

Enhancing Email Writing Skills through ChatGPT: Perceptions of Diploma Students

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ABSTRACT

Effective email writing is an indispensable communication skill for higher education students, functioning as a critical prerequisite for both academic discourse and future professional engagement. Recent advancements in generative Artificial Intelligence (AI), particularly ChatGPT, offer a unique pedagogical approach to help students produce well-structured emails. However, traditional classroom settings often struggle to provide the individualised and timely feedback needed to cultivate optimal email-writing proficiency. Furthermore, a noticeable empirical gap persists regarding how specific demographics, particularly diploma students, perceive and interact with these AI writing tools. For these reasons, this study aims to investigate diploma students' perceptions of ChatGPT as an adjunctive tool for reinforcing their email writing competencies. Employing a quantitative analysis approach, this research utilizes a survey-based methodology structured upon a 5-point Likert scale to examine students' receptiveness to AI adoption, its perceived usability, and its subsequent impact on their writing processes. Beyond evaluating ChatGPT's efficacy in refining vocabulary, grammatical accuracy, and structural organization, the study also probes students' awareness of ethical challenges. The expected results are anticipated to provide valuable insights into diploma students' perceptions of ChatGPT as a supplementary tool for enhancing email writing skills, illuminating how they navigate the intersection of technological support and personalization. Ultimately, this study is expected to inform ESL educators and policymakers on the effective integration of AI-assisted writing tools, promoting their responsible and ethical use to support language learning while safeguarding human creativity and academic integrity.

Keywords: ChatGPT; Generative Artificial Intelligence; Email Writing Skills; Diploma Students; ESL Learning.

INTRODUCTION

In a modern academic setting, the two main cornerstones of students' performance are formal communication skills and digital literacy. Proficiency in written correspondence, specifically formal email writing, remains a vital competency assessed within language and communication curricula. In the context of diploma-level study, students are required to navigate rigorous educational courses, understanding the structure, syntax, and stylistic rules of email writing, which is a crucial stage to develop their language skills. Writing an email is an important communication skill in tertiary education, permitting formal communication between students and lecturers, administrators, and external stakeholders (Romadhon, 2024). Distinctive standards are required for emails, including suitable formal registers, etiquette practices, and practical knowledge (Bhatia, 1993; Nazim et al., 2025). For example, cover emails present another level of complexity as students must achieve the right balance between technical writing knowledge as well as persuasive and creative writing in order to make an impression on companies (Di Sarno-García & Argüelles-Álvarez, 2025). Hence, as students progress into a professional

workplace environment, the skill to write a clear, courteous, and perfectly structured email becomes progressively significant as it remains one of the main media of professional and formal communication. Despite that, a large number of diploma students persist in encountering challenges in constructing effective emails owing to constraints on proper syntax, lexicon, structure, tone, and compliance with email etiquette (Konuk, 2021). These difficulties point out the necessity for instructional guidance that may improve the students' competence in writing while simultaneously equipping them for academic and professional communication that will be beneficial in the future.

In the past, writing skills were taught through instruction in the classroom and indirect grammatical evaluations. However, the landscape of learning has been radically altered due to the rapid rise of generative Artificial Intelligence (AI). As stated by Maharani et al. (2024) and Zebua & Katemba (2024), AI tools such as OpenAI's ChatGPT have transformed from innovative technology into engaging pedagogical companions that provide students with opportunities to obtain immediate feedback, draft language, and improve structure. ChatGPT has gained substantial attention as it is deemed a potentially useful tool in learning, particularly in improving email writing skills. Unlike conventional grammar-checking tools, it provides guidance in an interactive manner that helps students revise and improve their writing conversationally through prompts (Deng & Lin, 2023; Li et al., 2023). Additionally, considering that technology has previously been utilised in language learning through Computer-Assisted Language Learning (CALL), the incorporation of ChatGPT in educational settings has piqued the interest of researchers and educators.

Cong-Lem and Daneshfar (2024) and Ghimire et al. (2024) asserted that surface-level assignments such as mechanical amendments often inflict a taxing mental burden on learners acquiring the language which leave them with lesser cognitive capacity for structural organization. Therefore, generative AI tools will help to lessen the weight by making the regular writing mechanics simpler while concurrently serving as a digital scaffold within the students' Zone of Proximal Development (ZPD). Another empirical study by Komala et al. (2026) discovered that ChatGPT aids with text construction at two different levels which are micro and macro levels. At micro level, ChatGPT aims at mechanical fluency by fixing the errors in spelling, punctuation, capitalization, and vital grammatical conventions such as subject verb agreement while enhancing the choices of lexicon. On the other hand, ChatGPT provides guidance at the macro level in terms of arranging thoughts, developing well-versed paragraphs, and presenting a distinctive overview or perspective when composing texts (Callej, 2025). Essentially, the tool imparts explicit elaborations behind the corrections for grammar, transitioning its usage from a passive alternate option to an active tool that enhances the students' understanding in terms of intricate linguistic concepts (Zebua & Katemba, 2024).

Problem Statement

Due to the rise in research studies investigating the relationship between GenAI in higher education, the latest studies were affected by two main limitations, which are the empirical studies that focus largely on conventional undergraduate and postgraduate demographics. Diploma students were often overlooked despite following a clear-cut, employment-based syllabus that emphasises quick, practical communication in the workplace over long-running academic writing. Second, most of the current research assesses the use of AI in the context of writing, specifically essay and research assignments, which has resulted in a visible empirical gap regarding short-form and genre-specific writing tasks, such as professional writing (Tang, 2026).

This has caused a lack of adequate data related to the distinct patterns of use, functional affordances, and constraints that were encountered by the diploma students as they use GenAI such as ChatGPT for functional writing. Hence, the educators are unable to develop evidence-based interventions in pedagogy without comprehending what the students view as helpful or demanding. Also, there have been warnings by other researchers that unsupervised usage of AI may lead to plagiarism, imprecise outcome evaluation, and a slump in critical thinking skills. This study addresses these gaps by investigating the students' perceptions and experiences in employing ChatGPT for their email writing tasks. Despite being praised for escalating the process of drafting and providing highly personalised responses on assignments, major issues persist that constant AI implementation may undermine the basic value of learning genuine communication (Polakova & Ivenz, 2024; Al-khresheh, 2024).

Research Objectives

1. To explore diploma students' use of ChatGPT in email writing tasks.
2. To identify the perceived benefits of ChatGPT in improving email writing skills.
3. To examine challenges encountered by students when using ChatGPT for email writing.

Research Questions

1. How do diploma students use ChatGPT when writing emails?
2. What benefits do students perceive from using ChatGPT for email writing?
3. What challenges do students encounter when using ChatGPT for email writing?

Significance of Study

This study presents three distinctive levels of significant contributions:

- i) Theoretical contributions: It elevates the existing literature on Intelligent CALL and GenAI utilisation by presenting empirical evidence from an under-researched demographic of students, who are diploma students within a specific genre of formal writing
- ii) Pedagogical Significance: The results provide educators with applicable and practical data on the way the students generally interact with AI. This permits educators to improve their lessons and to also introduce explicit guidance on generating prompts and critically evaluating the output by AI.
- iii) Institutional Policy: Tertiary institutions may employ the insights regarding student difficulties to design holistic and realistic policies and frameworks related to academic integrity that facilitate AI-assisted learning.

Scope and Limitations of Study

This study has its scope limited to only the self-reported attitudes and patterns of diploma students who utilise ChatGPT, especially for email writing. It fully focuses on the students' experience, perceived usage, and operational challenges. It intentionally excludes the direct analysis of linguistic or quality evaluation of the AI-generated outputs, which are the emails themselves, leaving that assessment for future research. In addition, the quantitative survey design does not capture qualitative insights into students' experiences, challenges, and expectations regarding AI-assisted writing. As the sample comprised diploma students within a single institutional context, the findings may not be generalisable to students from other academic programmes, institutions, or educational levels. Also, this research is heavily dependent on the students' self-assessed perceptions of ChatGPT instead of measuring the email writing performance objectively. Consequently, they do not demonstrate whether the utilization of ChatGPT adds up to the measurable improvements in existing writing proficiency or competence in writing email professionally although the results provide a beneficial perspective into students' perceived practicality of ChatGPT.

LITERATURE REVIEW

The Developmental Emergence of AI and ChatGPT in ESL Setting

In 2022, OpenAI introduced ChatGPT, an advanced generative AI chatbot that leverages the robust Generative Pre-Trained Transformer (GPT) architecture to comprehend natural language prompts and generate exceptionally coherent, contextually aware responses (Open AI et al, 2024). Advancing this foundational technology, the OpenAI research team (2024) details a significant evolutionary leap by successfully embedding multimodal processing capabilities into the model's successor. Although researchers strictly confined earlier iterations of the AI to processing text, they have now equipped the advanced GPT-4 system with the unprecedented ability to actively analyze, interpret, and extract complex meaning from visual data. Based on the report specifically, the model can seamlessly integrate and analyse mixed mediums, such as a combination of text and imagery. Furthermore, it is designed to translate diverse inputs into coherent written responses and, when explicitly prompted by the user, can even generate corresponding visual outputs to supplement the text. Fundamentally, GPT-4 functions as a highly advanced predictive text engine.

In parallel with that, this sophisticated technological advancement utilises a large language model (LLM) and ChatGPT is built entirely on this model, that gradually transforms and challenges pedagogical paradigms (Baig & Yadegaridehkordi, 2024, Wang et al., 2024). Providing its cutting-edge ability in delivering immediate personalised feedback as well as a wide range of various assistance and support in the language learning process, ChatGPT has garnered significant attention in English as a Second Language (ESL) teaching instruction in higher education settings. As a result, this profound capacity and capability leverages the learning process by offering academic scaffolding (Kasneci et al., 2023) and assisting ESL students' development of their linguistic skill sets. Additionally, according to Baig and Yadegaridehkordi in 2024, by making language learning more engaging and fun, its natural language interface greatly increases the learners' engagement. However, in order to achieve a thorough ESL learning experience, it is necessary to balance its use with conventional language learning activities, despite this modern-age tool being quite effective as an additional educational resource. By doing this, academic worries about possible over-reliance and students' stagnating critical thinking skills are immediately addressed as highlighted in Baig and Yadegaridehkordi (2024).

Concurrently, recent empirical investigation, a quasi-experimental study notably by Zulianingrum and Manggolo in 2025 highlights its significance in fostering communicative competencies during English discussions, emphasising on demonstrating how ChatGPT engages students in low-stakes, real-world discourse by functioning as an on-demand, interactive conversational agent. In the end, this study showcased that this speeds up the development of students' communicative competences during English conversations by giving them the chance to practise fluency, pronunciation, and pragmatic skills. Meanwhile, related research on ChatGPT integration within language instruction has gravitated towards personalised writing discourse, as demonstrated by Deep et al. (2025) alongside Fereidouni and Farahian (2025). Subsequently, a growing body of empirical literature within the ESL paradigm has increasingly prioritised the investigation of this linguistic competency - email writing discourse, recognising its paramount significance in determining tertiary students' long-term professional development (Nazari & Saadi, 2024; Jmaiel et al., 2025; Nazim et al., 2025).

Therefore, bridging the gap between theoretical potential and pedagogical practice requires a thorough analysis of how ChatGPT is methodically integrated and practically adopted within the modern ESL writing classroom, as empirical attention increasingly converges on the cultivation of these crucial written proficiencies.

The Integration and Adoption of ChatGPT in ESL Writing Classroom

The methodical integration of ChatGPT into the ESL writing classroom is a highly intricate pedagogical shift, despite the growing body of evidence supporting the theoretical potential benefits of generative AI in language acquisition. On the same note, specific adoption behaviours and systemic learner acceptability are also critical to the transition from viewing AI as a technological curiosity in educational contents and contexts to integrating it as a sustainable resource for ESL learning. Empirical evaluations of ChatGPT's deployment in higher education frequently utilize prominent theoretical frameworks—most notably the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT and UTAUT2), specifically to delineate this transition (Haryanto et al., 2026). Within these paradigms, an ESL learner's intention to actively adopt AI for complex writing tasks is predominantly governed by distinct antecedents: social influence and/or peer pressure, perceived usefulness, effort expectancy, and the availability of institutional facilitating conditions.

Adopting this technology in the context of ESL writing, however, mandates serious pedagogical examination. Even though ChatGPT is a highly adaptive online instruction tool that may offer focused vocabulary improvement, structural writing support, and personalised, real-time feedback, its unmediated adoption presents significant barriers to the overall development of academic skills. Even so, an unregulated over-reliance on algorithmic ESL discourse construction can actively discourage learners' critical thinking skills and negatively impact their independent cognitive functioning, as academics have repeatedly expressed concerns (Farrokhnia et al., 2023). Furthermore, engaging with this AI-based technology, ChatGPT, without a comprehensive grasp of its operational limitations frequently catalyses significant ethical predicaments; specifically, it exacerbates risks associated with unintentional plagiarism, data privacy breaches, and the uncritical adoption of erroneous content which these dimensions that are systematically detailed at the end of this section.

Therefore, the contemporary ESL writing classroom demands a meticulously balanced pedagogical framework.

Educators must strategically integrate ChatGPT not as an autonomous authorial proxy, but as a supplementary collaborative agent, ensuring that the technology genuinely scaffolds the drafting process while rigorously preserving the learner's authentic rhetorical voice and academic integrity (Farrokhnia et al., 2023; Kasneci et al., 2023).

ChatGPT as a Writing Support Tool: Perceived Benefits and Documented Gains

A growing body of research indicates that students across diverse educational contexts perceive ChatGPT as a valuable aid in developing their writing, particularly in language accuracy, organisation, and confidence. Lieu (2025), surveying 72 fourth-year English majors in Vietnam, found overwhelmingly positive perceptions of ChatGPT's influence on paragraph writing: the large majority of respondents agreed that the tool improved their sentence structure, writing style, and understanding of the topics they wrote about, while its instant feedback strengthened their confidence as writers. Comparable attitudes were reported by Al-Harabsheh, Almahasees, and Al Rousan (2025) among 148 English language and translation students in Jordan. Drawing on the Unified Theory of Acceptance and Use of Technology (UTAUT), their study found that performance expectancy, effort expectancy, social influence, and facilitating conditions all contributed to students' adoption of ChatGPT, and concluded that students perceived more advantages than disadvantages, chiefly in grammar and vocabulary development, idea generation, cohesion and coherence, and time saving.

Positive appraisals are not confined to learners; teachers, too, regard the tool as pedagogically promising. Rahma and Fithriani (2024), in a qualitative case study of ten EFL teachers at a private school in North Sumatra, Indonesia, found that teachers responded favourably overall to ChatGPT as a writing aid, agreeing that it is readily accessible, offers useful features, and helps students improve text organisation, grammar, vocabulary, and writing confidence. Thematic analysis of their interviews revealed that teachers credited the tool with enhancing writing quality and reducing writing anxiety, while nonetheless insisting that its classroom use requires active teacher supervision. That educators—the gatekeepers of classroom technology adoption—largely endorse the tool lends weight to student self-reports of its benefits, though, as discussed below, the same teachers voiced some of the corpus's sharpest reservations.

Importantly, these perceptions are not merely subjective enthusiasm; experimental evidence suggests genuine, measurable improvement. Guo, Guan, and Zhang (2026) conducted a semester-long empirical study with 145 Chinese undergraduates, comparing classes that received structured ChatGPT feedback with those that received traditional teacher feedback. Students in the AI-feedback groups significantly outperformed their peers in external language mastery (essay scores) and, particularly for lower-proficiency learners, in internal writing abilities such as logic, fluency, and relevance. This heterogeneity is a key insight: the benefits of AI feedback were most pronounced among students with weaker foundations, whereas stronger writers gained mainly in topic relevance. Such a finding is directly pertinent to diploma-level learners, who often fall within the lower-to-intermediate proficiency range, where AI-assisted feedback appears to yield the greatest returns.

Convergent experimental evidence comes from the domain of professional writing itself. Sharma, Sharma, and Kaur (2025) employed a quasi-experimental, mixed-methods design with 77 Indian university students, comparing traditional instruction with ChatGPT-assisted, project-based learning of business correspondence genres, including letters, emails, reports, notices, memoranda, and minutes of meetings. Because the pre- and post-test data violated normality assumptions, a Wilcoxon signed-rank test was applied, revealing a statistically significant improvement in English language learning after ChatGPT use, with the vast majority of students performing better on the post-test and the intervention producing a large effect size. Notably, the authors observed gains among both slower and faster learners, and students reported that AI assistance made professional writing more efficient and of higher quality—findings that speak directly to the workplace-oriented genres, such as email, that vocational and diploma programmes prioritise.

Beyond outcomes, researchers have also examined *how* students actually deploy the tool. Levine, Beck, Mah, Phalen, and Pittman (2025) observed twelve American high school students composing argumentative essays with unrestricted access to ChatGPT. Contrary to fears of wholesale copying, most prompts served planning purposes—generating ideas, setting goals, and organising—while far fewer targeted translating ideas into sentences or reviewing drafts. Computational text-similarity analysis showed that students rarely lifted

ChatGPT's language directly; instead, they treated its output as a springboard, rewording ideas in their own voice and even developing a meta-level awareness of their personal style when contrasting it with the AI's blander prose. This positions ChatGPT within a social, distributed model of writing—as a stand-in for a teacher, peer, or reference tool rather than a replacement for composing.

Of particular relevance to the present study are two investigations that address email writing directly. Romadhon (2024) surveyed 30 Indonesian tax accounting students enrolled in a Business English course on their perceptions of using ChatGPT to compose business emails—one of the few studies situated squarely in an English for Specific Purposes (ESP) context. The findings were broadly positive: most students were willing to use ChatGPT regularly for email writing and believed it would enhance their business email skills, praising its ease of use, round-the-clock availability, and personalised, immediate feedback, and judging it very useful for developing email composition specifically. Complementing this, Nazim, Mohammad, Alzubi, and Khan (2025) explored ChatGPT as a personalised virtual writing assistant among 140 Saudi EFL students, with email writing as one of the target genres. Interviewed students reported that ChatGPT improved the tone and structure of their emails—suggesting clear subject lines, formal greetings, polite request phrasing, closings, and sign-offs—alongside gains in vocabulary, grammar, and confidence across essays, paragraphs, and research reports. Grounded in Genre-Based Theory and Computer-Assisted Language Learning, their findings suggest that ChatGPT can scaffold genre-specific conventions, an especially useful affordance for email writing, which demands pragmatic awareness and register control. Notably, perceptions in that study were only moderate overall. They were shaped by usage duration and gender, with longer-term users and female students holding significantly more favourable views—implying that familiarity with the tool matters as much as the tool itself.

Emerging Concerns and Conditions for Responsible Integration

Alongside these benefits, the literature converges on a consistent set of reservations, chief among them over-reliance and its cognitive consequences. In Lieu's (2025) survey, a substantial majority of students admitted they depended on ChatGPT rather than developing their own skills, believed it eroded their critical thinking, and felt it curbed their creativity. Al-Harashseh et al. (2025) echoed this: many Jordanian respondents felt ChatGPT risked turning them into passive learners, and a considerable number viewed its use as bordering on plagiarism, even as most reported paraphrasing AI output to protect academic integrity. Strikingly, students themselves are alert to these risks even in contexts where they endorse the tool: in Romadhon's (2024) business email study, many of the same students who praised ChatGPT acknowledged the danger of becoming overly reliant on it, worried that its responses might contain inaccurate information, and feared it could erode proper business communication learning and transferable skills such as teamwork and problem-solving. These self-reported anxieties align with behavioural evidence from Levine et al. (2025), who noted that while students engaged critically with ChatGPT during planning, they became far less discerning during reviewing—accepting or rejecting the bot's edits wholesale rather than evaluating them line by line. The reviewing stage, in other words, is where uncritical adoption is most likely, and where instructional scaffolding is most needed.

Teachers articulate parallel misgivings from the other side of the desk. The teachers in Rahma and Fithriani's (2024) study, despite their overall endorsement, warned that ChatGPT's convenience could foster cheating, laziness, and passive learning; that students may accept AI-generated content uncritically despite its imperfect accuracy; and that heavy dependence could stunt the development of independent writing, creativity, and critical analysis. Their prescription—that AI should complement rather than substitute for the teacher, with educators actively directing how the tool is incorporated and monitoring its impact—anticipates the guided-integration consensus that runs through the student-focused literature.

A second cluster of concerns involves the trustworthiness of AI output and its ethical implications. Students and researchers alike flagged misinformation, inaccurate or contextually inappropriate feedback, privacy and data-security risks, and diminished teacher-student interaction (Lieu, 2025; Al-Harashseh et al., 2025; Romadhon, 2024). Guo et al. (2026) identified parallel limitations from a pedagogical standpoint: ChatGPT lacks genuine contextual awareness, may generate biased or erroneous corpora, and offers only limited value for advanced logical development among stronger writers. Their conclusion—that teachers remain irreplaceable as evaluators, screeners, and “defenders” of academic rules—recurs across the corpus. Nazim et al. (2025) similarly documented practical barriers such as unreliable internet access, insufficient training, and AI-suggested phrasing

that clashed with prescribed textbook conventions, leading students to feel dependent on the tool at the expense of independent effort.

Synthesising these strands, the literature suggests that ChatGPT's effect on writing development is neither inherently positive nor negative, but conditional: it depends on the learner's proficiency level (Guo et al., 2026), the stage of the writing process at which it is used (Levine et al., 2025), the duration and depth of the user's experience (Nazim et al., 2025), and the presence of guided, ethically framed integration (Al-Harashseh et al., 2025; Lieu, 2025; Rahma & Fithriani, 2024). Accordingly, the recurring pedagogical recommendation is not restriction but structured adoption—explicit training in prompt design, teacher-led evaluation of AI output, comparative revision exercises, clear institutional guidelines on academic integrity, and deliberate balancing of AI assistance with human interaction (Romadhon, 2024; Sharma et al., 2025).

Two gaps emerge from this body of work that the present study addresses. First, existing research has concentrated on university undergraduates and English majors (Lieu, 2025; Al-Harashseh et al., 2025; Guo et al., 2026; Nazim et al., 2025); the perceptions of *diploma students*—a cohort with distinct proficiency profiles and vocational orientations—remain largely unexamined. Second, email writing itself remains under-researched as a focal genre. The closest antecedent, Romadhon (2024), examined business email writing but among a small sample of polytechnic accounting students in Indonesia, using a purely quantitative questionnaire that could not probe the reasons behind students' perceptions, while Nazim et al. (2025) and Sharma et al. (2025) treated email only as one genre among several in broader multi-genre designs. No study has yet offered an in-depth examination of how diploma students perceive ChatGPT specifically for email writing—a genre of high practical value in workplace communication that carries its own conventions of tone, formality, and structure.

By investigating diploma students' perceptions of using ChatGPT to enhance email writing skills, this study extends the literature into an under-researched population and deepens inquiry into an under-researched genre.

METHODOLOGY

Research Design

The research design of this study was based on a quantitative approach that utilised a cross-sectional survey in which the students' willingness to incorporate ChatGPT as an AI writing tool, their perceptions of its usability, and its effect on the writing process were measured. This approach is consistent with the study objectives, which seek to capture perceptions from a cross-section of existing respondents as opposed to tracking changes over time.

Participants

The respondents were drawn from five Universiti Teknologi MARA (UiTM) campuses from Segamat, Raub, Tapah, Jengka, and Rembau. The participants were selected through convenience and purposive sampling to ensure that they meet the requirements of the study (Romadhon, 2024; Douglas, 2022).

Research Instrument

The data collected for the study relied on a structured questionnaire adopted from Chan and Hu (2023). This was further divided into a questionnaire of 25 statements across five sections, which comprised five items for each section. It looked into various elements of students' views about ChatGPT. These factors included i) readiness to use ChatGPT, ii) experience and ease of use, iii) perceived benefits, iv) concerns about using it, and v) its impact on grammar, mechanics or language and the structure of written texts. Each item from all scales was answered on a five-point Likert scale. In all sections, the order of the scale was consistent, from *Strongly Disagree* (1) to *Strongly Agree* (5), with a different label for the midpoint in each section. The first section used *Neutral*, and the four remaining sections used *Unsure*. Responses to the questionnaire included information about respondents, such as their campus, programme type, self-rated proficiency in English, use of ChatGPT for academic purposes (frequency and time spent on it), and frequency of writing formal e-mails in English. This is the detailed five sections and items of the questionnaire as shown in the following table.

Table 1 Questionnaire Sections and Items

Section 1 (SC1): Willingness to Use ChatGPT in Learning Writing	
Item 1	I am willing to use generative AI technologies like ChatGPT regularly for writing emails.
Item 2	I believe incorporating ChatGPT into my writing practice will enhance my email writing skills.
Item 3	I am open to using ChatGPT for various writing tasks beyond emails.
Item 4	I am eager to explore more features of ChatGPT to improve my writing.
Item 5	I am willing to recommend ChatGPT to my peers for learning writing skills.
Section 2 (SC2): ChatGPT's Usage Experience & User-Friendliness	
Item 6	OpenAI ChatGPT provides complete features and is easy to use for writing emails.
Item 7	I think AI technologies such as ChatGPT are great tools, as they are available 24/7 for email writing.
Item 8	I like to use OpenAI ChatGPT because it has many good features compared to other grammar checker tools for email writing.
Item 9	I believe ChatGPT has fast and reliable responses for email writing tasks.
Item 10	I find OpenAI ChatGPT to be highly flexible and easy to use without encountering significant difficulties.
Section 3 (SC3): Perceived Benefits of Using ChatGPT	
Item 11	I believe AI technologies such as ChatGPT can provide me with unique insights and perspectives for writing emails that I may not have thought of myself.
Item 12	I think AI technologies such as ChatGPT can provide me with personalised and immediate feedback and suggestions for my email writing assignments.
Item 13	OpenAI ChatGPT is very useful in developing my writing skills, especially for email composition.
Item 14	I am more effective in tackling email writing tasks after using OpenAI ChatGPT.
Item 15	Using ChatGPT allows me to accelerate my drafting speed and complete my writing assignments significantly faster.
Section 4 (SC4): ChatGPT Concerns & Negative Perceptions	
Item 16	Using generative AI technologies such as ChatGPT to write emails undermines the value of learning proper communication.
Item 17	Generative AI technologies such as ChatGPT will hinder my development of generic or transferable skills such as teamwork, problem-solving, and leadership skills.
Item 18	I can become overly reliant on ChatGPT when completing my writing tasks.
Item 19	I think ChatGPT's responses for writing may contain some inaccurate information.
Item 20	Using ChatGPT for my academic writing tasks raises personal concerns regarding plagiarism, text originality, and data security.
Section 5 (SC5): Grammar, Mechanics, and Structural Cohesion	
Item 21	Using ChatGPT helps me correct micro-level mechanical errors in my text, such as spelling, punctuation, and capitalization.
Item 22	Using ChatGPT helps me strengthen my grammatical skills, master grammatical rules, and resolve subject-verb agreement issues.
Item 23	Using ChatGPT helps me enrich my vocabulary and pick more descriptive wording for my paragraphs.
Item 24	Using ChatGPT helps me organize my structural thoughts more effectively and write well-structured paragraphs.
Item 25	Using ChatGPT provides clear explanations behind its corrections, which helps me understand complex grammatical concepts deeper.

Data Collection Procedure

A survey was created using Google Forms and distributed to students who enrolled in the selected English courses. This online survey format was chosen for its effectiveness, which also allowed students to complete the

survey at their own convenience within the given period of time (Romadhon, 2024). Participants were informed about the purpose of the study before the distribution of the questionnaire. In total, 224 valid responses were received and included in the final analysis.

Data Analysis

For the analysis, descriptive statistics were first performed to provide an overview of the respondents' demographic profile and their responses to each questionnaire item. Frequencies, percentages, means, and standard deviations were calculated for this purpose. The reliability of the instrument was then evaluated using Cronbach's alpha for each of the five constructs. In accordance with Hair et al. (2019), alpha values of 0.70 or higher indicated acceptable internal consistency. The validity of the instrument was tested using an exploratory factor analysis (EFA). To identify the relevance of the data for factor analysis, the Kaiser-Meyer-Olkin (KMO) sampling adequacy measurement and Bartlett's test of sphericity were first performed. Axis Factoring was used as the extraction method, with Direct Oblimin (oblique) rotation and Kaiser normalisation, since the constructs were expected to correlate. Factors with eigenvalues greater than 1.00 were retained, and factor loadings of 0.40 and above were treated as meaningful (Hair et al., 2019). The pattern matrix was interpreted because an oblique rotation was used.

FINDINGS

This section presents the findings of the study. The results include the respondents' demographic profile quantified in frequency and percentage, descriptive statistics of the questionnaire items, and the reliability and construct validity results to evaluate the measurement properties of the instrument.

Descriptive study sample/respondents' profile

Table 2 Descriptive Statistics of the Study Sample

Demographic	Categories	Overall Respondents (N = 224)	
		Frequency (n)	Percentage (%)
Programme	A4AS120	1	0.4
	A4AS1201A	1	0.4
	AC120	11	4.9
	AM110	54	24.1
	AS120	55	24.6
	AS1201B	2	0.9
	AS213	1	0.4
	BA111	17	7.6
	BA1111	1	0.4
	BA1111C	1	0.4
	BA111C	1	0.4
	BA114	18	8.0
	BA1142D	5	2.2
	CS143	48	21.4
	cs1432c	1	0.4
	JCS143	1	0.4
	LCC111	2	0.9
	LCC112	2	0.9
	N5BA111	1	0.4
	N5BA1111C	1	0.4
Campus	UiTM Raub	54	24.1
	UiTM Segamat	74	33.0
	UiTM Tapah	72	32.1
	UiTM Jengka	1	0.4

	UiTM Rembau	23	10.3
English proficiency	Beginner	44	19.6
	Intermediate	173	77.2
	Advanced	7	3.1
Frequency of ChatGPT use for academic purposes	Never	1	0.4
	Rarely	15	6.7
	Sometimes	81	36.2
	Often	96	42.9
	Very often	31	13.8
Duration of AI tool use for academic purposes	Less than 6 months	35	15.6
	6 months to 1 year	105	46.9
	1–2 years	52	23.2
	More than 2 years	32	14.3
Frequency of writing formal emails in English	Never	7	3.1
	Rarely	82	36.6
	Sometimes	122	54.5
	Often	12	5.4
	Very often	1	0.4

Table 2 presents the descriptive statistics of the respondents' profile with a total of 224 respondents participating in the study. In terms of campus, the highest number of respondents were from UiTM Segamat ($n = 74$, 33.0%), followed by UiTM Tapah ($n = 72$, 32.1%) and UiTM Raub ($n = 54$, 24.1%). Most respondents rated their English proficiency as intermediate ($n = 173$, 77.2%), followed by beginner ($n = 44$, 19.6%) and advanced ($n = 7$, 3.1%). For ChatGPT usage, most respondents reported using ChatGPT often for academic purposes ($n = 96$, 42.9%), followed by sometimes ($n = 81$, 36.2%) and very often ($n = 31$, 13.8%). Regarding the duration of AI tool usage, most respondents had been using AI tools for academic purposes for 6 months to 1 year ($n = 105$, 46.9%). In terms of formal email writing in English, the majority reported writing formal emails sometimes ($n = 122$, 54.5%), while 82 respondents (36.6%) rarely wrote formal emails in English. Based on the programme, the largest groups of respondents were from AS120 ($n = 55$, 24.6%), AM110 ($n = 54$, 24.1%), and CS143 ($n = 48$, 21.4%).

Descriptive Statistics of Questionnaire Items

Table 3 Descriptive Statistics of Questionnaire Items

	N	Minimum	Maximum	Mean	Std. Deviation
SC1 1	224	1	5	2.95	.840
SC1 2	224	1	5	3.56	.866
SC1 3	224	1	5	3.42	.875
SC1 4	224	1	5	3.76	.795
SC1 5	224	1	5	3.53	.913
SC2 1	224	1	5	3.56	.801
SC2 2	224	1	5	3.59	.863
SC2 3	224	1	5	3.26	.906
SC2 4	224	1	5	3.62	.800
SC2 5	224	1	5	3.58	.869
SC3 1	224	1	5	3.69	.758
SC3 2	224	1	5	3.76	.753
SC3 3	224	1	5	3.67	.739
SC3 4	224	1	5	3.46	.780
SC3 5	224	1	5	3.62	.789
SC4 1	224	1	5	3.47	.786
SC4 2	224	1	5	3.43	.906

SC4 3	224	1	5	3.25	.972
SC4 4	224	1	5	3.80	.845
SC4 5	224	1	5	3.87	.850
SC5 1	224	2	5	3.77	.751
SC5 2	224	1	5	3.67	.773
SC5 3	224	1	5	3.75	.732
SC5 4	224	1	5	3.71	.739
SC5 5	224	1	5	3.76	.759
Valid N (listwise)	224				

The descriptive statistics for the questionnaire items are presented in Table 3. The mean scores ranged from 2.95 to 3.87, indicating that respondents generally provided moderate to relatively positive responses toward the items. The highest mean score was obtained by SC4 5 ($M = 3.87$, $SD = 0.850$), suggesting that this item received the strongest agreement among respondents. In contrast, SC1 1 recorded the lowest mean score ($M = 2.95$, $SD = 0.840$), indicating a more neutral response compared with the other items. The standard deviation values ranged from 0.732 to 0.972, suggesting that the responses were reasonably consistent and did not show extreme variation. Overall, the findings indicate that respondents tended to respond positively to the questionnaire items, although some items reflected more moderate perceptions.

Reliability & Validity Test

Reliability Analysis

Table 4 Reliability Analysis of the Constructs

Construct	Number of Items	Cronbach's Alpha	Interpretation
SC1	5	0.848	Good
SC2	5	0.857	Good
SC3	5	0.884	Good
SC4	5	0.735	Acceptable
SC5	5	0.900	Excellent

According to Hair et al. (2019), reliability values of 0.70 and above are considered acceptable for research purposes. As shown in Table 4, the Cronbach's Alpha values for the five constructs ranged from 0.735 to 0.900, indicating that the questionnaire items were reliable and internally consistent. SC5 recorded the highest reliability value ($\alpha = 0.900$), while SC4 recorded the lowest value ($\alpha = 0.735$).

Validity: Exploratory Factor Analysis (EFA)

i. KMO and Bartlett's Test

Table 5 KMO and Bartlett's Test

Test	Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	0.927
Bartlett's Test of Sphericity	Approx. Chi-Square
	3391.180
	df
	300
	Sig.
	<.001

Prior to conducting Exploratory Factor Analysis (EFA), the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity were examined to assess the suitability of the data for factor analysis. According to Hair et al. (2019), the measure of sampling adequacy should exceed 0.50, and a statistically significant Bartlett's Test indicates that sufficient correlations exist among the variables to proceed with EFA. In this study, the KMO value was 0.927, exceeding the recommended threshold, while Bartlett's Test of Sphericity was significant, $\chi^2(300) = 3391.180$, $p < 0.001$. Therefore, the data were considered suitable for EFA.

ii. Total Variance Explained

Table 6 Total Variance Explained

Factor	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	10.656	42.625	42.625
2	2.334	9.336	51.961
3	1.449	5.794	57.755
4	1.300	5.199	62.955

As shown in Table 6, four factors were extracted with eigenvalues greater than 1.00. According to Hair et al. (2019), factors with eigenvalues greater than 1.00 may be retained as meaningful factors in exploratory factor analysis. The first factor explained 42.625% of the total variance, followed by the second factor (9.336%), third factor (5.794%), and fourth factor (5.199%). Overall, the four extracted factors explained 62.955% of the total variance, suggesting that the factor solution accounted for a substantial proportion of the variance in the questionnaire items.

iii. Pattern Matrix

Table 7 Pattern Matrix of the Extracted Factors

	Factor			
	1	2	3	4
SC1 1			.695	
SC1 2			.724	
SC1 3			.735	
SC1 4			.648	
SC1 5			.660	
SC2 1	.434			
SC2 2				
SC2 3				-.459
SC2 4				
SC2 5	.463			
SC3 1	.652			
SC3 2	.603			
SC3 3	.452		.404	
SC3 4			.541	
SC3 5			.433	
SC4 1		.527		
SC4 2		.903		
SC4 3		.599		
SC4 4				.626
SC4 5				.509
SC5 1	.765			
SC5 2	.804			
SC5 3	.779			
SC5 4	.863			
SC5 5	.846			
Extraction Method: Principal Axis Factoring.				
Rotation Method: Oblimin with Kaiser Normalization.				
a. Rotation converged in 13 iterations.				

Since Direct Oblimin rotation was used, the Pattern Matrix was referred to because it is suitable when factors are

allowed to correlate. Following Hair et al. (2019), factor loadings of 0.40 and above were considered meaningful for interpretation. As shown in Table 7, most items demonstrated acceptable factor loadings above 0.40. Factor 1 consisted mainly of SC2, SC3, and SC5 items, while Factor 2 consisted of SC4 items. Factor 3 mainly included SC1 items and several SC3 items, whereas Factor 4 included selected SC2 and SC4 items. However, SC2 2 and SC2 4 did not show clear factor loadings above the cut-off value, while SC3 3 showed cross-loading on Factor 1 and Factor 3. Overall, the factor loading results provided acceptable support for the construct validity of the questionnaire, although several items may be considered for refinement in future studies.

DISCUSSION

The findings statistically corroborate the reliability and construct validity of the questionnaire used, while shedding light on students' perspectives regarding ChatGPT as a writing assistant tool for performing English writing tasks. Responses over the five constructs showed that most participants had moderate to positive perceptions of ChatGPT for writing tasks, indicating a generally favourable level of acceptance. Since the study was based on descriptive analyses, results should be considered as describing relationships of students' patterns of perception rather than identifying direct causal relationships between variables. The following discussion relates these findings to previous studies on ChatGPT and generative AI in educational settings.

Overall Receptiveness and Perceived Usability

Based on the findings, the means item demonstrate that students held moderate-to-positive perceptions across the five constructs using a five-point Likert scale, with scores ranging from 2.95 to 3.87. These positive findings align with previous research on ChatGPT at the writing level, which often reports positive attitudes of students toward perceived utility (Lieu, 2025 or Al-Harashsheh et al., 2025), acceptance factors, and adoption intention. In particular, it also matches the findings of Romadhon (2024), whose ESP students reported positive views of ChatGPT for business email writing using a questionnaire constructed along the dimensions of willingness to use, ease of use, usefulness, and concerns. This same conclusion is also consistent with the research conducted by Al-Harashsheh, Almahasees, and Al Rousan (2025), which stated that performance expectancy, effort expectancy, and behavioural intention were significant predictors of Jordanian students' acceptance of ChatGPT in academic writing.

The willingness items (SC1) measure student readiness to use ChatGPT, and their moderate-to-positive scores reflect the high usage intentions found in previous studies. However, it is important to note that SC1-1 ($M = 2.95$) was the lowest single mean in the study, suggesting a neutral response to at least one dimension of willingness within this construct. This cautious attitude toward regular use of ChatGPT is consistent with the findings of Romadhon (2024) and Al-Harashsheh et al. (2025), who reported that while students showed agreement on the benefits of ChatGPT in assisting the writing task, they remained careful about being overly dependent on the tool. Usage experience and user-friendliness items (SC2) measure ease of use, the positive scores are consistent with the user-friendliness of email writing by English learners found by Kusumaningrum, Lim, Challis, and Beck (2024), and the results of Romadhon (2024). Collectively, the findings of SC1 and SC2 suggest that the respondents were open to using ChatGPT for assistance with English writing tasks easily and positively, thereby suggesting a favourable environment for its further use.

Perceived Benefits and Impact on the Writing Process

The perceived-benefits construct (SC3) was rated high, with the highest mean scores obtained for items representing the advantages of ChatGPT integration as a writing assistant in performing English writing tasks. It indicates the respondents consider ChatGPT to be a useful writing assistant tool and thus strengthens the perceived usefulness role of technology in acceptance behaviour. This observation is also supported by the finding of Al-Harashsheh et al. (2025), who found that students distinguished ChatGPT as helpful for brainstorming ideas, enhancing their grammar and vocabulary, and helping them write better texts. Likewise, Rahma and Fithriani (2024) also recorded the same observation that teachers thought ChatGPT improved students' grammar, vocabulary, and confidence in writing. Based on this set of findings, the current study showed that Malaysian diploma students found ChatGPT useful as well by providing unique perspectives in immediate feedback and increasing writing proficiency, especially for email writing tasks.

The results concerning grammar, mechanics, and SC (SC5), which answered the second research question, suggest that students generally found ChatGPT to be a useful tool for improving writing quality. It is also interesting to note that SC5 was the most reliable construct out of the five, as it showed 95% certainty that these items are changing how students would perceive ChatGPT's contribution when writing. The respondents showed that ChatGPT was able to help them identify grammatical and mechanical errors, expand their vocabulary register, and better order the ideas. These results are also similar to Lieu (2025), who found better vocabulary, grammar, coherence, organisation, and mechanics in Vietnamese English majors. Guo, Guan, and Zhang (2026) also found a similar result that ChatGPT contributed to better language accuracy and text organisation in college English writing. Overall, these results imply that ChatGPT serves students as an effective writing assistant tool and that this can further help in enhancing both textual accuracy and overall organisation of their written work.

Nevertheless, previous studies indicate that the advantages of ChatGPT must be treated with caution. Levine et al. (2025) found that students generally used ChatGPT as an aid in planning, drafting, and revising stages of the writing process. Similarly, Kusumaningrum et al. (2024) found that while some students copied AI-generated content directly, others critically reviewed and revised the generated output before using them into their work. Thus, the positive ratings of SC5 in the present study indicate students' perceived improvements in their writing through the intervention of ChatGPT rather than the actual improvements in their independent writing ability. However, since the present study adopted a descriptive research design, it is not able to establish if these self-reported benefits can be paralleled by performance improvements regarding writing. Thus, further studies with experimental or longitudinal design are required to confirm the association.

Concerns and Negative Perceptions

SC4, as opposed to the other four constructs, was designed to measure students' worries surrounding ChatGPT. Its focus was on the possible impairment of communication skills, reliance on the tool, false information, plagiarism, and security of data. Even though the survey respondents rated ChatGPT positively across the other constructs, the relatively high means ranging from 3.47 to 3.87 confirm that this recognition is accompanied only by genuine concerns about its disadvantages, on average at least. This indicates that students had identified both strengths and weaknesses of ChatGPT, which comes out as a mixed reaction, perhaps suggesting a balanced perspective towards its usage in completing English writing tasks.

This discovery is in line with studies that preceded it. Al-Harashsheh et al. (2025) state that categorical advantages of ChatGPT account for its benefits, but also detrimental incorporation without clear institutional guidelines can lead to an overdependence on the chatbot and restrict student creativity. Likewise, Rahma and Fithriani (2024) highlighted that teachers are worried about academic dishonesty, students' overreliance on ChatGPT for completing tasks, and also decreased students' ability to write independently. Similar limitations regarding the use of AI tools have been documented (Romadhon, 2024) and revealed as issues among students: overreliance on such tools, limited real-world interaction (e.g. face-to-face contact with peers and instructors), and inaccuracies in some of the information provided were considered to be the most alarming consequences by Romadhon (2024), whereas Lieu (2025) found that their biggest concerns were related to plagiarism, the accuracy of answers given by AI tools can potentially limit reliance on models for retrieval purposes as well as reduced critical thinking skills needed for distorted comprehension. In sum, these studies confirm the current findings of this research, suggesting that while students view ChatGPT as an advantageous writing assistant tool, they are also aware of the academic and ethical dilemmas surrounding its adoption.

Reliability and Construct Validity

The reliability and construct validity results demonstrate that the questionnaire was a sound instrument in assessing students' perception of ChatGPT. All five constructs demonstrated acceptable internal consistency, with Cronbach's alpha values exceeding the recommended threshold score of 0.70 (Hair et al., 2019). In addition, the KMO value of 0.927 and the statistically significant Bartlett's Test of Sphericity confirmed the suitability of the data for exploratory factor analysis (EFA), thus contributing more confidence for the construct validity in the instrument. These findings provide further evidence of the strength of the questionnaire, supporting its use as a reliable and valid instrument for measuring students' perceptions of ChatGPT.

The research questionnaire was originally focused on 5 constructs. However, exploratory factor analysis found only four factors that explain 62.96% of the total variance found in the data. This may provide some insight into how students view ChatGPT, rather than indicating the weakness of the instrument. The pattern matrix revealed grouped items measuring convenience (SC2), perceived benefits (SC3), and writing performance (SC5) clustered within the same factor, whereas the concerns construct (SC4) emerged as a distinct dimension. This indicates that students did not separate ease of use, usefulness, and writing support. Rather, these qualities were seen collectively as elements of an overall positive assessment of ChatGPT. In contrast, items addressing overreliance, plagiarism, misinformation, and data privacy concerns were viewed separately, which indicates awareness of risks related to the use of this technology.

These overlapping factors are consistent with the technology acceptance research, where perceived usefulness and ease of use are often closely related. However, some items showed weak psychometric performance. Two items from SC2 did not reach the recommended factor loading of 0.40, and one SC3 item showed cross-loading for two factors. While these findings do not detract from the overall quality of the instrument, they would raise the possibility that a limited subset of items could be modified with regard to better construct separation for future studies. Since it was an adaptation of a questionnaire by Romadhon (2024) from Chan and Hu (2023), these findings may also serve as methodological guidance for researchers who plan to utilize the same instrument with or without further adaptations.

CONCLUSION

This study examined diploma students' perceptions of ChatGPT as an assisting tool to support their email writing tasks. In general, the results suggest that students positively viewed ChatGPT as a supplementary learning tool. They appreciated its accessibility, ease of use, and ability to provide immediate feedback on grammar, mechanics, vocabulary, and the overall organisation of their emails. At the same time, students also recognised the importance of using the tool responsibly in expressing their awareness of potential issues such as overreliance, inaccurate information, plagiarism, and data privacy concerns. The findings also suggest that ChatGPT can play a meaningful role in ESL email writing tasks when integrated thoughtfully into the learning process. Rather than replacing students' own efforts, it should be used to complement writing tasks through proper training in generating good prompts, preparing teacher guidance when evaluating AI-generated responses, and suggesting proper guidelines to maintain academic integrity and ethical use of any artificial intelligence platforms.

In tandem with this, future research could examine how a variety of instructional approaches may impact the effectiveness of the utilization of ChatGPT in writing email. For instance, comparative research could investigate whether structured and guided instruction in using AI, lecturers' feedback, or blended teaching approaches may generate different outcomes. Researchers may also examine whether the students' knowledge in using AI, digital skills, and prior knowledge in English language will impact the students ability to employ ChatGPT successfully in writing tasks professionally. In addition, approaches such as experimental or longitudinal approaches that incorporate objective assessments of students' email writing performance before and after using ChatGPT would yield robust evidence of the influence of ChatGPT on the development of writing skills over time.

In addition, mixed-methods studies combining surveys with interviews or focus group discussions are suggested to provide alternative perspectives. This would allow for a deeper evaluation of the reasons behind the perceptions and experiences of users integrating ChatGPT into their writing tasks. Future studies could also expand the sample to include students from different academic programmes, institutions, and educational levels to improve the generalisability of the findings. This would elevate the transferability of the results and impart a wider perspective into the teaching application of generative AI in the context of professional writing skills.

Overall, this study highlights a promising synergy between artificial intelligence and language instruction in language learning in the higher education scene. When implemented with robust ethical frameworks and appropriate pedagogical guidance, ChatGPT has the potential to serve as a powerful catalyst for developing diploma students' email communication and writing skills. Most importantly, it achieves this in a manner that preserves, rather than diminishes, human creativity, critical inquiry, and academic rigor.

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