

AN ANALYSIS OF WRITING SKILLS OF STUDENTS WHO USED ARTIFICIAL INTELLIGENCE IN THEIR WRITING ASSIGNMENT IN THIRD SEMESTER STUDENTS OF ENGLISH EDUCATION STUDY PROGRAM OF THE UNIVERSITY OF MUHAMADIYYAH KOTABUMI 2023/2024

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Abstract: This research aims to identify how the writing skills of students who frequently use artificial intelligence in completing writing assignments in intermediate writing classes are affected. This research is classified as a qualitative descriptive approach. Researchers analyzed 10 students to determine how well the students write and in which aspects they excel and struggle in writing. The instrument used in this research is a writing test. Researchers assess students' writing using Jacob's (1981) writing rubric. The results of this study indicate that students' writing abilities are categorized as fair to poor, with an average score of 68.3. In the second and third results, the aspect that students performed better in is the aspect of content, which scored 24, with 6 students achieving a good to average category and 4 students falling into the fair to poor category, with no students in the very poor category. Meanwhile, the aspect where students performed the most poorly is language use. The average ability of students in language use is 14, falling within the fair to poor category. In this aspect, none of the students received a good to average category; out of the ten students, 6 achieved a fair to poor rating, while the others fell into the very poor category. The written test given to the students can illustrate and motivate their writing skills, and provide advice to students not to get accustomed to the use of artificial intelligence.

Keywords: student's writing skills, writing aspect, and artificial intelligence.

Abstrak: Penelitian ini bertujuan untuk mengidentifikasi bagaimana keterampilan menulis siswa yang sering menggunakan kecerdasan buatan dalam menyelesaikan tugas menulis di kelas menulis tingkat menengah terpengaruh. Penelitian ini diklasifikasikan sebagai pendekatan deskriptif kualitatif. Para peneliti menganalisis 10 siswa untuk menentukan seberapa baik siswa-siswa tersebut menulis dan dalam aspek apa mereka unggul serta mengalami kesulitan dalam menulis. Instrumen yang digunakan dalam penelitian ini adalah tes menulis. Peneliti menilai tulisan siswa menggunakan rubrik penulisan Jacob (1981). Hasil penelitian ini menunjukkan bahwa kemampuan menulis siswa dikategorikan sebagai cukup hingga buruk, dengan rata-rata skor 68,3. Pada hasil kedua dan ketiga, aspek yang dikuasai siswa dengan baik adalah konten, yang mendapatkan skor 24, dengan 6 siswa mencapai kategori baik hingga sedang dan 4 siswa berada dalam kategori cukup hingga buruk, tanpa ada siswa yang masuk dalam kategori sangat buruk. Sementara itu, aspek di mana siswa tampil paling buruk adalah penggunaan bahasa. Rata-rata kemampuan siswa dalam penggunaan bahasa adalah 14, yang termasuk dalam kategori cukup hingga buruk. Dalam aspek ini,

tidak ada siswa yang mendapatkan kategori baik hingga sedang; dari sepuluh siswa, 6 mencapai penilaian cukup hingga buruk, sementara yang lainnya masuk dalam kategori sangat buruk. Ujian tertulis yang diberikan kepada siswa dapat menggambarkan dan memotivasi keterampilan menulis mereka, serta memberikan saran kepada siswa agar tidak terbiasa dengan penggunaan kecerdasan buatan.

Kata kunci: keterampilan menulis siswa, aspek menulis dan kecerdasan buatan.

I. INTRODUCTION

Writing is one of the most important skills in English for foreign language students to master besides listening, speaking, and reading. Writing is a productive skill that a student of English should learn (Studies 2024). Writing is different from listening, speaking, and reading because in writing several aspects of language must be observed to be able to convey ideas, and self-actualization that can be understood by the reader. Writing is one of the primary language skills used for written communication (Burhansyah and Masrizal 2021). Writing is also a complex process that allows the writer to express his thoughts and ideas to become visible and real. Astuti et al. (2020) state that writing is an important language skill because it allows one to learn, explore, develop, and enhance language skills. Then in writing, the writer must skillfully use the structure of language and vocabulary.

According to Ariyanti and Fitriana (2017), It never appears to be easy to write a composition in good English. Some problems can be found like trying to compose sentences, paragraphs, or texts. Students who rarely write in English always face some difficulties when the teacher asks them to write down their ideas, thoughts, or experiences. Alisha et al. (2019) state that, when EFL students write sometimes it makes them are not yet able to express their

ideas, thoughts, and experiences in written form. This is due to a lack of vocabulary or word skills, a lack of understanding of the sentence structure, and a lack of spelling or reading skills, resulting in a lot of errors in spelling, reading marks, improper word choices, chaotic sentence structures, and the development of incoherent and coherent paragraphs.

For students who are EFL learners, writing is not an easy thing, many of the obstacles students encounter in writing are errors in vocabulary and grammar. With AI technology, it is expected to help students learn to write as well as correct students' mistakes in writing. According to Rahman *et al.*, (2022) students have shown positive influence in using AI-based technology to improve and provide feedback in the writing process. According to Phan (2023), AI is starting to become popular in foreign language instruction in general and English in particular. In education, English has witnessed a significant transformation through the integration of Artificial Intelligence. Based on Nur (2023) artificial intelligence is a technology that can make software, computer systems, and even robots "think" like humans. The ability of AI to automatically identify and correct common errors also helps students overcome the difficulties that students often encounter in learning English, especially writing. According to Alharbi (2023), AI as a writing Assistant can improve language teaching and help students in their writing

assignments. AI-powered English learning programs can assist students in completing assignments and learning materials according to student's abilities. The widespread use of AI makes some students more inclined to give priority to AI than to use their personal knowledge in writing or doing writing tasks. As was the case in the intermediate writing class at Kotabumi Muhammadiyah University, based on the results of the preliminary research most of the students in the intermediate writing class use AI while doing their writing tasks, it makes the original writing use personal skills of students rarely used because AI offers several courses that students can use to complete their tasks more practically.

There is a previous related study from Prayoga (2023) that did research titled "Enhancing Writing Skills through AI-Powered Feedback Systems in English Education". The study investigated the benefits of using AI for enhancing writing skills. Five teachers and sixty students from five academic writing sessions at two language centers in Hanoi participated in the research. Tests and questionnaires were the primary methods used to gather data for the study. Interviews served as an auxiliary instrument. The study of improving writing abilities in English education with AI-powered feedback systems is a major development in the field of language learning and instruction. There are a number of encouraging outcomes and debates from this novel method that need consideration. AI-powered feedback systems, first and foremost, offer students rapid, tailored support for enhancing their writing abilities.

Another study, Zulfa *et al.* (2023) "The Use Of AI and Technology Tools In Developing Students' English study focuses on how students use artificial

intelligence (AI) and technological tools when writing academically in English and how this affects their writing abilities. Using a qualitative methodology, information was acquired from 73 English education students at an Indonesian Islamic university using semi-structured interviews and open-ended questionnaires. The study's findings revealed that students employed a total of 15 technology tools, categorized into four types: language structures, sources, saving tracks, and references. According to the participants, the tools they used allowed them to improve their writing abilities and receive quick feedback and corrections. The participants reported that the tools helped them learn new vocabulary and enhance their understanding of grammar principles. The participants also thought that the tools made it easier for them to compose essays that were more logical and cohesive. According to the study, using technological tools in academic English writing could completely change how writing abilities are developed and assessed. To ensure writing development, students must, however, find a balance between using these tools and improving their writing abilities.

The study related to writing above discussed the impact of the use of artificial intelligence on student writing skills, while this study was different, where the author wanted to see how the student's writing skills used artificial intelligence. The difference between this research and the previous study is in the previous study the author focused on artificial intelligence as the main topic of the research. In contrast, in this study, the researcher focused on student writing skills as the primary subject of the study. the previous research used methods of quantitative research whereas in this research the author uses the method of

qualitative research, the subject of research, the research question, as well as the findings of the research, and the best author to study this title because of the minimal research that discusses the writing skills of students who often use AI. The similarity between this research and previous research is the similarity in the topics there are about writing skills and artificial intelligence. A researcher is interested in researching An Analysis of the writing skills of students using artificial intelligence in the third semester Of English Education at the University of Muhammadiyah Kotabumi 2023/2024.

The formula for the problems in this study is as following; How is the real writing skills of students who have been using artificial intelligence in their writing assignments in the third semester of the English Education study program of the University of Muhammadiyah Kotabumi 2023/2024, in what aspect do students of the third semester who have been using artificial intelligence perform better in their writing assignments, in what aspect do students of the third semester who have been using artificial intelligence perform the most poorly in their writing assignments.

Meanwhile, the objectives of the research to describe the writing skills of students who use artificial intelligence in their writing assignments for the third semester In English Education at the University of Muhammadiyah Kotabumi 2023/2024, to describe the aspect of writing that students perform better in writing skills of students who have been using artificial intelligence in their writing assignment in the third semester of English Education study program of the University of Muhammadiyah Kotabumi 2023/2024, to describe the aspect of writing that students

perform poorly in writing skills of students who have been using artificial intelligence in their writing assignments in the third semester of English Education study program of the University of Muhammadiyah Kotabumi 2023/2024.

As well as the usage of the Research Theoretical Benefits, the results of this research are expected to contribute to the development of the writing skills of students as well as technology especially artificial intelligence to be better. This research is also expected to provide reference to students in particular at the University of Muhammadiyah kotabumi. Practical benefits, for students of English Language Education, the results of this research are expected can improve the writing skills of students by using artificial intelligence, for English teachers, the results of this research can provide valuable contributions to English teachers as information that can be transformed into knowledge when teachers use artificial intelligence in teaching writing skills, for further researchers as a source of reference used in further research and gain valuable experience that contributes to carrying out further and further research.

II. RESEARCH METHODS

The design of the research was descriptive qualitative. Qualitative research is the study of the nature of phenomena, which include feelings, ideas, or experiences Chinyere and Val (2023). Qualitative research is a type of research that produces descriptive data of written or oral words and observable behavior. In this study, researchers use qualitative research to be able to understand phenomena in a

natural social context that describes social problems in a person from a behavioral point of view. In qualitative research, researchers analyze and then report phenomena as a result of analysis in research.

In this study, data was taken from students who made use of AI and participated in the intermediate writing class of the third semester of the English Language Education Studies Program at Muhammadiyah University of Kotabumi for the academic year 2023/2024. The researchers have conducted preliminary research, to determine the student who will be the subject of the research. Researchers found that student in the third semester of English education study program consist of as many as 24 students. It is known of the 24 students 10 students follow intermediate writing classes and 14 other students do not follow intermediate writing classes because they follow an internship program.

The researchers determined that the subject of the study would be focused on the students who use artificial intelligence in the work of their writing assignments. For that, the researchers used the questionnaire to find students who use artificial intelligence in the work of their writing assignments. It has been found that 10 students attending an intermediate writing class, all of them using artificial intelligence when working on writing tasks, so it has been determined that the subject in this study consists of 10 students in the intermediate writing class.

This study employed three distinct instruments: a questionnaire and a writing test. The questionnaire is a research instrument consisting of a series of questions to gather information and opinion (Roopa and Rani 2012). The questionnaire used to collect data will be made through

Google Forms. The questionnaire is used when preliminary research to know the subject of research, that is the students in class intermediate writing who use. The researcher gives a student writing test to find how students' writing ability without using artificial intelligence. The writing test in this study is used to identify how writing skills of students often use artificial intelligence when writing without using artificial intelligence the test given to the student, the researcher will directly oversee the execution of the test because when performing the test students are prohibited from using artificial intelligence. The test given by the researcher requires the student to write an essay of at least two paragraphs with a theme already defined by the investigator.

In data collection, several ways can be used in qualitative research. The data collecting technique used in this study was a document analysis and writing test. In this study, the data was collected using the following three procedures:

Questionnaires were used to select the students who used artificial intelligence in their writing assignments in intermediate writing classes.

The researchers gave a writing test to students as subjects, then analyzed the results of the writing test using the theory of writing aspects to find out how students write skills when writing without using AI.

Validating research findings is crucial for influencing conclusions and analyses in all kinds of studies. If the data is not valid the analysis is not reliable. Precision and accuracy of the data collected are essential to validate the results of the research, that is, to influence the findings and analysis. This study is done in-depth analysis or improving persistence in analysis. By increasing that persistence,

then the researcher can perform re-checking whether the data that has been found is incorrect or not. As well as by increasing the consistency then or deep analysis, researchers can provide accurate and systematic data descriptions of what is observed. This method's purpose is to improve the quality of the data gathered and support the researcher's decision-making so that the study produces more accurate results.

Data analysis in research is a very important activity that requires rigor and care for the data that has been generated. Through data analysts, data collected in the form of raw data can be well processed to produce mature data. In this study, the author uses techniques of data analysis discreetly obtained through a qualitative approach, where the data that has been produced from research and studies, both theoretically and empirically, is described through words or sentences correctly and clearly.

The first step is scoring the result of the writing test using the theory of aspects in writing according to Jacobs (1981). As in Jacobs (1981) there are five aspects: content, organization, mechanics, language use, and vocabulary. The written test was conducted in the third semester for students in intermediate writing class. The test that students have done is to write an essay. The researcher gives students a topic to write an essay for the written test. The topic of the essay is "The effect of the use of technology in schools". The implementation of the essay test carried out by students is based on several instructions from the researcher. One of the important instructions is that students are not allowed to use mobile phones, especially using AI, students must write essays with personal knowledge that students have. After students write their

essays, the researcher will analyze the results of the test essay that the students wrote. The researcher will assess the result by the assessment rubric by Jacobs (1981).

III. RESULTS AND DISCUSSION

In this study, the author uses the qualitative for his method with an instrument questionnaire to find subjects and tests to answer the problems in this study.

The first step taken by the researcher was finding out the students who use artificial intelligence in intermediate writing class at English Education Study Program as the subjects in this research. To find the subjects in this research, the researcher used a questionnaire was carried out on July 11, 2024, and July 14, 2024. Based on the results of questionnaire from 24 students in semester 3 of 2023, there are 10 students who took the intermediate writing class. In this class, there are 10 students who use artificial intelligence in doing writing assignments in the intermediate writing class and 14 of them participate in an internship program.

The implementation of the test conducted by the researcher in this study was an essay test. The essay test was carried out by writing an essay with three paragraphs based on a predetermined topic. The test was carried out by researchers with 10 students as research subjects. Of the ten students, each student wrote an essay based on the instructions given by the researcher.

The writing test conducted by the researcher was to find out how the writing skills of students who often use AI in doing assignments in intermediate writing classes. The writer wanted to know which

of the five aspects of writing was the most poor and better aspect in the students writing. According to the data obtained, the researcher analyzed by using Jacob's scoring rubric that focused on content, organization, vocabulary, language use and mechanics.

Based on the results of the students' writing test from the five aspects of writing, which include content, organization, vocabulary, language use, and mechanics, in the content aspect, 1 student achieved excellent to very good criteria, 7 students achieved good to average criteria, and 2 students achieved fair to poor criteria. In the second aspect, organization, 3 students achieved good to average criteria, 6 students achieved fair to poor, and one student fell into the very poor criteria. In the next aspect, vocabulary, 5 students fell into the good to average criteria, 2 students into fair to poor, and 3 students into very poor. In the language use aspect, students scored the lowest, with 6 students achieving fair to poor criteria and 4 other students achieving very poor criteria. In the final aspect, 1 out of 10 students achieved good to average, while the others achieved fair to poor.

Based on the analysis of the writing test that the students completed, there are six (6) students categorized as fair to poor, while the remaining four students fall into the good to average category. This is based on an assessment analyzed by researchers according to Jacob's (1981) rubric.

The analysis of the student's writing test, as described above, students with initials ZJA got score 68 with fair to poor criteria, student with initial JA scored 63 with fair to poor criteria, Student with initial MAP scored 70 with good to average criteria, Student four with initial PA scored 63 with fair to poor criteria, Student fifth with initial DA scored 72 with good to

average criteria, Student six with initial MA scored 60 with fair to poor criteria, Student seventh with MBY scored 61 with fair to poor criteria, Student eight with NMS scored 69 with fair to poor criteria, Student nine scored 81 with excellent to very good criteria and Student last with PHN scored 76 with good to average criteria

Thus, it has been found that from the ten subjects, the average obtained from the five aspects of writing is fair to poor. This is because the average score achieved by the students is 68.3, which was calculated by summing all the scores and then dividing by the number of students. Finding out the how the real writing skill of students who used artificial intelligence was the objective of this research. It was vital to talk about the research outcomes after they have been analyzed. The purpose of this study was to identify the real writing skill of students who used artificial intelligence in their writing assignments. Upon examination of the data used the writing component of the Jacob et al. (1981) analytical scoring profile, it was discovered how students' real writing skill. To find out how students write skills, the researchers use the writing test as a measurement instrument. The writing test here was a test that required students to write essays with their personal abilities. The test writing is followed by 10 students who are in intermediate writing.

The first result of this study was that the writing test results of 10 students indicated that the writing skills of students in the intermediate writing class who used artificial intelligence while completing writing assignments were rated as fair to poor, with an average score of 68.3. This was obtained from the analysis of the student's writing test results using the theory from Jacobs (1981) based on several

criteria and scores. It can be concluded that students are not yet fully intelligent in their use of AI. as noted by Rahman et al. (2022), students can show a positive influence in using AI-based technology to improve and provide feedback in the writing process if they can be wise and clever in their use of AI. This emphasizes that the students must be able to use AI effectively. However, unlike students in the intermediate writing class, they tend to become dependent on AI, hindering their writing skills development. This needs to be emphasized to students so that they can manage their use of AI wisely.

The second result, from the five aspects of content, organization, vocabulary, language use, and mechanics, shows that the students perform better in the aspect of content, students scored 24, with 6 students achieving a good to average category and 4 students falling into the fair to poor category. In the organization aspect, students scored 14, with 3 students in the good to average category, 6 students in the fair to poor category, and 1 student in the very poor category. The third aspect, vocabulary, saw students scoring 13, with 3 students in the good to average category, 4 students in the fair to poor category, and 3 students in the very poor category. In the language use aspect, students scored 14, categorized as fair to poor, with 6 students in the fair to poor category and 4 others in the very poor category. Lastly, in the mechanics aspect, students scored 3, with 2 students in the good to average category and 8 students in the fair to poor category.

From the explanation above, the aspect that students performed better in the writing test given by the researcher, after being analyzed, is the content aspect. This aspect scored 24, with 6 students achieving a good to average category and 4 students falling into the fair to poor category, with

no students in the very poor category. It means that students' skills in writing, in terms of content, are good to average. It concluded that the students demonstrated their knowledge of the subject and could develop the topic, and it was sufficient for evaluation. Meanwhile, the aspect where students performed the most poorly is language use.

The average ability of students in language use is 14, falling within the fair to poor category. In this aspect, none of the students received a good to average category; out of the ten students, 6 achieved a fair to poor rating, while the others fell into the very poor category. It concluded the students almost all of the students did not know how to arrange words into a sentence. They have difficulties in identifying suitable tenses and prepositions in construction and students still make a lot of errors on good grammatical climbing

IV. CONCLUSIONS

According to research at third semester students in university of Muhammadiyah kotabumi 2023/2024. First, the writing skill of students who were used to AI in their writing assignments was categorized as fair to poor, based on Jacobs et al., (1981) criteria. Second, in spite of the fact that their writing skill was fair to poor, they performed better in the aspect of content. In this aspect, students wrote, on average, 100-word essays following the topic given by the researcher. Third, the students performed most poorly in the aspect of language use. In this aspect, students still make many mistakes in tenses and the placement of prepositions in sentences.

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