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ChatGPT as a tool for Enhancing Explanation Letter Writing Skills

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Abstract— *This study investigated the effectiveness of ChatGPT as an instructional support tool in enhancing the explanation letter writing skills of Technical Writing students at Cebu Doctors' University. It aimed to address students' recurring difficulties in applying the correct format, organization, elaboration, tone, and grammar, language usage, and mechanics in formal written communication. Employing a quasi-experimental pre-test/post-test design supported by a perception survey, the research examined measurable improvements in students' performance following a ChatGPT-assisted intervention that incorporated guided modeling, interactive feedback, and revision-based activities. Fifty (50) first-year students from the EXCEL-Med Program participated in the study. Data were analyzed using descriptive statistics and a paired sample t-test. Findings revealed statistically significant improvements across all five writing elements, with the largest effect observed in format, organization, elaboration, and tone, and a moderate improvement in grammar, language usage, and mechanics. Students' perception ratings further indicated strong agreement that ChatGPT was easy to use, enhanced confidence and understanding, and effectively supported skill development. Overall, the study concludes that ChatGPT-assisted instruction significantly improves students' explanation letter writing performance and fosters confidence and awareness in responsible AI use. The results emphasize the potential of integrating AI-based tools as complementary pedagogical aids that support the United Nations Sustainable Development Goal 4 (Quality Education) by promoting digital literacy, communication competence, and ethical technology use in higher education.*

Keywords— ***AI-assisted instruction, ChatGPT, English teaching, explanation letter writing skills, Philippines***

I. INTRODUCTION

1.1 Rationale of the Study

Writing is universally recognized as one of the four core language skills, alongside speaking, reading, and listening (Ling, 2016). It serves as a fundamental medium for expressing ideas, engaging in critical thought, and participating in academic and professional discourse. At the university level, writing proficiency reflects a student's ability to communicate with clarity, precision, and logical organization which are skills that support success in coursework, research, and workplace communication (Asnas & Hidayanti, 2024; Bailey, 2015). Academic writing, in particular, demands adherence to formal structures, evidence-based reasoning, and a coherent flow of ideas.

Within the broader scope of academic and professional communication, the explanation letter holds a distinct position. Although often classified as a professional genre, it is frequently required in academic contexts. For instance, when students provide justifications for absences, late submissions, or special requests. Writing such correspondence requires the integration of multiple competencies such as structuring information logically, maintaining an appropriate tone, presenting reasons persuasively, and ensuring grammatical accuracy. These

competencies are essential for both academic achievement and professional credibility.

In the Philippine higher education context, explanation letter writing is commonly addressed within Technical Writing or Purposive Communication courses, which aim to develop students' ability to produce clear, concise, and purposeful communication for real-world applications (Chang, 2024). This skill is particularly relevant because it synthesizes clarity, tone, and logical reasoning into a format frequently required in both academic and professional situations.

Despite its importance, many students continue to face persistent challenges in producing high-quality written work. Large-scale assessments such as the National Assessment of Educational Progress (NAEP) in the United States report that nearly two-thirds of students are writing below expected levels (Institute of Education Sciences, 2025), and similar patterns are evident internationally. Research highlights that language learners often struggle with grammar (Roxas, 2020; Sajjad et al., 2021), vocabulary (Mumtaz, 2021), sentence structure (Ahmed, 2019), and translation accuracy (Ma, 2021). Beyond these surface-level issues, higher-order skills such as organizing ideas, adapting tone to audience, and developing persuasive arguments also remain common difficulties.

In the Philippines, these challenges are further intensified by structural realities within the educational system. Large class sizes, often exceeding recommended student–teacher ratios, limit opportunities for personalized feedback (Solomon, 2025). Instructional time is divided among multiple competencies, reducing focused practice in specialized writing tasks like explanation letters (Galang, 2021). Many institutions also lack access to writing centers, peer tutoring, or online resources proven to enhance writing proficiency when available (Ubaldo, 2021). Moreover, writing assessment often emphasizes surface correctness over developmental aspects such as coherence, tone, and audience awareness (Esternon & Diva, 2024). Consequently, students lack sustained guidance to refine higher-order writing abilities.

Advances in artificial intelligence (AI) offer new opportunities to address these challenges by providing accessible, flexible, and personalized writing support. ChatGPT, developed by OpenAI, can generate human-like text, correct grammar and style, suggest alternative phrasing, and offer instant feedback on organization and tone (Javaid et al., 2023). Its accessibility via web and mobile platforms enables students to engage in self-directed writing practice, fostering independent learning.

Research supports its educational potential across contexts. In Asia, studies show improvements in organization, clarity, and motivation among students using AI-assisted writing tools (Song & Song, 2023). In the Philippines, De Jesus et al. (2024) found that students valued ChatGPT's ability to generate ideas and structure responses, while Caratiquit and Caratiquit (2023) observed its positive influence on academic motivation and overall performance. Similar benefits have been reported internationally, including gains in higher-order thinking and writing proficiency when ChatGPT is integrated into learning environments (Wang & Fan, 2025).

ChatGPT's value lies in its ability to provide immediate, progressive feedback that supports continuous improvement in student writing. Studies show it helps overcome challenges in organization, coherence, grammar, and vocabulary through targeted suggestions (Huang & Tan, 2023). For language learners, it reduces anxiety, provides reliable explanations, and enhances motivation (Su et al., 2023; Ali et al., 2023; Kohnke et al., 2023). Furthermore, its versatility extends beyond writing instruction to language acquisition and research support (Barrot, 2023).

However, concerns remain. Over-reliance on AI can hinder critical thinking and originality (Zhai, Wibowo, & Li, 2024), and inaccuracies or illogical outputs may occur without human oversight (Amaro et al., 2023). Ethical issues of authorship and academic honesty have also emerged, as plagiarism detection tools struggle to identify AI-generated text (Liebrenz et al., 2023). In response, best practices emphasize guided use under teacher supervision, encouraging students to critically evaluate AI outputs and apply them ethically (Viorennita et al., 2023; Ray, 2023).

While the benefits of AI in academic writing are well documented, limited research exists on its application to specialized genres such as explanation letters, especially within Philippine higher education. Addressing this gap informs discipline-specific pedagogy and supports the responsible integration of AI in curricula (Villarino, 2025).

Thus, this study explored the potential of ChatGPT as a supplementary tool for enhancing explanation letter writing skills within a structured Technical Writing curriculum. In alignment with the United Nations Sustainable Development Goal 4 (Quality Education), this research promotes the integration of ICT-based and AI-assisted strategies that foster digital literacy, critical thinking, and effective communication skills. By focusing on a genre that bridges academic and professional contexts, this study aims to provide actionable insights for preparing students to meet 21st-century communication demands.

1.2 Theoretical Background of the Study

This study is anchored on three complementary theories that explain how ChatGPT can enhance students'

writing performance: the Cognitive Process Theory of Writing (Flower & Hayes, 1981), the Formative Assessment Theory (Black & Wiliam, 1998), and the Theory of AI-Enhanced Academic Writing (Talili, 2024). Together, these frameworks provide a coherent foundation for understanding how AI tools can support cognitive, pedagogical, and ethical dimensions of writing instruction.

The Cognitive Process Theory of Writing views writing as a recursive and dynamic process involving planning, translating, and reviewing (Flower & Hayes, 1981). Rather than a linear task, writing requires continuous problem-solving and decision-making (Moran, 2019). Recent studies demonstrate that generative AI tools can facilitate each stage by offering prompts for brainstorming and organization, lexical alternatives during drafting, and instant feedback for revision (Liu, 2022). In this study, ChatGPT functions as a cognitive scaffold that helps students plan, structure, and refine their explanation letters, improving tone, coherence, and grammatical accuracy. This cyclical interaction fosters continuous learning and aligns with Ceylan's (2019) view that scaffolded digital tools enhance students' ability to produce organized and audience-appropriate texts.

The Formative Assessment Theory (Black & Wiliam, 1998) emphasizes the value of timely and actionable feedback in improving learning outcomes. Studies affirm its effectiveness in writing instruction, especially when feedback is structured and immediate (Haq et al., 2020; Zahaf, 2019; Zhan & Yan, 2025; Dai et al., 2023). Within this framework, ChatGPT serves as a real-time formative assessment tool that provides personalized feedback on grammar, organization, and tone (Mahapatra, 2024). By evaluating and deciding whether to accept or modify AI-generated suggestions, students develop metacognitive awareness and self-regulation (Lipnevich & Smith, 2022). Moreover, ChatGPT addresses the challenge of large class sizes by delivering scalable, individualized feedback that complements teacher support (Abdelrahman, 2020).

The Theory of AI-Enhanced Academic Writing (Talili, 2024) provides a modern perspective on the responsible integration of AI in education. It identifies the following four key dimensions: technological augmentation, cognitive efficiency, ethical responsibility, and policy implementation. ChatGPT automates lower-order writing tasks such as grammar checking and formatting, freeing students to focus on higher-order reasoning and rhetorical strategy. With guided use, it promotes efficiency and ethical literacy, ensuring that AI functions as a support tool rather than a substitute for creativity and critical thinking. This approach is particularly relevant in the Philippine higher education context, where limited access to writing support underscores the need for scalable, ethically guided technological solutions.

Collectively, these theories explain how ChatGPT can serve as both a cognitive and formative aid within an ethically grounded, technology-enhanced writing pedagogy by supporting students' development of clarity, organization, and professionalism in explanation letter writing.

1.3 Statement of the Problem

This research aimed to ascertain the effectiveness of ChatGPT in enhancing explanation letter writing of Technical Writing students at Cebu Doctors' University during the academic year 2025-2026 as the basis for a teaching guide. Specifically, it answered the following sub-problems:

1. What is the students' initial performance in writing explanation letters in terms of the following elements: format, organization, elaboration, tone, and grammar, language usage, and mechanics?
2. What is the final performance of the students in writing explanation letters after using ChatGPT as an enhancement tool based on the aforementioned elements?
3. Is there a significant difference in the explanation letter writing performance of students before and after using ChatGPT as an enhancement tool?
4. What are the students' perceptions on the effectiveness of ChatGPT in improving their explanation letter writing skills in terms of: ease of use, confidence and understanding, effectiveness and skill development, reliance and feature comparison?
5. Based on the findings, what teaching guide can be developed?

II. RESEARCH METHODOLOGY

This section discusses the research methods that were used in the study. This includes the description of the chosen design for the purpose of this study, explanation of its entire flow, information of the environment, details of the respondents and how they were chosen, instruments that were used for data gathering, procedures that were carried out, statistical treatment of data, and the procedure in scoring the different variables.

2.1 Design

This study employed a one-group quasi-experimental design to examine the effectiveness of ChatGPT in improving the explanation letter writing skills

of Technical Writing students at Cebu Doctors' University. The participants were first-year students from the EXCEL-Med program, who engaged in a structured writing intervention integrating ChatGPT as an instructional support tool. A pre-test–post-test approach was used to measure students' writing performance before and after the intervention. During the process, students received guided instruction on using ChatGPT prompts for drafting and revising explanation letters. The study aimed to determine whether AI-assisted writing could lead to measurable improvement in students' writing performance and to provide insights into the use of ChatGPT as a supplementary tool for enhancing academic writing instruction.

2.2 Flow of the Study

This study employed a structured procedure to assess the effectiveness of ChatGPT-assisted instruction in improving students' explanation letter writing skills. The process began with a pre-test in which students composed an explanation letter without AI support to establish baseline performance, evaluated using a rubric measuring format, organization, elaboration, tone, and grammar. A three-hour instructional session followed, focusing on the ethical and effective use of ChatGPT as a writing support tool. Students received guided practice in prompt formulation, idea generation, drafting, and revision while emphasizing academic integrity and critical evaluation of AI feedback. During the intervention, students wrote a new explanation letter using ChatGPT under teacher supervision, applying its suggestions to refine clarity, coherence, and tone. A post-test was then conducted without ChatGPT assistance to determine skill transfer and improvement. Paired pre- and post-test results were compared to measure learning gains. Additionally, a perception questionnaire gathered students' feedback on ChatGPT's ease of use, effectiveness, and contribution to writing confidence. Insights from all phases informed the development of a ChatGPT-integrated teaching guide for writing instruction.

2.3 Respondents

The respondents of this study were 50 first-year students from the EXCEL-Med Program at Cebu Doctors' University enrolled in the Technical Writing course during the first semester of the academic year 2025–2026. This course and group were chosen because Technical Writing emphasizes clarity, conciseness, and purpose-driven communication which skills directly aligned with the study's focus on enhancing explanation letter writing through ChatGPT assistance.

Table 1. Frequency Distribution of Respondents

Gender	Frequency	Percentage
Male	10	20%
Female	40	80%
Total	**50**	**100%**

All 50 students in the class participated, allowing for full representation of the target population and ensuring a consistent instructional environment under the same teacher and curriculum. Inclusion criteria required that participants be Filipino, officially enrolled in the course, and willing to provide informed consent. By engaging this defined cohort, the study aimed to evaluate students' learning outcomes and perceptions of ChatGPT-assisted instruction, generating insights applicable to similar educational settings integrating AI tools into writing pedagogy.

2.4 Instruments

Two main instruments were used for data collection: a writing rubric and a student-perception questionnaire. The researcher-developed explanation letter writing rubric evaluated five elements—format, organization, elaboration, tone, and grammar, language usage, and mechanics—based on established standards in technical writing instruction. It was reviewed and validated by three language instructors from Cebu Doctors' University to ensure accuracy, relevance, and clarity. The perception questionnaire, adapted from Zebua and Katemba's (2024) study on students' use of ChatGPT for writing improvement, was contextualized for explanation letter writing in a technical writing course. It consisted of statements rated on a five-point Likert scale from Strongly Disagree (1) to Strongly Agree (5) and underwent expert validation to confirm reliability and content appropriateness. Together, these instruments ensured the reliable assessment of both students' writing performance and their perceptions of ChatGPT as a support tool in academic writing.

2.5 Data Gathering Procedures

The study was conducted with formal approval from Cebu Doctors' University, endorsed by the College of Medicine, the Research Office, and the EXCEL-Med Program. The participants were 50 first-year EXCEL-Med students enrolled in the Technical Writing course during the first semester of academic year 2025–2026. All qualified students who provided informed consent were included. An orientation session was first held to explain the study's

objectives, procedures, and ethical considerations, followed by the administration of a pre-test where students wrote an explanation letter without ChatGPT assistance to determine baseline writing performance. The intervention consisted of a three-hour instructional session on the ethical and effective use of ChatGPT as a writing support tool. Students practiced prompt formulation, idea generation, and revision using ChatGPT feedback under teacher supervision. A post-test was then conducted, requiring students to write another explanation letter without ChatGPT to assess improvement. Finally, a perception questionnaire was administered to gather students' feedback on ChatGPT's ease of use, effectiveness, and contribution to writing development.

2.6 Statistical Treatment

Several statistical treatments were used to analyze the data. Frequency and percentage distributions summarized the participants' demographic profile, while the mean and standard deviation described their pre-test and post-test scores. A paired sample t-test determined whether significant differences existed between students' writing performance before and after the intervention, and Cohen's d measured the magnitude of improvement across the writing components. For the perception questionnaire, weighted mean and standard deviation were computed to describe students' responses, which were interpreted using a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5).

2.7 Scoring Procedure

Two main scoring procedures were employed in this study. Both the pre-test and post-test writing samples were evaluated by three raters—the researcher and two language instructors—using a researcher-developed rubric assessing five key elements: format, organization, elaboration, tone, and grammar, language usage, and mechanics. Each criterion was rated on a four-point scale, and the mean of all raters' scores was computed to derive a single composite score for each participant. These mean scores were then interpreted based on the established performance scale to determine each student's overall writing proficiency level.

Explanation Letter Writing Performance Scale

Score	Categories	Description
0-4	Did Not Meet Expectations	Shows very weak writing performance. The student demonstrates poor understanding of letter format and organization, with unclear ideas and frequent grammatical and mechanical errors. Tone is inappropriate or inconsistent, and elaboration is minimal or missing. **(0–74% accuracy)**
5-8	Fairly Satisfactory	Demonstrates limited writing ability. The student partially follows the correct letter format but often misplaces parts or omits essential details. Organization is inconsistent, ideas lack coherence, and grammar or language errors are frequent. **(75–79% accuracy)**
9-12	Satisfactory	Shows developing writing skills. The student generally uses the correct format and structure, presents ideas with some organization and elaboration, and maintains an acceptable tone. However, minor lapses in grammar, language use, and mechanics remain. **(80–84% accuracy)**
13-16	Very Satisfactory	Demonstrates solid writing proficiency. The student correctly applies letter format and tone, organizes ideas logically, and elaborates effectively with only a few grammatical or mechanical errors. **(85–89% accuracy)**
17-20	Outstanding	Exhibits excellent writing competence. The student consistently applies the correct format, presents ideas coherently and persuasively, maintains an appropriate tone, and writes with grammatical accuracy and fluency. **(90–100% accuracy)**

In addition, participants completed a perception questionnaire designed to evaluate ChatGPT's effectiveness as a writing support tool across the same five components. Responses were rated on a five-point Likert scale ranging from Strongly Disagree (1) to Strongly Agree (5). The questionnaire data were analyzed using descriptive statistics, with mean scores computed and interpreted according to the corresponding scale intervals. Higher mean values indicated strong positive perceptions of ChatGPT's usefulness and its contribution to students' writing confidence, clarity, and coherence, while lower scores

reflected limited agreement or reservations about its effectiveness.

Five-point Likert Scale

Likert scale interval	Likert-sale	Likert-scale Description
1.00 - 1.79	1	Strongly Disagree
1.80 - 2.59	2	Disagree
2.60 - 3.39	3	Neutral
3.40 - 4.19	4	Agree
4.20 - 5.00	5	Strongly Agree

III. RESULTS AND DISCUSSION

3.1 Students' Initial Writing Performance

Table 2 presents the pre-test mean scores of students in explanation letter writing, assessing five key elements: format, organization, elaboration, tone, and grammar, language usage, and mechanics. The results reveal students' baseline proficiency prior to the ChatGPT-assisted intervention, providing a foundation for evaluating subsequent improvement in writing performance.

Table 2. Pre-test Mean Scores of Students in Explanation Letter Writing

Element	Mean	Interpretation
Format	57	Did not meet expectations
Organization	60.33	Did not meet expectations
Elaboration	62.5	Did not meet expectations
Tone	64.33	Did not meet expectations
Grammar, Language Usage, and Mechanics	57.17	Did not meet expectations

The pre-test results showed that students' initial performance in writing explanation letters was generally below satisfactory across all five evaluated elements—format, organization, elaboration, tone, and grammar, language usage, and mechanics. Many struggled to apply proper structure, organize ideas coherently, and maintain an appropriate formal tone. Errors in grammar and mechanics were also common, confirming earlier findings that student writers often face challenges in coherence, accuracy, and adherence to writing conventions (Roxas, 2020; Ahmed, 2019). Difficulties with format were most evident, as many students omitted or misplaced essential components such as the heading, salutation, and closing. These results parallel findings by Faller (2018), Comeo (2025), and Igsi et al. (2025), who reported similar weaknesses in letter layout among Filipino learners. In terms of organization, students' ideas were often fragmented and lacked smooth transitions—patterns consistent with studies by Diep and Le (2024) and Manarpiis (2017), which emphasized poor cohesion as a recurring issue in ESL writing. Limited elaboration was also apparent; most students failed to extend their ideas or provide adequate justification and supporting details. Comparable findings from Nenotek et al. (2022) and Deocades and Domile (2024) show that underdeveloped paragraphs and insufficient explanations are common among second-language writers. Issues with tone included the use of informal or abrupt language, reducing professionalism—echoing Tongpoon-Patanasorn (2020) and Alafnan and Rudio (2023), who identified similar lapses in formality and politeness. Finally, persistent problems in grammar, language usage, and mechanics, such as subject–verb disagreement and incorrect punctuation, aligned with reports by Ishtiaq et al. (2025) and Cuyos et al. (2024). Overall, these findings highlight the need for structured, feedback-driven instruction to strengthen both foundational and higher-order writing skills among students.

3.2 Students' Final Writing Performance

Table 3 presents the post-test mean scores of students in explanation letter writing after the ChatGPT-assisted intervention. This assessment evaluated the same five components—format, organization, elaboration, tone, and grammar, language usage, and mechanics—to determine the extent of improvement in students' writing performance following the integration of AI support in instruction.

Table 3. Post-test Mean Scores of Students in Explanation Letter Writing

Element	Mean	Interpretation
Format	89	Very Satisfactory
Organization	80.17	Satisfactory
Elaboration	83.17	Satisfactory
Tone	81.33	Satisfactory
Grammar, Language Usage, and Mechanics	62.33	Did not meet expectations

After the ChatGPT-assisted instruction, students showed substantial improvement across all elements of explanation letter writing—format, organization, elaboration, tone, and grammar. The results indicate that

integrating AI feedback with teacher guidance effectively enhanced their ability to produce coherent and professionally structured correspondence. Marked improvement in format and organization reflected students' growing mastery of structure and logical sequencing. ChatGPT's model outputs and guided prompts helped them internalize layout conventions and maintain paragraph unity, consistent with earlier findings that AI scaffolding promotes coherence and genre accuracy (Chen & Gong, 2025; Giray & Aquino, 2024; Suarez et al., 2025). Students also displayed stronger elaboration, providing clearer explanations and richer details. ChatGPT's interactive feedback encouraged justification and expansion of ideas, supporting results from Nguyen et al. (2024) and Cabuquin et al. (2024). Similarly, gains in tone showed heightened awareness of formality and politeness through AI-assisted rephrasing and modeling (Rafique et al., 2025; Gatlabayan, 2025). However, improvement in grammar and mechanics was moderate. While ChatGPT offered corrective feedback, sustained mastery requires explicit instruction and guided reinforcement (Polakova & Ivenz, 2024; Cuyos et al., 2024). Overall, the findings affirm ChatGPT's effectiveness as a supplementary tool that enhances higher-order writing skills when paired with teacher facilitation, while emphasizing the continued importance of formal grammar instruction for lasting proficiency.

3.3 Difference Between Pre-Test and Post-Test Scores

Table 4 presents the comparison of pre-test and post-test mean scores in explanation letter writing to determine the extent of improvement following the ChatGPT-assisted intervention. This analysis aimed to identify significant differences in students' performance across the five writing elements—format, organization, elaboration, tone, and grammar, language usage, and mechanics—after exposure to guided AI-supported instruction.

Table 4. Comparison of Pre-test and Post-test Mean Scores in Explanation Letter Writing

Elements		Mean	SD	Mean Difference	Interpretation
Format	*Post-test*	89.00	8.32	32.00	Significant
	Pretest	57.00	14.32		
Organization	*Post-test*	80.17	10.23	19.84	Significant
	Pretest	60.33	12.09		
Elaboration	*Post-test*	83.17	12.43	20.67	Significant
	Pretest	62.50	12.85		
Tone	*Post-test*	81.33	10.59	17.00	Significant
	Pretest	64.33	11.17		
Grammar, Language Usage, and Mechanics	*Post-test*	62.33	10.55	5.16	Significant
	Pretest	57.17	12.93		

The results confirmed that the ChatGPT-assisted intervention significantly improved students' explanation letter writing performance across all assessed elements. Large gains in format, organization, elaboration, and tone highlight the tool's effectiveness in strengthening higher-order writing skills, while modest improvements in grammar and mechanics indicate the need for continued explicit instruction. These findings mirror global research showing that AI-assisted writing enhances macro-level competencies such as structure, coherence, and tone more effectively than micro-level grammatical precision (Mahapatra, 2024; Deng et al., 2024; Li et al., 2025; Wang & Fan, 2025). Philippine studies similarly report substantial progress in organization and tone alongside persistent grammar challenges (Gildore et al., 2023; Igsi et al., 2025; Espartinez et al., 2024). The results further support the Cognitive Process Theory of Writing (Flower & Hayes, 1981) and Formative Assessment Theory (Black & Wiliam,

1998), demonstrating that ChatGPT facilitated planning, translation, and review through timely, targeted feedback that encouraged self-revision. Overall, the intervention effectively enhanced students' global writing competence while reinforcing the continuing need for teacher-guided grammar instruction to sustain accuracy and critical awareness in formal written communication.

3.4 Students' Perceptions Toward ChatGPT

Table 5 presents the results of the student perception survey, which aimed to assess learners' views on ChatGPT as a writing support tool. The questionnaire measured perceptions in terms of ease of use, confidence and understanding, effectiveness and skill development, and reliance and feature comparison. These responses provided valuable insights into how students experienced and evaluated the integration of ChatGPT in their writing process.

Table 5. Students' Perceptions of ChatGPT in Enhancing Writing Skills

Dimension	Overall Mean	Interpretation
Ease of Use	4.4	Strongly Agree
Confidence and Understanding	4.47	Strongly Agree
Effectiveness and Skill Development	4.57	Strongly Agree
Reliance and Feature Comparison	3.89	Agree

Students expressed positive perceptions of ChatGPT as a writing support tool, describing it as easy to use, effective, and confidence-building. They found its interface intuitive, its feedback immediate, and its features adaptable to different writing needs. This aligns with the Technology Acceptance Model (Davis, 1989), which emphasizes that simplicity encourages adoption. ChatGPT was also viewed as enhancing confidence and understanding. Students reported that it helped them clarify ideas, organize content, and better grasp writing conventions. The tool's modeling and feedback promoted self-efficacy and reduced writing anxiety, consistent with studies showing that AI-assisted feedback improves motivation and clarity. In terms of effectiveness, learners appreciated ChatGPT's role in refining grammar, improving organization, and strengthening coherence, consistent with international findings on AI-driven writing improvement (Chen & Gong, 2025). While students valued ChatGPT's usefulness, they maintained moderate reliance, preferring to pair it with teacher feedback and independent judgment. This balanced approach reflects responsible use of AI in learning (De Jesus et al., 2024). Overall, students perceived ChatGPT as an accessible and effective complement to instruction—one that enhances confidence, clarity, and skill development while reinforcing ethical and independent writing practices.

3.5 Pedagogical Implications and Teaching Guide Development

The integration of ChatGPT within Technical Writing instruction offered valuable pedagogical insights. Its use supported process-based learning by providing instant feedback, aiding idea generation, and encouraging self-directed revision. Nonetheless, aspects such as grammar and mechanics still require explicit, teacher-led instruction. These observations align with Talili's (2024) Theory of AI-Enhanced Academic Writing, which advocates ethical, guided AI integration in higher education. Based on the findings, a ChatGPT-Assisted Teaching Guide was developed as a supplementary framework for classroom use. The guide integrates AI-supported tasks with teacher-facilitated discussion to strengthen clarity, organization, elaboration, and tone in formal correspondence. It also includes prompts, scaffolding strategies, and reminders on responsible AI engagement. Although not reproduced in this article, the guide serves as a practical reference for educators seeking to apply AI tools within process-oriented writing pedagogy. Overall, ChatGPT may be considered a beneficial supplementary tool when used under appropriate supervision. It can enhance clarity, coherence, and tone while fostering reflective and ethical writing practices. Future research may explore its long-term impact across other writing genres and learning environments.

IV. FINDINGS

The findings revealed that students' initial performance in writing explanation letters was generally below satisfactory across all five components: format, organization, elaboration, tone, and grammar, language usage, and mechanics. Many students had difficulty applying the correct letter format, organizing their ideas coherently, providing sufficient elaboration, and maintaining an appropriate tone for formal communication. Their grammatical accuracy, language usage and mechanics also showed inconsistency, indicating a need for structured and guided writing instruction.Following the implementation of the ChatGPT-assisted intervention, students' final performance demonstrated significant improvement in all writing components. They showed a clearer understanding of proper letter format, stronger

organization and flow of ideas, richer elaboration of supporting details, and more consistent use of formal tone and register. Moderate improvements were also evident in grammar, language usage, and mechanics, suggesting that AI-assisted feedback complemented teacher guidance in refining students' written outputs. A significant difference was observed between the students' pre-test and post-test results, indicating that the integration of ChatGPT in writing instruction produced a meaningful positive impact on their overall writing proficiency. The intervention proved particularly effective in enhancing higher-order writing skills such as structure, coherence, and elaboration while accuracy-related aspects improved moderately and would continue to benefit from teacher-led instruction and practice. The results from the perception survey further supported these findings. Students expressed strong agreement that ChatGPT was an effective and user-friendly tool that enhanced their ease of writing, confidence, understanding, and overall skill development. They appreciated its real-time feedback and organization support, which helped them generate ideas and refine their drafts. While they acknowledged its many advantages, they also recognized the importance of teacher feedback to ensure originality and correctness.

In summary, the study established that ChatGPT-assisted instruction significantly improved students' explanation letter writing skills across all dimensions and fostered positive perceptions toward the responsible use of AI in academic writing. The findings affirm that technology, when effectively integrated with teacher facilitation, can serve as a valuable support in developing students' higher-order writing competence.

V. CONCLUSION & RECOMMENDATIONS

The study concludes that ChatGPT-assisted instruction significantly enhanced the explanation letter writing skills of Technical Writing students. Students' performance improved from unsatisfactory to very satisfactory levels, particularly in format, organization, elaboration, and tone. Moderate but meaningful gains were also observed in grammar, language usage, and mechanics, underscoring the need for continued emphasis on accuracy-based instruction. Overall, guided use of ChatGPT proved effective in developing students' competence and confidence in formal writing.

It is recommended that ChatGPT be integrated as a supplementary tool in writing instruction to support organization, clarity, and coherence in student outputs. However, its use should remain teacher-guided to ensure originality, ethical engagement, and critical thinking. Continuous emphasis on grammar and mechanics is advised, while future studies may further explore AI-assisted approaches across different writing genres and educational contexts.

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