MITIGATING AI OVERUSE IN GRAMMAR COURSE ASSIGNMENTS THROUGH PROCESS-BASED TASKS: AN ACTION RESEARCH STUDY OF ENGLISH-MAJORED STUDENTS AT THE ACADEMY OF PUBLIC ADMINISTRATION AND GOVERNANCE

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Abstract: *This action research study investigates the effectiveness of process-based tasks in mitigating AI overuse and enhancing grammatical analysis competence among English-major students at the Academy of Public Administration and Governance. A six-week intervention was designed to require learners to make their reasoning processes explicit through intermediate outputs and analytical procedures conducted directly in class. The results show a significant improvement in students' grammatical analysis competence, while patterns of AI use shifted toward more cautious and responsible engagement. Qualitative data from classroom observations and interviews further confirm that the process-based task model not only supports the development of analytical thinking but also contributes to maintaining academic integrity in the context of increasingly widespread generative technologies. The study also highlights the potential applicability of this model to other EFL courses that require advanced reasoning and analytical engagement.*

Keywords: *academic integrity, action research, AI overuse, grammar education, process-based tasks*

I. Introduction

The rapid development of AI systems, particularly large language models such as ChatGPT, Gemini, and Claude, has significantly reshaped learning practices in higher education. Recent studies indicate that these models often provide extensive support for completing academic tasks, potentially undermining the authenticity of learning products and students' independent thinking (Kasneci et al., 2023). In English language education, this issue is especially salient in analytically oriented courses such as Grammar, where students are required to apply linguistic theories to analyze syntactic structures, explain grammatical phenomena, and construct theoretically grounded arguments.

Teaching experience at the Academy of Public Administration and Governance indicates that many students rely on AI tools to complete assignments rather than engaging in independent analysis. Although AI-generated

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outputs are often fluent and rhetorically persuasive, they may lack theoretical grounding or contain analytical inaccuracies. In grammar-related tasks, such reliance may limit opportunities to develop syntactic analytical thinking - a foundational competence for linguistic research and advanced coursework - and may encourage passive learning habits characterized by limited self-explanation and critical engagement with linguistic data.

Although a growing body of research has examined the use of AI in education and language learning, most studies focus on the effectiveness of AI-supported learning or students' attitudes toward AI. A research gap therefore remains at the level of course-specific pedagogical interventions, particularly in grammar courses, where task design requires integrating analysis, argumentation, and theoretical reasoning. In many cases, AI-generated responses appear linguistically correct but lack theoretical justification, creating a misalignment with learning objectives that emphasize analytical processes rather than final answers.

Process-based tasks offer a promising pedagogical response to this challenge. By requiring learners to document each stage of their analytical process - such as problem identification, structural analysis, theoretical explanation, comparison, and reflection - these tasks foreground students' reasoning processes rather than final outcomes. This design enables instructors to observe students' analytical thinking more directly and reduces the feasibility of substituting AI-generated outputs for genuine academic work.

Within the Academy of Public Administration and Governance's training context, addressing AI overuse in the Grammar course has therefore become an urgent pedagogical concern. More broadly, the growing use of AI highlights a disconnect between observable learning products and the cognitive processes they are intended to represent. When assessment prioritizes final answers over traceable reasoning, students' analytical competence becomes difficult to accurately evaluate.

Based on these considerations, this study pursues three objectives: (1) to examine the extent and forms of students' AI use in completing Grammar course assignments; (2) to implement and evaluate the effectiveness of process-based tasks as a pedagogical intervention to reduce AI overuse; and (3) to assess the impact of this intervention on students' grammatical analysis competence. The findings aim to provide empirical evidence for designing language courses in higher education contexts increasingly shaped by AI and to offer pedagogical implications for regulating AI use in responsible and effective ways.

II. Theoretical background

This section outlines three theoretical pillars underpinning the present study: (1) patterns of AI use and overuse in learning, particularly in English as a Foreign Language (EFL) context; (2) the analytical characteristics of grammar course assignments; and (3) the pedagogical foundations of process-based tasks in language education. Together, these pillars provide the conceptual basis for the intervention design and data analysis in this action research study.

2.1. AI use and overuse in learning

Recent studies indicate that AI tools have become widely integrated into contemporary teaching and learning

practices. Surveys of university students show that AI is frequently used to support reading, writing, idea generation, and information retrieval (Chan & Hu, 2023; Xiao et al., 2025), highlighting its rapid adoption in higher education.

In EFL contexts, several studies document extensive use of AI in academic writing. Meniado et al. (2024), studying students in Thailand and Vietnam, found that ChatGPT was commonly used to outline ideas, refine expression, and reduce writing-related pressure. Similarly, Kohnke, Moorhouse, and Zou (2023) report that AI tools can enhance linguistic fluency, textual organization, and language accuracy.

Despite these benefits, increasing concerns have been raised about the overuse of AI. Bui and Tong (2025) report cases in which English-major students submitted assignments largely generated by AI, raising concerns about academic integrity and the accurate assessment of learners' competence. Other reviews warn that excessive reliance on AI may reduce cognitive effort and produce outcomes that do not reflect students' reasoning processes, particularly in unsupervised contexts. This issue is especially critical in grammar course assignments that emphasize analytical reasoning and theoretical justification.

2.2. Characteristics of grammar course assignments and the risk of AI overuse

Grammar course assignments involve distinctive academic demands, requiring students to apply theoretical models to analyze clause structures, explain form-meaning-function relationships, and justify interpretations using linguistic principles. Such tasks typically involve identifying structural elements, assigning functional labels, comparing alternative analyses, and constructing reasoned arguments, reflecting the theoretical nature of grammatical inquiry rather than simple form recognition.

Although AI performs well at surface-level language processing, it remains limited in its ability to engage in theoretical reasoning. When students rely heavily on AI for grammar assignments, their work may appear linguistically polished but often lacks theoretical grounding or diverges from the analytical frameworks taught in the course.

This risk is particularly pronounced among second-year students who are still developing foundational linguistic knowledge. Excessive dependence on AI may reduce opportunities to practice analytical reasoning and create gaps in conceptual understanding, extending the issue beyond the quality of submitted work to the validity of assessment.

When assignments fail to capture learners' reasoning processes, instructors struggle to evaluate students' actual competence. Reorienting assessment toward analytical processes through process-based tasks requiring intermediate outputs, analytical annotations, and explicit argumentation, therefore, becomes an important pedagogical strategy for encouraging sustained analytical engagement while limiting the substitution of AI for student reasoning.

2.3. Process-based tasks in language teaching and learning

Process-oriented approaches have long been recognized as effective in language teaching and learning. Graham and Sandmel (2011) show that structured sequences of planning, drafting, feedback, and revision significantly improve writing quality and learners' self-regulatory capacities.

In Vietnam, Nguyen (2021) similarly reports improvements in writing quality when process-based approaches are applied in essay-writing courses. Assessing intermediate outputs and draft versions allows instructors to observe students' argument development and reduces the likelihood of reproducing finalized outcomes without genuine cognitive engagement.

These principles can also be applied to grammar courses. When students engage in structured stages of analysis, explanation, comparison, and reflection, their analytical reasoning becomes less susceptible to substitution by AI-generated outputs.

In the Grammar course at the Academy of Public Administration and Governance, grammatical analysis follows a functional-structural framework that emphasizes the identification of clause elements, syntactic relationships, and the interaction among form, meaning, and function. In this study, grammatical analysis competence refers to students' ability to identify grammatical structures, apply appropriate theoretical terminology, and provide theoretically grounded explanations of linguistic phenomena.

2.4. Theoretical framework of the study

Based on the literature above, the study establishes an analytical framework grounded in three assumptions. First, AI has become increasingly prevalent in higher education and EFL contexts, offering pedagogical benefits while also posing risks of overuse. Second, grammar course assignments are inherently analytical and theory-driven; excessive reliance on AI may hinder the development of students' analytical competence. Third, process-based tasks provide a pedagogical mechanism for maintaining academic validity by limiting the substitution of cognitive effort with AI and enabling instructors to observe students' analytical reasoning through intermediate outputs.

Guided by this framework, the present action research was conducted with second-year English-major students at the Academy of Public Administration and Governance. The study examines patterns of AI use in grammar assignments, implements process-based tasks as a pedagogical intervention, and evaluates their impact on students' AI-related behaviors and grammatical analysis competence.

III. Methodology

3.1. Research design

The study adopts a three-phase action research cycle comprising: (1) problem identification and needs analysis; (2) intervention design and implementation; and (3) evaluation, reflection, and iterative adjustment. The design follows the action research framework of Kemmis and McTaggart (1988), which conceptualizes classroom inquiry as a cyclical process of planning, action, observation, and reflection.

This design enables the examination of both patterns of AI overuse and the effectiveness of pedagogical interventions aimed at enhancing grammatical analysis competence.

To evaluate the intervention, the study employed a mixed-method approach integrating quantitative and qualitative data.

Quantitative data included pre-test and post-test scores, self-reported frequency of AI use, and the types and frequencies of grammatical analysis errors.

Qualitative data were collected through classroom observations, analysis of intermediate outputs produced during process-based tasks, student feedback, open-ended survey responses, and focus group interviews.

The integration of these sources allows the examination of both learning outcomes and underlying cognitive processes.

3.2. Research context and participants

The study was conducted in a Grammar course for second-year English-major students at the Academy of Public Administration and Governance. This stage marks students' initial engagement with analytically demanding coursework and coincides with a period when they often rely on AI tools for academic assignments.

Participants were 35 second-year English majors (26 females and 9 males) aged 19 to 21. All had completed foundational English courses and had prior exposure to basic linguistic concepts. Preliminary survey results indicated moderate to frequent reliance on AI tools when completing grammar-related assignments.

3.3. Data collection instruments

Four categories of instruments were used to ensure comprehensive data collection.

(1) Pre-test and post-test

Two assessments of comparable difficulty were developed based on analytical tasks in the Grammar course syllabus. Each test required students to analyze clause structures, identify grammatical elements, and justify interpretations using appropriate theoretical terminology.

A scoring rubric evaluated three dimensions: accuracy of structural identification, appropriateness of theoretical explanation, and clarity of analytical reasoning. Test equivalence was ensured through parallel-task design and instructor review, while reliability was supported by consistent rubric-based scoring.

(2) Process-based task system (4 tasks)

Four tasks were designed following a structured sequence, including phenomenon identification, analysis and labeling, theoretical explanation, comparison with alternative analyses, reflection, and revision. Intermediate outputs produced at each stage were collected to capture cognitive traces and identify potential AI intervention.

(3) Self-report survey

The survey included ten Likert-scale items and open-ended questions examining the frequency and purposes of AI use as well as students' perceptions of AI before and after the intervention.

(4) Classroom observation and focus group interviews

Classroom observations focused on activities requiring individual analytical work without technological assistance. Focus group interviews involving five to six students were conducted at the end of the course to obtain deeper reflections and complement the qualitative dataset.

3.4. Intervention procedure

The intervention lasted six weeks and consisted of three phases.

Phase 1: Needs analysis and preparation (Week 1)

The pre-test was administered, followed by a survey on AI-use behaviors. Preliminary analyses identified levels of AI reliance and common grammatical

analysis errors, and the process-based task model was introduced to students.

Phase 2: Implementation of process-based tasks (Weeks 2-5)

Students completed one grammatical analysis task each week. Core stages - phenomenon identification, analysis, and justification- were conducted in class to minimize AI assistance. The remaining stages were completed outside class and required submission of drafts and revised versions documenting the reasoning process. Instructor feedback supported the refinement of analytical strategies.

Phase 3: Evaluation and reflection (Week 6)

The post-test was administered, followed by a second AI-use survey and focus group interviews. Quantitative and qualitative data were synthesized to evaluate the intervention's effectiveness.

3.5. Data analysis and trustworthiness

Quantitative analysis involved descriptive statistics (means and standard deviations) of pre-test and post-test scores, together with changes in grammatical analysis errors and reported levels of AI use.

Qualitative analysis included coding of intermediate outputs, observation notes, survey responses, and interview transcripts to identify shifts in linguistic thinking and levels of analytical independence.

Trustworthiness was ensured through data triangulation across tests, surveys, observations, and interviews, along with consistent data-handling procedures and participant anonymity.

Table 1. Comparison of pre-test and post-test scores

	Measure	Pre-test	Post-test	Improvement
1	Mean Score	5.4	6.7	1.3
2	Std Dev	0.96	0.96	----
3	Min	2.8	4.2	
4	Max	7.1	8.5	

Table 2. Levels of AI use before and after the intervention

	Category	Pre-count	Post-count
1	Very frequent/frequent	25	13
2	Moderate	7	13
3	Rare/Hardly	3	9

Table 3. Assignments showing signs of AI intervention before and after the intervention

	Label	Count
1	Suspicious AI-like Outputs (Pre)	11
2	Suspicious AI-like Outputs (Post)	3

Learning products showing signs of AI intervention were identified through academic indicators, such as inconsistencies across analytical steps, misalignment with the course's theoretical framework, and the absence of traceable intermediate reasoning. No automated AI-detection tools were used.

IV. Results and Discussion

4.1. Pre-test and post-test results

Data from Table 1 show that the mean score increased from 5.4 in the pre-test to 6.7 in the post-test, representing an average gain of 1.3 points. A paired-sample t-test confirmed that the difference

was statistically significant ($p < .05$), with a moderate effect size (Cohen's $d \approx 0.68$). The standard deviation remained unchanged (0.96), indicating a stable score distribution before and after the intervention. The score range also shifted from 2.8-7.1 to 4.2-8.5, suggesting improvement across both lower- and higher-performing students. Post-intervention assignments showed clearer argumentative structures, more accurate identification of grammatical elements, and fewer analytical errors.

4.2. Changes in AI use behavior

As shown in Table 2, the proportion of students reporting frequent or very frequent AI use declined from 71% (25/35) to 38% (13/35). Conversely, the proportion reporting rare or minimal use increased from 9% (3/35) to 27% (9/35), while moderate use rose from 20% (7/35) to 37% (13/35).

Submissions displaying unusually fluent or polished language - an indicator of possible AI intervention - also declined from 31.4% (11/35 students) to 8.6% (3/35 students), as shown in Table 3. These results suggest that the process-based task model reduced reliance on AI by requiring explicit articulation of reasoning during task completion. Student feedback further indicated that AI-generated outputs were difficult to adapt to the structured task sequence, whereas step-by-step analysis supported deeper understanding and greater confidence in grammatical reasoning.

4.3. Analysis of intermediate outputs in the process-based task group

The process-based task sequence comprised four stages: phenomenon identification, analysis and explanation, comparison and justification, and reflection. These stages required students to externalize their reasoning through traceable learning steps.

Analysis of intermediate outputs revealed high levels of engagement. More than 80% of submissions in Tasks 2 and 3 contained analytical operations such as highlighting, underlining, handwritten annotations, or digital notes, indicating active manipulation of linguistic data rather than reliance on pre-generated content.

The quality of argumentation in Task 3 also improved, with students providing more theoretically grounded explanations and demonstrating greater ability to compare alternative analyses. The most pronounced gains were observed among students with lower pre-test scores, suggesting that the process-based model effectively supported the development of foundational analytical thinking.

Indicators of AI use declined from 11 to 3 submissions, consistent with the quantitative findings. Conducting analytical stages in class and requiring intermediate outputs increased the "cost" of relying on AI, thereby discouraging dependence on generative tools and encouraging genuine analysis.

4.4. Student feedback

Focus group interviews revealed three themes regarding students' experiences with the process-based task model.

First, dividing tasks into smaller analytical stages reduced cognitive pressure and enabled a more systematic approach to grammatical analysis.

Second, explaining each analytical step promoted a deeper understanding of grammatical phenomena rather than simply producing final answers. This was particularly beneficial for students who had previously struggled with academic reasoning.

Third, students' perceptions of AI shifted toward a more balanced view, with AI increasingly regarded as a supportive learning tool rather than a source of ready-made solutions.

These insights complement the quantitative findings, indicating that reduced AI use reflects not only behavioral change but also shifts in students' perceptions of learning and analytical reasoning.

4.5. Integrated discussion and practical implications

The combined quantitative and qualitative findings indicate that process-based tasks constitute a viable pedagogical intervention in grammar courses affected by AI. By requiring students to document analytical steps and submit intermediate outputs, task design shifts assessment from final answers to reasoning processes. This enables instructors to observe students' analytical competence more directly while reducing the feasibility of substituting AI for independent reasoning.

These findings align with previous research on the growing integration of AI in language learning (Chan & Hu, 2023; Xiao et al., 2025). While earlier studies highlight the benefits of AI for language production - such as improved fluency, idea generation, and linguistic accuracy (Kohnke et al., 2023; Meniado et al., 2024) - the present study shows that in analytically oriented courses like Grammar, excessive reliance on AI may obscure learners' competence and undermine assessment validity.

The results also support concerns raised by Bui and Tong (2025) regarding the impact of AI writing tools on academic integrity among English-major students. However, rather than relying on technological monitoring or AI-detection systems, the present study demonstrates that pedagogical task design can serve as an effective mechanism for regulating AI use.

By foregrounding intermediate analytical steps, process-based tasks restore the visibility of learners' reasoning processes. Instructors can therefore evaluate not only final answers but also the analytical thinking underlying them.

More broadly, the findings suggest that the risks associated with AI in higher education stem less from the technology itself than from assessment designs that prioritize final products over reasoning processes. When evaluation criteria emphasize analytical processes, reliance on AI decreases, and students' independent thinking is strengthened. Sustaining academic integrity in the age of AI, therefore, depends largely on pedagogically informed task design rather than technological surveillance.

V. Conclusion and recommendations

This action research study provides empirical evidence that process-based tasks represent an effective pedagogical approach for mitigating AI overuse in grammar course assignments among English-major students at the Academy of Public Administration and Governance. By requiring students to demonstrate analytical reasoning through intermediate steps, this approach foregrounds learners' cognitive processes and limits the substitution of AI-generated outputs for genuine academic work.

The findings indicate that process-based tasks support two key dimensions of higher education in the AI era: the development of grammatical analysis competence and the reinforcement of academic integrity in assessment. By shifting attention from final answers to

reasoning processes, this approach also promotes independent analytical thinking.

More broadly, the study demonstrates the feasibility of applying process-oriented task design in analytically demanding EFL courses and suggests its potential scalability to similar instructional contexts. Future research may expand participant samples, examine longer-term effects, and incorporate more systematic measures of AI involvement to evaluate the sustainability of such interventions in technology-rich learning environments.

From a pedagogical perspective, grammar instructors may consider integrating process-based tasks that require students to document intermediate analytical steps, allowing assessment to focus on reasoning rather than final answers. At the institutional level, clearer guidelines for responsible AI use in academic assignments are needed to ensure that AI functions as a supportive learning tool rather than a substitute for students' analytical thinking.

References

Abdallah, N., Katmah, R., Khalaf, K., & Jelinek, H. F. (2025). A systematic review of ChatGPT in higher education. *Computers & Education: Artificial Intelligence, 12*, 101866. https://doi.org/10.1016/j.ssaho.2025.101866.

Bui, T. T. U., & Tong, T. V. A. (2025). The impact of AI writing tools on academic integrity: Unveiling English-majored students' perceptions and practical solutions. *AsiaCALL Online Journal, 16*(1), 83-110. https://doi.org/10.54855/acoj.251615.

Chan, C. K. Y., & Hu, W. (2023). Students' voices on generative AI: Perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education, 20*, Article 43. https://doi.org/10.1186/s41239-023-00411-8.

Graham, S., & Sandmel, K. (2011). The process writing approach: A meta-analysis. *The Journal of Educational Research, 104*(6), 396-407. https://doi.org/10.1080/00220671.2010.488703.

Kasneci, E., Sessler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., Gasser, U., Groh, G., Günnemann, S., & Kasneci, G. (2023). ChatGPT for good? Opportunities and challenges of large language models for education. *Learning and Individual Differences, 103*, 102274. https://doi.org/10.1016/j.lindif.2023.102274.

Kemmis, S., & McTaggart, R. (1988). *The action research planner*. Deakin University Press.

Kohnke, L., Moorhouse, B. L., & Zou, D. (2023). ChatGPT for language teaching and learning. *RELC Journal, 54*(2), 537-550. https://doi.org/10.1177/00336882231162868.

Lee, S., Choe, H., Zou, D., & Jeon, J. (2025). Generative AI in the language classroom: A systematic review. *Interactive Learning Environments. Advance online publication*. https://doi.org/10.1080/10494820.2025.2498537.

Meniado, J. C., Duong, T. T. H., Panyadilokpong, N., & Lertkomolwit, P. (2024). Using ChatGPT for second language writing: Experiences and perceptions of EFL learners in Thailand and Vietnam. *Computers & Education: Artificial Intelligence, 7*, 100313. https://doi.org/10.1016/j.caeai.2024.100313.

Nguyen, N. H. (2021). *Improving English essay writing skills through a process-based approach: An action research study* (master's thesis). University of Languages and International Studies, Vietnam National University.

Pham, T. N., & Dang, T. X. (2025). An investigation into the application of artificial intelligence for language teaching and learning in Vietnam. *Vietnam Journal of Education, 9*(2), 265-283. https://doi.org/10.52296/vje.2025.557.

Wang, J., & Fan, W. (2025). The effect of ChatGPT on students' learning performance, learning perception, and higher-order thinking: Insights from a meta-analysis. *Humanities and Social Sciences Communications, 12*, Article 621. https://doi.org/10.1057/s41599-025-01621-y.

Xiao, L., Pyng, H. S., Zhang, X., Li, J., & Chen, Y. (2025). University students' usage of generative artificial intelligence for sustainability: A cross-sectional survey from China. *Sustainability, 17*(8), 3541. https://doi.org/10.3390/su17083541.

HẠN CHẾ LẠM DỤNG AI TRONG THỰC HIỆN BÀI TẬP THUỘC HỌC PHẦN NGỮ PHÁP HỌC THÔNG QUA NHIỆM VỤ THEO QUY TRÌNH: NGHIÊN CỨU HÀNH ĐỘNG TRÊN SINH VIÊN NGÔN NGỮ ANH TẠI HỌC VIỆN HÀNH CHÍNH VÀ QUẢN TRỊ CÔNG

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Tóm tắt: *Nghiên cứu hành động này khảo sát hiệu quả của nhiệm vụ theo quy trình trong việc hạn chế lạm dụng AI và nâng cao năng lực phân tích ngữ pháp của sinh viên ngành Ngôn ngữ Anh tại Học viện Hành chính và Quản trị Công. Chu trình can thiệp (6 tuần) được thiết kế nhằm buộc người học thể hiện rõ tiến trình tư duy thông qua các sản phẩm trung gian và các bước phân tích được thực hiện trực tiếp trên lớp. Kết quả cho thấy năng lực phân tích ngữ pháp của sinh viên được cải thiện đáng kể, đồng thời hành vi sử dụng AI chuyển dịch theo hướng thận trọng và có trách nhiệm hơn. Dữ liệu định tính từ quan sát và phỏng vấn khẳng định rằng mô hình nhiệm vụ theo quy trình không chỉ hỗ trợ phát triển tư duy phân tích mà còn góp phần duy trì liêm chính học thuật trong bối cảnh công nghệ tạo sinh ngày càng phổ biến. Nghiên cứu mở ra tiềm năng áp dụng mô hình này cho các học phần đòi hỏi lập luận và phân tích chuyên sâu trong lĩnh vực EFL.*

Từ khóa: *liêm chính học thuật, nghiên cứu hành động, lạm dụng AI, dạy học ngữ pháp, nhiệm vụ theo quy trình*

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