

# Student Feedback on the Effectiveness of ChatGPT for Essay Writing

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## Abstract

This paper investigates the students' perspectives on using ChatGPT for essay writing in English among third-grade grammar school students in Belgrade, Serbia. Twenty-two students participated in the study, initially writing an essay without ChatGPT's assistance and then revising it with the tool's help. After completing both essays, the students filled out a questionnaire designed to gather their perceptions of how ChatGPT helped improve their essay writing. The questionnaire was structured with a series of statements related to specific aspects of essay writing, such as essay organization, cohesion and coherence, argument presentation, vocabulary use, and grammatical accuracy. The students responded to these statements using a Likert scale, indicating their level of agreement or disagreement with each statement. The findings suggest that students perceived significant improvements in their essays when using ChatGPT. Notable improvements were reported in the organization of the essay, general introductory sentences, background information usage, topic sentence formulation, generating cohesive paragraphs, and providing arguments supporting their opinions. Additionally, students felt that ChatGPT helped them use better vocabulary and write grammatically correct sentences. Students showed dissatisfaction with ChatGPT when it comes to the text length management and providing personal opinions and opposing views. These results indicate that AI tools like ChatGPT can be valuable aids in educational settings, enhancing students' writing skills and overall essay quality.

## Keywords

ChatGPT, essay writing, students' perceptions, ELT

## 1. Introduction

The integration of AI tools in educational contexts has gained increasing attention, particularly in language learning and writing instruction. Recent research has highlighted the significance of incorporating chatbots, like ChatGPT, into English language teaching (ELT) [1] [2] [3]. Although studies have recognised the importance of using chatbots in ELT, research has yet to systematically investigate the effect it has on language learning. Determining the impacts of its use on learners' language learning is important for the future of language learning theory, lesson planning and pedagogical approaches. While previous studies have acknowledged the potential benefits of chatbots in language learning, there remains a gap in understanding their specific effects on students' writing skills. To address this, the current study focuses on examining students' perceptions of ChatGPT's influence on their essay writing skills in English, with a specific focus on how the tool contributed to key areas such as essay organization, argument elaboration, vocabulary use, and grammatical accuracy.

## 2. Essay Writing Framework

Essay writing is an integral part of English language learning and teaching. Throughout their schooling, students learn how to write various kinds of essays: narrative, cause-and-effect, compare-and-contrast, process, expository, discursive, persuasive, argumentative, etc. Writing essays plays a crucial role not only in developing language skills but also in fostering critical thinking [4] [3]. Argumentation is a fundamental component in many of these types of essays, being equally a key

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link to critical thinking. Asking for strong argumentation in an essay means that students need to explore a topic, gather and analyse evidence, and take a clear stance on the issue in a concise manner; evaluate different perspectives and construct coherent arguments; address several other critical components.

In English language teaching (ELT) context, the Classical (Aristotelian) Model is among the most frequently applied models of structuring argumentative essays. The Classical structure typically consists of five parts: introduction, narration, confirmation, refutation, and conclusion. This practically means that the writer should begin by presenting the issue with a well-defined thesis statement in the introduction, and providing background or context to the issue, followed by paragraphs that each develop a single idea supported by evidence. A key feature of this model is the inclusion of opposing viewpoints; discussing counterarguments and differing opinions strengthens the essay by showing a balanced approach to the topic. Based on this model, one common structure for argumentative essays is the five-paragraph format, often referred to as the hamburger essay or 1-3-1 model. This format includes an introductory paragraph, three body paragraphs that present evidence and opposing views, and a concluding paragraph.

Structuring essays is not the only thing that determines good essay writing: besides good argumentation, equally important are smooth transitions between and within paragraphs (cohesion), strong grammar and language use. It is essential to use clear and logical transitions between sections to ensure that the essay flows smoothly (cohesion is defined as the use of linguistic elements to connect sentences and ideas within a text, ensuring it is understood as a unified whole while coherence refers to the logical flow and clarity of ideas, ensuring that the essay or text makes sense as a whole). Without these transitions, the argument can become fragmented, making it difficult for the reader to follow the reasoning. Needless to say, proper grammar, punctuation, and spelling are essential for a good essay. If the essay is teeming with spelling mistakes or grammatical errors, it will make it difficult to read and impede the intended written communication. Poor range of vocabulary or weak choice of words also reduce the quality of the writing.

All these elements contribute to the quality of essays. Mastering essay writing is a long process and requires a lot of (human) effort. (Un)fortunately, nowadays modern AI technology can contribute a lot on this way. For the last two years, the use of chatbots, such as ChatGPT, has increased generating a googolplex of school essays. On one hand, teachers (especially English language teachers) find ChatGPT a very useful tool for writing practice, vocabulary enrichment and grammar correction [5] [6] [2]; on the other hand, they are concerned about the academic integrity and plagiarism. Research on students' perceptions of using ChatGPT for essay writing reveals a generally positive view [7], with students appreciating the tool's ability to improve their writing processes, particularly in generating ideas, expanding vocabulary, and addressing language issues. The study by Wong found that students used generative AI for assisting with both global (e.g., argument, structure, coherence) and local issues of writing (e.g., syntax, diction, grammar) [8]. It also revealed that students appreciated Chat GPT for reducing grammatical errors and increasing lexical diversity.

Given this foundation, the following study explores how ChatGPT contributes to student writing across several key areas. This study aims to explore how generative AI can improve the different components of students' writing processes. The study examined the following research questions:

1. How do third-grade grammar school students perceive the impact of ChatGPT on improving their essay writing skills in English?
2. In what specific areas of essay writing (e.g., organization, argument elaboration, vocabulary, grammar) do students feel ChatGPT contributes the most?

The findings of this research hold implications for teaching writing and the integration of generative AI tools into English language classrooms.

### **3. Methodology**

#### **3.1. Sample**

This study involved a total of 22 participants, consisting of 12 females and 10 males. All participants were third-grade grammar school students from Belgrade, Serbia. The selection of participants was based on convenience sampling, ensuring that they met the study's requirements. Participants were divided into two categories based on the track they attended at school: Natural Science and

Sociolinguistic track, allowing for a comparative analysis of their responses to ChatGPT’s impact on essay writing. All participants have been studying English as a foreign language for eleven years in the formal schooling system.

Prior to the study, all participants were informed about the nature of the research, and their participation was voluntary.

### 3.2. Research Design

This research followed a quantitative design, using a pretest-posttest approach to evaluate the students’ perceptions of ChatGPT’s role in improving their essay writing. After this phase, the students were given a structured questionnaire about students’ perceptions of how ChatGPT influenced various aspects of essay writing, such as essay organization, argument elaboration, vocabulary, and grammar.

### 3.3. Procedure

The study was conducted in two phases. In the first phase, participants were asked to write an essay in English without the help of ChatGPT. This phase was conducted in class with the teacher. In the second phase, they revised their essays with the assistance of ChatGPT. After completing both tasks, the students filled out an online questionnaire designed to get their perceptions of ChatGPT’s impact on various aspects of essay writing, such as essay organization, argumentation, vocabulary, and grammatical accuracy.

### 3.4. Instrument

The primary data collection tool was a structured questionnaire with a 5-point Likert scale, where 1 represented Strongly Disagree and 5 represented Strongly Agree. The questionnaire comprised 15 Likert scale statements. The statements focused on key areas of essay writing, including discourse structuring (essay organization), argumentation, cohesion and coherence, lexical diversity and grammatical precision (Table 1).

**Table 1**

Indicators used to assess students’ perceptions of ChatGPT’s impact on essay writing

Key areas of essay writing	Indicator
Discourse structuring	1. Using ChatGPT helped me improve my essay organization (structure: introduction, body paragraphs, conclusion).
	2. Using ChatGPT helped me meet the word count requirements.
Discourse structuring	3. Using ChatGPT helped me to use some general sentences at the very beginning that give a good introduction to the topic.
Cohesion and coherence	4. Using ChatGPT helped me apply the funnel technique i.e. write sentences that lead from the general introduction to the focus of the topic.
Argumentation	5. Using ChatGPT helped me formulate a main thesis and clearly define the focus of the topic (the main idea) for the entire essay.
Argumentation	6. Using ChatGPT helped me elaborate on the arguments that support my opinion on a topic.
Argumentation	7. Using ChatGPT helped me to elaborate on the opposite/different opinion from my own regarding the topic.
Discourse structuring	8. Using ChatGPT has helped me to start each paragraph in my essay with a clear idea that is being developed in that paragraph (each paragraph has its own thesis).

Argumentation	9. Using ChatGPT helped me to provide enough supporting arguments in each paragraph in the elaboration (it gave me ideas for arguments, provided facts and examples).
Cohesion and coherence	10. Using ChatGPT helped me to make my paragraphs follow the principle of unity, i.e. each paragraph in the elaboration deals with one idea and there are no sentences that are off topic for the given paragraph.
Cohesion and coherence	11. Using ChatGPT helped me to make the paragraphs in the elaboration coherent, i.e. each paragraph had a logical organization of the text, appropriate linkers, conjunctions and transitions, which help the text flow smoothly.
Discourse structuring	12. Using ChatGPT helped me write the conclusion to summarize the main ideas of the essay.
Discourse structuring	13. Using ChatGPT helped me to express my personal view/opinion in the conclusion.
Lexical diversity	14. Using ChatGPT helped me to use better vocabulary than the one in the first essay.
Grammatical accuracy	15. Using ChatGPT helped me write grammatically correct sentences.

### 3.5. Data Analysis

Data were analysed using descriptive statistics to evaluate the students' overall perceptions. The statistical analyses were performed using Microsoft Excel while charts were generated using add-in ChartExpo within Microsoft Excel for comparative Likert scale data visualization.

### 3.6. Ethical Considerations

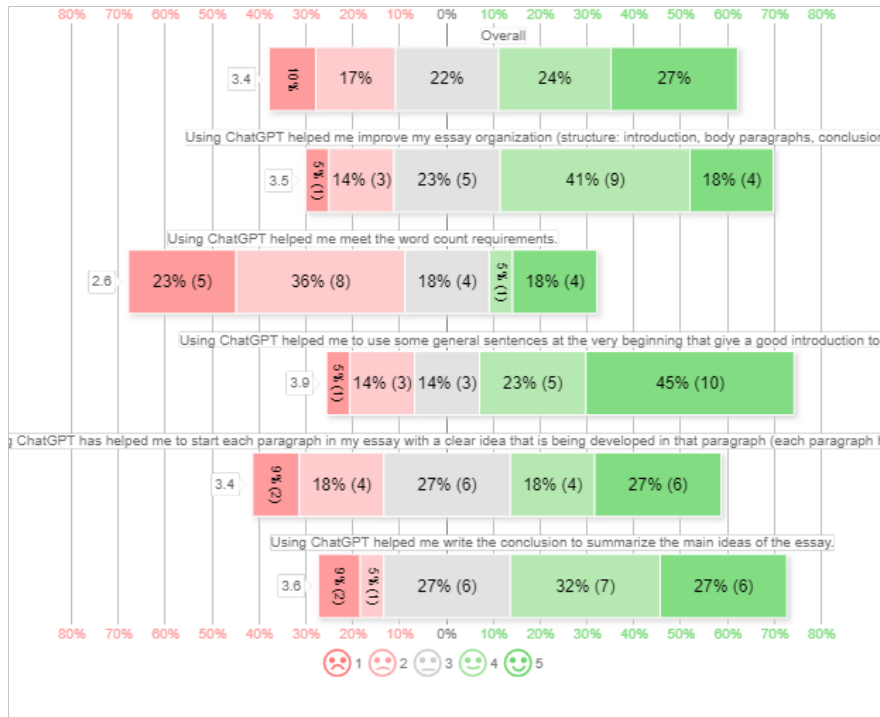
Prior to participation, written informed consent was obtained from all students, and their responses were anonymized to ensure confidentiality. The research was approved by the Ethics Committee of the Institute for Educational Research, confirming that it met the required ethical standards for conducting the study.

## 4. Results

This section presents the findings of the study, based on the participants' responses to the questionnaire regarding their perceptions of ChatGPT's effect on essay writing. The results are divided into key areas of essay writing, that is, discourse structuring (essay organization), argumentation, cohesion and coherence, lexical diversity and grammatical precision.

### 4.1. Discourse structuring

Figure 1 shows the percentage distribution of responses on a Likert scale (1–5) for indicators such as essay organization, meeting word count requirements, generating introductory sentences, starting paragraphs with clear ideas, and writing conclusions. Positive responses (4 and 5) are predominant in most areas except word count adherence, which received the highest negative feedback. The overall average score is 3.4.

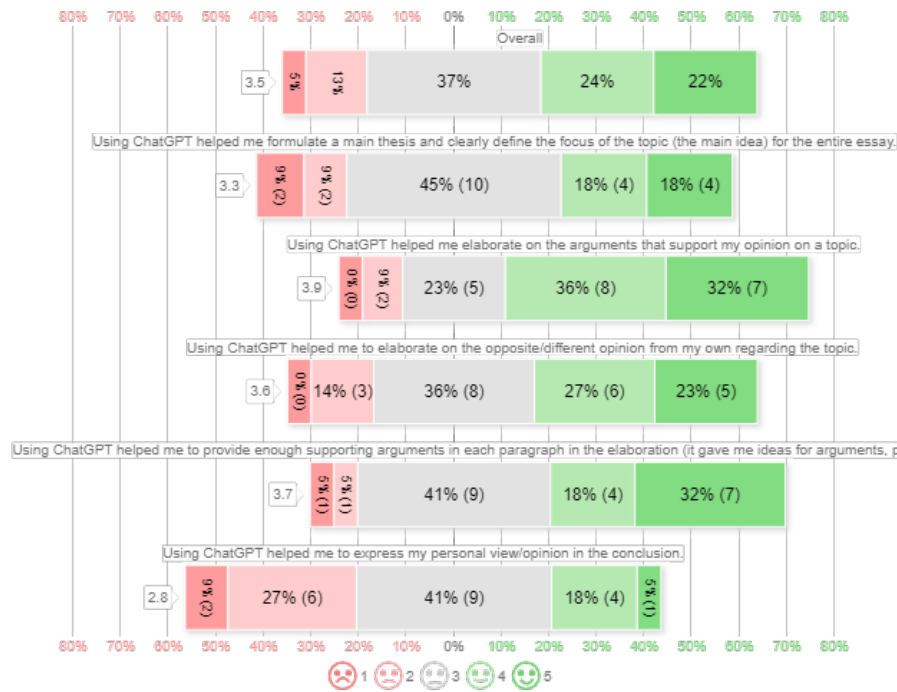


**Figure 1:** Distribution of responses regarding discourse structuring

Overall, a majority of students (51%) rated their experience positively, with 24% selecting 4 and 27% selecting 5. 17% of students were dissatisfied (rating of 1), while 22% were neutral (rating of 3). ChatGPT was perceived as particularly useful in essay organization (59%, 23%, 14% of positive, neutral and negative rating respectively), providing background information (68%, 14% 14%), and writing the conclusion (59%, 27%, 14%). It was seen as less effective in helping students meet word count requirements—this was the lowest-rated area (23% positive, 18% neutral), with many students expressing dissatisfaction (59% negative). For starting paragraphs with clear ideas, a moderate number of students remained neutral (18%), though there was still a notable positive response (45%).

## 4.2. Argumentation

Figure 2 shows the percentage distribution of responses on a Likert scale (1–5) for indicators regarding argumentation, particularly when formulating arguments, developing thesis statements, and expressing personal opinions in essays. The overall average score is 3.5, indicating that most students found ChatGPT helpful but with some mixed results. The majority of responses are neutral or positive, with a significant portion of students rating the tool 4 or 5 on the Likert scale. However, there is a noticeable proportion (13%) of students who rated it 1 (very dissatisfied), signalling that ChatGPT was not universally effective for everyone.



**Figure 2:** Distribution of responses regarding argumentation

The highest satisfaction levels were in ChatGPT’s ability to help students elaborate on their arguments (with an average score of 3.9. 68% of students rated this area positively 4 or 5) and provide supporting ideas for each paragraph (3.7. 59% of students rated this aspect positively 4 or 5, with 32% giving it the highest score 5). This shows that ChatGPT is seen as a helpful tool for developing logical and well-supported essays. The main areas of dissatisfaction are related to personal expression, such as writing conclusions which reflect the students’ personal viewpoints, with an average score of 2.8. 27% of students rated this aspect very negatively (1), and 41% gave it a neutral score (3). ChatGPT also appears to struggle with helping students maintain focus in thesis statements and manage content that reflects personal reflection or interpretation.

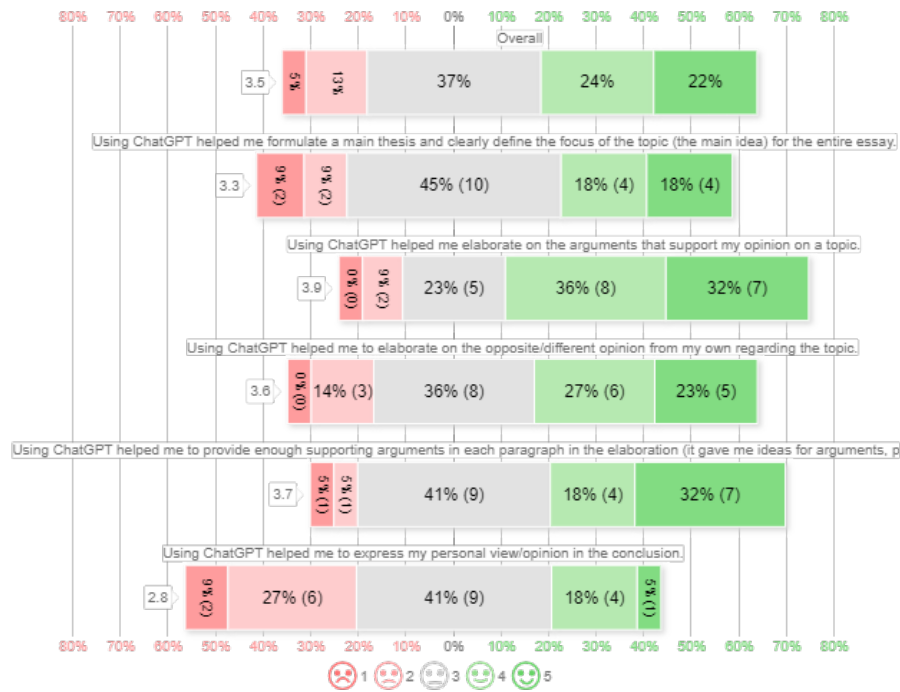
### 4.3. Cohesion and coherence

Looking at Figure 3, several patterns stand out in terms of how students rated ChatGPT’s assistance in the cohesion and coherence of their essays.

For the funnel technique, which involves writing sentences that move from general to specific, the responses are quite mixed. 36% rated this neutrally, while 36% gave a positive rating (4), and only 14% rated it highly (5). The negative ratings (1 and 2) together make up 14%. This suggests that while ChatGPT is somewhat effective in helping with this technique, it’s not universally seen as a strong tool in this area.

When it comes to ensuring that each paragraph follows the principle of unity (where each paragraph deals with one idea), 54% of students rated this positively (4 or 5). However, 41% gave a neutral rating (3), showing that students find ChatGPT somewhat helpful, but not overwhelmingly so, in ensuring paragraph unity.

ChatGPT received the highest praise for helping with coherence and logical organization of text, with 68% of students rating this positively (4 or 5). This is the most positive area in this chart, which aligns with the idea that ChatGPT is good at maintaining smooth transitions and appropriate use of linkers and conjunctions to create a coherent flow.



**Figure 3:** Distribution of responses regarding cohesion and coherence

The overall results from the cohesion and coherence chart indicate that most students found ChatGPT helpful in maintaining paragraph unity and ensuring logical organization, with a majority rating it positively for improving the flow and structure of their essays.

#### 4.4. Grammatical accuracy

As can be seen in Figure 4, students largely had a positive perception of ChatGPT’s impact on their grammatical accuracy. The overall effectiveness of ChatGPT in improving their grammar received an average score of 3.9. 50% of students rated it a 5, indicating that half of the participants found ChatGPT highly effective in enhancing grammatical accuracy. Additionally, 14% rated it a 4, showing further positive feedback. However, 18% of students gave a neutral rating (3), and 14% gave negative ratings (1 or 2), suggesting that while most students benefited from using ChatGPT, a small but significant portion felt either indifferent or unsatisfied with its overall impact.



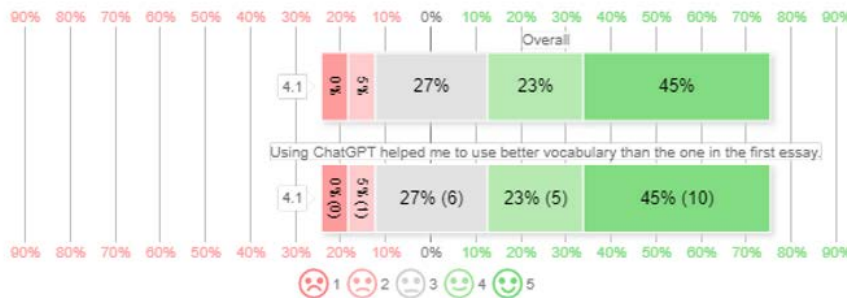
**Figure 4:** Distribution of responses regarding grammatical accuracy

Generally speaking, the results indicate that ChatGPT is widely perceived as a helpful tool for improving both overall essay quality and grammatical precision, though there remains a subset of students who felt less positively about its impact.



## 4.5. Lexical diversity

The data collected from the Likert scale survey show that participants generally believe ChatGPT helped improve their vocabulary. Specifically, 45% of respondents strongly agreed with the statement *Using ChatGPT helped me to use better vocabulary than the one in the first essay*, while 23% held a neutral position. However, 27% of participants strongly disagreed, indicating that a notable portion of users did not perceive a vocabulary improvement. The average score for this item was 4.1, suggesting an overall positive perception, despite some variation in responses.



**Figure 5:** Distribution of responses regarding lexical diversity (vocabulary)

Overall the results indicate that ChatGPT is widely perceived as a helpful tool for improving vocabulary and can contribute to vocabulary improvement.

## 5. Discussion

The analysis of student perceptions across various aspects of essay writing demonstrates that ChatGPT is widely regarded as a helpful tool for improving several dimensions of their writing, with some areas showing stronger perceived benefits than others.

ChatGPT was rated moderately positive in helping students with overall essay organization (average score of 3.5), and particularly effective at generating general introductory sentences (3.9). These findings are supported by some previous research [8]. However, it was perceived as less useful in helping students meet word count requirements, receiving the lowest score of 2.6 in this area. This suggests that while ChatGPT is useful in helping students organize their ideas, it may not provide sufficient control over the length of their writing. Given ChatGPT's ability to generate content quickly, it might have been expected that students would find it helpful for reaching word count requirements. In ELT context, the number of words is deliberately limited and set in the instruction. Producing an appropriate word count is essential for achieving the task's objectives. If the written content falls considerably short, it suggests an unsuccessful completion of the task. Conversely, if the word count significantly exceeds the target, it may indicate issues such as irrelevance, repetition of idea, or poor organization. The students are aware of this fact. The high level of dissatisfaction suggests that students struggled with either over- or under-writing, indicating that ChatGPT may not have been as effective at maintaining precision in the length of essays. This is in line with some previous research highlighting the same challenges ChatGPT faces when it comes to text length management [9] [3].

Students found ChatGPT particularly helpful in elaborating on arguments supporting their opinions, with a high average rating of 3.9. However, its effectiveness in formulating a clear thesis was rated lower at 3.3, indicating that while the tool is strong in helping with argumentative support, it may not be as effective in helping students define the central focus of their essays. Given the importance of a clear thesis in essay writing and the fact that ChatGPT can generate well-structured text, it's surprising that students don't feel as strongly supported in this area. This may point to difficulties in making the AI-generated thesis align with their own ideas or with what they believe is an effective thesis. Furthermore, expressing personal viewpoints in conclusions received the lowest rating (2.8), reflecting a challenge in personalizing AI-generated content. ChatGPT seems to struggle when students need to express more subjective or personalized ideas, which is crucial in conclusion writing. The tool was also less effective in helping them present opposing or different viewpoints (only 50% positive). This could suggest that students are more comfortable using ChatGPT to boost their own opinions but may find it more challenging to use the tool for more



complex tasks like generating counterarguments, which involve a different perspective and critical thinking.

In contrast, ChatGPT's strong performance in helping students generate general introductory sentences and conclusions is noteworthy. Both areas had high positive ratings, with averages of 3.9 each, despite the varied complexity of these tasks. It suggests that while ChatGPT may stumble upon more mechanical tasks like word count adherence, it excels in tasks that require more rhetorical planning and structuring, such as forming introductions and conclusions.

In terms of creating coherent and logically organized paragraphs, ChatGPT performed well, with an average score of 3.7. Students also rated its assistance in ensuring paragraphs followed the principle of unity (i.e., staying focused on a single idea) at 3.6, suggesting that ChatGPT is relatively effective in maintaining textual coherence, though there remains room for improvement in fully addressing paragraph unity and the funnel technique. This indicates that while the tool is good at creating smooth transitions, ensuring that each paragraph sticks to a singular idea (unity) may still require more input from the user. The funnel technique also has relatively low ratings, which is surprising given that ChatGPT is often expected to excel in structuring content. This could suggest that students are looking for more nuanced or personalized guidance that ChatGPT may not fully provide.

The strongest areas of ChatGPT's perceived benefits were in improving vocabulary and grammatical accuracy, both scoring 4.1 and 3.9, respectively. A majority of students felt that ChatGPT helped them use better vocabulary in their essays and write grammatically correct sentences, reinforcing the tool's strengths in these technical aspects of writing. In the same vein, Zebua and Katemba also found out that students believe that ChatGPT helps them in correcting grammatical errors when writing articles [7].

These results suggest that ChatGPT's primary value lies in improving essay structure and specific writing tasks (introductions and conclusions), but it may struggle to support students in more mechanical aspects of writing, such as word count management. It also faces challenges in areas that require deeper personal insight, such as thesis formulation, conclusions, and handling opposing views.

Several limitations need to be noted regarding the present study. Firstly, the sample size in this study was relatively small (only 22 participants), making the results not representative of the broader population. Secondly, convenience sampling may introduce selection bias. Thirdly, the study relies on student perceptions gathered through self-reported data, which can introduce response bias (students may overestimate or underestimate ChatGPT's impact based on their personal experiences). Finally, the study's design does not deal with long-term effects. Further research could explore whether continued use of ChatGPT affects students' independent writing skills over time.

## 6. Conclusion

The purpose of the current study was to explore students' perspectives on the effectiveness of ChatGPT in L2 writing classes. Returning to the research questions posed at the beginning of this study, it is now possible to state that students perceive ChatGPT as a valuable tool for improving various aspects of essay writing, particularly in areas such as vocabulary, grammar, argumentation, and textual coherence. Taken together, the results indicate that ChatGPT is especially useful in helping students structure their essays, generate cohesive paragraphs, and improve grammatical precision. These findings align with previous research suggesting that AI tools can play a supportive role in language learning by assisting with mechanical aspects of writing, such as syntax and vocabulary use.

However, the study also reveals limitations of ChatGPT's ability to help students with more complex and personalized tasks, such as thesis formulation, maintaining focus in arguments, and expressing personal viewpoints in conclusions. These areas are more subjective and require higher-order thinking, which current AI models may not fully support. The lower ratings in these areas suggest that while ChatGPT is a powerful tool for improving basic writing mechanics, students may still require human guidance and critical thinking exercises to master the more nuanced aspects of writing.

Moreover, it is important for teachers to recognize both the strengths and limitations of AI tools like ChatGPT in language instruction. Teachers should focus on using ChatGPT as a complementary

tool that supports the writing process, particularly in improving grammar and vocabulary. However, for more subjective tasks that involve personal reflection and argumentation, teachers may need to provide additional instruction or activities that foster independent critical thinking.

Future research could explore strategies for more effective integration of AI tools into classroom practices, with a particular focus on overcoming the challenges identified in this study. In addition, it would be beneficial to conduct longitudinal studies to determine how continued use of ChatGPT impacts students' overall writing development over time.

In conclusion, while ChatGPT offers significant benefits for improving technical aspects of essay writing, its limitations in addressing more complex cognitive and personal elements highlight the importance of combining AI with traditional pedagogical approaches. By strategically incorporating ChatGPT into the writing curriculum, teachers can help students both become more proficient writers in English and develop the critical thinking skills needed for academic success.

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## Declaration on Generative AI

During the preparation of this work, the author(s) used Chat GPT: Grammar and spelling check at the text blocks at the page 125. After using these tool(s)/service(s), the author(s) reviewed and edited the content as needed and take(s) full responsibility for the publication's content.

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