STRATEGIC INTEGRATION OF CHATGPT IN TEACHING VIETNAMESE ARGUMENTATIVE WRITING TO FOREIGN CADETS AT THE AIR DEFENSE – AIR FORCE ACADEMY, VIETNAM

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ABSTRACT

This study examines the strategic integration of ChatGPT in teaching Vietnamese as a Foreign Language (VFL) argumentative writing to 32 Lao military cadets at the Viet Nam Air Defense–Air Force Academy. Adopting a 15-week classroom-based action research design, the study implemented ChatGPT as a pedagogical scaffold across selected stages of the writing process, including brainstorming, model analysis, outlining, and revision, while deliberately excluding AI use during the initial drafting phase to preserve learners' authorial voice. Quantitative data from three timed writing assessments reveal statistically significant improvements in overall writing performance, particularly in argument structure, coherence, grammatical accuracy, and lexical precision ($p < 0.001$). Qualitative data from learner reflective journals and teacher observation logs indicate a developmental shift from initial reliance on AI-generated output toward more selective, critical, and reflective engagement with ChatGPT. Learners gradually demonstrated increased prompt literacy, stronger genre awareness, and greater control over revision decisions. The findings highlight the central role of teachers in mediating human–machine collaboration through ethical guidance, structured AI-free zones, and metacognitive coaching. The study concludes that when strategically integrated, ChatGPT can enhance VFL argumentative writing instruction by supporting learner autonomy and rhetorical development. However, pedagogical mediation remains essential to prevent cognitive offloading and to maintain academic authorship integrity, particularly in formal military education contexts.

TÍCH HỢP CHIẾN LƯỢC CHATGPT TRONG GIẢNG DẠY VIẾT LUẬN NGHỊ LUẬN TIẾNG VIỆT CHO HỌC VIÊN NƯỚC NGOÀI TẠI HỌC VIỆN PHÒNG KHÔNG – KHÔNG QUÂN VIỆT NAM

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TỪ KHÓA

Tiếng Việt như một ngoại ngữ (VFL);
ChatGPT;
Viết văn nghị luận;
Học viên quân sự;
Hợp tác người – máy.

TÓM TẮT

Nghiên cứu này phân tích việc tích hợp chiến lược công cụ ChatGPT trong giảng dạy viết văn nghị luận tiếng Việt như một ngoại ngữ (VFL) cho 32 học viên quân sự Lào tại Học viện Phòng không – Không quân Việt Nam. Nghiên cứu được triển khai theo mô hình nghiên cứu hành động trong thời gian 15 tuần, trong đó ChatGPT được sử dụng như một công cụ hỗ trợ sư phạm ở các giai đoạn khơi gợi ý tưởng, phân tích văn bản mẫu, lập dàn ý và chỉnh sửa bài viết, đồng thời không cho phép sử dụng AI trong giai đoạn viết nháp ban đầu nhằm bảo đảm tính chính chủ và giọng văn cá nhân của người học. Kết quả phân tích định lượng từ ba bài kiểm tra viết cho thấy sự cải thiện có ý nghĩa thống kê về năng lực viết, đặc biệt ở cấu trúc lập luận, tính mạch lạc, độ chính xác ngữ pháp và vốn từ vựng ($p < 0,001$). Dữ liệu định tính từ nhật ký học tập và ghi chép quan sát của giáo viên phản ánh sự chuyển biến rõ rệt từ việc lệ thuộc vào AI sang sử dụng ChatGPT một cách có chọn lọc, phản biện và có ý thức thể loại. Học viên dần hình thành năng lực xây dựng lời nhắc hiệu quả, nâng cao khả năng tự chỉnh sửa và kiểm soát quyết định viết. Nghiên cứu nhấn mạnh vai trò trung tâm của giáo viên trong việc điều phối sự hợp tác người – máy thông qua hướng dẫn đạo đức, thiết lập các "vùng không AI" trong tiến trình viết và huấn luyện tư duy siêu nhận thức. Kết luận cho thấy, nếu được tích hợp hợp lý, ChatGPT có thể nâng cao hiệu quả giảng dạy viết nghị luận VFL, đồng thời thúc đẩy tính tự chủ và phát triển năng lực lập luận của người học. Tuy nhiên, sự can thiệp sư phạm vẫn là điều kiện then chốt nhằm tránh hiện tượng "tải tư duy" và bảo đảm tính chính chủ học thuật, đặc biệt trong môi trường đào tạo quân sự chính quy.

1. Introduction

The emergence of generative artificial intelligence (AI) has opened new avenues for foreign language (FL) writing instruction. ChatGPT, an advanced large language model developed by OpenAI, is increasingly being used to assist learners with brainstorming, text organization, vocabulary development, and revision. While the application of AI in English as a Foreign Language (EFL) classrooms has been well-documented (Barrot, 2023; Meniado, 2024), its role in teaching Vietnamese as a Foreign Language (VFL) remains underexplored, particularly in formal, military learning environments.

At the Viet Nam Air Defense – Air Force Academy, Lao military cadets are enrolled in a Vietnamese language program focused on argumentative writing. While they have attained B1 proficiency (on the Common European Framework of Reference for Languages), many struggle with generating ideas, structuring arguments, and expressing themselves with lexical and grammatical precision. These challenges reflect broader issues in FL writing, including limited use of metacognitive strategies and insufficient exposure to academic genres (Nguyen, 2017).

This study investigates the integration of ChatGPT as a scaffold—not a substitute—for traditional instruction. Learners interact with the tool during specific writing phases, such as brainstorming, analyzing model texts, outlining, and final editing. The use of AI is withheld during the initial drafting stage to preserve creativity and individual voice. This approach aligns with the Four Strands Framework (Nation, 2007), which emphasizes a balance between meaning-focused input/output and form-focused instruction.

From a Human–Machine Collaboration (HMC) perspective, teachers are seen as facilitators and ethical guides (Meniado et al., 2024). Preliminary observations suggest that ChatGPT-enhanced instruction can improve coherence, vocabulary use, and editing skills; however, concerns remain about over-reliance and the potential loss of individuality. Accordingly, this research aims to (1) evaluate the pedagogical value of ChatGPT in teaching Vietnamese argumentative writing and (2) assess its impact on learners' writing performance and perceptions within a structured military context.

2. Literature review

2.1. Argumentative Writing in VFL Contexts

Argumentative writing is a critical skill for foreign language learners, as it requires not only the ability to present and defend a position but also to engage in logical reasoning and structured organization. In the context of Vietnamese as a Foreign Language (VFL), learners often struggle with issues such as recognizing language patterns, understanding purpose, and employing appropriate argumentation strategies as Nguyen (2017) pointed out, effective argumentative writing in Vietnamese demands competencies such as genre awareness, coherence, and the expression of personal stance, which may be especially challenging for foreign learners unfamiliar with Vietnamese discourse conventions.

For military cadets at the Vietnam Air Defense – Air Force Academy, the added layer of cultural and linguistic differences further complicates the development of these skills. While they may have reached an intermediate proficiency level in VFL, the complexity of constructing coherent and persuasive arguments in Vietnamese poses a significant challenge. As a result, there is a need for instructional strategies that can help learners bridge these gaps by improving their genre knowledge and writing organization, which is where tools like ChatGPT can play a pivotal role.

In previous studies, AI tools such as ChatGPT have been shown to aid learners in structuring arguments by providing examples, suggesting organizational patterns, and offering feedback on the clarity of reasoning. Barrot (2023) emphasized how AI tools can help students generate ideas and refine their argumentation skills. This study builds upon these findings by exploring how ChatGPT can specifically support VFL learners in military contexts, where formal, logical argumentation is crucial.

2.2. The Role of AI in Foreign Language Writing Instruction

The integration of AI in foreign language instruction, particularly in writing, has garnered significant attention in recent years. As Meniado et al. (2024) highlighted, AI tools can assist learners by providing real-time feedback, helping them refine their grammar, vocabulary, and structure. For example, ChatGPT's ability to generate contextually appropriate sentences and offer suggestions for improvement can be particularly beneficial during the drafting and editing phases of writing.

However, while AI has the potential to enhance language learning significantly, concerns exist about over-reliance and the risk of students becoming disengaged from the writing process. According to Su et al. (2023), AI tools like ChatGPT can support cognitive offloading, allowing learners to focus

more on content development rather than language accuracy. However, when not properly guided, learners may fail to develop critical writing skills such as independent idea generation and critical reflection. This is particularly concerning in military contexts, where discipline and originality are highly valued.

The use of AI in foreign language instruction requires careful integration to avoid these pitfalls. As Chan and Hu (2023) suggested, the key to effective AI use in language classrooms lies in scaffolding AI interactions with structured guidance from teachers. This aligns with the Machine-in-the-Loop (MITL) framework, which positions the teacher as a facilitator who ensures that AI use enhances, rather than replaces, the learning process (Meniado et al., 2024).

2.3. AI in VFL: Previous Research and Gaps

While a growing body of research exists on the use of AI in language education, few studies have focused explicitly on VFL. Previous studies have primarily centered on English as a Foreign Language (EFL) and its integration with AI tools (Barrot, 2023; Meniado, 2024). However, these studies are not directly transferable to the VFL context, as the linguistic and cultural challenges faced by VFL learners differ significantly. The present study aims to address this gap by exploring how ChatGPT can be used to support argumentative writing in VFL classrooms, with a particular focus on military cadets who face additional challenges related to the formal and structured nature of military discourse.

Furthermore, most studies have focused on the use of AI during the drafting and revision phases, while the current study expands this focus to include brainstorming, model analysis, and outlining. This holistic approach is designed to support learners throughout the entire writing process, allowing them to develop a deeper understanding of both the content and the genre of argumentative writing.

3. Methodology

3.1. Research Design

This study adopted a classroom-based action research design, following the cyclical process of planning, acting, observing, and reflecting as described by Burns (2010). The action research model was chosen for its flexibility and ability to provide continuous reflection and improvement throughout the research cycle. The study was conducted over 15 weeks, with the research divided into three distinct phases: baseline instruction (weeks 1–5), guided AI use (weeks 6–10), and autonomous AI use (weeks 11–15). These phases were structured to progressively introduce ChatGPT into the writing process, allowing for a gradual shift toward learner autonomy while still maintaining necessary guidance during the early stages of AI integration.

In the first phase (weeks 1–5), learners received traditional instruction in Vietnamese argumentative writing. During this time, they were introduced to basic writing structures, argumentation strategies, and the expectations of academic genres. No AI tools were used in this phase, as it served to establish baseline data on student performance and provide a foundation for introducing ChatGPT in subsequent phases. The goal was to assess students' initial writing skills, focusing on their ability to structure arguments, use appropriate vocabulary, and maintain coherence.

The second phase (weeks 6–10) marked the introduction of ChatGPT as a scaffold for students. In this phase, learners used ChatGPT during five specific stages of the writing process: idea generation, model text analysis, outlining, first draft writing, and final editing. The use of AI was designed to support students' writing tasks without entirely replacing the drafting process. However, the initial drafting stage was excluded from AI use to ensure that students maintained ownership of their ideas and

creative voice. This approach aimed to foster critical thinking and independent idea generation, while still benefiting from the organizational and linguistic support that AI could provide.

The final phase (weeks 11–15) encouraged greater autonomy in AI usage. During this phase, students were given more control over when and how to use ChatGPT during the writing process. They were encouraged to create their own prompts and to use the tool selectively to support their writing, particularly in areas such as grammar correction, cohesion, and vocabulary enhancement. The teacher's role shifted from direct instruction to facilitation, with a focus on supporting metacognitive awareness and guiding students in the ethical use of AI. This phase aimed to help students become more independent in using AI as a tool for revision and self-reflection, rather than relying on it for content generation.

The cyclical design of the study allowed for continuous observation and adaptation of teaching practices based on student performance and feedback. This dynamic process ensured that the integration of ChatGPT remained responsive to the students' needs and contributed to an evolving understanding of its role in the classroom.

3.2. Participants and Setting

The study was conducted at the Viet Nam Air Defense – Air Force Academy, with 32 Lao military cadets enrolled in a 15-week Vietnamese language course focusing on argumentative writing. All participants had reached a B1 proficiency level according to the Common European Framework of Reference for Languages (CEFR). Although they had some prior experience with argumentative writing, their skills in generating ideas, structuring arguments, and using appropriate lexical and grammatical structures were still developing. As cadets from a military background, they were accustomed to a formal and structured learning environment, which posed additional challenges for writing in a foreign language, particularly in academic genres.

The course was designed to help the cadets improve their argumentative writing skills, with a focus on logical structure, clarity, and persuasive techniques. The instructional design emphasized the development of these skills through both traditional methods and the integration of ChatGPT as a support tool. The course was taught twice a week for 90-minute sessions, totaling 24 sessions over the course of the semester. The military context of the course provided a unique opportunity to explore how AI could be applied in a formal, high-stakes educational environment where discipline, structure, and critical thinking are highly valued.

3.3. Data Collection Methods

A triangulated data collection approach was employed to enhance the validity and reliability of the findings. Both quantitative and qualitative data were collected to provide a comprehensive view of the learners' progress and experiences. The use of multiple data sources ensured that the results reflected various aspects of the students' interactions with ChatGPT and their development as writers.

Quantitative data were collected through three writing assessments: a pre-test, a post-test 1, and a post-test 2. These assessments required the cadets to write a 250-word argumentative essay under timed conditions (40 minutes). The essays were assessed using an adapted version of Nguyen's (2017) rubric, which evaluates five key criteria: Task Fulfillment, Coherence and Cohesion, Argument Structure, Lexical Accuracy, and Grammar. These criteria were scored on a 20-point scale for each of the five areas, resulting in a total score of 100. The pre-test was administered at the beginning of the course to establish baseline performance. At the same time, post-test 1 and post-test 2 were used to assess changes in writing skills following the introduction of ChatGPT and its selective use in the writing process.

Qualitative data were gathered through weekly reflective journals, which students submitted through a secure Padlet board. These journals enabled students to document their experiences with

ChatGPT, including how they utilized the tool, the challenges they encountered during the writing process, and their perceptions of their progress. The journals were analyzed thematically to identify emerging patterns in the students' engagement with the AI tool and to assess changes in their attitudes toward writing and revision. Additionally, the teacher maintained structured observation logs throughout the study. These logs documented the students' behavior, their interactions with ChatGPT, and any adjustments made to the instructional approach based on ongoing observations.

3.4. Data analysis

The quantitative data from the writing assessments were analyzed using paired-sample t-tests to compare mean scores across the pre-test, post-test 1, and post-test 2. This statistical analysis allowed for the evaluation of whether there were significant improvements in the students' writing performance, particularly in the areas of argument structure, coherence, grammar, and vocabulary. The t-tests helped to determine if the observed changes in writing scores were statistically significant and could be attributed to the use of ChatGPT.

Qualitative data were analyzed using thematic analysis (Braun & Clarke, 2006), a widely used method for identifying patterns and themes within textual data. The data from the reflective journals and observation logs were coded inductively, with codes generated based on the students' experiences, challenges, and reflections on their use of ChatGPT. Familiar themes such as "AI dependence," "prompt writing," and "revision engagement" were identified and analyzed to assess shifts in the students' approach to writing and their ability to self-regulate their use of AI tools.

4. Findings and discussion

4.1. Measurable Improvement in Argumentative Writing

The quantitative data obtained from the pre-test, post-test 1, and post-test 2 clearly show improvements in the cadets' argumentative writing skills. These results suggest that integrating ChatGPT into the writing process contributed significantly to enhancing their ability to organize arguments, improve coherence, and use vocabulary more accurately.

Descriptive Statistics

The descriptive statistics for the average scores and variance across the three testing phases (pre-test, post-test 1, and post-test 2) indicate a progressive improvement in the cadets' writing skills. The pre-test average score of 26.26 served as the baseline level of proficiency, reflecting the cadets' initial writing ability before the use of ChatGPT. The average score on post-test 1 increased to 31.38, and by post-test 2, it further rose to 36.99. This upward trend in the scores suggests a clear improvement in the cadets' argumentative writing abilities after using ChatGPT for assistance during brainstorming, outlining, and editing.

Table 1: Average scores and variance of writing assessments (n = 32)

Test phase	Count	Sum	Average	Variance
Pre-test results	32	840.25	26.26	2.70
Post-test 1 results	32	1004	31.38	3.95
Post-test 2 results	32	1183.75	36.99	4.55

From Table 1, the variance in scores increased from 2.70 in the pre-test to 3.95 in post-test 1 and further to 4.55 in post-test 2, indicating that the effect of ChatGPT varied across students. While most students showed improvement, the degree of improvement differed. Some students appeared to

benefit more from ChatGPT, likely due to individual differences in their engagement with the tool.

The average pre-test score of 26.26 revealed that only 3 of 32 cadets achieved a "Proficient" rating (≥35), and five scored below 25. Student responses often reflected a basic understanding of argumentative form but lacked logical structure, clear reasoning, and topic-specific vocabulary. For example, in the pre-test on the topic *"Mạng xã hội làm giảm chất lượng giao tiếp thực tế*," a representative response was: *"Em nghĩ mạng xã hội làm người ta lười nói chuyện ngoài đời. Em không thích. Giao tiếp trực tiếp là tốt hơn."* Such responses lacked clear thesis articulation, effective paragraph development, and justification beyond opinion, demonstrating the cadets' initial challenges in constructing coherent arguments.

In post-test 1, following cycle 1 of the intervention, learners began organizing ideas into clearer structure, using two or more reasons, and attempting to support them with real-life examples. For instance, when discussing *"Sinh viên đại học có nên bị bắt buộc tham gia hoạt động tình nguyện," one cadet argued: "Hoạt động tình nguyện giúp sinh viên trưởng thành và học kỹ năng sống. Nếu bắt buộc, nhiều người sẽ không nhiệt tình. Vì vậy, nên khuyến khích chứ không bắt buộc."* Although basic in vocabulary, this response demonstrated emerging awareness of counterarguments and cause–effect reasoning, suggesting that ChatGPT's support during brainstorming and outlining helped cadets develop more structured thinking.

By post-test 2, the average score had reached 36.99, with 17 cadets attaining proficient status and no one scoring below 25. In this final task, learners showed confident control over structure, used transitional phrases fluently, and drew on more sophisticated vocabulary. In response to *"Thành công trong cuộc sống phụ thuộc vào nỗ lực cá nhân hay hoàn cảnh và may mắn?",* a cadet wrote: *"Tôi cho rằng thành công đến từ cả nỗ lực và yếu tố may mắn. Tuy nhiên, nếu không có sự cố gắng bền bỉ, may mắn cũng không thể mang lại kết quả lâu dài. Ví dụ, một sinh viên nghèo học giỏi có thể gặp cơ hội học bổng, nhưng nếu không chuẩn bị trước, cơ hội đó sẽ trôi qua."* This excerpt reflects improved lexical precision *("sự cố gắng bền bỉ," "cơ hội học bổng"),* stronger rhetorical stance, and a complete argumentation arc: introduction, reasoning, example, and conclusion. This trajectory is consistent with findings from Meniado et al. (2024), who observed that Vietnamese and Thai learners gained rhetorical fluency and precision when ChatGPT was used in later-stage writing tasks, especially editing and revision.

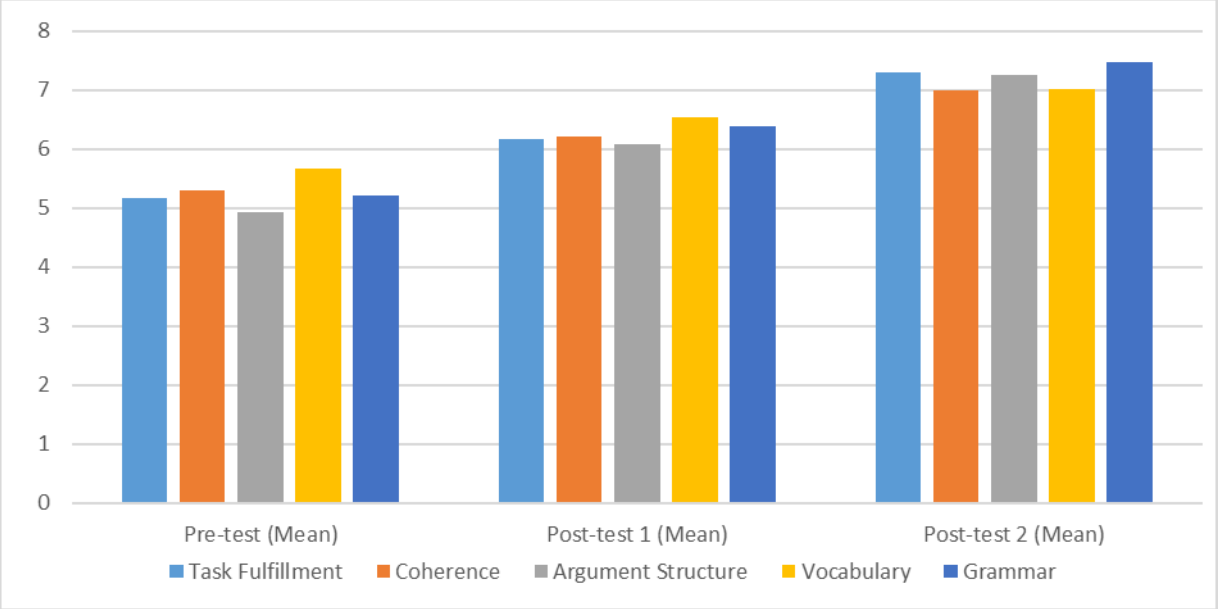
Graphical Representation

Figure 1 illustrates the average writing scores for each of the three test phases. The bar chart clearly shows the upward trend in average scores across the three phases, with the most significant improvement occurring between post-test 1 and post-test 2. This is consistent with the hypothesis that ChatGPT helped students refine their writing skills over time, particularly during the editing and finalization stages of the writing process.

The accelerated improvement between post-test 1 and post-test 2 suggests a cumulative learning effect, where continued exposure to ChatGPT enabled cadets to develop more sophisticated strategies for utilizing the tool. As students became more familiar with ChatGPT's capabilities—such as generating alternative phrasings, suggesting organizational structures, and identifying areas for elaboration—they were able to apply these features more strategically to enhance the quality of their

writing. This pattern aligns with research on AI-assisted writing, which indicates that effectiveness increases as users develop proficiency in prompting and integrating AI feedback (Barrot, 2023; Meniado et al., 2024).

Figure 1: Average writing scores for each test phase



One-Way ANOVA test statistics

A One-Way ANOVA was conducted to assess whether the differences in mean scores across the three test phases were statistically significant. The results of the ANOVA are shown in table 2 below. The F-statistic of 21.46 and the P-value of 2.4 × 10^ (-8) indicate that the differences between the test phases are statistically significant. This confirms that the observed improvements in the cadets' writing skills were not due to random chance but were a result of the ChatGPT intervention.

Table 2: One-Way ANOVA test statistics

Source of variation	SS	df	MS	F	P-value	F crit
Between groups	35.69489247	2	17.84745	21.45847	2.4E-08	3.097698
Within groups	74.85483871	90	0.83172			
Total	110.5497312	92				

The statistically significant differences in mean scores across the three test phases confirm that the improvements in writing skills were likely due to the integration of ChatGPT, as evidenced by the F-statistic and P-value. The statistical significance of this result ($p < 0.001$) provides robust evidence that ChatGPT integration had a meaningful and measurable effect on the cadets' argumentative writing performance across all assessed criteria, including task fulfillment, coherence, argument structure, vocabulary, and grammar.

Paired Two-Sample T-Test for Means

Further analysis was performed using paired-sample t-tests to compare the pre-test scores with post-test 1 and post-test 2 scores. The t-test results for the comparison between Pre-test and Post-test 1 are shown in Table 3, and for the comparison between Pre-test and Post-test 2, in Table 4. These tests provide a deeper analysis of the statistical significance of the changes in scores.

The results from table 3 indicate a t-statistic of -7.577 and a P-value of 9.46E-09, which is significantly lower than the typical threshold of 0.05. This demonstrates that the increase in writing scores from the pre-test to post-test 1 is statistically significant, indicating that the first cycle of using ChatGPT had a substantial impact on vocabulary acquisition and writing coherence. The immediate positive effect observed in post-test 1 suggests that even initial exposure to ChatGPT enabled cadets to enhance their idea generation and argument organization capabilities, supporting findings from previous research on the capacity of AI tools to facilitate cognitive processes in writing (Barrot, 2023).

Table 3: Paired two-sample t-test for means (pre-test vs post-test 1)

Variable 1 (Pre-test)	Variable 2 (Post-test 1)	Mean	Variance	t stat	P-value	T critical
Mean	5.28	6.10		-7.577	9.46E-09	1.697
Variance	0.52	0.98				
Observations	32	32				
T Stat		**-7.577**				
P-value		**9.46E-09**				

Similarly, the comparison between the pre-test and post-test 2 yielded a t-statistic of -11.561 and a P-value of 1.40E-12 (see table 4). This further supports the conclusion that the integration of ChatGPT significantly enhanced the cadets' argumentative writing skills throughout the study.

Table 4: Paired two-sample t-test for means (pre-test vs post-test 2)

Variable 1 (Pre-test)	Variable 2 (Post-test 2)	Mean	Variance	t stat	P-value	T critical
Mean	5.28	6.80		-11.561	1.40E-12	1.697
Variance	0.52	0.99				
Observations	32	32				
T stat		**-11.561**				
P-value		**1.40E-12**				

The larger t-statistic for the pre-test to post-test 2 comparison (-11.561) compared to the pre-test to post-test 1 comparison (-7.577) indicates that the magnitude of improvement continued to increase with sustained use of ChatGPT. This progressive enhancement demonstrates the cumulative benefit of integrating AI tools systematically throughout the writing process, as students not only gained immediate support but also developed more sophisticated strategies for leveraging ChatGPT's capabilities over time.

Synthesis of quantitative and qualitative evidence

The statistical analysis using paired-sample t-tests and ANOVA demonstrated that the integration of ChatGPT significantly improved the cadets' argumentative writing skills. The results from both post-tests confirmed that students' ability to construct coherent, well-organized arguments was considerably enhanced as a result of ChatGPT's support. The increased use of ChatGPT during brainstorming, outlining, and editing stages facilitated greater engagement with the writing process, enhancing vocabulary, structure, and coherence.

Breaking down the improvements by specific writing criteria reveals where ChatGPT had the most substantial impact. Task fulfillment increased from 5.17 to 7.29, indicating that ChatGPT helped

cadets generate more relevant ideas and address all aspects of the writing prompt comprehensively. Coherence improved from 5.29 to 6.99, demonstrating that the tool assisted students in organizing their thoughts more logically and creating a more cohesive essay flow. Argument structure showed the most substantial gain, rising from 4.92 to 7.25, suggesting that ChatGPT was particularly effective in helping students organize their arguments logically and persuasively. Vocabulary improved from 5.67 to 7.01, reflecting the tool's ability to expose students to diverse vocabulary and help them select more precise language, as evidenced by cadets' progression from basic phrases to sophisticated expressions like "*sự cố gắng bền bỉ*" and "*cơ hội học bổng*." Finally, grammar increased from 5.21 to 7.46, showing that ChatGPT significantly improved grammatical accuracy by helping students refine sentence structures and reduce errors.

ChatGPT's staged and reflective integration into the VFL curriculum contributed to quantitative improvement across all writing domains while supporting the development of critical genre awareness and rhetorical maturity. These findings are consistent with previous research that highlights the effectiveness of AI tools in enhancing writing skills, particularly in terms of providing real-time feedback and supporting cognitive processes such as idea generation and revision (Barrot, 2023; Meniado et al., 2024). These outcomes suggest that the AI-assisted model not only improved surface-level accuracy but also fostered deeper writing competence.

4.2. Learner reflections on ChatGPT use

To systematically capture learners' evolving perspectives on ChatGPT integration, weekly reflective journals were collected through a secure Padlet board. Students responded to three guided prompts: (1) "*How did you use ChatGPT this week? At which stage(s) of writing*?"; (2) "*What difficulties did you encounter in your writing or when using ChatGPT*?" and (3) "*Do you feel your writing has improved? Why or why not*?" These structured prompts enabled consistent tracking of learner perceptions across the 15-week intervention.

During cycle 1 (weeks 6–10), most students expressed excitement and curiosity about using ChatGPT, particularly for brainstorming and rewording sentences. Many entries described the AI as "*tiện lợi*" or "*giúp dễ bắt đầu viết hơn."* However, journal entries from this period also highlighted confusion and over-reliance. For example, Student 16 admitted in week 10th: "*Tôi để ChatGPT sửa hết và không nhìn kỹ câu của mình. Bài thì hay nhưng tôi không chắc là của mình nữa*." Such concerns reflect what Barrot (2023) describes as the erosion of authorial voice, a known risk when AI replaces rather than supports learner reasoning.

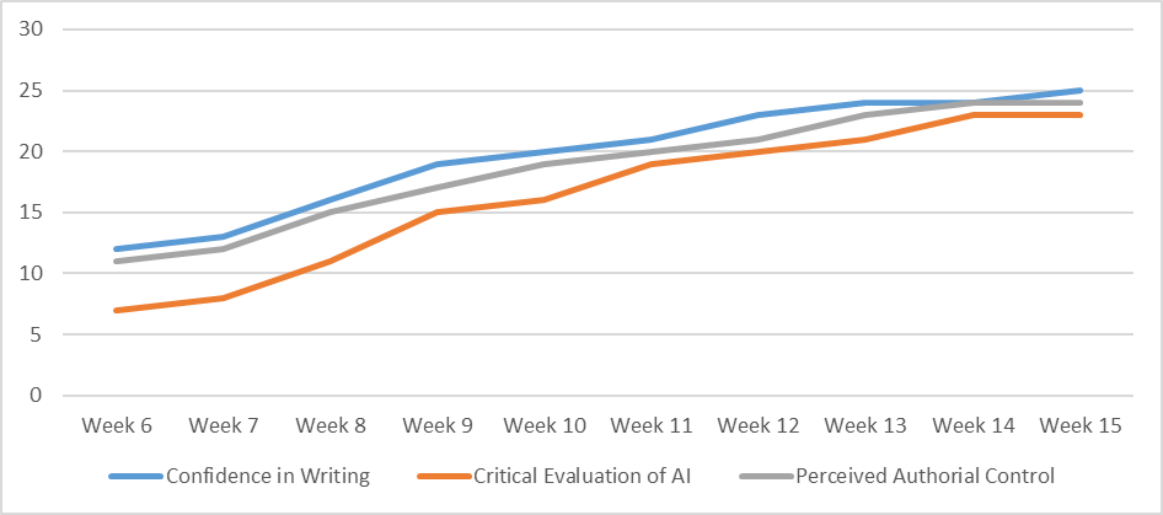
Another emerging issue was prompt formulation. Several students, including Student 10 in Week 7, reported difficulties in crafting clear questions: "*Không biết cách hỏi để ra đúng nội dung mình muốn.*" When asked about specific challenges, 16 out of 32 students in week 7th indicated difficulty formulating effective prompts, while 13 students reported uncertainty about when to accept or reject AI suggestions. This aligns with Chan and Hu's (2023) study, which emphasized that prompt literacy is a prerequisite for effective AI use. In response, the instructor introduced mid-cycle lessons on "*prompt writing*," guiding students to transform vague prompts like "*Viết về tình nguyện*" into more specific queries such as "*Gợi ý ba lý do tại sao hoạt động tình nguyện nên là tự nguyện chứ không bắt buộc đối*

với sinh viên đại học." This intervention proved effective, as student-reported prompt effectiveness increased substantially by week 15.

By cycle 2 (weeks 11–15), reflective entries showed a marked shift in both tone and content. When asked "*How did you use ChatGPT this week*?", learners began to use ChatGPT more selectively, focusing on structure and cohesion rather than content generation. Student 02nd wrote in Week 13th: "*Tôi chỉ hỏi nó gợi ý ý chính. Tôi vẫn tự viết và chỉ dùng để so sánh*." Analysis of perceived improvement showed notable changes over time. In week 6th, only 12 students felt confident about their writing improvement; however, by week 15th, this figure had risen to 25 students, who cited specific areas of growth, such as improved paragraph organization, more varied vocabulary, and stronger argument development.

Likewise, student 06th noted a growing sensitivity to stylistic fit: "*Giọng viết của ChatGPT hơi giống sách. Tôi phải sửa lại cho giống cách viết của mình hơn*." This awareness of tone and appropriateness reflected increasing rhetorical maturity. Notably, some students began to challenge the AI more directly. Student 08th in week 14 wrote: "*Nó đưa ví dụ hơi chung chung. Em thấy ví dụ của em thật hơn*." The progression from passive acceptance to active evaluation is illustrated in figure 2, which tracks three key dimensions of learner attitudes over the course of the intervention period.

Figure 2: Evolution of learner attitudes toward ChatGPT (weeks 6-15)



As illustrated in Figure 2, confidence in writing ability increased progressively from 12 students in week 6th to 25 students in week 15th. The critical evaluation of AI output increased from 7 students to 23 students, while perceived authorial control improved from 11 students to 24 students over the same period. These trends demonstrate a clear progression from passive dependence to active collaboration, suggesting that the scaffolded integration of ChatGPT fostered both writing competence and metacognitive awareness.

In week 15, several learners reflected on how their interaction with ChatGPT evolved from dependence to collaboration. As student 11th put it: "*Trước đây em sử dụng nó thay mình viết. Bây giờ em dùng nó như người sửa bài*." This evolution from passive user to active collaborator reflects what Meniado et al. (2024) described as the learner transition from mechanical revision to strategic authorial control. The quantitative and qualitative data together indicate that when paired with explicit prompt

literacy instruction and regular reflection, ChatGPT can catalyze transformation in both writing performance and learner identity.

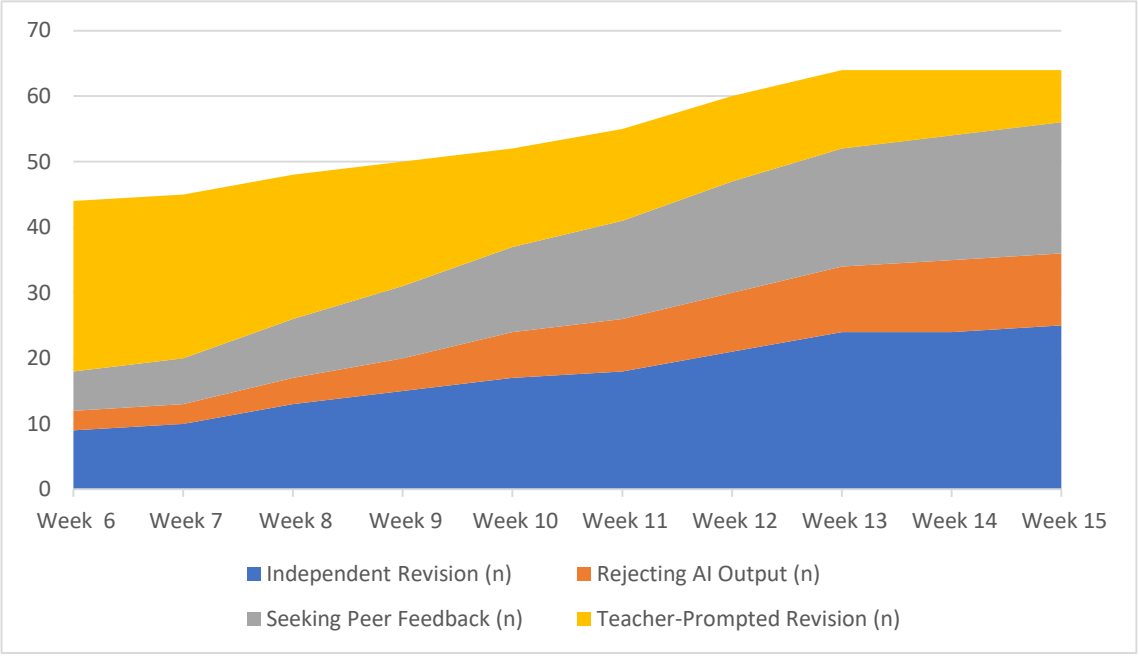
4.3. Instructional insights from teacher observation

The teacher observation logs corroborated patterns identified in journal entries and test scores, revealing the evolving pedagogical dynamics throughout the intervention. Structured observations documented three key dimensions: student engagement levels during various writing activities, patterns of interaction with ChatGPT, and evidence of autonomous versus dependent writing behavior.

Students engaged passively with argumentative tasks during the first five weeks (pre-intervention phase). As noted in week 3nd: "*Học viên thiếu ví dụ khi lập luận. Một số gặp khó trong việc mở đoạn.*" Instruction was teacher-led, with limited peer interaction and minimal experimentation. In cycle 1, the introduction of ChatGPT led to a noticeable increase in engagement, particularly during the brainstorming and editing stages. However, logs from weeks 7th and 8th recorded concerns about whole-text copying and lack of student initiative. In week 7th, the teacher wrote: "*Ba học viên copy gần như toàn bộ phần kết bài của ChatGPT. Cần nhắc lại vai trò sáng tạo cá nhân*." Systematic tracking revealed that 6 out of 32 students fully adopted AI suggestions in week 7th; however, this number decreased to 3 out of 32 by week 10th following a prompt literacy intervention. Similar patterns were documented by Ang (2024), who reported that Singaporean teachers responded to analogous risks by holding AI-free sessions and engaging in collaborative revision tasks.

These challenges led to immediate instructional shifts in cycle 2, including the introduction of peer reviews, collaborative prompt writing, and sessions without the use of ChatGPT. As documented in weeks 13th–15th, the result was increased initiative and authenticity. Students began to revise ChatGPT suggestions critically or reject them altogether. One log reads: "*Học viên tự sửa câu sau khi đối chiếu với phản hồi ChatGPT. Sự chủ động tăng rõ rệt*." The transformation in student behavior is captured in figure 3, which tracks the progression of autonomous writing behaviors across the intervention.

Figure 3: Development of autonomous writing behaviors (weeks 6th-15th)



As shown in figure 3, the number of independent revision behaviors increased from 9 students in week 6th to 25 students in week 15th. In contrast, the number of students rejecting AI output rose from 3 to 11 over the same period. Concurrently, reliance on teacher-prompted revision decreased substantially from 26 students to just eight students by week 15th. This shift demonstrates that the progressive scaffolding model successfully fostered learner autonomy and critical thinking. The corresponding increase in peer feedback seeking, from 6 to 20 students, suggests that collaborative learning practices reinforced independent evaluation skills. This transformation aligns with Su et al. (2023), who found that scaffolded AI use fosters strategic self-editing and rhetorical ownership.

The teacher's role evolved from a technological gatekeeper to a reflective coach throughout this process. In cycle 2, feedback focused less on correcting surface errors and more on developing metacognitive awareness: why a sentence sounded unnatural in Vietnamese academic discourse, why a thesis lacked rhetorical force, or why a particular transition did not fit the argumentative flow. This shift proved crucial in helping students develop genuine writing competence, rather than merely relying on AI-generated suggestions.

The observational data revealed several broader pedagogical implications. One of the clearest strengths of ChatGPT integration was its role as a scaffold during cognitively demanding stages of writing, particularly in helping students overcome writer's block and reduce revision anxiety. However, key risks also emerged around over-reliance and authorship boundaries, particularly in cycle 1, when students struggled to distinguish between AI-generated tone and their own voice. These challenges proved particularly problematic in the formal academic and military context, where authentic voice and original thinking are highly valued. The findings underscore that ChatGPT's pedagogical value depends fundamentally on careful integration. When accompanied by teacher mediation and ethical guidance, as Meniado (2024) recommended, the tool enabled learners to engage in meaningful revision, challenge suggestions, and reassert their writing voice. The data demonstrate that explicit prompt literacy training, structured AI-free zones in the writing process, and progressive reduction of scaffolding are essential pedagogical strategies. The evolving role of the teacher as prompt designer, ethics guide, and metacognitive coach remains central to ensuring that AI supports, rather than replaces, the writing process and the development of authentic academic voice.

5. Conclusions and implications

This study demonstrates that integrating ChatGPT into the teaching of Vietnamese argumentative writing for foreign military cadets can yield significant benefits. ChatGPT supported learners in idea generation, model analysis, outlining, and editing, while also improving their argument structure, grammar, and vocabulary across various stages of the writing process. Quantitative results from pre- and post-intervention tests show notable improvements in areas such as argument structure, coherence, and grammatical accuracy, thanks to the assistance of ChatGPT.

Qualitative data from learner journals reflect a shift from dependency on the AI tool to more proactive collaboration. Learners increasingly recognized their role in the writing process, which is especially important in a military context where autonomy and integrity of authorship are highly valued. However, the study also highlights the need for careful management of AI usage to avoid cognitive offloading, which could undermine creativity and the authenticity of students' work.

To achieve the best results, effective teaching on how to use AI tools, alongside ethical guidance and pedagogical support, is crucial. Teachers play a key role not only as technical facilitators but also as coaches who help learners develop critical thinking and metacognitive awareness. Overall, ChatGPT has proven to be a valuable support tool. Still, it should be used in conjunction with structured teaching methods and ethical oversight to ensure it enhances, rather than replaces, the writing process.

Looking ahead, this study opens new avenues for integrating AI into teaching Vietnamese as a Foreign Language (VFL), particularly in rigorous, high-stakes environments. Future research could investigate the impact of ChatGPT on other aspects of language teaching, such as communication skills and critical thinking, to further enhance the effectiveness of teaching and learning in similar contexts.

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