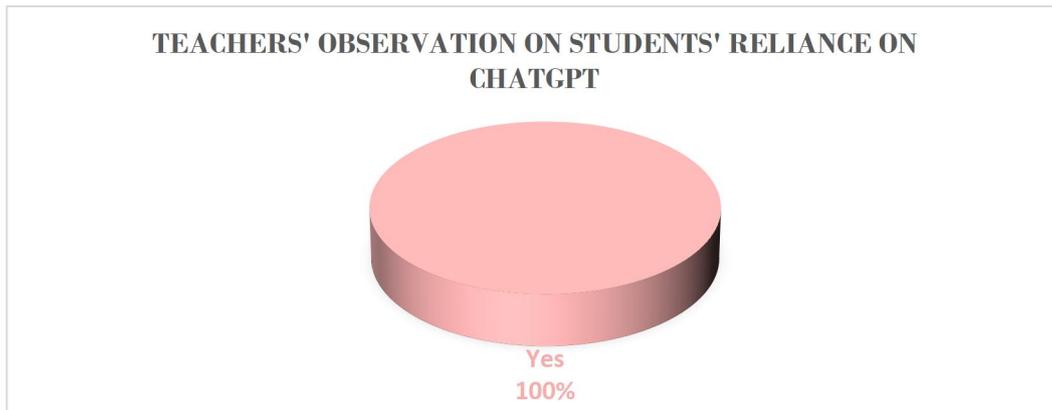


Figure 4: Teachers' Perceptions of Students' Dependence on ChatGPT for Learning

The fourth figure presents teachers' perceptions of the extent to which students rely on ChatGPT. As evidenced in the figure above, all teachers (100%, N=30) observed students' dependency on the tool, indicating that while ChatGPT enhances language learning, it may inadvertently encourage a reliance that may undermines students' independent thinking and solving. That is to say, students may begin to fully depend on the tool not as a scaffold, but as a substitute for critical engagement and cognitive effort.

- If yes, please elaborate.

Teachers were asked to provide elaborative remarks on their students' overreliance on ChatGPT for language proficiency and academic writing. Commonly reported issues included acceptance of ChatGPT generated content without fact-checking, plagiarism issues, and frequent copying of ChatGPT responses with minimal effort. One teacher noted *"They write ChatGPT's suggested content without fact-checking, because sometimes the suggested content is inaccurate"* while another explained that *"Even small fixes like sentence structure or word choice, you find them entirely relying on ChatGPT"*. On the other hand, some pointed out students' struggle to justify and critically engage with ChatGPT's suggestions, with one commenting *"I sometimes allow them to use ChatGPT in the classroom for help. However, I find most of them fully relying on it"*. Other teachers observed reduced motivation to enhance and develop independent writing skills, as reflected in the remark; *"Many students submit writing tasks that look almost similar, as if they didn't put much of their own thoughts into them"*. Similarly, another explained that *"Sometimes, when they are assigned to do an online work, the paragraphs or essays they send are mostly AI-generated"*. Collectively, these remarks acknowledge the importance of strategic pedagogical guidance to prevent ChatGPT overdependence as a doorway to increase its potential as a learning scaffold.

- **Question 5:** In your opinion, why do students overly rely on ChatGPT for their language learning and proficiency?

This question examines the underlying factors contributing to students' dependent use of ChatGPT for academic purposes.

Table 1: Teachers’ perspectives on the reasons behind students’ overreliance on ChatGPT

Theme	Reasons
Teachers’ perspectives on the reasons behind students’ dependent use of ChatGPT for language proficiency and learning	Ease and convenience
	Instant feedback and answers
	Lack of understanding of how to use ChatGPT critically
	Weak foundational language skills
	Absence of effective guidance
	Lack of motivation

Table 1 of the teachers’ questionnaire shows the results of the responsible reasons for dependent ChatGPT use among students. The table highlights seven key factors contributing to students’ reliance on ChatGPT, namely: the ease and convenience it provides, the instant feedback and answers, students’ lack of understanding of how to critically engage with the tool, lack of effective language skills, the absence of effective instructional guidance, and diminished and/or decreased motivation. These factors indicate that while ChatGPT can serve as a supportive tool for students’ language proficiency and learning, its uncritical use, combined with pedagogical gaps and motivational challenges, can undermine learners’ autonomy, creativity, and language development.

- **Question 6:** Do you consider the teacher’s guidance as essential in enhancing learner autonomy through ChatGPT’s use?

Figure 6: Teachers’ guidance on enhancing learner autonomy through ChatGPT

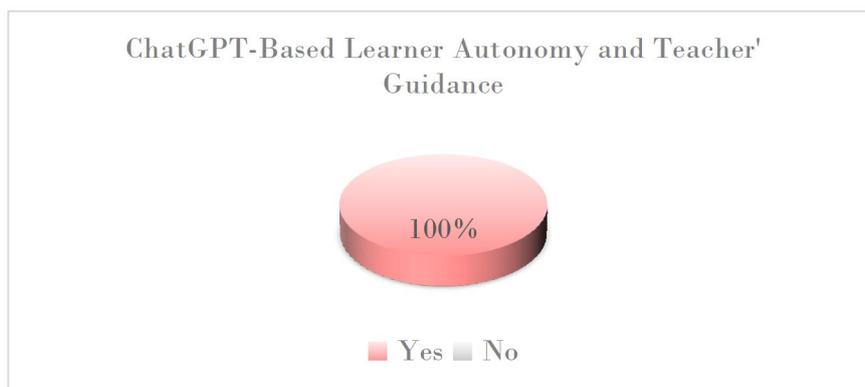


Figure 6 presents teachers’ responses to whether pedagogical guidance is needed for students’ autonomy enhancement through the use of ChatGPT. Strikingly, all teachers (100%, N=30) responded “yes”, indicating the critical role of teacher support and guidance in AI tools integration to promote learner autonomy. That is to say, the uniformity of responses suggests that ChatGPT alone cannot foster students’ autonomy unless guided by pedagogical instructions and strategies.

- If yes, please elaborate.

Teachers were asked to provide further explanations on the importance of teachers’ guidance in enhancing learner autonomy through ChatGPT. Their elaborations further demonstrated that lack of intentional scaffolding, students are prone to passive use on ChatGPT generated content. They

highlighted the importance of guiding students to critically evaluate and assess ChatGPT responses and suggestions, as they stressed for the need of modeling reflective practices, ethical use, and strategic engagement. The majority of teachers pointed out students lack of awareness to use such tools independently and productively. One teacher clarified that “*some students are unaware of general AI’s limitations, which makes it indispensable to help them recognise biases, factual inaccuracies, and informal use of language in ChatGPT’s responses*”. Similarly, another teacher elucidated that “*teachers’ presence ensures ethical and purposeful use of ChatGPT, as students need to learn when, why, and how to use it appropriately if they want to learn*”. Therefore, the teacher’s role is essential in mediating ChatGPT’s use among students, thereby enhancing their autonomy for the long term.

- **Question 7:** As a teacher, what would you recommend as strategies to enhance learner autonomy through ChatGPT’s use for language learning?

Table 2: Teacher-recommended strategies to enhance learner autonomy through ChatGPT

Teacher-informed strategies to promote autonomous language learning through ChatGPT	Teach critical engagement skills
	Reflective-tasks integrations
	Combine ChatGPT with traditional methods
	Monitor ChatGPT usage
	Create AI-ethics awareness
	Design writing tasks through ChatGPT as a scaffold
	Limit copy-paste behaviour

The table above encompasses the strategies recommendations provided by teachers for learner autonomy through ChatGPT integration as a scaffold. A common thread among the responses is guided use rather than an unsupervised one. All teachers emphasised the need to teach critical engagement skills, highlighting the importance of learning how to evaluate, modify, and reflect on ChatGPT’s suggestions. To encourage self-regulation and reflection in language learning process, teachers demonstrated the need to incorporate reflection-based activities, where students explain how ChatGPT support their learning process, what they choose to accept, reject, or revise. Furthermore, several proposed the use of scaffolded prompts, wherein students are first guided and instructed on how to use ChatGPT, then gradually required to make autonomous decisions, thereby developing critical thinking skills. Moreover, they highlighted the need for students to limit copy-paste behaviours, as it can noticeably hinder their autonomy and language development. Instead of relying solely on generated content, students should personalise ChatGPT’s responses and integrate them into their writing using their own linguistic tone and understanding. Another recommended strategy is combining ChatGPT’s use with the traditional way of teaching, highlighting the potential synergistic benefits of establishing a hybrid approach, wherein ChatGPT is used as a complement rather than a replacement. Crucially, teachers emphasised on the importance of exposing students to AI-ethics awareness. This is to ensure adherence to academic integrity to avoid plagiarism.

3.1.2 ChatGPT-Based Writing Autonomy Test for Learner Autonomy

The test aimed to examine the extent to which ChatGPT influences students’ autonomous learning. The writing outputs from both tests were scored according to pre-established criteria, which are detailed in the table below. Followed by a classroom observation, students’ autonomous behaviours were monitored to analyse real-time evidence of self-regulation, decision-making, and independent engagement with ChatGPT.

Table 1: ChatGPT-Based Writing Criteria for Assessing Learner Autonomy

No.	Criteria	Description
1	Idea Originality	The extent to which students generate original ideas, beyond ChatGPT’s suggestions
2	Critical Engagement	How critically students engage and evaluate ChatGPT’s assistance
3	Coherence and Organisation	Clarity and structured arrangement of ideas in the writing process
4	Language Personalisation	Students’ voice and style to reflect individuality in language use
5	Self-reflection	Students’ critical awareness and reflection on how to use ChatGPT as a scaffold
6	Overall Language Proficiency	The degree to which students demonstrate improved writing skills in grammar, vocabulary, and overall writing fluency through ChatGPT scaffolding

Note: Each criterion was scored on a scale from 0 (lowest) to 5 (highest). The total writing score per student is 30.

Table 2: Score Progression from Pre-to Post Intervention

Pre-Test Score	No. of Students	Post-Test Score Range	Remarks
21	2	29	High improvement
22	14	28-30	High improvement
23	7	29	High improvement
24	16	26-29	Moderate-to-high improvement
25	43	26-30	Moderate-to-high improvement
26	6	29	Moderate improvement
27	10	30	Reached the full score

The table above demonstrates the score progression of students from pre- to post-intervention across 100 participants. As the table illustrates, the pre-test scores of the students were mostly concentrated between 21 and 27. After the intervention, there was a noticeable shift in score distribution, with a significant number of students moving from moderate (e.g., 21-24) to high improvements, achieving scores ranging from 26 to 30. Importantly, students who initially scored 27 achieved the full score, as they were fully engaged with the writing task, highlighting enhanced learner autonomy and improved writing skills. However, it is worth noting that the teacher's guidance was consistently present throughout the two-week intervention to support and monitor students' engagement with ChatGPT. To prevent students' overreliance, the teacher implemented certain pedagogical strategies, some of which are encouraging students to improve the clarity of their writing instead of fully copying generic ones, asking them to critically justify ChatGPT's suggestions and responses, reminding them to fact-check its content, challenging them to edit its responses in their own words, and encouraging them to explain how ChatGPT helped in areas that required further improvements. The findings indicate that, when combined with strategic teachers' guidance, a careful integration of ChatGPT can effectively enhance students' autonomous learning, critical engagement, and overall language proficiency.

Figure 1: Pre- and Post-Test Mean Scores Across Autonomy-Based Writing Criteria

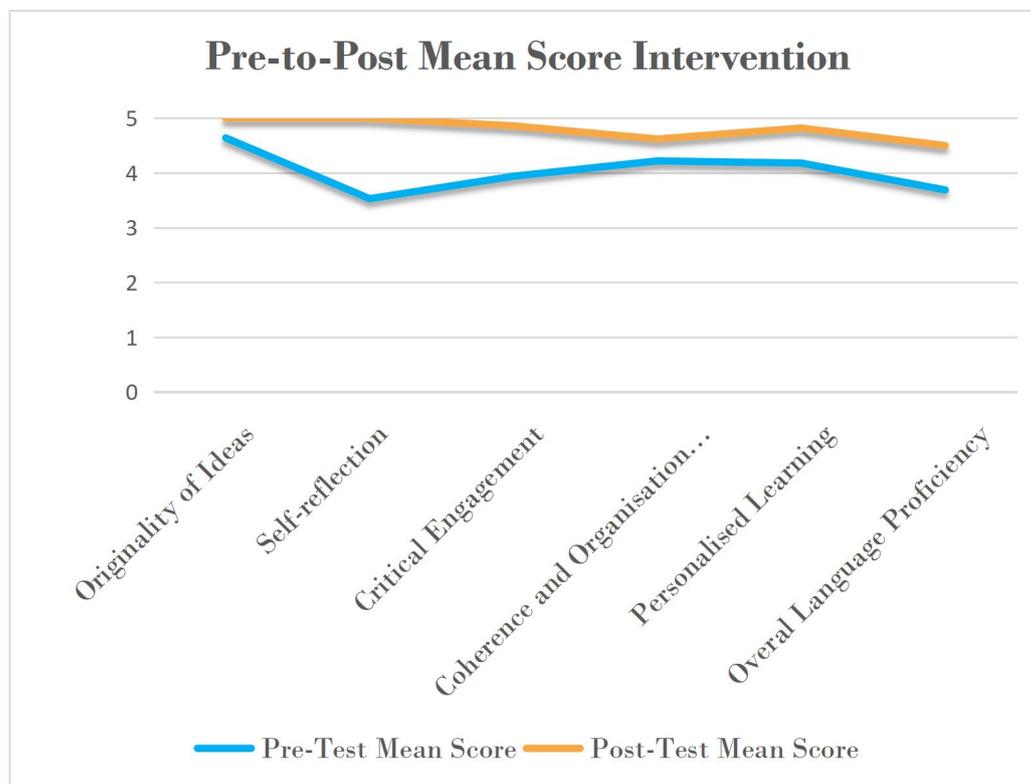


Figure 1 represents the mean scores of pre- and post-interventions of ChatGPT as a scaffold for learner autonomy in the writing process. As the graph illustrates, statistical analysis revealed a noticeable improvement in students' performance across all criteria. Concerning originality of ideas, the mean score increased from 4.64 (SD=0.48) to 5 (SD=0). This indicates that students achieved the full score in generating authentic content and ideas, which suggests a significant improvement in ideation and creative risk-taking. Similarly, self-reflection improved from 3.53 (SD=0.49) to 5 (SD=0), reflecting enhanced metacognitive engagement and awareness. Students' mean score regarding critical engagement demonstrated a marked advancement, with the mean rising from 3.94 (SD=0.50) to 4.86 (SD=0.34), as they used ChatGPT to critically analyse, question, and interact with the content. Progress was also evident in coherence and organisation ability, improving from 4.22 (SD=0.78) to 4.62 (SD=0.78). This

suggests that, with ChatGPT-mediated support, students became more adept in structuring and organising their content to maintain idea progression. In personalised learning, students' mean score advanced from 4.18 (SD=0.71) to 4.82 (SD=0.38). The substantial increase indicates that students adapted their learning strategies and writing process to their individual needs. That is to say, ChatGPT integration as a scaffold appears to have an influence on students to take ownership of their learning journey, thereby leading to self-regulation in their writing tasks. Finally, overall language proficiency exhibited notable gains, with students' mean score increasing from 3.69 (SD=0.46) to 4.5 (SD=0.5). This highlights the positive role of ChatGPT in enhancing their command of language structure, vocabulary usage, and overall language fluency. Collectively, the results confirmed that scaffolding use of ChatGPT, combined with the teacher's guidance and instructions, significantly enhanced students' autonomy. Thus, the findings demonstrate that AI-assisted scaffolding, when paired with pedagogical support, effectively promotes independent language learning.

3.2 Discussions

This study aims to investigate the impact of ChatGPT on Algerian EFL learners' autonomy. The research addresses two main research questions; the first research question examines the impact of ChatGPT on students' autonomy. The findings indicated that the tool has a significant impact on learners' autonomy. Huang (2023) posits that ChatGPT may notably enhance students' autonomy by providing personalised learning support, self-directed study habits, and improving resource accessibility. However, an overreliance may stunt their ability to think independently and construct their own understanding. As students use ChatGPT for ready-made answers, they may neglect essential cognitive processes for analytical reasoning and self-reflection. Hence, it is essential to adopt a balanced approach that positions the tool as a scaffold rather than a substitute for their cognitive engagement and critical thinking (Zhai et al, 2024). For this approach to be effectively implemented, explicit teachers' guidance and instructional support are crucial to ensure that learners are not fully dependent on the tool, which was further substantiated by the test results. Students showed significant improvements in all criteria, including critical engagement, personalised learning experience, coherence and organisation ability, and overall language proficiency. According to Asadi et al, (2025), ChatGPT alone is not enough, as the role of the teacher remains central for critical scaffolding regardless of AI technologies in language and education. As demonstrated in the questionnaire analysis and the observation of the test intervention, students' autonomy was enhanced when ChatGPT use was integrated with the teacher's pedagogical support, which in turn enabled them to cultivate the competence necessary for autonomous learning (ElSayary, 2024; Levine et al., 2025; Jinming & Daniel, 2024). The results of this study are consistent with those of Rashed Ibraheam Almohesh (2024), Van Horn (2024), and Augustini (2023) who similarly demonstrated that ChatGPT and AI integration tools in language learning and education, when pedagogically supported, can significantly influence learners' critical engagement and personalised learning skills, which can strengthen their autonomy in the learning process. Accordingly, a set of pedagogical strategies were recommended by teachers to balance AI assistance with guided instruction. These include self-reflective tasks to enhance metacognition, teaching critical engagement skills for students to evaluate, analyse, and reflect on ChatGPT's generated content, balancing the tool with traditional teaching methods, and raising students' awareness of AI ethical integration in language learning and education. Though, most teachers acknowledged the importance of gradually reducing guidance as students become more confident and independent with its use. Rather than viewing the tool as a substitute for language learning and instruction, teachers considered themselves as facilitators and central in contextualising ChatGPT's outputs. To that end, the role of the teacher is indispensable in the future of AI integration, acting as monitors and guides for students' language learning development and autonomy (Gentile et al., 2023).

Conclusion

The research at hand examined the potential impact of ChatGPT on enhancing students' autonomy and overall language proficiency, targeting 100 L2 students from the English Department of Ahmed Zabana University of Relizane. Employing a mixed-methods approach, students were exposed to a ChatGPT-based writing test to investigate the extent to which ChatGPT can serve as a scaffolding tool for students' autonomous learning and overall language proficiency, while a classroom observation was concurrently conducted to track students' progress and autonomy-related behaviours. In addition to this, a questionnaire was delivered to teachers to investigate their perspectives regarding the pedagogical integration of ChatGPT, its impact on learners' agency, and the instructional strategies needed to balance ChatGPT's positive impact with guided teaching for enhancing learners' autonomy. The findings revealed that ChatGPT is a tool of both promise and peril; as much as it can noticeably influence students' overall writing skills and autonomous learning, it may also pose challenges, including reduced academic integrity and students' dependency. However, the test showed that the tool, when guided with teachers' pedagogical support and instructions, had a significant influence on learners' autonomy and overall linguistic competence. Therefore, different pedagogical approaches, such as promoting AI as a supplementary tool or explicitly discouraging its use for specific tasks, could influence how students engage with AI. Future research could explore the impact of teachers' attitudes and instructional guidelines on students' use of AI applications.

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