

INTEGRATING ARTIFICIAL INTELLIGENCE INTO ACADEMIC WRITING PEDAGOGY: INSIGHTS FROM FOURTH-SEMESTER UNIVERSITY STUDENTS

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ABSTRAK

Integrasi Kecerdasan Buatan (*Artificial Intelligence/AI*) dalam pendidikan tinggi semakin memengaruhi cara mahasiswa dalam melakukan penulisan akademik. Meskipun penggunaan alat seperti ChatGPT terus meningkat, studi empiris yang mengkaji persepsi mahasiswa universitas terhadap penulisan akademik berbantuan AI dalam konteks *EFL (English as a Foreign Language)* di Indonesia masih terbatas. Penelitian ini bertujuan untuk menyelidiki persepsi mahasiswa semester empat Program Studi Bahasa Inggris Universitas Islam Indragiri terhadap penggunaan AI, khususnya ChatGPT, dalam pembelajaran penulisan akademik. Dengan menggunakan pendekatan kuantitatif deskriptif, data dikumpulkan melalui kuesioner yang dibagikan kepada 21 mahasiswa dan dianalisis menggunakan teknik statistik deskriptif. Penelitian ini difokuskan pada tiga aspek persepsi, yaitu penyerapan stimulus, pemahaman, dan evaluasi. Hasil penelitian menunjukkan bahwa mahasiswa secara umum memiliki persepsi positif terhadap penggunaan AI dalam penulisan akademik. Mereka mengakui AI sebagai alat yang membantu meningkatkan kualitas tulisan, efisiensi, dan pemahaman struktur, sekaligus menunjukkan kesadaran terhadap keterbatasannya serta perlunya revisi kritis. Meskipun sebagian kecil mahasiswa mengungkapkan kekhawatiran terhadap ketergantungan berlebihan dan kepuasan pribadi terhadap hasil tulisan berbantuan AI, respons secara keseluruhan menunjukkan penggunaan AI yang bertanggung jawab dan reflektif. Penelitian ini memberikan kontribusi teoretis terhadap diskusi tentang pembelajaran bahasa berbantuan AI dan secara praktis menawarkan wawasan bagi pendidik dalam mengintegrasikan alat AI sebagai sumber pendukung dalam pembelajaran penulisan akademik.

Kata kunci: Kecerdasan Buatan, Penulisan Akademik, Persepsi Mahasiswa, ChatGPT, Pendidikan Tinggi

ABSTRACT

The integration of Artificial Intelligence (AI) in higher education has increasingly influenced the way students approach academic writing. Despite the growing use of tools such as ChatGPT, empirical studies examining university students' perceptions of AI-assisted academic writing in the Indonesian EFL context remain limited. This study investigates the perceptions of fourth-semester English Study Program students at Universitas Islam Indragiri regarding the use of AI, particularly ChatGPT, in learning academic writing. Adopting a descriptive quantitative approach, data were collected through a questionnaire distributed to 21 students and analyzed using descriptive statistical techniques. The investigation focused on three aspects of perception: stimulus absorption, understanding, and evaluation. The findings reveal that students generally demonstrate positive perceptions toward the use of AI in academic writing. They recognize AI as a helpful tool for improving writing quality, efficiency, and structural awareness, while also showing awareness of its limitations and the need for critical revision. Although a small number of students expressed concerns about over-reliance and personal satisfaction with AI-assisted outputs, the overall responses suggest a responsible and reflective use of AI. This study contributes theoretically to discussions on AI-assisted language learning and practically offers insights for educators in integrating AI tools as supportive resources in academic writing instruction.

Keyword: Artificial Intelligence, Academic Writing, Student Perception, ChatGPT, Higher Education

INTRODUCTION

English has long been considered as a global language, taking role as a key medium of communication in international settings, including education, business, and science. As globalization spreads rapidly, English proficiency becomes increasingly essential for students in higher education, not only as a means of communication but also as a tool for academic achievement. In the context of English as a Foreign Language (EFL), particularly in countries like Indonesia, students are expected to develop four core language skills: listening, speaking, reading, and writing. According to Alqahtani (2019), writing is often regarded as the most complex and difficult skill to master, because it demands the correct understanding and application of sentence structure, cohesion, and coherence. Furthermore, mistakes are more visible in writing than in speaking, making them harder to conceal, especially for EFL (English as a Foreign Language) learners. Writing is a process that involves thinking, organizing, drafting, revising, and editing in order to convey ideas in a structured and meaningful way (Hyland, 2016). Unlike speaking, which is spontaneous and immediate, writing demands more careful planning and consideration of grammar, vocabulary, and coherence.

In the higher education fields like university level, it is considered as academic writing. Academic writing is the essential skill to master, especially for advanced education level students since it helps to fulfil the requirement for final project thesis in bachelor degree. According to Nesi and Gardner (2018), academic writing is a complex activity involving both cognitive and metacognitive processes, requiring the integration of subject knowledge, organization, and critical reflection. Furthermore, Wingate (2015) states that academic writing focuses on the types of texts students are expected to produce at university, which demand not only linguistic accuracy but also disciplinary understanding and critical engagement. This shows that writing, especially

academic writing, requires not only language skills but also critical thinking and structured reasoning. Involving planning, drafting, and revising, it becomes clear that successful academic writing cannot be achieved without a deep understanding of how ideas are logically organized and linguistically expressed. Therefore, mastering writing is not just about grammar and vocabulary, but about developing the skills to think clearly and communicate effectively in written form.

Artificial Intelligence (AI) is one of the products in the advance technology in modern era. Artificial Intelligence (AI) becomes a very popular tool in the early 21st century as it is a very helpful platform which can assist human activities. Pratikno (2017) explains AI as a technology can be used by humans as a mobile assistant like a robot but its existence is a virtual display in a computer system. It means that AI is a medium that can help human activity like robot, but its appearance cannot be seen since it merges within computer system. Chat GPT, Blackbox AI, and Gemini AI by Google are the fine examples of AI becoming a helpful tool which can assist human in terms of providing information. Moreover, AI can also imitate human action. It is in a line with Bedy & Iwan's theory (2021:21) that define AI as a technology that allows machines to simulate human behaviour. In conclusion, Artificial Intelligence is a popular modern tool that can mimic human's attitude at the same time assist human's activity virtually. However, this study focuses on student's perception toward the usage of AI specifically Chat GPT AI.

In case of perception, there are some theories according to experts. Perception is a meaningful process that begins with the reception of stimuli through the five senses and continues through internal cognitive activities such as organizing and interpreting the information received. According to Goldstein and Brockmole (2017), perception is not a passive reception of stimuli but an active process of constructing meaning based on expectations, experience and environmental factors. Meanwhile, Schacter et al

(2019) assert that perception is not only about sensing stimuli but also about how the brain organizes, interprets, and gives meaning to these stimuli based on prior experiences, current mental states, and learned knowledge. Thus, perception can be understood as a dynamic interaction between external sensory stimuli and internal mental mechanisms, resulting in a subjective interpretation or impression of an object, event, or situation.

Several studies with common aim have been occurred. First from Santi Pratiwi et al. (2023) the study conducted in Semarang, Central Java, with 58 participants from three different senior high schools showed that the result was positive, the students have a favourable view of the usefulness, ease of use, and their attitude towards AI technology in academic writing classes. Then, from Andrew et al. (2025) also showed the same positive result in students' perception, it is explained that Artificial Intelligence had already becoming the part of student's academic life. However, another study by Heather et al. (2024) showed a contrast result, it was shown that the students did not really understand about etique and wisdom on using AI. Key points that differentiate this research and the previous studies are the sample, this research will aim to university students instead of high school students, then the place, some of the previous studies were conducted aboard like England, and Ecuador, this research on the other hand will aim the Indonesian university level-students which can be a gap. Therefore, this study is expected to offer a new perspective on how Indonesian university students perceive the use of AI in academic writing, addressing a contextual and educational level gap found in previous research.

METHOD

This research will use descriptive or survey design with quantitative approach. According to Creswell and Creswell (2018), descriptive quantitative research aims to provide a detailed account of a phenomenon by systematically collecting numerical data and analyzing it to identify patterns

and relationships. It is used to describe what is happening, focusing on specific variables or conditions within a particular situation. Continuously, Sugiyono (2019), describes descriptive quantitative research as an approach that maintains consistency with the research variables, focuses on current issues and ongoing phenomena, and presents the research findings in the form of meaningful numerical data. The participants of this research are twenty-one students of English Study Program in fourth semester at Universitas Islam Indragiri.

In collecting data, researcher use questionnaire as the instrument. According to Sugiyono (2019), questionnaire is the technique of collecting data which conducted with distributing written set of questions or statements to the respondents or samples. The questionnaire consists of three indicators which are; Absorbption of stimulus or objects from outside the individual, Understanding, and Assessment or Evaluation (Bimo Walgito, 2010). There are fifteen statements that created and designed based on indicators with Likert Scale form to measure the perception.

In analyzing the data, researchers use the descriptive statistical analysis to determine mean score, standard deviation, and percentage. Sugiyono (2017).

Table 1. Students' Perception Interpretation

No	Range of the total Mean Score	Amount of Agreement	Interpretation
1	3.26 – 4.00	Very High	Positive Perception
2	2.51 – 3.25	High	
3	1.76 – 2.50	Low	Negative Perception
4	1.00 – 1.75	Very Low	

RESULT AND DISCUSSION

Results

This study aims to find out the university students' perception on the usage of AI in learning academic writing. Using numeric statistical data and interpretation to confirm the expected output. The results below can be seen as the overall data of participants.

Table 2. The students' responses on the absorption of stimulus or objects from outside the individual.

No	Items	Percentage (%)			
		SA	A	DA	SDA
1	I am aware of the existence of AI features such as ChatGPT that can assist in academic writing.	28,6 %	71,4 %	0 %	0 %
2	I have seen or used AI-based applications in learning academic writing.	33,3 %	57,1 %	9,5 %	0%
3	I understand that AI can help check the grammar and sentence structure of my writing.	33,3 %	52,4 %	9,5 %	4,8%
4	I felt interested when I first saw AI features related to academic writing.	4,8 %	76,2 %	19 %	0%
5	I can directly recognize the benefits of using AI when it is applied to academic assignments.	9,5 %	90,5 %	0%	0%

Table 2 illustrates the distribution of students' responses concerning their perceptions of AI in academic writing, summarized across five key statements. In the first item, all participants expressed agreement, with 28.6% *strongly agree*, 71.4% *agree*, no response to *disagree*, and *strongly disagree*, reflecting that they are aware of AI tools like ChatGPT as academic writing aids. For the second item, a significant portion with 33.3% *strongly agree* and 57.1% *agree* that they had seen or used AI-based applications in their writing activities, though a small minority 9.5% *disagree*. On the third item, there are more various responses

from samples, with 33,3% *strongly agree*, 52,4% *agree*, 9,5% *disagree*, and 4,8% *strongly disagree*. On statement no.4, 4,8% *strongly agree*, 76.2% *agree*, and 19% *disagree* that they were interested upon first seeing AI features related to academic writing. Lastly, for statement no.5, 9.5% answered *strongly agree* and 90.5% *agree*, with none choosing disagreement options, indicating that all students could directly recognize the benefits of using AI in academic tasks. In sum, these results reflect the students' positive perceptions of AI in supporting academic writing activities.

Table 3. The student's responses percentage on understanding.

No	Items	Percentage (%)			
		SA	A	DA	SDA
6	I understand how AI works in helping to construct sentences or paragraphs in academic writing.	14,3 %	61,9 %	23,8 %	0%
7	I can distinguish between ideas I created myself and suggestions provided by AI.	23,8 %	76,2 %	0%	0%
8	I feel that using AI helps me better understand the structure of academic writing.	23,8 %	71,4 %	4,8 %	0%
9	I understand that AI-generated writing still needs to be revised and adjusted to fit academic assignments.	52,4 %	47,6 %	0%	0%
10	I know how to use AI effectively to support scientific writing learning.	14,3 %	81%	4,8%	0%

Furthermore, Table 3 presents the distribution of students' responses regarding their understanding of how AI supports academic writing. The data are summarized across five keys

statements. For statement number six, the majority of students for statement no. 6, the majority of students 61.9% agree and 14.3% strongly agree that they understand how AI works in helping to construct sentences or paragraphs in academic writing. However, 23.8% still disagree, suggesting that while most students grasp the function of AI in sentence construction, a portion remains uncertain or unconvinced. In statement no. 7, a high percentage of students 76.2% agree and 23.8% strongly agree that they can distinguish between their own ideas and those suggested by AI. None of the participants selected disagree or strongly disagree, indicating full confidence among all respondents in recognizing AI-generated content versus their own contributions. Statement no. 8 shows that 71.4% of students agree and 23.8% strongly agree that using AI helps them understand the structure of academic writing. Only a small percentage 4.8% selected disagree, suggesting that almost all students find AI beneficial in improving their understanding of academic structure. In statement no. 9, more than half of the students 52.4% strongly agree and 47.6% agree that AI-generated writing still requires revision and adjustment to meet academic standards. No respondents selected any disagreement options, demonstrating strong awareness among students of the limitations of AI-generated content and the need for critical review. Lastly, for statement no. 10, 81% of students agree and 14.3% strongly agree that they know how to use AI effectively to support scientific writing. Only 4.8% disagree, with no respondents choosing strongly disagree, indicating a generally high level of confidence in using AI tools for academic purposes. In summary, the responses in Table 3 reflect that students' positive understanding of AI's role and functionality in academic writing, while also recognizing the necessity of human oversight and revision.

Table 4. The student's responses percentage on assessment or evaluation

No	Items	Percentage (%)			
		SA	A	DA	SDA
11.	In my opinion, AI is very helpful in improving the quality of my academic writing	19 %	76,2 %	4,8 %	0%

12.	I believe that using AI makes the writing process easier and more efficient	19%	76,2%	4,8%	0%
13.	I feel satisfied with my writing after receiving assistance from AI.	9,5%	61,9%	23,8%	4,8%
14.	I believe that the use of AI has a positive impact on my academic writing skills.	28,6%	66,7%	0%	4,8%
15.	I believe that AI can be used as a supporting tool in academic writing learning at the university level.	38,1%	61,9%	0%	0%

Table 4 displays the percentage of students' responses regarding their attitudes and feelings toward the use of AI in academic writing, based on five statements. For statement no. 11, a vast majority of respondents indicated positive perceptions, with 76.2% agree and 19% strongly agree that AI is helpful in improving the quality of their academic writing. Only 4.8% chose disagree, and none selected strongly disagree, reflecting a general agreement about the supportive role of AI in enhancing writing quality. In statement no. 12, responses mirrored the previous item. Again, 76.2% agree and 19% strongly agree that AI makes the writing process easier and more efficient. A very small fraction 4.8% disagree, and none strongly disagree, suggesting strong confidence in AI's ability to streamline the writing process. For statement no. 13, student satisfaction showed more variation. While 61.9% agree and 9.5% strongly agree that they feel satisfied with their writing after receiving AI assistance, a notable portion 23.8% disagree, and 4.8% strongly disagree. This indicates that although most students are satisfied, a considerable minority still feel hesitant or less fulfilled with AI-assisted outputs. Statement no. 14 shows that the majority of students perceive a positive impact of AI on their writing skills, with 66.7% agree and 28.6% strongly agree. Only 4.8%

strongly disagree, while no students selected disagree, reinforcing the idea that AI tools are seen as beneficial for skill development in academic writing. Lastly, in statement no. 15, students overwhelmingly support the use of AI as a supporting tool in university-level academic writing. The largest proportion of strongly agree responses appears here 38.1%, along with 61.9% agree, and no disagreement responses at all. This highlights strong student endorsement for integrating AI tools in higher education writing instruction. In summary, the results in Table 4 emphasizes students' overall positive attitudes toward AI in enhancing the quality, efficiency and skill building aspect of academic writing although some reservation remind regarding personal satisfaction with AI-assisted outputs.

Table 5. Descriptive Statistic of the Students' Perception on The Usage of AI in Learning Academic Writing.

Indicator	Std. Deviation	Mean	Overall Mean Score	Criteria
The absorption of stimulus or objects from outside the individual	0,62	3,15	3,16	Positive Perception
Understanding	0,63	3,2		
Assessment or Evaluation	0,71	3,12		

Table 5 above shows the overall statistical score found by the researchers. It reflects how is the students' perception towards the usage of AI in learning academic writing. As shown by the results, it can be summarized that the students have a good perception engaging with AI while studying academic writing, proven by each mean scores, as seen in indicator one with mean score of 3.15, indicator two with 3.2, indicator three with 3.12 mean score, lastly overall indicators mean score with 3.16 that can be interpreted as a good output. Moreover, rate of data distribution is also shown within the table labelled as Standard Deviation. Indicator one with 0.62, continued with indicator two with an almost similar result with the score 0.63, and lastly from indicator three with 0.71 standard deviation score. So, in terms of data

distribution, the samples are mostly having the common answers. In short, fourth semester students in English study program at Islamic University of Indragiri indicate a good point of view in using AI while learning academic writing, at the same time have the primarily the same opinion of it.

DISCUSSION

The results of this study show that fourth-semester students in the English Study Program at Universitas Islam Indragiri have a mostly positive opinion about using Artificial Intelligence (AI), especially ChatGPT, for academic writing. This is similar to what Santi Pratiwi and her team (2023) found in their research with high school students in Semarang. In both studies, students said that AI tools are helpful and easy to use, especially for checking grammar, giving structure, and helping with ideas. This study also agrees with the research by Andrew et al. (2025), who found that students are already using AI as part of their daily academic life. Just like in Andrew's research, students in this study don't just use AI they are comfortable and confident using it in their writing activities. Many students in this study said they understand how AI works and believe it is useful, showing that AI is now seen as a normal learning tool, not just a new or strange thing.

However, this study gives a slightly different view compared to Heather et al. (2024). Heather's study showed that many students did not really understand the ethical (right and wrong) use of AI. But in this study, students seem more aware of AI's weaknesses. For example, most students agreed that AI-generated writing still needs to be edited to fit academic rules. This shows that the students are not just using AI blindly They are also thinking critically about its results. This difference may be because Heather's study looked at students from many countries, while this study focused only on university students in Indonesia. Another difference is in how satisfied students feel. Heather's research showed that some students depend too much on AI and their writing becomes worse. In this study, the students gave mixed answers. Most were happy with AI-assisted writing, but some were still unsure specially in response to statement no.13, where opinions were more divided. This means that while many students find AI helpful, some are still careful about fully

trusting it. This kind of careful thinking is good and can help students grow in their academic skills. Also, this study adds something new to previous research. While many earlier studies focused on students from other countries or high school students, this research looked at Indonesian university students, especially for English study program students at Universitas Islam Indragiri. So, it not only supports what past studies found, but also gives a better understanding of how AI is used in a different place and learning environment.

In summary, this study supports earlier research by showing that students see AI in a positive way for academic writing. At the same time, it adds new ideas by showing that students are becoming more aware of how to use AI responsibly and wisely.

CONCLUSION

This research was done to find out how fourth-semester students in the English Study Program at Universitas Islam Indragiri feel about using Artificial Intelligence (AI), especially ChatGPT in learning academic writing. The results show that most students have a positive opinion about using AI as a helpful tool in writing. Many students already know about AI and have used it in their academic tasks. Students understand how AI works, such as helping them write better sentences, fix grammar mistakes and give suggestions to organize their ideas. They also know the difference between their own ideas and the ideas given by AI, which means they use AI wisely and not just depend on it completely. They feel that AI helps make their writing better and faster to complete and although a few students are unsure or not completely satisfied with the results from AI, most of them still think it is useful and practical. They also understand that writing from AI still needs to be edited and changed to match academic standards, showing that they have a responsible attitude when using AI. In conclusion, students have a good opinion about using AI, especially ChatGPT in writing. They use it to support their learning, but they also think carefully about how to use it properly. This means AI can be a good support tool for writing in university, as long as students get the right guidance.

This research only focuses on fourth semester students in English Study Program at Universitas Islam Indragiri. Thus, researchers

strongly recommend for future researcher to expand the range of population and sample to create a more reliable result. Then, researchers also suggest to add another variable to continue this research, variable like wisdom or attitude of students are the great variables to expand this research. Lastly, next researcher can compare the quality of writing from the students who use AI and who do not use AI, to discover the effectivity of AI in enhancing writing proficiency in real life.

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