

Exploring Similarities Between AI-Generated Writing and Students' Writing in Producing Descriptive Text at Hamzanwadi University

Firna Reswita¹, M. Adib Nazri², M. Junaidi Marzuki³, Ari Prasetyaningrum⁴

Universitas Hamzanwadi, Indonesia

¹ firnar.210202103@student.hamzanwadi.ac.id, ² adibnazri88@gmail.com,

³ marzuki.mjunaidi@hamzanwadi.ac.id, ⁴ rheafanny1981@gmail.com.

Abstract

This study explores the similarities between descriptive texts written by second-semester English education students at Hamzanwadi University and a text generated by ChatGPT in response to the same writing prompt. Using a qualitative descriptive method, seven student texts selected from fifteen submissions and one AI-generated text were analyzed with the IELTS Writing Band Descriptors, focusing on Task Response, Coherence and Cohesion, Lexical Resource, and Grammatical Range and Accuracy. The findings indicate that both texts shared similarities in addressing the task, maintaining coherence, using descriptive vocabulary, and applying varied sentence structures, although the AI-generated text demonstrated greater lexical variety and fewer grammatical errors. These results suggest that AI-generated writing can serve as a supplementary model for students in developing descriptive writing skills, while teacher guidance remains crucial to ensure critical and effective use of AI tools.

Keywords: Descriptive Text; AI-Generated Writing; ChatGPT; Similarities; IELTS Writing Band Descriptors

INTRODUCTION

Writing is a complex and productive skill that requires learners to use grammar, vocabulary, content knowledge, organization, and coherence simultaneously (Harlena et al., 2020). All of these components must be considered to support students' achievement in writing and can help students in composing and organizing their writing. In addition, writing is one of the English skills that must be taught regularly, but some students consider writing as a skill that is challenging skill to learn due to their lack of vocabulary, limited understanding of grammar rules (Nova, 2018; Ardhita & Sari, 2025) and difficulties organizing ideas logically (Indah, 2022). These challenges become especially visible when students are asked to produce specific text types, such as descriptive texts, which require attention to structure, detail, and language features.

Descriptive text is a genre of writing that aims to describe and reveal the characteristics of a particular person, place, object, or specific event. In descriptive text, there are generic structures such as Identification and description (Sipayung et al., 2021) and language features that differentiate it from the other kind of text (Rohman & Rizqiya, 2021). In addition, in producing descriptive text, (Syifa et al., 2022) stated that most of the mistakes made by students in producing descriptive text are due to lack of vocabulary, lack of grammar skills, and students writing in hurry. Then, lack of motivation and practice in learning are also factors in these difficulties (Waruwu, 2023). Faced with these difficulties, there are many strategies that students can use to improve their writing skills, and one of the emerging solutions is the use of Artificial Intelligence (AI).

Artificial Intelligence or AI is the capacity of a computer in identifying patterns and take actions based on available data and statistical models (Hassani et al., 2020). In this digital era, AI plays an important role in various aspects of human life, including education. As quoted by Holmes & Tuomi (2022), the 21st century has experienced a significant transformation through digital technology that is increasingly integrated into the teaching and learning process at all levels of education. This integration not only changes the way knowledge is delivered, but also the way students interact with learning materials and develop important skills. In the context of education, AI presents promising opportunities to improve educational outcomes, particularly in the field of writing.

However, despite the advantages of AI-generated text, there remain concerns among educators and researchers regarding originality, authenticity, and the potential impact on students' writing development. While AI can produce grammatically accurate texts, questions arise about how closely these outputs resemble actual student writing in terms of structure, vocabulary, and coherence. As AI becomes more common in academic settings, it is important to examine the similarities between AI-generated writing and students' writing. Given this context, researcher is instrest to conduct a study at Hamzanwadi University that aims to investigates how these two sources of writing align, focusing on key features such as content, organization, grammar, vocabulary and mechanics.

Previous studies have examined the comparison between AI-generated and human-written texts from various perspectives, with a particular focus on academic writing and educational contexts. Amirjalili et al., (2024) compared essays written by students and ChatGPT, finding that while AI produced relevant content, it lacked depth, specificity, and accurate referencing. Similarly, Goulart et al., (2024) analyzed student and AI-generated assignments in academic literacy courses using multidimensional analysis, highlighting both convergence and divergence in lexical density, cohesion, and academic tone across genres. More recently, (Durak et al., 2025) investigated AI- and human-generated texts in educational settings, showing that human writing demonstrated greater complexity while AI texts were more easily identifiable by detection models such as BERTurk. While these studies share common ground in comparing AI and human writing, applying linguistic frameworks, and focusing on educational contexts, none have specifically analyzed descriptive texts using the IELTS rubric. To address this gap, the present study narrows its focus by examining descriptive texts as a genre, employing the IELTS Writing rubric, exploring similarities rather than differences, and targeting Indonesian EFL university students. Based on the discussion above, this study seeks to address the research question into, "What similarities can be identified between student-produced descriptive texts and an AI-generated text produced by ChatGPT in response to the same writing task?"

METHOD

This study employed a qualitative descriptive design to explore similarities between AI-generated and student-written descriptive texts. A qualitative approach was chosen as it enables detailed exploration of meanings and contexts (Creswell & Creswell, 2022; Denzin & Lincoln, 1998). More specifically, this study adopted a qualitative descriptive design, which emphasizes staying close to the data, using minimal interpretation, and organizing findings into meaningful themes (Cresswell & Creswell, 2022, p.2). This design was therefore appropriate for capturing and presenting straightforward descriptions of textual similarities without heavy interpretation or numerical measurements. The participant of this study were second-semester students from the English Education Study Program at Hamzanwadi University. The focus was on Class D, which consisted of 21 students. This class was chosen because it had a different writing lecturer compared to Classes A, B, and C, allowing researcher to considered whether teaching differences

might affect students' writing. Thus, the participation in this study was voluntary. Out of 21 students, only 15 participants who agreed to take part were included as participants. After collecting their descriptive texts, the CEFR levels were analyzed using the Pearson GSE Teacher Toolkit, and a purposive sampling technique was applied by selecting texts from the most common CEFR group. This ensured that the analysis of similarities between student and AI texts was consistent and comparable.

In this study, the data were collected from two sources, second-semester students and an AI language model called ChatGPT. The primary data consisted of descriptive texts produced by both sources. The collection procedure followed these steps:

a. Preparation Phase

The researcher design a single descriptive writing task for both students and ChatGPT. The task instructed participants to describe a place that they find interesting, memorable or meaningful, using formal academic English. Additionally, the participants are also guided to organize their text into three paragraphs: Introduction, Body Paragraph, and Conclusion.

b. Students Text Collection

Researcher visited Class D of the second-semester English Education Study Program at Hamzanwadi University and invited students to participate voluntarily. Before completing the task, researcher first explained the study's purpose and provided instructions without offering guidance on content. The students signed a consent form, then wrote a 250-300 word descriptive text within 60 minutes. The texts were submitted as PDF through a Google Drive link.

c. CEFR Level Check

The collected student texts were analyzed using the Pearson GSE Teacher Toolkit to check their estimate CEFR levels. In addition, the most common proficiency level among the students' writing was selected as the reference.

d. AI Text Generation

Using the same writing task, researcher requested ChatGPT to produce a descriptive text. An additional instruction was included, asking the AI to generate the text at the CEFR proficiency level identified from the students' writing. This ensured a fair comparison between student and AI texts.

e. Data Organization and Preparation

After obtaining both sets of texts, students-written and AI-generated, all documents will be stored and prepared for analysis.

After gathering the data, this research continued to the next step of analyzing the data from students and AI written texts. The data in this study were analyzed using content analysis to explore the similarities between AI-generated texts and students' texts in producing descriptive writing. The collected texts were first be organized and categorized based on the writing prompt. Each text then examined using the IELTS Writing Task 2 rubric as an analytical framework, focusing on four main criteria: (1) Task Achievement, (2) Coherence and Cohesion, (3) Lexical Resource, and (4) Grammatical Range and Accuracy. Through this rubric, the researcher identified areas where student writing and AI writing showed overlap or alignment, such as similarities in content, structure, vocabulary use, and grammatical patterns. The analysis was qualitative in nature, aiming to describe patterns of similarities rather than measuring differences.

RESULTS AND DISCUSSION

Results

In order to collect the primary data, researcher conducted a writing task to elicit descriptive texts on a specific theme, such as describing a place that the students found interesting, memorable, or meaningful. The students were instructed to organize their writing into three paragraphs: (1) Introduction, (2) Body Paragraph, and (3) Conclusion, following the academic writing modification of descriptive text. After obtaining the students' texts, researcher then estimated their CEFR (Common European Framework of Reference for Languages) levels using an online tool called the Pearson GSE Teacher Toolkit to gain an overview of their general writing proficiency. After estimating the CEFR levels of the students' texts, the results were compiled to identify the overall proficiency range and determine the most common level among participants. The table below presents the estimated CEFR levels for each student's text:

Table 1. The results of students' estimated CEFR level

No	Participant	Text Title	CEFR Estimate Level
1	Student 1	Nurul Haramain	B1
2	Student 2	Bale Mangrove Adventure	B1
3	Student 3	Kura-Kura Beach	B1

1. Data Analysis

After identifying that most students' texts were at the B1 level, further analysis was conducted using the IELTS Writing Task 2 rubric as the analytical framework. This rubric evaluates writing across four criteria: Task Response (TR), Coherence and Cohesion (CC), Lexical Resource (LR), and Grammatical Range and Accuracy (GRA). Each criterion was scored on a band scale from 0 to 9, using whole or half bands as per the official IELTS scoring system. Both students' texts and the AI-generated text were analyzed using the same rubric to identify the similarities.

Below are the rewritten versions of the students' texts and the AI-generated text, followed by their respective scores:

a. Students' Descriptive Text results

1) Student 1

Nurul Haramain

Nurul Haramain is one of the biggest boarding school in Nusa tenggara Barat. It has big buildings, big yards, and many rooms because many students from elementary school until senior high school are school there. It's called a modern boarding school too. That's why Nurul Haramain is a popular boarding school.

Nurul Haramain also popular with the language, Arabic and English. Boarding school between boys and girls are different. They have three boarding school which two for girls and one for boys, but the big one is for boys. It also has many things that we can see, there're garden, fish pool, little river, and many others with the comfortable view. All the rooms are good because not only the same class there but it's mixed with other class to know each other. And there a big hall to do all the activities such as pray, gather, study, and ect. The teachers are also have rooms same like the students, so they can control and dicipline all the students. The one interesting, it has place to combustion thrases to make sure the trash don't throw anywhere.

Being a graduation from Nurul Haramaun is a greatest experience. Because Nurul Haramain in addition the environment which goob, but the rules is also more than good. It has created many dicipline students student to make sure they'll be a good person when they left.

Criterion	TR	CC	LR	GRA
Band Score	5.0-5.5	5.0	5.0	4.5-5.0
Overall Band Score	5.0			

It can be seen in table above that the text “*Nurul Haramain*” received an overall band score of 5.0. The student addressed the prompt by describing the school’s features and facilities, but the development is uneven, many sentences are repetitive, and some ideas lack clarity. Cohesion is mechanical, with frequent overuse of *and*, *because*, and *but*. Vocabulary is adequate but limited, with noticeable errors are frequent and sometimes obscure meaning. Based on the IELTS rubric, this text sits at Band 5.0 overall, showing that the student can address the topic with some relevant detail, but limited accuracy, cohesion, and lexical flexibility reduce its effectiveness.

2) Student 2

Bale Mangrove Adventure

The Bale Mangrove is located in Jerowaru the eastern part and many tourist attractions that are no less interesting I went to Bale Mangrove use the motor bike with my friend. Many people visited that because Bale Mangrove is a beautiful place. The mangrove trees are high and the water is clear. When I visited with my friend named Nurul, we were very excited to explore the area. I’m so happy because that experienced is the first for us.

However, the mangrove forest is home to many birds and fish. We saw colorful birds flying overhead and small fish swimming in the water. In the Bale mangrove it so many various animal from the color, form, type and another. And many tourist from various country visited it. The Bale Mangrove atmosphere was peaceful and relaxing. So we enjoyed our time exploring the forest.

Bale Mangrove us popular lace in Lombok timur and some country. Many people was visited that place and some people there is not. But if you that place you can pay the ticket just RP5000(ind). And now Bale Mangrove stage the campsite, for 2 person package 160k. so we had a great time at Bale Mangrove. My friend Nurul was very kind to pay for our tickets. We left the forest with big smiles on our faces. We can’t wait to visit again and enjoy the beauty of nature. and when do we want to visit other tourist attractions?

Criterion	TR	CC	LR	GRA
Band Score	6.0	6.0	6.0	5.0
Overall Band Score	6.0			

It can be seen in table above that the text “*Bale Mangrove Adventure*” received an overall band score of 6.0. The text successfully responds to the prompt, it names a place, describes what it looks like, what can be done there, and why it is important to the writer. The writing shows good intention and some relevant detail, which supports a Band 6 Task Response. The structure is clear with three paragraphs, but cohesion is sometimes mechanical errors in punctuation and linking. Vocabulary is generally adequate but repetitive, with errors. Grammar errors are frequent, especially in verb forms and sentence boundaries. According to the IELTS rubric, this text achieves Band at 6.0, showing an appropriate but not fully developed response with weakness in cohesion, vocabulary, and grammatical accuracy.

3) Student 3

Kura-Kura Beach

Kura-kura beach is a beautiful place that I find interesting. The location at Jerowaru Lombok Timur, this place is unique because there are place that similar with the turtle. So the reason why this beach called is Kura-kura beach (Turtle beach).

Then, for going to there, for example from Selong to this beach maybe one and a half hours. And every way there are some corn threes and somestimes you will find the road is broke but don't worries if you finally go there you will emazed with that view. Not only that this place is popular at Lombok Timur, especially among tourist who want to surfing. Then we move to the hill, there are some corn trees and many others plants. If you go up there you will look the amazing view, like the sea, the beautiful sand beach and the grass.

Thus, I really recomended you all for go to this beach, especially with your friends or family. This place also can for picnic and the local people are really welcome to you, but the downside is there are many rubbish. However if you go there please keep your trash and maintain cleanliness.

Criterion	TR	CC	LR	GRA
Band Score	6.0	6.0	5.5-6.0	5.0
Overall Band Score	5.5-6.0			

It can be seen in table above that the text “*Kura-kura Beach*” received an overall band score of 5.5-6.0. The text addresses the prompt by describing the location, travel route, scenery, and the importance of the beach as a tourist and picnic spot. The structure follows the prompt with an introduction, body, and conclusion, but cohesion is sometimes weak with mechanical use of connectors and some awkward sequencing. Vocabulary shows some range with words like unique, amazing view, beautiful sand, but repetition and word choice errors reduce precision. Grammar errors, especially in tense and agreement (“I really recommended you all for go to this beach,” “don’t worries”), are frequent and affect accuracy. According to the IELTS rubric, this essay falls in the Band 5.5–6.0 range, showing an adequate response but with limitations in cohesion, vocabulary, and grammar accuracy.

b. AI-generated Writing result:

The Eiffel Tower

One of the most memorable places in the world is the Eiffel Tower in Paris, France. It is a tall iron structure that has become the symbol of the city and even the whole country. The tower was built in the late nineteenth century and was first shown to the public during the World's Fair. Today, it is one of the most visited landmarks in the world, attracting millions of tourists every year. People from different cultures and countries travel to Paris to admire this unique monument.

The Eiffel Tower is very impressive in size, standing more than 300 meters high. During the day, it shines in the sunlight, and at night, it is covered with thousands of lights that make it look magical. Visitors can walk around the base of the tower, enjoy the park nearby, or go inside to climb or take an elevator to the viewing platforms. From the top, people can see the whole city of Paris, including the River Seine, the Louvre Museum, and the Cathedral of Notre-Dame. Around the tower, there are many restaurants, souvenir shops, and places to enjoy French food such as crepes and pastries. The experience combines culture, history, and entertainment in one place.

The Eiffel Tower is important because it represents the creativity and progress of human engineering. It is not only a tourist attraction but also a symbol of love, art, and beauty. Many visitors describe their trip as unforgettable because the tower leaves a strong impression both during the day and at night. For these reasons, the Eiffel Tower is more than just a building; it is a meaningful place that continues to inspire and connect people from all over the world.

Criterion	TR	CC	LR	GRA
Band Score	8.0	8.0	8.0	7.5-8.0
Overall Band Score	7.5-8.0			

The AI-generated text “*The Eiffel Tower*” achieved the highest score at overall Band 7.5-8.0. This text provides a strong and detailed response to the descriptive writing task. It covers all elements of the prompt—appearance, activities, and importance—with excellent development and clear organisation. Vocabulary is rich and varied, and grammar is accurate with only minor slips. According to the IELTS rubric, this essay sits at Band 7.5–8.0, making it the strongest of the student texts analyzed.

Interpretation of the Data

This section provides the interpretation of the data obtained from the analysis of students’ descriptive texts and the AI-generated text. Since this study employs a qualitative descriptive approach, the interpretation focuses on describing and comparing the patterns that emerged from the texts rather than treating each text as an individual case. The interpretation is guided by the IELTS Writing Task 2 rubric as the analytical framework, which includes four assessment criteria: Task Response, Coherence & Cohesion, Lexical Resource, and Grammatical Range and Accuracy. By examining the texts across these four areas, the analysis aims to highlight the similarities between student writing and AI-generated writing in producing descriptive texts. These similarities are described below:

1. Task Response

Table 2. Similarities in Task Response

No	Sub-aspects	Similarities Observed	Notes
1	Understanding the task/	Both students and the AI respond correctly to the prompt.	Clear similarity.

No	Sub-aspects	Similarities Observed	Notes
	addressing all parts		
2	Clear purpose/ thesis	Both groups present an identifiable purpose to describe rather than argue.	Clear similarity.
3	Relevance of ideas (on-topic content)	Both groups include relevant topic details (location, features, activities).	Clear similarity.
4	Development & support of ideas	Both groups attempt idea development, but the AI consistently develops ideas more fully.	Partial similarity.
5	Conclusion/ summary	Both include a closing sentence/ statement of impression.	Clear similarity.

Based on the table above, it shows that both students and AI-generated texts shared a clear similarity in addressing the descriptive writing task. All texts, regardless of proficiency, responded to the prompt by naming a place, describing its features, and explaining its significance. However, while the AI text offered full development with balanced detail and elaboration, most student texts demonstrated uneven development and limited expansion of ideas. This indicates that the similarity lies in their shared ability to understand and fulfill the task, but the depth and precision of execution were notably stronger in the AI text.

2. Coherence and Cohesion

Table 3. Similarities in Coherence and Cohesion

No	Sub-aspects	Similarities Observed	Notes
1	Overall organization/ progression	Both use the same macro-structure (intro – details – close).	Clear similarity.
2	Paragraphing	Both separate content into paragraph for moves (intro, body, conclusion).	Clear similarity.
3	Linking/ cohesive devices (connectors)	Both use cohesive devices. Though students rely on basic, often mechanical linkers while AI uses more varie linking.	Clear similarity.

No	Sub-aspects	Similarities Observed	Notes
4	Appropriacy & variety of cohesion	Both mark relationships between ideas. While AI displays greater variety and precision.	Clear similarity.
5	Referencing & clarity (pronouns, referencing)	Both attempt referencing, but students sometimes produce ambiguity.	Partial similarity.

It can be seen on the table above, in terms of Coherence & Cohesion, both student and AI-generated texts exhibited an overall similarity in structural organization, with the majority presenting an introduction, body, and conclusion. This suggests an awareness of the expected format of descriptive writing. However, a notable distinction emerged in the use of cohesive devices. While the AI-generated text employed cohesive markers naturally and effectively, the student texts frequently relied on mechanical linking through repetitive connectors such as *and*, *because*, and *but*. Therefore, the similarity rests in the shared organizational framework, whereas the quality of cohesion clearly distinguishes the two.

3. Lexical Resource

Table 4. Similarities in Lexical Resource

No	Sub-aspects	Similarities Observed	Notes
1	Range of vocabulary (topic lexis)	Both use topic-related descriptive lexis (adjectives, sensory words)	Clear similarity.
2	Accuracy & appropriacy of word choice	Both select words that serve description, but students show more imprecision.	Partial similarity.
3	Paraphrasing & collocation	Both attempt paraphrase and natural collocations. Though AI demonstrates more idiomatic paraphrasing.	Partial similarity.
4	Repetition vs variety	Both reuse some lexical items. Though student show heavier repetition.	Clear similarity.

No	Sub-aspects	Similarities Observed	Notes
5	Spelling & word formation	Both generally produce readable word forms. Though students have more lexical/errors that affect precision.	No similarity.

Referring to the table above, we can see that both student and AI-generated texts employed descriptive vocabulary to highlight appearance, activities, and significance, which indicates a similarity in lexical focus. Shared lexical items were often related to natural beauty (unique, must-visit). However, student texts showed more limited lexical range and were marked by repetition and word choice errors, while the AI-generated text displayed greater variety and precision in its vocabulary use. This demonstrates that the similarity lies in the functional use of descriptive vocabulary, but the sophistication of lexical selection was more prominent in the AI text.

4. Grammatical Range and Accuracy

Table 5 Similarities in Grammatical Range and Accuracy

No	Sub-aspects	Similarities Observed	Notes
1	Range of sentence structure	Both use simple and compound sentences, and attempt complex forms occasionally.	Clear similarity.
2	Tense use and consistency	Both rely mainly on present descriptive constructions.	Clear similarity.
3	Core grammatical function (agreement, articles, prepositions)	Both attempt these functions but students show frequent errors that reduce accuracy.	Partial similarity.
4	Complexity vs accuracy trade-off	Both increase errors when attempting greater complexity. Though students' errors are more disruptive.	Clear similarity.
5	Punctuation	Both groups use basic punctuation. Though students show more punctuation and sentence-boundary errors.	Partial similarity.

As shown in the last table above, both groups attempted to use a variety of sentence types, including simple, compound, and complex forms. This reflects a similarity in their intention to demonstrate grammatical range. Nonetheless, student texts were frequently marked by errors in verb tense, subject-verb agreement, and sentence boundaries, which reduce clarity. In contrast, the AI-generated text showed greater consistency and accuracy, with only occasional minor slips. Thus, the similarity lies in the attempt to vary grammatical structures, though the level of accuracy was considerably higher in the AI-generated text.

Discussion

This study aimed to answer the research question: “*What similarities can be identified between student-produced descriptive texts and an AI-generated text produced by ChatGPT in response to the same writing task?*” The findings revealed similarities in Task Response, Coherence and Cohesion, Lexical Resource, and Grammatical Range and Accuracy. Both students and AI successfully addressed the prompt by producing descriptive texts with an introduction, body, and conclusion, which reflects to Hyland’s (2003) view that task achievement is a core feature of effective academic writing. In terms of organization, both groups used cohesive devices such as conjunctions and reference words, consistent with Halliday and Hasan’s (1976) argument that cohesion is achieved through ties linking ideas across a text. Similarities were also found in lexical and grammatical features. Both students and AI employed descriptive vocabulary, particularly adjectives, to create imagery, which supports Nation’s (2001) claim that vocabulary knowledge is central to effective communication. Likewise, both groups attempted varied sentence structures, echoing Richards and Schmidt’s (2010) emphasis on grammatical competence in written discourse. While the AI text demonstrated greater lexical range and accuracy, the overlaps indicate that ChatGPT-generated writing shares fundamental characteristics with student writing. These findings align with Godwin-Jones’ (2022) view that AI can provide valuable models for learners, provided teachers guide students in critically engaging with such tools. They also support Amirjalili et al. (2024), who observed that AI and human writing often converge on core academic writing features, suggesting that AI can complement, rather than replace, student writing development.

CONCLUSION

This study found that both student-produced descriptive texts and the AI-generated text shared notable similarities across the four IELTS assessment criteria: Task Response, Coherence and Cohesion, Lexical Resource, and Grammatical Range and Accuracy. Both groups successfully addressed the writing prompt by producing texts with an introduction, body, and conclusion, while also employing descriptive vocabulary and basic cohesive devices. Furthermore, both students and AI attempted to use varied sentence structures, indicating an awareness of academic writing conventions. The main difference lies in the quality of execution, as the AI-generated text demonstrated greater grammatical accuracy, lexical range, and cohesion, whereas student texts showed limitations such as repetition, uneven development of ideas, and frequent grammatical errors. Overall, these findings suggest that while student writing and AI-generated writing converge on fundamental academic writing features, AI can provide a valuable model to support students’ development in descriptive writing.

ACKNOWLEDGMENTS

The researcher would like to express sincere gratitude to the students of Class D, English Education Study Program at Hamzanwadi University, for their voluntary participation and

valuable contributions to this study. Special thanks are also extended to the lecturers who provided support during the data collection process.

REFERENCES

- Amirjalili, F., Neysani, M., & Nikbakht, A. (2024). Exploring the boundaries of authorship: a comparative analysis of AI-generated text and human academic writing in English literature. *Frontiers in Education*, 9(March). <https://doi.org/10.3389/feduc.2024.1347421>
- Ardhita, N., & Sari, P. (2025). *Using Artificial Intelligence in Writing an Academic Essay : A Literature Review*. 8(2), 448–461.
- Creswell, W. J & Creswell, J. D. (2022). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (Sixth Edition)* (Six Editio). SAGE Publications.
- Goulart, L., Matte, M. L., Mendoza, A., Alvarado, L., & Veloso, I. (2024). AI or student writing? Analyzing the situational and linguistic characteristics of undergraduate student writing and AI-generated assignments. *Journal of Second Language Writing*, 66(December). <https://doi.org/10.1016/j.jslw.2024.101160>
- Harlena, D., Mukhaiyar, & Hamzah. (2020). Collaborative Writing Strategy for Teaching Writing Descriptive Text. *Advances in Social Science, Education and Humanities Research*, 411, 276–279.
- Hassani, H., Silva, E. S., Unger, S., TajMazinani, M., & Mac Feely, S. (2020). Artificial Intelligence (AI) or Intelligence Augmentation (IA): What Is the Future? *AI (Switzerland)*, 1(2), 143–155. <https://doi.org/10.3390/ai1020008>
- Holmes, W., & Tuomi, I. (2022). State of the art and practice in AI in education. *European Journal of Education*, 57(4), 542–570. <https://doi.org/10.1111/ejed.12533>
- Indah, C. H. R. (2022). The Analysis of Generic Structure of Descriptive Text Used by Students of Elementary School 1 Penambangan Probolinggo. *Journal of English Language and Pedagogy*, 5(1), 18–23.
- Kasneci, E., Sessler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., Gasser, U., Groh, G., Günemann, S., Hüllermeier, E., Krusche, S., Kutyniok, G., Michaeli, T., Nerdel, C., Pfeffer, J., Poquet, O., Sailer, M., Schmidt, A., Seidel, T., ... Kasneci, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences*, 103(February). <https://doi.org/10.1016/j.lindif.2023.102274>
- Raad, B., Njum, F., & Ghafar, Z. N. (2023). Exploring the Profound Impact of Artificial Intelligence Applications (Quillbot, Grammarly and ChatGPT) on English Academic Writing: A Systematic Review. *International Journal of Integrative Research (IJIR)*, 1(10), 599–622. <https://doi.org/10.59890/ijir.v1i10.366>
- Rohman, M. A., & Rizqiya, R. S. (2021). Writing Descriptive Text By Using Two-Stay Two-Stray Technique: Students' Response. *Professional Journal of English Education*, 4(6), 1020–1024.
- Sandelowski, M. (2000). Focus on research methods: Whatever happened to qualitative description? *Research in Nursing and Health*, 23(4), 334–340. [https://doi.org/10.1002/1098-240x\(200008\)23:4<334::aid-nur9>3.0.co;2-g](https://doi.org/10.1002/1098-240x(200008)23:4<334::aid-nur9>3.0.co;2-g)
- Sipayung, K. T., Tampubolon, S., Napitupulu, F. D., & Tobing, F. L. (2021). Generic structure of descriptive text written English language learner and teachers. *Linguistics and Culture Review*, 5(S3), 1636–1650. <https://doi.org/10.21744/lingcure.v5ns3.1950>
- Syifa, Q. A., Baekani, A. K. A., & Srisudarso, M. (2022). Junior High School Students' Difficulties in Writing Descriptive Text. *JiIP - Jurnal Ilmiah Ilmu Pendidikan*, 5(10), 4470–4474. <https://doi.org/10.54371/jiip.v5i10.1044>
- Waruwu, S. W. (2023). Students' Difficulties in Writing Descriptive Text At the Eleventh Grade

of Sma Negeri 1 Onohazumba. *FAGURU: Jurnal Ilmiah Mahasiswa Keguruan*, 2(2).
Yildiz Durak, H., Eğin, F., & Onan, A. (2025). A Comparison of Human-Written Versus AI-Generated Text in Discussions at Educational Settings: Investigating Features for ChatGPT, Gemini and BingAI. *European Journal of Education*, 60(1), 1–15. <https://doi.org/10.1111/ejed.70014>