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Harnessing AI Tools to Enhance English Writing Skills in Undergraduate Education

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ABSTRACT

AI tools, especially ChatGPT, play a vital role in enhancing English writing skills. The objective centers on probing how it assists undergraduate learners in improving their writing skills, from making useful notes to drafting formal letters in

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their daily life. The study explores the efficiency of AI tool ChatGPT upon improving writing skills among undergraduate learners through a quasi-experiment in a few selected topics: letter writing, email writing, paragraph writing, and report writing. The research gap is that the undergraduates lack adequate skills in drafting the above topics in English language. Insights are also drawn from the real-life instances of the drafted letters by the undergraduate learners to the higher authorities, i.e., the Principal and the HoDs requesting them to issue various certificates, such as study, bonafide, transfer, and late fee payment permission letters. With the help of Quasi-experiment method of pre-test and post-test, students were subjected to formal letter drafting, email writing, paragraph writing, and report writing. The post-tests gave better results that the students have improved on grammar, sentence structure, vocabulary, accuracy coherence. Hence, the study suggests that AI-driven tools can enhance writing skills of undergraduates in English Language. To sum up, the study highlights the need of harnessing AI tool ChatGPT to write better writing skills in English Language.

Keywords: AI Tool; ChatGPT; English Language; Writing Skills; Undergraduates; Quasi Experiment

1. Introduction

From time immemorial, communication has been at the heart of a man's existence. Understandably, it encompasses understanding, speaking, reading, and writing. On the other hand, Artificial Intelligence is fast pervading every sphere of our life, helping us as an efficient assistant to make us more effective human beings through improving our skill-set in our chosen field. AI is a branch of education that empowers the machines to think like human beings. It directs machines to understand what humans do on a regular basis, and it tries to do quickly while handling any repetitive tasks efficiently. From picking up natural language to giving us jaw-dropping and befitting solutions, AI can be tapped to span across a variety of fields like industries, business houses, research, space, and education. AI, prima facie, takes certain aspects of human intellect as inputs, applies them as algorithms in a language the computer understands, and presents us with an astonishing output.

Moreover, AI application tool ChatGPT is a touchstone for all the educators, especially for undergraduate learners. Based on the user's needs, it generates the data within a short time. It is an excellent tool that can be used by all professionals and learners for the purpose of learning. The most important factor is that it enriches the writing skills of the learners writing, creativity, and productivity addresses the concerns of ethical use and plagiarism[1]. AI and writing skills go hand in hand; they together play a pivotal role in the academic and professional success of undergraduate learners.

In written communication, academic writing demands exposure and expertise in diverse areas such as drafting formal letters, emails, reports, and paragraphs. To draft all these formal correspondences, grammar, vocabulary, structure, and coherence are required[2]. Proficient writing skills not only empower the learners to put their thoughts effectively on the paper but also achieve academic excellence across various professional domains[3]. Moreover, English language learners often face constraints due to time limitations, which hinder their ability to allocate sufficient time and effort toward improving their writing abilities[4].

The use of Technology in English language classes is widely acknowledged as an effective approach to address the various challenges in the writing process[5]. Sometimes, while drafting important letters or reports, time constraints arise[6]. With the widespread availability of digital tools, the undergraduates have the flexibility of practising their language skills anytime and from any place. AI tool ChatGPT, provides interactive help for enriching writing proficiency and increasing learners' motivation[7].

This paper delves deep into how the AI tool is assisting us and enhancing students' writing skills in English, eventually making them more effective communicators at large. Most of the rural background undergraduate learners struggle while drafting emails, letters, paragraphs, and reports. This gap often results from limited exposure to formal writing practices and inadequate guidance on structuring the sentence and expressing ideas effectively. Despite the importance of writing skills in professional communication, traditional teaching methods often fall short of in addressing the dynamic needs of students in a rapidly evolving digital era. Due to this lacuna, the advent of AI tools has become

very handy in teaching profession. One such tool is ChatGPT, which offers real-time and full-time assistance. With the integration of this tool into the learning process, undergraduate learners can engage themselves in the self-directed learning environment. This approach has the potential to bridge the gap between undergraduate learners' writing abilities and the demands of their academic rigours or professional pursuits. Technology facilitated pedagogical approaches for lecturers[8] and served as a medium for creating a new way of teaching and learning[9]. Hence, the research focuses on how ChatGPT enhances writing skills in English language of the graduates and offers insights into its positive effects in engaging, learning, and performing tasks effectively.

2. Summary of Previous Work

In today's global and digital world, excellent writing skills in English language flourish undergraduates in both academic and professional journeys. English, being the lingua franca of the world, having a good command of the language goes a long way in one's professional sojourn at various stages of one's life. However, teaching and learning writing remain complex and resource-intensive, often constrained by insufficient instructor feedback, large class sizes, and the individual variability of student needs[10]. In such scenarios, artificial intelligence (AI)-based writing tools are the frontrunners, acting as transformative agents in higher education, taking on the challenge to personalize, democratize, and enhance writing instruction.

AI-powered writing assistants, such as ChatGPT developed by OpenAI, take the help of large language models to simulate human-like interactions. It can correct grammar, suggest vocabulary enhancements, summarize content, generate ideas, and offer real-time feedback on writing structure, besides maintaining coherence. Unlike conventional grammar checkers, they possess contextual awareness, enabling them to provide more nuanced suggestions that align with the rhetorical goals of the user. Their widespread adoption points to a shift in how writing instruction is conceptualized and delivered. "AI-based writing technologies are reshaping writing education by offering real-time, context-sensitive support that was once the exclusive domain of human tutors"[11].

The integration of AI tools in English writing education

helps align with contemporary learning theories, especially the constructivist and sociocultural paradigms. Learning is mediated through tools and social interaction. ChatGPT can be viewed as an effective partner in cognitive skills that support learners within their Zone of Proximal Development (ZPD), holding their hands and reinforcing their ability to perform writing tasks that would be difficult to achieve independently[12]. In this sense, AI writing tools serve both as mediators of knowledge and enablers of independent learning.

Writing is not a linear process but a recursive, cognitive activity involving planning, drafting, revising, and editing[13]. The challenges of academic writing—idea generation, organization, syntactic accuracy, and argument development—are particularly pronounced for learners who write in English as a second or foreign language. AI tools like ChatGPT can support these stages by acting as instant facilitators in real-time. "Generative AI systems encourage iterative thinking, enabling learners to revise and refine their writing based on evolving ideas and immediate feedback"[14].

In resource-constrained educational contexts, where the ratio of students to writing instructors is disproportionately high, individualized feedback is often limited. AI tools present a scalable alternative for getting teacher feedback. It is observed that "AI technologies in education can reduce feedback latency and improve instructional responsiveness, especially in large-class or online environments"[15]. Moreover, the flexibility of these tools enables students to receive assistance outside of classroom hours, thereby promoting autonomous and self-regulated learning.

Empirical research increasingly supports the efficacy of AI in improving writing performance. In a quasi-experimental study, researchers found that "students using ChatGPT produced more coherent and lexically diverse essays compared to those who relied solely on traditional instructional methods"[16]. The findings suggest that the tool may enhance not only linguistic features but also the logical structuring of arguments—a core component of academic discourse. Similarly, it is stated that learners who engaged with AI tools as writing collaborators showed greater improvements in clarity and critical thinking than those who used them merely as proofreading aids[17].

All the same, the pedagogical implications of AI-assisted writing are in progress, and critical questions re-

main. One key concern is whether dependence on AI may slow down the development of critical language skills. "The fluency and plausibility of large language models may obscure underlying inaccuracies and bias, encouraging uncritical acceptance of generated content" [18]. This points to the need for an instructional framework that integrates AI tools responsibly—framing them not as substitutes for thinking but as catalysts for a deeper practical approach to the writing process.

Ethical considerations raise their ugly head often, particularly around academic integrity and authorship. With AI-generated content sometimes not differentiated from human writing, universities face new challenges in maintaining originality standards. "Educators must establish clear guidelines for the pedagogical use of AI tools, distinguishing between appropriate assistance and unethical delegation of learning tasks" [19]. Integrating AI literacy into writing instruction—teaching students how to critically evaluate and ethically use AI-generated content—is therefore essential.

Inclusivity is another critical dimension. AI writing tools can offer support to students with learning difficulties, non-native English speakers, and those from under-resourced educational backgrounds. By leveling the playing field in access to high-quality writing support, these tools may contribute to more equitable educational outcomes. "Digital writing tools can serve as cognitive equalizers, particularly for learners marginalized by traditional forms of assessment and instruction" [20].

In the context of undergraduate education, where students are expected to transition from general literacy to disciplinary writing, AI tools may also serve as domain-specific learning supports. Advanced models can simulate academic genres, helping students understand the conventions of drafting letters, essay writing, research reports, and critical reviews. This capacity is especially valuable for first-generation college students and international learners who may lack familiarity with academic discourse norms.

Despite their potential, AI tools should not replace human instruction; rather, they should complement it. Effective integration depends on a balanced approach that blends AI affordances with pedagogical intention. "The promise of AI in education is not to replace teachers but to reimagine teaching and learning in more personalized, responsive, and humane ways" [21]. Thus, faculty training, curriculum design, and in-

stitutional policies must evolve in tandem with technological capabilities.

After the bird's-eye view of AI in general in all sectors, the study brings down to the earth and further down to the topic 'writing skills' to explore how AI is improving the writing skills of students at the undergraduate level. "Writing training tailored to professional contexts such as technical emails and reports is vital for enhancing clarity and audience-specific communication in engineering graduates" [22].

It is stated that AI has drawn interest in the field of language education at present, especially in learning English Language Writing [23]. It focused on the impact of ChatGPT, an AI-powered chatbot, in learning various writing tasks. It further investigates to explore the broader implications and applications of AI in learning English language contexts.

"The impact of AI writing tools on the content and Organization of Student's writing: EFL Teacher's Perspective" [24] was to examine the range of available AI tools and assess their influence on student writing in content and organization, as perceived by EFL teachers. Case study on Qualitative approach, that AI tools and its impact on students' writing quality through Quillbot, Word Tune, Jenni, ChatGPT, Paperpal Copy.ai, proved beneficial in elevating the quality of EFL student writing.

The article on Impact of ChatGPT on ESL students' academic writing skills: a mixed-methods intervention study that the impact of ChatGPT as a formative feedback tool on the writing skills of undergraduate ESL students [25,26]. It focuses on academic writing skills, strengthens and advances theories of feedback as a dialogic tool, and ChatGPT, as a reliable writing tool, and further investigates the impact of ChatGPT on various specific genres and micro aspects of writing.

Hence, the study delves deep into the use of the AI application ChatGPT in English language learning as well as its effect on improving undergraduate learners' technical writing skills. The quality of students' learning process was improved through AI: "Incorporating technology and genre-based instructional approaches offers significant benefits for teaching technical communication effectively, particularly for professional email writing" [27,28]. The development of learners' technical writing abilities through the AI application tool ChatGPT is the main thrust of this research article, especially for drafting emails, letters, paragraphs, and reports.

There is a clear definition of the research objectives and an identification of the research gap.

Effective Writing skill is the bedrock of any undergraduate education. It enhances critical thinking, style, language, vocabulary, and expression. Most of the undergraduates face difficulty in drafting formal communication. Writing is a communication tool, and writing creative text is an exercise of life integration into language or words [29,30]. The writer uses language, depth, and originality to make the text meaningful. Due to the complexity of writing, it is comparatively a difficult skill. Thus, the previous research represents the contributions of earlier researchers, whereas the present work investigates how AI tools can be harnessed to strengthen writing proficiency among undergraduate learners.

3. Research Gaps

By considering all the latest research works on AI tools, this research contributes to the existing literature by shedding new light on the use of AI-generated tool of ChatGPT in academic writing of undergraduates. The research gap identified is that undergraduate learners commit mistakes in drafting letters, emails, paragraphs, and report writing. They lack the writing skills in the English language to draft formal letters required in the everyday workplace. For instance, in writing a letter to the Principal and the Head of the Department regarding a study certificate, bonafide certificate, transfer certificate, or lack of attendance, they make grammatical mistakes, such as tenses, vocabulary, sentence construction, and expression according to the context.

Despite theoretical knowledge, students face challenges in applying appropriate language, structure, not to speak of the writing tone. Nevertheless, after their graduation course, they get on board in software companies with decent designations. Being in reputed roles and in responsible positions, formal and academic writing is mandatory as they need to communicate with higher authorities through emails and reports. They cannot do away from learning correct English writing skills, and learning to write must go beyond graduating from colleges. Teachers or mentors may not be available all the time to correct their written content. Therefore, this problem can be addressed with the application of the AI tool, technology-driven methods, such as ChatGPT. Henceforth, the research aimed to improve the writing skills of the un-

dergraduate learners through the application of the AI tool, ChatGPT. However, the process of monitoring and providing insightful feedback on student writing poses challenges in terms of time, effort, and subjectivity [31,32].

4. Research Objectives

The objectives of the research are:

* To evaluate the standard of academic writing skills in English language of undergraduate learners through pre-test.
* To implement ChatGPT as a tool for guided learning and practice in writing.
* To improve writing skills in the English Language on four topics: letters, emails, paragraphs, and reports.
* To explore students' perceptions of using AI tool Chat-GPT for enhancing writing abilities.
* To measure the improvement in undergraduate learners' writing skills through a post-test.

5. Methodology

The research experiment is conducted for the forty undergraduate learners of Engineering College. Learners hail from rural and urban backgrounds from uneducated and educated families. Their medium of instruction was in English till tenth class, and only a few were from a Telugu medium background. Eighty percent of the students fetched good EAMCET ranks and secured good percentages in Intermediate. Although they have been educated in reputed English-medium schools and convents, their English-speaking skills and academic writing skills leave a lot to be desired. Their writing skills are not on par with that of the knowledge base of their core subjects, such as Maths, Physics, and Chemistry, where, of course, a great deal of emphasis is laid on. They fail to draft letters and emails correctly in their day-to-day life, as they lack depth in written skills in the English language. Hence, the research aims to explore the impact of the application of the AI tool ChatGPT on technical writing skills among undergraduate learners. It focuses on the use of it as a pedagogical tool to enrich their writing skills.

The study examined its effectiveness through a quasi-experimental design with a pre-test to assess baseline skills of forty undergraduate learners. Pre-test on emails, letters,

paragraph writing, and reports was conducted. Then, the learners were given a thorough traditional approach of teaching on each topic before they were being exposed to the AI application tool, ChatGPT, in the English Language lab. Traditional way of teaching method was applied for the detailed explanation on paragraph writing styles, content of composing emails, letters, and news reports. Later, the learners were instructed to draft on their own to the questions given. Later, they were allowed to use the AI technology for writing. Then, they themselves identified a drastic change in their writing skills and the style of writing, grammar, sentence structure, vocabulary, and the coherence given by ChatGPT. All the topics were taught in a three-months course, i.e., during one semester. Hence, the students were taught to write independently and later to acquire ideas and knowledge from AI application tool, ChatGPT. In the same manner, all the controlled group of forty learners practised the selected writing skills topics during English language labs, so that they could learn sentence structure, tenses, and grammar. Then, they experienced how the AI application tool, ChatGPT improved their writing skills. After an interval of three months, a post-test was conducted on the same topics to determine the outcome. "The paper investigates ChatGPT's integration into educational environments, analyzing its benefits for personalized learning and challenges like algorithmic biases and lack of emotional interactions" [33,34]

Table 1 shows rubric assessment of writing skills. The assessment criteria for letter, email, paragraph, and report writing across five levels (very poor to Excellent). It evaluates key aspects such as format, structure, tone, grammar, vocabulary, coherence, and organization, guiding how learners' writing skills are rated and improved.

Table 1. Writing skills rubric(assessment criteria)

Skill Area	1 (Very Poor)	2 (Poor)	3 (Average)	4 (Good)	5 (Excellent)
Letter Writing	No format, irrelevant tone	Errors, some format limited tone	Basic structure, errors in tenses	Proper format, correct tone	Perfect format, appropriate tone, correct tenses
Email Writing	No structure, informal	Lacks etiquette, weak tone	Some etiquette, partially good	Clear subject, etiquette, some standard	Well structured, professional tone, no mistakes
Paragraph Writing	No topic sentence, incoherent	Poor sentence structure	Some unity, basic vocabulary	Clarity, logic, flow	Unity, advanced vocabulary, coherence
Report Writing	No structure, Grammar errors	Weak organization	Basic structure	Well-structured, mostly accurate grammar	Grammarically sound

6. Findings

The findings highlighted the role, importance, and potential of ChatGPT and how it can influence academic and research writing. The researchers saw ChatGPT as an opportunity that would open many new doors for students, teachers, scholars, and researchers. Many studies have realized this potential [35,36]. Like information and communication technology (ICT) and online tools, which have changed the concepts and parameters of literacy and creativity [37,38], the study illuminates that writing skills are as important as speaking skills, and the learners cannot ignore or put them aside for later years. Especially, undergraduate learners have to learn writing effectively to drive home their point, as it is an essential aspect of their education.

Before and after the intervention of AI application tool, tasks were given systematically and assessed. A rubric assessment was done on vocabulary, sentence reconstruction, grammar, and writing style on four topics for each student individually. Some intriguing conclusions were drawn from pre and post-test of Quasi-experiment. Post-test results were better than pre-test. Hence, with an improvement in teaching learning process, the learners found it interesting to learn from the application of the AI tool, ChatGPT.

6.1. Data Analysis

The Rubrics assessment of Skill Area (Letter, Email, Paragraph, and Report) scores on a 1 to 5 scale is assessed. The five-point scale ranging from 1 (very poor) to 5 (Excellent) (**Table 1**). Pre-test and Post-test data of Students 40 (N = 40).

6.2. Descriptive Statistics

Table 2 shows Pre-test Means 1.80 and 2.10, which shows weak performance and Post-test Means (3.12–3.50), which shows a clear shift towards Good to Excellent levels.

Table 2. Pre-test and post-test mean scores of students in four writing skill areas.

Skill Area	Pre-Test Mean (SD)	Post-Test Mean (SD)	N (Students)
Letter Writing	2.05 (0.87)	3.42 (0.81)	40
Email Writing	1.92 (0.90)	3.21 (0.83)	40
Paragraph Writing	2.10 (0.85)	3.50 (0.79)	40
Report Writing	1.80 (0.92)	3.12 (0.87)	40

Table 3 shows that all writing skill areas show highly significant improvement ($p < 0.001$). All the p-values are less than 0.001, confirming statistically significant improvements in every skill area.

Table 3. Results of paired samples t-test for pre-test and post-test scores.

Skill Area	t	df	p-Value
Letter Writing	9.85	39	< 0.001
Email Writing	8.94	39	< 0.001
Paragraph Writing	9.43	39	< 0.001
Report Writing	10.12	39	< 0.001

Table 4 shows the intervention produced large improvements in letter writing, email writing, and paragraph writing, with the strongest effect observed in paragraph writing ($d = 1.13$). Report writing also improved substantially ($d = 0.79$).

Table 4. Cohen's d effect sizes for pre–post improvement.

Skill Area	Cohen's	Interpretation
Letter Writing	0.97	Large Effect
Email Writing	0.89	Large Effect
Paragraph Writing	1.13	Very Large Effect
Report Writing	0.79	Moderate -Large

Figure 1 shows that students' performance improved significantly in all four writing skills after the intervention. Statistical testing confirmed that the differences between pre-test and post-test scores were highly significant ($p < 0.001$). Effect size calculations further demonstrated that the improvements were not only statistically significant but also practically meaningful. The intervention had the greatest impact on paragraph writing, followed by letter writing and email writing, while report writing showed strong result.

Additionally, our observation nuanced students' opinions regarding the use of the application of the AI tool ChatGPT. The aim is to improve technical writing skills in English by using correct sentence structure, vocabulary, sentence reconstruction, style, and tenses. The findings endorse that technical writing abilities can be improved by using it effectively. Numerous studies on its application and efficacy in enhancing writing abilities are the main concerns of the study.

The research presents tables whose results and values validate the research based on feedback taken through Google survey forms. The data analysis aligns the pre- and post-test

sections and offers concrete actions with which instructors and students can maximize ChatGPT's effectiveness for enhancing writing abilities. This article emphasizes the value of AI tools in enhancing learners' writing abilities and the potentiality of revolutionizing education system."The utilization of team-based learning modules in engineering education shows a measurable improvement in students' technical writing skills as evidenced by their lab reports and peer feedback"[39,40].

Table 5 illustrates the specific improvements in students' writing skills across the selected tasks during the experiment. The experimental group demonstrated notable progress in each area of practice. In letter writing, learners acquired competence in applying proper format, maintaining appropriate etiquette, using a formal tone, and strengthening their command of grammar, vocabulary, and tenses. In paragraph writing, students improved their ability to construct well-structured sentences, organize ideas coherently, and apply accurate grammar and vocabulary usage. Similarly, in report writing, learners enhanced their skills in identifying and presenting relevant information, maintaining a formal

and objective tone, and ensuring clarity and precision in sentence structure, tenses, grammar, and vocabulary. Overall, these task-based improvements reflect the effectiveness of the intervention in fostering in writing skills in English language with the integration of AI tools—particularly Chat-GPT. Learners were able to receive immediate feedback, refine their drafts, and internalize effective writing strategies, thereby accelerating their learning outcomes.
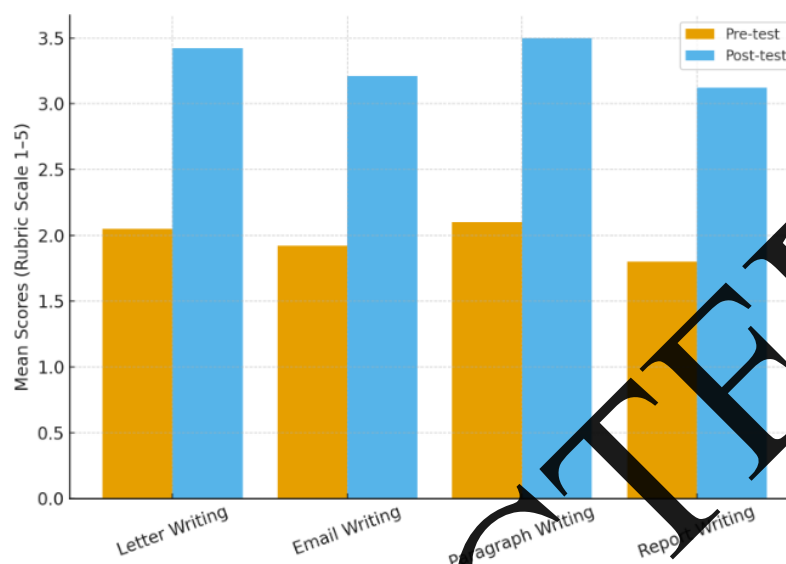
Figure 1. Comparison of pre-test and post-test rubric mean scores.

Table 5. Improvements in writing skills learned from each task.

Topics	Writing Skills Acquired for ChatGPT
Letter Writing	Format, tone, tenses structure, tenses, grammar, vocabulary
Email Writing	Email etiquette, professional tone structure, tenses, grammar vocabulary
Paragraph Writing	Topic sentence, sentence construction, vocabulary tenses
Report Writing	Structure, tenses, grammar, vocabulary

7. Feedback Analysis

To know their opinion, a feedback survey was collected in Google Forms. The majority of the learners were satisfied and learned from ChatGPT tool. They themselves identified the difference in their writing skills in English language after the intervention of AI tool. Later, the learners were more inclined to learn from the AI tool and became more confident in drafting letters and emails.

Figure 2 shows that 69.7 percent of learners draft letter and emails less than a week, and 30.3 percent draft three times a week. The majority of the learners do not draft letters daily.

Figure 3 represents the Y axis with 5 patterns of writing like personal letters, professional emails, formal reports, creative writing, and other and the X axis is on a scale of 0–20

points. The majority of the learners are engage in technical writing: creative writing 51.5 percent, 42.4 percent learners draft personal letters, 36.4 percent for professional emails and 27.3 percent for formal letters.

Figure 4 represents that 78.8 percent of the learners are not aware of the AI tool ChatGPT until it was introduced in English class and 21.2 percent of the learners are already aware of it and using AI tool.

This bar graph in **Figure 5** represents the X and Y axis. X axis is on a scale from 1 to 5, with very unsatisfied to very satisfied. While measuring in percentage, it shows that 43.8 percent of the learners are satisfied by using the application of AI tool ChatGPT to learn technical writing skills of letters, emails, paragraph writing, and news report. Twenty-five percent are highly satisfied, 25 percent are moderate, 6.3 percent are unsatisfied 0 percent are very unsatisfied.
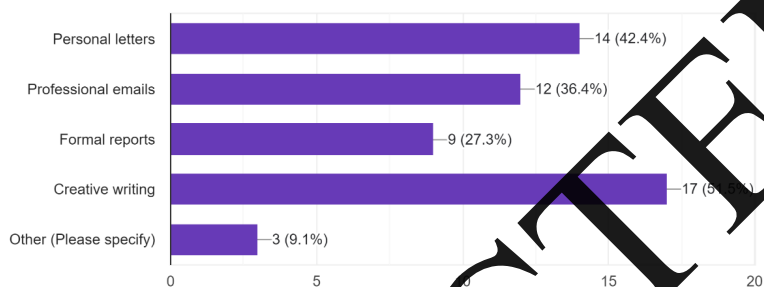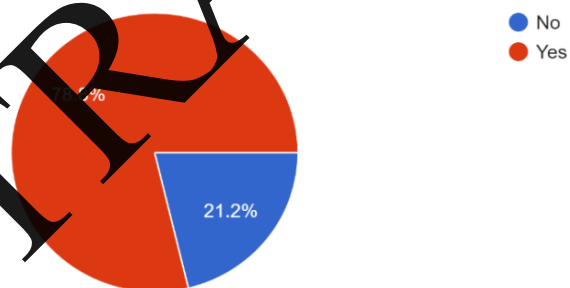
33 responses
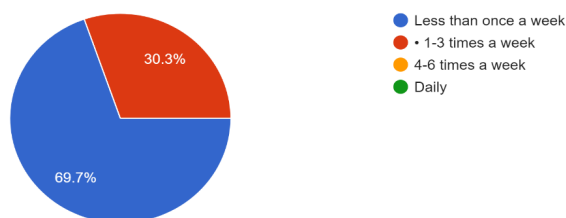
Figure 2. The frequency of learners write letters, emails, or reports in a week.
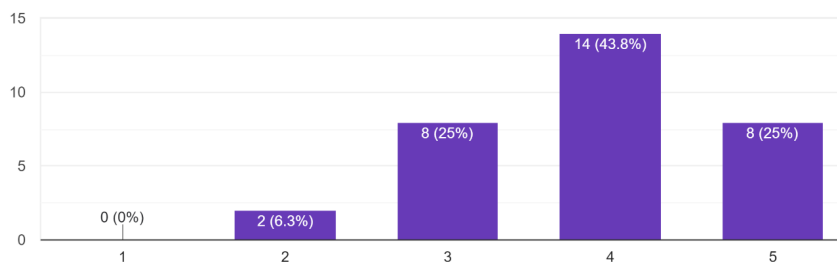
33 responses

Figure 3. Types of writing the learners most often engage in.

33 responses

**Figure 4.** Usage of AI tools for writing.

32 responses

Figure 5. Satisfaction rate on AI writing tools (Rate on scale from 1 to 5, with 1 being very unsatisfied and 5 being very satisfied).

This bar graph in **Figure 6** represents the X and Y axis. On the Y axis, it shows that learners improved writing skills mentioned in the bar graph, on the parameters. The highest percentage of the learners used AI application tool ChatGPT for sentence reconstruction, and 59.4 percent used for vocabulary enhancement.
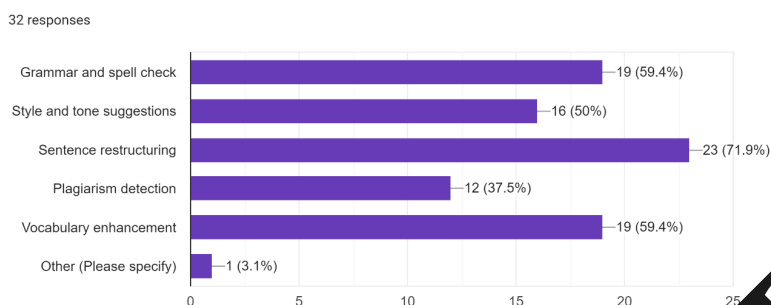
Figure 6. Ways AI tools can help improve writing skills.

This bar graph in **Figure 7** represents that 40. 6 percent learners opinion is that AI application tool ChatGPT is important for improving writing skills, and 15.6 percent are in the opinion that it is very important.
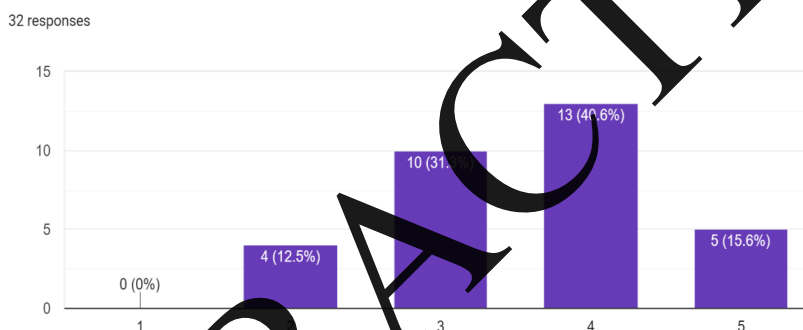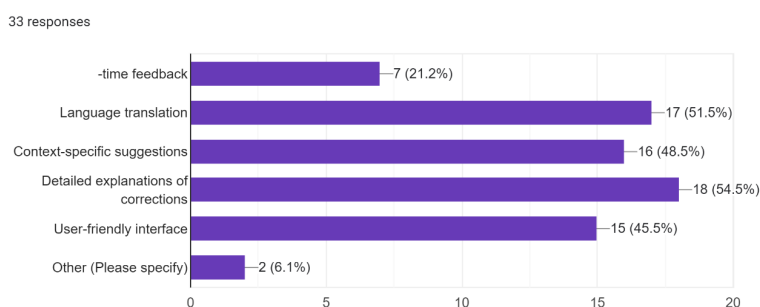

Figure 7. Importance of AI tools in providing personalized feedback on writing (Rate on a scale from 1 to 5, with 1 being not very important and 5 being very important).

This bar graph in **Figure 8** represents the features like by the learners in writing skills. Around 54.5 percent learners like detail explanation of corrections, 51.5 percent like language translation, 48.5 percent prefer context-specific suggestions, and 45.5 percent for friendly interface.

Figure 9 represents that 24.2 percent of learners prefer AI application tool ChatGPT for grammar and style for improving writing skills, 36.4 percent prefer for brainstorming, and 36.4 percent prefer both.

Figure 10 represents the satisfaction of the learners after introducing AI application tool ChatGPT. About 27.3 percent are neutral, 48.5 percent are somewhat positive,18.2 percent are very positive and the remaining 7 percent are somewhat negative.

Figure 8. Features that learners would like to see in an AI writing tool.
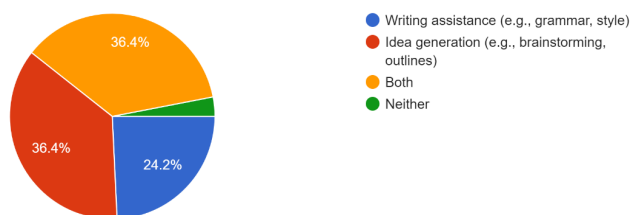
33 responses

- Writing assistance (e.g., grammar, style)
- Idea generation (e.g., brainstorming, outlines)
- Both
- Neither

36.4%

36.4%

24.2%

Figure 9. AI tools usage preference.

33 responses

- Very positive
- Somewhat positive
- Neutral
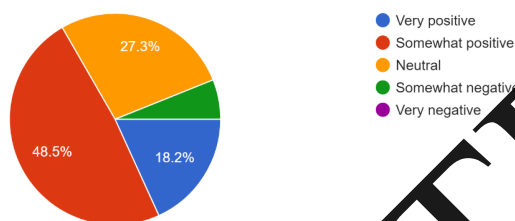- Somewhat negative
- Very negative

27.3%

48.5%

18.2%

Figure 10. Learners' satisfaction with AI-generated content.

Figure 11 shows that the learners received feedback from others after using AI application tool, ChatGPT. 66.7 percent received positive, 27.3 percent did not receive any feedback, and the remaining 7 percent received negative feedback.
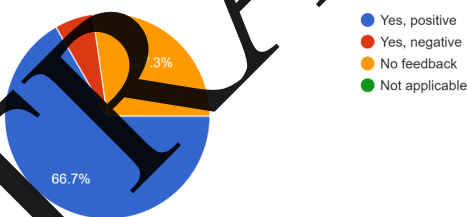
33 responses

- Yes, positive
- Yes, negative
- No feedback
- Not applicable

.3%

66.7%

Figure 11. Feedback on writing skills from others after using AI tools.

Figure 12 shows AI application tool ChatGPT, which saves time. About 33.3 of percent learners are in the opinion that it takes less than 15 minutes, 36.4 percent say that AI tool takes 15–20 minutes, 18.2 percent of learners say that it takes more than one hour, and 12.1 percent learners say that it takes 30–60 minutes.
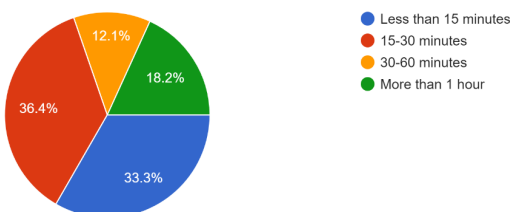
33 responses

- Less than 15 minutes
- 15-30 minutes
- 30-60 minutes
- More than 1 hour

12.1%

18.2%

36.4%

33.3%

Figure 12. Time saved using AI tools in the writing process.

Any additional comments or suggestions on using AI tools to improve writing skills? (Open-ended). Feedback: It is good that the AI bots are used to improve writing skills, but one cannot depend on it alone. And bug related issues must be looked into. AI tools, by all means but we must complement the same with our own thought process. Grammar, spelling check and explanation are good. A little quiz for the learners would suffice better.

8. Future Prospects

This study, in tandem with the analysis of undergraduate learners' brush with ChatGPT as a supportive writing assistance tool, throws up a few recommendations for implementation to benefit in a bigger way from the integration of it in the actual writing practice. It can be integrated into English Language laboratories and blended learning environment. AI-assisted portfolios for drafting and revisions, which enable reflective learning so that grammar, coherence, and academic learning style can be learned.

➢ How can ChatGPT be integrated into English labs and writing modules?
➢ Can AI-based writing portfolios track and improve students' progress?
➢ How effective is ChatGPT in specific writing like reports and case studies?

9. Conclusion

Based on the controlled group of forty learners' Quasi-experiment, the findings resonate that AI tool ChatGPT can be used for improving English writing skills of the undergraduate learners. It involves the learners seriously in learning and facilitates them by solving the problem to cope with the needs of today's world. The present young generation of learners prefers quick learning with less effort. So, the AI tool ChatGPT aids learners in enriching their writing skills in less time. The objectives which are focused on the prime areas of writing topics in their day-to-day life, like letters, emails, paragraphs, and short reports, learners have improved by themselves in using correct usage of tenses, structure, construction, and vocabulary as they are more involved in improving their writing skills by comparing their draft to the AI tool's write-up. They are motivated to learn

with new tools, which is handy and very easy to learn in any place at any time.

Thus, the research proved AI tool ChatGPT encourages an active involvement of the learners. At the end, a survey is also taken from the learners to know their feedback, and most of the responses are positive and satisfactory. Hence, it is one of the effective tools for enhancing technical writing skills among learners. Now that it has been established, through this paper, that harnessing the AI tool ChatGPT enhances English writing skills, it is incumbent on everyone associated with undergraduate education to tap the opportunity and utilise.

This study serves as an examination platform that demonstrates the utility value of ChatGPT as a tool for improving academic writing skills among undergraduate students. As we explore, it has been proven that students who get associated with it are very comfortable, more confident, and have improved a lot. The outcome is that the integration of AI-based writing support into the curriculum drastically changes and significantly improves the writing process of a student. With the aid of it, the writing ability of students has gone many notches higher, and in some studious students, even by leaps and bounds, in different facets of writing. The respective findings of the pre-test and post-test assessing exercises go a long way in the measurable improvement in the overall students' writing skill-set, suggesting that it is a pedagogical tool that is very effective and serves as a wonderful guiding assistant in writing instruction, eventually churning out far better results.

The improvement noticed across multiple writing needs can be attributed to the personalized and iterative nature of AI-supported writing exercise. ChatGPT's nature and the inherent ability to provide instant results and feedback on grammar, vocabulary, coherence, and structure enabled students to revise and upgrade their written stuff in real time. Cognitive process model, which emphasizes the recursive nature of writing and the need for constant revision[41,42]. An AI tool served as a surrogate tutor, guiding students through drafting and redrafting processes that are often under emphasized in traditional classrooms due to ever scarce time constraints.

If one delves a little deeper and takes a critical view, one notices the change in students' attitudes and perceptions towards writing. The majority of participants expressed pos-

itive views about using ChatGPT, highlighting its accessibility, responsiveness, and non-judgmental feedback. In Sociocultural theory, learning is mediated through tools within the learner's Zone of Proximal Development (ZPD)[43,44]. By interacting with ChatGPT, students could engage in self-paced learning, take greater ownership of their writing, and build confidence—factors that are critical for long-term skill development in the writing discipline.

By and large, the concluding piece of the report is that the findings amply demonstrate, beyond any doubt, that ChatGPT is a truly promising as a writing assistant tool in undergraduate education. Notably, it promotes active learning, supports differentiated instruction, and offers scalable solutions for writing practice. All the same, the guiding body must be at the heart of all this and must address appropriately the downside of using AI tools as any new path treaded without adequate checks and balances will have negative affects and sometimes that may be detrimental to the very progress, envisaged and enshrined in the avowed objective of churning out better pieces of writing content in far lesser time. Therefore, successful implementation requires thoughtful integration into pedagogy, including teacher oversight, AI literacy training, and strategies to prevent misuse.

The structured focus on the key writing genres proved effective beyond contemplation in narrowing down the scope of instruction and targeting practical writing competencies. Improvement was most noticeable in paragraph and email writing, where organization and clarity are key to any well-written content. In these formats, ChatGPT provided detailed suggestions that helped students refine their topic sentences, facilitate ongoing transitions, and ensure cohesion. For more formal genres like reports, the tool assisted with structuring content and its organisation, besides adjusting tone and tenor, though some students required additional guidance to interpret and implement the feedback appropriate to their needs.

Despite these positive outcomes, the study also brings out unequivocally several limitations and ethical considerations. A small subset of students showed signs of over-dependence on AI suggestions, occasionally going along with the outputs without critical involvement. This, however, raises doubts about the potential for reduced originality and critical thinking, echoing warnings about the dangers of uncritical trust in AI-generated content. Therefore, it can be said with some concrete evidence that while AI tools enhance the learning skill, they must be guided and led by thoughtfully designed instructional frameworks which brings into play human judgment, ethical use, and academic integrity.

Author Contributions

Conceptualization, S.I.M. and A.V.; methodology, W.S.; software, R.N.; validation, J.W.S.K. and A.J.; formal analysis, S.E.T.; investigation, G.S.W.; resources, A.V.; data curation, R.N.; writing—original draft preparation, W.S.; writing—review and editing, A.J.; visualization, J.W.S.K.; supervision, S.E.T.; project administration, G.S.W.; funding acquisition, S.I.M. All authors have read and agreed to the published version of the manuscript.

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Conflicts of Interest

The authors declare that there is no conflict of interest.

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