

**THE USE OF CHATGPT AI FOR PROMOTING STUDENTS' CRITICAL
THINKING IN READING CLASS**

SKRIPSI



by

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FACULTY OF EDUCATION AND HUMANITIES

UNIVERSITAS KRISTEN DUTA WACANA

YOGYAKARTA

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THE USE OF CHATGPT AI FOR PROMOTING STUDENTS' CRITICAL THINKING IN READING CLASS

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for the degree of Sarjana Pendidikan (S.Pd)
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STATEMENT OF ORIGINALITY

I honestly declare that this Skripsi does not contain the work or parts of the work of other people, except those cited in the quotations and the references.

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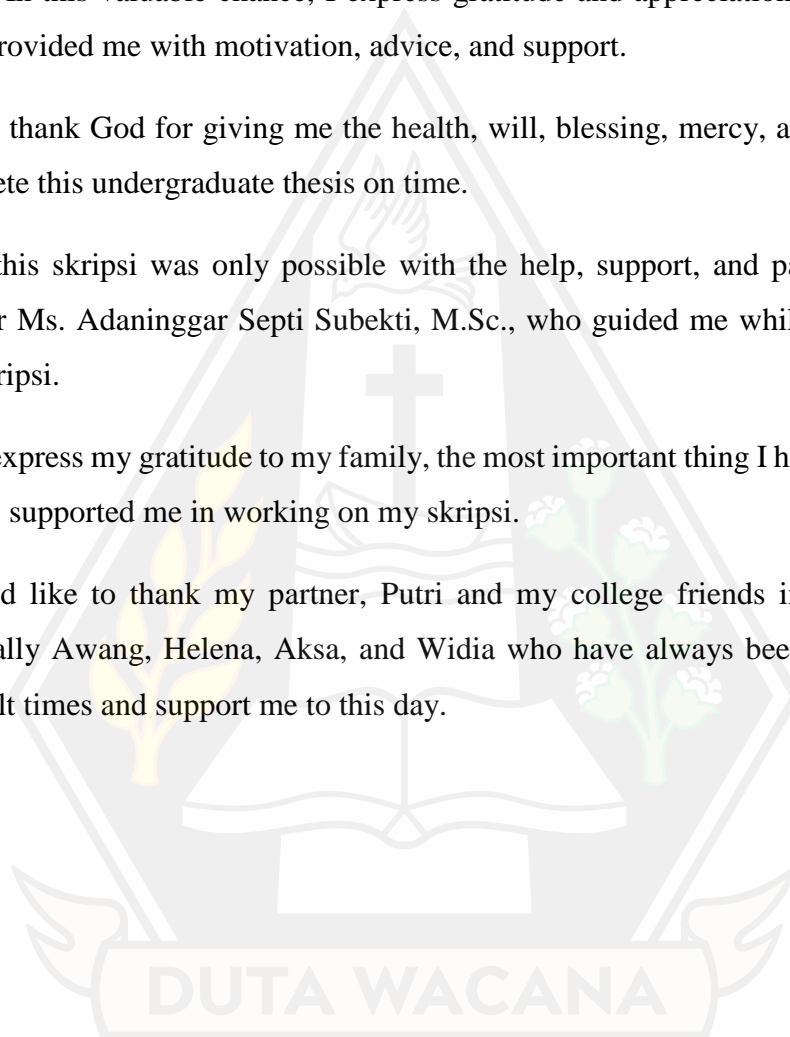


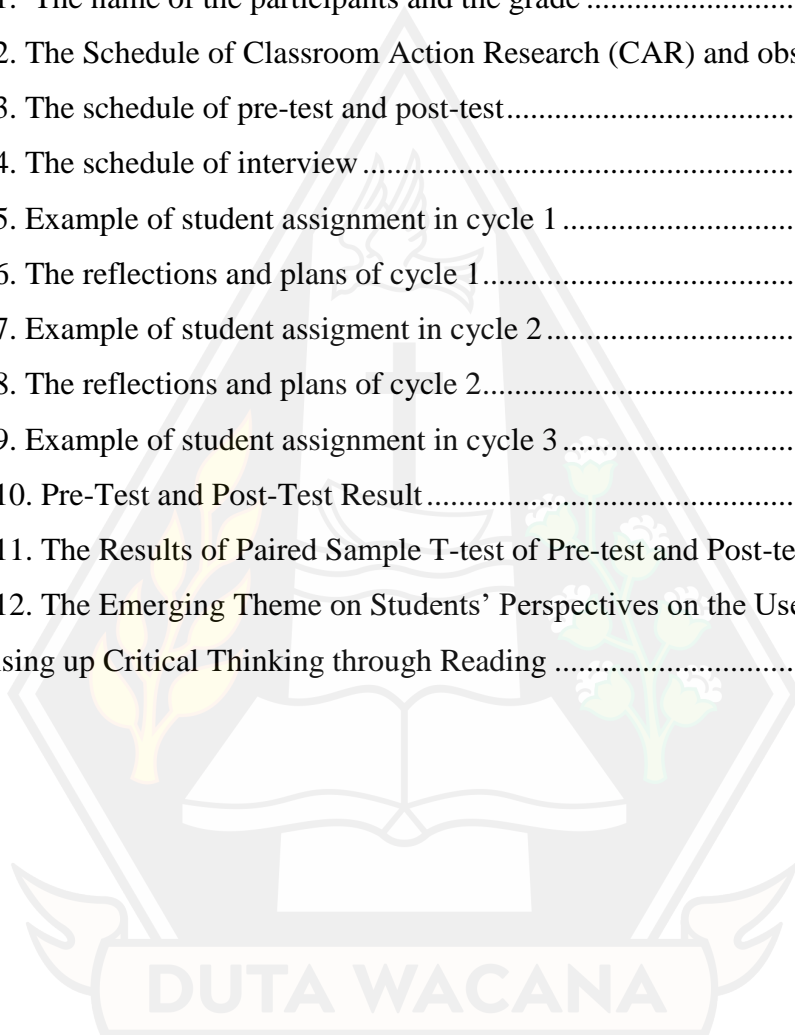
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ABSTRACT

Tumbuan, R. J. K (2024). *The Use of ChatGPT for Promoting Students' Critical Thinking in Reading Class* (Unpublished Undergraduate Thesis). Universitas Kristen Duta Wacana: Yogyakarta, Indonesia.

The aims of this study were to investigate to what extent the use of ChatGPT in learning to improve Indonesia high school students' critical thinking in L2 reading and to investigate the students' perspectives on the possible impact of ChatGPT to their critical thinking in L2 reading. The study involved thirteen Junior High Schools students from a Junior High School in Yogyakarta. This study used classroom action research (CAR) and followed a mixed method. This study used an observation checklist and Paired Sample T-test to find the use of ChatGPT in promoting students' critical thinking through L2 reading. The result of observations and tests was analyzed by using descriptive analysis. From the observation, this study found that the use of ChatGPT helped students to find reference in making argument and assumption. Followed by the result of the Paired Sample T-test was statistically significant difference between students' result of pre-test and post-test ($p < .038$). Moreover, this study also involved five students in follow up interview. The interview results were analyzed by using thematic analysis and one theme was found. Four students agreed that ChatGPT could provide references to help make arguments and assumptions. The result of this study suggested the teacher to consider the use ChatGPT in class with attention to learning design and clear instructions on the use of ChatGPT as a learning platform. Moreover, this study also suggested for future studies to investigate the suitable learning designs using ChatGPT as a learning platform to improve students' critical thinking skills in reading to get better findings.

Keywords: *Classrom Action Research, ChatGPT, Critical Thinking, Reading*

INTISARI

Tumbuan, R. J. K (2024). *The Use of ChatGPT for Promoting Students' Critical Thinking in Reading Class* (Unpublished Undergraduate Thesis). Universitas Kristen Duta Wacana: Yogyakarta, Indonesia.

Tujuan dari penelitian ini adalah untuk menyelidiki sejauh mana penggunaan ChatGPT dalam pembelajaran dapat meningkatkan pemikiran kritis siswa Sekolah Menengah Pertama di Indonesia dalam membaca bahasa Inggris dan untuk menyelidiki perspektif siswa tentang kemungkinan dampak ChatGPT terhadap pemikiran kritis mereka dalam membaca bahasa Inggris. Penelitian ini melibatkan tiga belas siswa Sekolah Menengah Pertama (SMP) dari sebuah SMP di Yogyakarta. Penelitian ini menggunakan Penelitian Tindakan Kelas (PTK) dan menggunakan metode campuran. Penelitian ini menggunakan daftar periksa observasi dan Paired Sample T-test untuk menemukan penggunaan ChatGPT dalam mempromosikan pemikiran kritis siswa melalui membaca bahasa Inggris. Hasil observasi dan tes dianalisis dengan menggunakan analisis deskriptif. Dari hasil observasi, penelitian ini menemukan bahwa penggunaan ChatGPT membantu siswa untuk menemukan referensi dalam membuat argumen dan asumsi. Diikuti dengan hasil Paired Sample T-test yang menunjukkan perbedaan yang signifikan secara statistik antara hasil pre-test dan post-test siswa ($p < .038$). Selain itu, penelitian ini juga melibatkan lima siswa dalam wawancara lanjutan. Hasil wawancara dianalisis dengan menggunakan analisis tematik dan ditemukan satu tema. Empat siswa setuju bahwa ChatGPT dapat memberikan referensi untuk membantu membuat argumen dan asumsi. Hasil penelitian ini menyarankan guru untuk mempertimbangkan penggunaan ChatGPT di kelas dengan memperhatikan desain pembelajaran dan instruksi yang jelas tentang penggunaan ChatGPT sebagai platform pembelajaran. Selain itu, penelitian ini juga menyarankan untuk penelitian selanjutnya untuk menyelidiki desain pembelajaran yang sesuai dengan menggunakan ChatGPT

sebagai platform pembelajaran untuk meningkatkan kemampuan berpikir kritis siswa dalam membaca untuk mendapatkan temuan yang lebih baik.

Kata kunci: *ChatGPT, Membaca, Penelitian Tindakan Kelas*



CHAPTER I

INTRODUCTION

This chapter consists of four parts. Those are research background, research questions, research objectives, and research benefits.

A. Research Background

In the current era, technology-based learning is increasing rapidly followed by technological developments that make learning more innovative and productive (Suhardiana, 2019). The growing technology in education makes artificial intelligence enter the world of education easily (Astutik et al., 2023). Astutik et al. (2023) further stated that the presence of artificial intelligence in education has the opportunity to shift the role of humans to complete tasks, in the context of education is to help the learning process. Human work such as learning, making decisions, solving problems, and so on are capabilities that can be carried out by artificial intelligence (Zhai, 2022). Artificial intelligence is proven to bring changes in the world of education because Chinonso et al. (2023) agreed that the learning experience will be different and teachers will pay more attention to their students personally. Therefore, the use of technology by utilizing artificial intelligence in learning will make learning different from usual.

One of the artificial intelligence named ChatGPT is the technology that will be used in this research. According to Setiawan and Luthfiyani (2023), ChatGPT can produce an article or a book that raises innovations in education in Indonesia. In his experiment using ChatGPT, Zhai (2023) makes an article with a fairly large number

of words and it only takes 2-3 hours including the editing process of the article. Zhai (2022) stated that the use of artificial intelligence in learning has been used since 1960 until it became popular and increased rapidly in recent years. Chinonso et al. (2023) stated that artificial intelligence is a substitute for what is called a teacher who gives directions and becomes an important role in educational practice. The current use of artificial intelligence in education is personalized learning (analyzing the needs, wishes, and abilities of students and then providing suggestions on learning strategies and learning materials to students), doing administrative tasks automatically (giving grades automatically so that teachers are quicker and more accurate in giving assessments and can also do something more important in improving the quality of teaching to students), and also being a teacher (Zhai, 2022). Anu and Ansah (2023) stated that ChatGPT is a generative artificial intelligence that can support and enhance student learning.

In this era of modern education, learning about critical thinking has to be installed in the student learning environment (Rachmawati et al., 2023). Facione (1990) explained that students who have critical thinking skills will be helped when analyzing other people's arguments and the importance of developing students' critical thinking skills is explained by Alsaleh (2020) helping students when making decisions and also behaving as responsible individuals. In research conducted by Spector and Ma (2019), artificial intelligence can assist human intelligence in developing one of the 21st century skills, critical thinking. According to Laili et al. (2020), high school students need to understand and get training in English tests with HOTS questions because English is very important for their future. Pamungkas

(2018) further stated that HOTS (High Order Thinking Skills) abilities are abilities that require students to analyze, evaluate, and create. English learning that applies the concept of HOTS (High Order Thinking Skills) will improve students' ability to read (Pamungkas, 2018). Overall this study will use chatGPT to improve high school students' critical thinking skills as well as their L2 reading skills.

Many previous studies have examined the use of ChatGPT for language learning (Anpurnan et al., 2024; Hang, 2023; Xiao & Zhi, 2023). But not many studies have examined the use of ChatGPT to improve students' critical thinking skills through reading. For example, Anpurnan et al. (2024) examined the use of ChatGPT to improve students' grammar skills and the participants were 14 junior high school students. Xiao and Zhi (2023) also examined 5 EFL learners from university in China about the use of ChatGPT in learning foreign language and found that ChatGPT can be used as a tool for their writing skills in writing an essay. Different with others, Hang (2023) examined 20 EFL instructors in Van Lang University and found that ChatGPT were used in teaching writing skill.

There are quite a variety of methods for researching the use of ChatGPT in language learning such as in (Xiao & Zhi, 2023) which used qualitative methods with observation and Ali et al. (2023) using quantitative methods with questionnaires. This study used mixed-method by observing, measuring with tests, and interviewing participants.

This study used classroom action research because according to Khasinah (2013), classroom action research can enhance more innovative learning. Syah (2016) further stated that to improve student achievement, classroom action research is a

teacher's strategy in modifying their learning along with technological developments that force students to have high competitiveness and quality education in life in this modern era. Khasinah (2013) again explained that classroom action research was conducted to see the effectiveness of learning for one semester. After conducting classroom action research, this research will also conduct interviews with research participants to continue the research so they can see their experiences after the researchers carry out classroom action research. As Alhamid and Anufia (2019) said, qualitative research used interviews in its research to obtain data or information from research participants based on their past, present, and future experiences. Therefore, as a whole research was qualitative research because as stated by Creswell and Creswell (2018) the researcher obtains data from participants' views freely based on their knowledge of the problem under study.

B. Research Questions

By considering the rationale of the research stated above, the following research questions were addressed in the present study:

1. To what extent does ChatGPT AI improve Indonesian junior high school learners' critical thinking in L2 reading?
2. What are learners' views on the possible impact of ChatGPT AI to their critical thinking in L2 reading?

C. Research Objectives

This study aims to see the use of chatGPT AI in learning. This study intends to:

1. To see how far the use of ChatGPT in learning will improve Indonesian junior high school learners' critical thinking in L2 reading.
2. To see the learners' view on the possible impact of ChatGPT AI to their critical thinking in L2 reading.

D. Research Benefits

The result of this study can be implied to improve students' critical thinking skills in reading using chatbot platforms such as ChatGPT to be more specific, there are benefits that the students, teachers, schools, and other researchers might experience:

1. For students

Understanding how ChatGPT can be used in the classroom to make reading more engaging and pleasurable will help students identify appropriate strategies for enhancing and discovering their critical thinking.

2. For teachers

Following this study, educators will be able to maximize the benefits and avoid the drawbacks in any learning environment by understanding the findings.

3. For the English course

The study can improve the instructional materials in the English course by understanding the potential effects of ChatGPT use.

4. For the researcher, the researcher may have a deeper grasp of English teaching and learning through AI platforms as a result of this work, which may also present him with an opportunity to improve educational quality.

5. For other researchers, they might use this study as a reference and fresh perspective when doing similar research in the future.



CHAPTER V

CONCLUSION

In conclusion, this chapter will report some points, such as a summary, implications and contributions, limitations, and future studies.

A. Summary

In this study, there are two objectives related to the use of ChatGPT AI for promoting students' critical thinking in reading class. This study conducted observations, tests, and interviews. The first research question aims to find out to what extent ChatGPT affects students' critical thinking in L2 reading. Through observation and test, this study found that students experienced an improvement in observation when using ChatGPT, they were willing to find references and use them in making arguments and assumptions, followed by the pre-test and post-test results which showed that there was a significant improvement in their critical thinking test. The second research question appeared to find students' views towards the use of ChatGPT AI for their critical thinking in L2 reading. This research question was answered by conducting interviews and producing two themes. The first theme was the use of ChatGPT helps make arguments and assumptions by providing references.

B. Implication and Contribution

Regarding the findings, this study has implications. First, related to the use of ChatGPT in three cycles, in the observation results, it can be seen the students' enthusiasm for using ChatGPT, and the pre-test and post-test obtained showed that

there was a significant difference in students' critical thinking development. This study may help teachers to consider the implementation of ChatGPT in class. ChatGPT can be used in small or large classes who that already have an understanding of using this platform or not because the user interface of ChatGPT is very easy to understand. However, teachers still have to explain the task instruction clearly and consider learning materials that are suitable for using ChatGPT as a learning platform. Second, ChatGPT produced significant changes to the students' critical thinking through reading in the pre-test and post-test due to the duration of the activity was quiet enough to understand the material and the instruction was clear and detailed. This can be a consideration for the teachers who want to implement ChatGPT as a learning platform. However, teachers should give clear instructions on to what extent students can use ChatGPT in learning to avoid plagiarism and not just copy-paste from ChatGPT.

In addition, this study adds to the literature in the education field regarding the study of artificial intelligence in English learning. Since this study was conducted using artificial intelligence in learning English, the result of the study can be used as a reference for future studies that are related to artificial intelligence in English learning and as a reference for future studies that are related to critical thinking in L2 reading. Moreover, this study implemented classroom action research (CAR) that provided enrichment in classroom action research (CAR) studies. The implementation of classroom action research (CAR) in this study can be used for future studies related to the implementation of classroom action research (CAR). Furthermore, there are many studies conducted on various artificial intelligences in

English learning. Thus, this study can be a reference for future studies who want to research ChatGPT AI.

C. Limitation

In addition to implications and contributions, there must be limitations in this research. The limitation set by the researcher is that the researcher realizes that the findings in the interview are less than ideal as qualitative research. The results of the interviews in this study did not maximize the objectives of qualitative research, namely obtaining more in-depth information. This is due to the researcher's lack of experience in conducting interviews so as not to get in-depth information. In addition, the findings in observation or classroom action research (CAR) are unique and can only occur in the classroom in this study. The findings from observation or classroom action research (CAR) may occur or be found in other studies. However, based on the findings of this study, it can be concluded that ChatGPT can be suggested to be used in the classroom to improve critical thinking skills through reading by considering several factors. For example, teachers' understanding of the ChatGPT platform, interactive learning design, and supporting facilities such as mobile phones and the internet.

D. Future Studies

Based on the findings and limitations of this study, the researcher has recommendations for further study. The findings of using ChatGPT in improving critical thinking through reading did have a significant result increase in the test, but during the first cycle observation, some students who seemed uninterested.

Future research can further investigate the use of ChatGPT to find more learning designs using the ChatGPT platform to improve students' critical thinking skills in reading. Moreover, with a more varied learning design, students will be more interested and the findings in future research will be maximized.



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