



A STUDY ON EFL STUDENTS' LEVELS OF CRITICAL THINKING SKILLS

¹Jumariati, ²Nasrullah*, ³Cayandrawati Sutiono, ⁴Muhammad Khairin Utomo

^{1,2,3,4} English Language Education, Faculty of Teachers Training and Education, Universitas Lambung Mangkurat, Indonesia

ABSTRACT

This research aims to discover the levels of EFL students' critical thinking skills. It is a quantitative approach with descriptive design by utilizing the adapted version of the Watson-Glaser Critical Thinking Skills Test as the instrument. It consists of five indicators: deduction, inference, identifying assumptions, interpretation, and analyzing arguments, with five questions for each. The subjects of the research were 33 students of the English Department of FKIP, Lambung Mangkurat University. The results showed that 23 students (69.69%) had a moderate level of critical thinking skills, seven students (21.21%) had a low level, and three students (9.09%) had a high level. Specifically, they performed low levels in inference and identifying assumptions, but they had moderate levels of critical thinking skills in deduction, interpretation of information, and analysis of arguments. These findings imply the need to facilitate students with more practice to develop their critical thinking skills, particularly in making inferences and identifying assumptions. Further research is recommended to measure EFL students' critical thinking skills by involving larger participants using other instruments of measurement to reveal more conclusive findings.

Keywords: *critical thinking skills; EFL students; level*

ABSTRAK

Penelitian ini bertujuan untuk mengetahui tingkat kemampuan berpikir kritis siswa bahasa Inggris sebagai bahasa asing. Penelitian ini menggunakan pendekatan kuantitatif dengan desain deskriptif menggunakan versi adaptasi dari Watson-Glaser Critical Thinking Skills Test sebagai instrumennya. Tes ini terdiri dari lima indikator yaitu deduksi, inferensi, mengidentifikasi asumsi, interpretasi, dan menganalisis argumen dengan lima pertanyaan untuk masing-masing indikator. Subjek penelitian adalah 33 mahasiswa Program Studi Pendidikan Bahasa Inggris FKIP Universitas Lambung Mangkurat. Hasil penelitian menunjukkan bahwa 23 siswa (69,69%) berada pada tingkat kemampuan berpikir kritis sedang, tujuh siswa (21,21%) berada pada tingkat rendah, dan tiga siswa (9,09%) berada pada tingkat tinggi. Secara khusus, mereka menunjukkan keterampilan yang rendah dalam inferensi dan mengidentifikasi asumsi tetapi mereka memiliki tingkat keterampilan berpikir kritis yang sedang dalam deduksi, interpretasi informasi, dan menganalisis argumen. Temuan ini menyiratkan perlunya memfasilitasi siswa dengan lebih banyak latihan untuk mengembangkan keterampilan berpikir kritis mereka khususnya dalam menarik kesimpulan dan mengidentifikasi asumsi. Penelitian lebih lanjut direkomendasikan untuk mengukur keterampilan berpikir kritis dengan

E-ISSN: 2621-9158
P-ISSN: 2356-0401

*Correspondence:
nasrullah01@ulm.ac.id

Submitted: 16 April 2024
Approved: 15 November 2024
Published: 16 November 2024

Citation:

Jumariati, J., Nasrullah, N., Sutiono, C., Utomo, M. K. (2024). A Study on EFL Students' Level of Critical Thinking Skills. *Celtic: A Journal of Culture, English Language Teaching, Literature and Linguistics*, 11(2), 215-231.
Doi: 10.22219/celtic.v11i2.33113

melibatkan peserta yang lebih besar dan menggunakan instrumen pengukuran lainnya untuk mendapatkan hasil yang lebih konklusif.

Kata Kunci: *keterampilan berpikir kritis, mahasiswa Bahasa Inggris sebagai Bahasa asing, tingkat*

INTRODUCTION

In the academic field, critical thinking (CT) skills have become one of the goals of educational institutions (Gunawardena & Wilson, 2021; Yuan et al., 2021; Ananiadou & Claro, 2009) that is now getting more attention, particularly in higher education and the workforce (Lai, 2011; Guiller et al., 2008). Having CT skills enables students to distinguish between facts and opinions, draw conclusions, and solve problems (Othman & Shah, 2013). Hence, these higher-order thinking skills are important for every student today to support his cognitive development and solve complex problems he may face in real life.

Having critical thinking components in the EFL teaching and learning process is a way to prepare students to have essential skills for the 21st century. Integrating a critical thinking component into the EFL teaching and learning process is possible since critical thinking is not a rigid skill that cannot be blended with another skill. Indah (2017) claimed that critical thinking is a flexible skill that can be easily integrated with other skills such as language skills, i.e., listening, speaking, reading, and writing. It is essential for EFL students to master both English and critical thinking skills so that EFL students can utilize English to its maximum. By mastering critical thinking skills, EFL students are able to use their English to discuss things that require students to use their reasoning skills (Widowati & Kurniasih, 2018).

Thinking critically is very essential for students to develop because it can enhance their cognitive skills and promote a deeper understanding of the learning course (Curwood, 2011; Ellerton & Dewey, 2022). By developing critical thinking, students can analyze complex ideas, evaluate the facts, recognize logical associations, and argue the assumptions that lead to in-depth understanding. Further, this skill is very important in an academic life in which students can navigate complex theories, a competitive perspective, and rich data. Thinking critically can empower students to evaluate information critically, see through the bias, and identify the fallacy.

Furthermore, thinking critically is good for students when making the right decisions and solving problems effectively (Lun et al., 2010). This can help them to deal with challenges with an open mind and investigation rather than rely on memory rotting or passive reception. Thinking critically also can support students to identify prejudice, implications, and research that is essential for long-term learning and professional development. Integrating critical thinking components into EFL teaching and learning is an effort to prepare students for life in the future. Beaumont (2010) mentions that critical thinking is the process of thinking and learning, which can be developed through independent and collaborative learning activities. Hence, integrating the skills of CT into EFL teaching and learning processes is possible since CT is a flexible skill that can be easily integrated with other skills such as listening, speaking, reading, and writing (Indah, 2017). Studies show that the process of reading is closely related to the development of thinking

factors, including critical thinking (Zubaidah et al., 2018), and that the process of EFL writing construction requires students' critical thinking skills (Zhang, 2018).

Moreover, integrating critical thinking skill elements into teaching and learning in the EFL context is predominantly crucial to pave language fluency and students' cognitive ability (Sabado, 2018). Thinking critically is a necessary talent that enables students to consider, evaluate, and draw logical conclusions from the material they receive. Thinking critically can be promoted in an EFL environment by adding activities that boost metacognitive reflection, reasoning ability, and open debate. To strengthen the thinking ability, a teacher can challenge students to reflect on their learning process, evaluate the learning resource originality, and participate in debates or various themes-challenging discussions (Abrar & Nasrullah, 2023).

Several approaches can be used to put critical thinking components into EFL teaching and learning. One of the examples can be depicted when a teacher can use open-ended questions to help students think about content, such as asking them to identify the main idea of a reading text, having them check an author's purpose, or making them check the reliability of the source read. Besides, using multimedia materials such as films, podcasts, and online articles can give them myriad perspectives and encourage them to think critically about giving information in classroom activities (Ariantini et al., 2021; Fogal et al., 2014).

Integrating the components into the EFL teaching and learning process yields several benefits for students. Thinking critically can help students increase their language ability because it can make them check out difficult English texts and draw logical conclusions. In addition, thinking critically can develop a deeper understanding of topics, active learning, and effective students' involvement in the learning process. Further, this skill also can make students more independent, improve problem-solving skills, and prepare students to face problems in the real world (Cameron & Bizo, 2019).

Students' levels of CT skills can serve as an indicator of the quality of educational institutions. As pointed out by Algharaibeh & Almomani (2020), an institution with a high level of students' critical thinking reflects that institution's high quality of education index. To facilitate students to acquire CT skills, teachers themselves need to be able to think critically (Birjandi & Bagherkazemi, 2010). Hence, teaching CT skills in EFL settings requires teachers' abilities and dispositions in CT and their pedagogical competence (Yuan et al., 2021). Teachers also should have a thorough understanding that CT is a developmental cognitive process in which students need to practice the skills as thinking routines (Gunawardena & Wilson, 2021). In a more specific view, Fung (2017) proposes that teachers can help their students develop CT skills through questioning and debating within group work activities while monitoring and guiding them as more experienced co-learners.

Despite the importance of students' CT skills in the EFL field, there are still few studies that specifically focus on EFL students' critical thinking skills level. A study conducted by Nejmaoui (2018) found that integrating CT in writing classes during a long period gave moderate positive results in students' argumentative writing. Another research conducted by Binh (2017) investigated the integration of critical thinking in EFL classes and discovered that the teaching of CT was not given a balanced portion between the skill-based courses and the content-based courses. The study also revealed that the teachers faced some challenges in integrating CT

into their teaching, such as teachers' lack of knowledge of high-order thinking skills, which eventually led to the inability on the implementation of high-order thinking skills in English language teaching and learning (Pillay et al., 2016; Hidayat & Lestari, 2023), students' intelligence has yet to reach the level of higher order thinking skills (Zainudin et al., 2019), the content of textbooks lack the inclusion of enough tasks that enhance critical thinking (Masadeh, 2021) and students' lack of interest and motivation (Laabidi, 2019).

In the Indonesian context, there is not much research focusing on the level of students' CT skills in EFL settings. A study by Mbato (2019) found that Indonesian EFL learners' understanding of critical thinking in reading at the conceptual level was sufficient, but they still lacked skills in generating their critical thinking. Another study by Moeljono & Lintang Sari (2021) investigated the critical thinking skills level of 82 Indonesian EFL learners and found that the critical thinking skills among Indonesian EFL learners showed an unsatisfactory result. In a similar vein, research by Azwati et al. (2022) on EFL postgraduate students found that the subjects lacked confidence in CT, and thus they needed more practice.

Measuring the levels of critical thinking skills of EFL students is important to obtain conclusive findings that lead to the improvement of the teaching-learning process and education quality. In fact, a lack of research on CT skills can hinder the growth of CT skills (Snyder & Snyder, 2008). Considering the importance of measuring the levels of critical thinking of EFL students in Indonesia, this study aims to investigate the levels of critical thinking skills of the students of the English Language Education Study Program at the Faculty of Teachers and Education of Universitas Lambung Mangkurat. Furthermore, this study is expected to contribute to the literature related to teaching practices in enhancing critical thinking.

METHOD

This research employed a quantitative approach with a descriptive study design. It is conducted to find out and describe the level of students' critical thinking skills. According to Robson & McCartan (2016), quantitative research methods explain an issue or phenomenon by gathering data in numerical form and analyses with the aid of mathematical methods, in particular statistics. Quantitative research involves the collection of data so that information can be quantified and subjected to statistical treatment in order to support or refute alternative knowledge claims (Leedy & Ormrod 2001).

This quantitative design comprises an analytical evaluation for standardized critical thinking to participants in order to scrutinize the students' critical thinking skills. This assessment can measure students's skills in analyzing, evaluating, draw logical conclusions based on the information given. The result of this assessment can entail and elaborate the critical thinking skills level of students and can become a reflection for teachers to review the lesson.

Participants of the Study

The population of this study was the sophomore year students of the English Language Education Study Program of Universitas Lambung Mangkurat. The

subjects of this research were 33 students. They were selected by using simple random sampling.

Instruments of the Study

The instrument for collecting the data was the adapted version of the Watson-Glaser Critical Thinking Appraisal Test. It consisted of 25 items representing the five indicators of critical thinking, namely deduction, inference, identifying assumptions, interpretation, and analyzing arguments. Deduction is to test students' ability to make a conclusion based on the statements given (Kumar & James, 2015). Inference is a step of the mind, an intellectual act, by which one concludes that something is true considering something else's being true or seeming to be true (Elder & Paul, 2002). Recognizing assumptions is an act of understanding what is being stated and considering whether the information presented is true and whether any evidence has been provided to back it up (Watson & Glaser, 1994). Meanwhile, an interpretation is an evaluation of whether a conclusion can logically follow from the information or evidence provided, which requires an individual to understand the precise meaning or significance of a piece of information and apply this information appropriately (Watson & Glaser, 1994).

Procedures of Data Collection

The data of the study was collected by following these stages: (1) Validating the research instruments by consulting the experts, (2) Revising the instrument following the experts' judgment, (3) Trying-out the instrument to small-scale participants having similar characteristics to the subjects of the study, (4) Revising the instrument following the results of the try-out, and (5) Administering the actual test to find the data of the study.

The data collection process for this study had been planned well and was administered to ensure the quality of the findings. The validation of this research instrument was done through professional consultations as the first step. The professionals, who owned knowledge about educational evaluation and critical thinking, gave comments/feedback about the modified Watson-Glaser performance tests. They helped identify the possible problems such as unclear questions, cultural bias questions, or content that were not objective to evaluate the critical thinking skills needed. To construct the prior legitimacy for the research instrument, this consultation is vital in this stage.

The second phase was directed to modify the instrument by inserting experts' recommendations. The set of questions was fixed in this stage in order to make sure that these questions were compliant with the aims of the research. With rigorous making, the researchers reset the questions to ensure that the information was reasonably made in an English context and matched them with one of the qualifications of critical thinking criteria: conclusion, deduction, assumption identifications, interpretation, and argumentation analysis. This was conducted to ensure that instrument evaluation was accurately judged in compliant with students' critical thinking skills at this phase.

The third phase involved instrument try-out which had been updated in the same feature of a small individual sample of the total population. The purpose of the try-out was to see the performance of instruments in the real environment. By giving the test to smaller samples, researchers can decide whatever practical problems that may be faced by the learners such as time management, question understanding, or unaware challenges. The effectiveness and instrument feasibility were assured mostly by performance data analysis and returned feedback during this tryout administration.

The fourth phase of this research was doing additional revision with instruments to improve the weaknesses that were found based on the tryout. To determine the appropriate decision, researchers went over the performance information and comments. This process covered the new additional items to accommodate critical thinking indicators, rearrangements of unclear question items, and deleted items that were not proper. By testing and improving the instrument iteratively, the final version can be more reliable and valid and can measure the critical thinking skills accurately

In the last phase of this step, the real test was given to the participants. This stage consisted of giving reviewed and fixed instruments to 33 students of the English language study program of Universitas Lambung Mangkurat. To certain the diversity and control of external factors that might impact the findings, the test administering was carried out carefully. The collected information from this process became the base to analyze the students' critical thinking. The results can be strongly trusted because the method of comprehensive and organized data collection gave prominent insight into the EFL students' critical thinking skills.

Techniques of Data Analysis

The data from the CT test was analyzed by giving each correct answer a score of 1, and the wrong answer got a score of 0. Furthermore, the score obtained is converted into a value with a range of 0-100 by dividing the score by the total score and then multiplied by 100. The formula used is as follows:

$$\text{Score} = \frac{\text{Total Correct Answer}}{\text{Total Questions}} \times 100$$

The scores obtained were then classified by referring to the scores' classification as displayed in Table 1.

Table 1 The Scores Classification

Classification	The Level Score
Very High	81-100
High	61-80
Moderate	41-60
Low	0-40

After the classification of the scores, the researchers interpreted the data and drew some conclusions.

FINDINGS

Findings on the Test of Critical Thinking

In the critical thinking skills test, the students were required to answer 25 multiple choice questions divided into five sections: deduction, inferences, interpretation of information, analyzing arguments, and identifying assumptions, with 5 questions for each section. This test was intended to reveal the levels of EFL students' critical thinking skills. The results of the students' critical thinking skills test are summarized in the table below:

Table 2 Results of Critical Thinking Test

Scores	Frequency	Percentage (%)
72	1	3.03
68	1	3.03
64	1	3.03
60	1	3.03
56	5	15.15
52	5	15.15
48	6	18.18
44	6	18.18
40	2	6.06
36	3	9.09
32	1	3.03
28	1	3.03
Total	33	100.0

From Table 2, the highest score was 72, while the lowest was 28. There were 7 students (21.21%) who obtained scores between 0-40, which was categorized as having a low level of CT skills. Then, 23 students (69.7%) obtained scores between 44-60 classified into a moderate level of CT skills. Finally, there were 3 students (9.09%) that obtained scores between 64-72, a high level of CT skills. The majority of the students obtained scores between 44 and 56, which meant that the subjects of the research mostly had a moderate level of critical thinking based on the score classification used in the study.

Findings on Each Section of the Critical Thinking Test

The scores of each student were then categorized based on each section of the test to reveal which part they could answer correctly and which part they were still having problems with. The summary is displayed in Table 3.

Table 3 Frequency of Correct Answer

Number of Correct Answer	Deduction	Identifying Assumption	Inferences	Interpretation of Information	Analyzing Arguments
0	0	4	6	0	1
1	2	11	16	2	2
2	9	11	9	6	6
3	14	6	1	11	12
4	7	1	1	8	8
5	1	0	0	6	4
Total	33	33	33	33	33

As seen in Table 3, in the deduction section, there were two students (6.06%) who obtained one correct answer and nine students (27.27%) who obtained two correct answers. Then, 14 students (42.42%) answered three questions correctly, seven students (21.21%) achieved four correct answers, and one student (3.03%) obtained five correct answers.

In the identifying assumptions section, four students (12.12%) obtained 0 correct answers, 11 students (33.33%) obtained one correct answer, and 11 students (33.33%) achieved two correct answers. In addition, there were six students (18.18%) who achieved three correct answers, one student (3.03%) obtained four correct answers, and no students (0.00%) obtained 5 correct answers.

In the inferences section, six students (18.18%) achieved 0 correct answers, and 16 students (48.48%) obtained one correct answer. Then, nine students (27.27%) obtained two correct answers, and one student (3.03%) achieved three correct answers. Further, there was one student (3.03%) who obtained four correct answers, and there were no students (0.00%) who obtained 5 correct answers.

In the interpretation of the information section, there were two students (6.06%) who obtained one correct answer, six students (18.18%) who achieved two correct answers, and 11 students (33.33%) who obtained three correct answers. Moreover, eight students (24.24%) achieved four correct answers, and 6 students (18.18%) obtained 5 correct answers.

Finally, in the analyzing arguments section, there was one student (3.03%) who obtained 0 correct answers, two students (6.06%) achieved one correct answer, six students (18.18%) obtained two correct answers, and twelve students (36.36%) obtained three correct answers. Then, there were eight students (24.24%) who achieved four correct answers and four students (12.12%) who obtained five correct answers.

Table 3 displays the percentage of students obtaining correct answers in the test. The percentage of students who obtained five correct answers and four correct answers reflected the parts of CT that they were already good at. The sections where students could obtain five correct answers were interpretation of information (18.18%), analyzing argument (12.12%), and deduction (3.03%). Meanwhile, no student could obtain five correct answers for the identifying assumption and inferences sections. Moreover, the sections that students could obtain four correct answers were interpretation of information (24.24%), analyzing arguments (24.24%), and deduction (21.21%).

The table also presents the percentage of students who obtained zero correct answers, showing the parts they were still struggling with. The sections in which students obtained zero correct answers were inferences (18.18%), identifying assumptions (12.12%), and analyzing arguments (3.03%).

DISCUSSION

The findings of the study reveal that the majority of the research subjects have moderate levels of critical thinking. A few of the subjects have a low level of critical thinking skills, and very few have a high level of critical thinking skills. These findings are in accordance with the findings by Mbato (2019), who found that students have sufficient critical thinking skills at a conceptual level. The findings of

the study are also similar to the findings of research by Utari (2020), who found that the critical thinking skills of EFL students were not satisfactory enough, although the students were able to understand, analyze, and evaluate while thinking critically, they were not able to produce sufficient output of their critical thinking skills. Similarly, Moeljono & Lintang Sari (2021) found that critical thinking skills among Indonesian EFL learners showed an unsatisfactory result. In a similar vein, research by Azwati et al. (2022) found that EFL postgraduate students need more practice on critical thinking skills as they were not confident of possessing the skills.

Regarding this finding, there is a key important point in the implication for EFL instruction. In this setup, it is necessary to think about effective strategies to develop critical thinking among EFL students. Teachers can include activities that can support critical thinking, such as debate, open discussion, and problem-solving exercises in daily teaching practices.

Moreover, the use of authentic materials and role play can help students to manifest critical thinking in a practical context. Besides, giving opportunities for students to reflect on the process of thinking and receive feedback to identify the weak area that needs improvement and develop self-confidence for showcasing critical thinking skills. By mitigating this teaching and learning gap, EFL teachers can equip students with skills to be successful in the academic and professional milieu.

The results of the study also show students' scores in each section: deduction, identifying assumptions, making inferences, interpreting information, and analyzing arguments. In the deduction section, 14 students (42.42%) obtained three correct answers, showing that almost half of the students had a moderate score. In other words, most students were able to draw logical conclusions based on general statements even though they were not perfect yet. As Agustina et al. (2022) explain, deduction is the process of reasoning from one or more general statements to reach certain logical conclusions. At this point, most students can make some logical reasoning before drawing a conclusion; however, they might make some errors in drawing the right conclusion during the process. The result of this study is different from the research by Aiyub et al. (2021), showing that the subjects of the study had very low levels of critical thinking skills, particularly in making deductions.

In identifying assumptions, there were 11 students (33.33%) who only obtained one correct answer and 11 students who gained two correct answers (33.33%). This indicates that the students lacked the ability to identify assumptions, as they were not able to decide which assumption was correct. The students were not fully able to identify whether the assumption was a fact that was backed by other information or not. This result showed that most students were struggling to identify which information was true or not. Interestingly, this result is confirmed by the research by Said et al. (2019), who found that 138 students (59%) gained low and average scores in the identifying assumptions section. Moreover, Lestari et al. (2020) reveal that the students' scores in the identifying assumptions section were the lowest from the other sections. This indicated that the students still lack the ability to differentiate whether the information is backed by other facts to recognize the justified assumptions.

This challenge in identifying assumptions underpins the need for improvement in the students' critical thinking skills. Developing the ability to differentiate facts from assumptions is very important for academic success and

making a proper decision (Annand, 2011). The educator should emphasize the importance of critical evaluation and give instructions and exercises targeted to differentiate between supported facts and unsupported assumptions (Indah, 2017; Zhang, 2020). By putting exercises that oblige students to analyze the text, refute the point of view, and evaluate the source's credibility, the educator can help students to surge their analysis skills. This skill is not only important to pursue academic achievement, but it also can navigate the landscape of complex information in this contemporary educational era (Aloqaili, 2012; Bachtiar et al., 2024).

Furthermore, in the era of technology integration and interactive learning tools which can serve real-time feedback adaptive learning can support the personalized learning process which can keep the pace of students' learning rate (Curwood, 2011; Strobl et al., 2019). The learning experience in this realm can make the identification of assumptions more engaging and memorable so that it can grow a deeper understanding for students. Collaboration with peers in group discussion and project-based can elevate critical thinking that can expose the students' perspectives and reasoning styles. By creating a diverse learning community that combines traditional and innovative methods of teaching, educators can equip students with critical thinking skills needed to identify and evaluate accurate assumptions. Meanwhile, in the inferences section, most of the students (48.48%) obtained only one correct answer, which shows that they obtained a low score. This result reflects that most students' skills in making inferences were still very low. It can be said that students did not totally understand how to make an implicit inference from the information. It indicates that students are still not able to make an inference from the information given. According to Harahap et al. (2020), most students gained low critical thinking skills in inference, where students were not able to collect things to form inferences and opinions from the information provided. It can be said that most students were not successful in splitting opinions and facts from the information given. This result is supported by a study by Kamsinah et al. (2020), revealing that students' critical thinking skills in inference were mostly at a low level.

Research on the low levels of students' ability to make inferences in critical thinking reveals a concerning trend within educational settings. Numerous studies have highlighted the fundamental importance of inference-making skills in fostering deeper comprehension and analytical thinking across various subjects (Aloqaili, 2012; Soto et al., 2019; Tarchi, 2015). However, investigations consistently show that many students struggle with this aspect of critical thinking, often leading to difficulties in problem-solving and interpreting complex information.

The findings on the interpretation of the information section show that most of the students (33.33%) obtained three correct answers, placing them at a moderate level of interpreting information. They were able to understand the logical conclusion from the information even though they were not perfectly able to draw conclusions from the piece of information given and thus still made some mistakes. This is in line with a study by Harahap et al. (2020) that revealed students scored at an average level in their interpretation of information. Watson & Glaser (1994) state that an interpretation is an evaluation of whether a conclusion can logically follow from the information or evidence provided.

Research focusing on the low level of students' interpretation skills in critical thinking reveals a concerning gap in their ability to analyze and comprehend complex information effectively. Interpretation skills are fundamental for extracting meaning from various sources, including texts, data, and multimedia materials, yet many students struggle to interpret information accurately and critically. Studies consistently demonstrate that deficiencies in interpretation skills hinder students' capacity to engage with content deeply, leading to difficulties in problem-solving, decision-making, and effective communication (Putri & Sulistyningrum, 2021; Widowati & Kurniasih, 2018). This deficiency not only impacts academic performance but also limits students' ability to navigate the complexities of the modern world, where the ability to interpret and evaluate information is crucial for learning success.

Finally, in the analyzing arguments section, there were 12 students (36.36%) who obtained three correct answers, putting them at a moderate level of analyzing argument skills. They were able to differentiate between a strong argument that aligns with the previous statement and a weak argument that is not valid. According to Vucetich et al. (2019), a good argument has a logical structure and uses the right relevant information to reach a valid conclusion. In addition, Yeh (2009) remarks that evaluating arguments requires the capacity to use a set of relevant criteria to determine the quality of the arguments. The subjects of the study understood that to analyze arguments, the arguments need to sound acceptable and have a strong relevance to the statements given. However, the result of this study is slightly different from the study of Aiyub et al. (2021), which found that the majority of the students were at a low level in the analyzing arguments section.

Research examining the low level of students' ability to analyze arguments in critical thinking highlights a critical deficiency in their capacity to deconstruct and evaluate the logic and validity of assertions. Analyzing arguments is a foundational skill for discerning the strengths and weaknesses of different perspectives, yet many students struggle to effectively assess the soundness of arguments presented in texts, discussions, or debates. Studies consistently demonstrate that this deficit impedes students' ability to engage critically with complex issues, leading to difficulties in forming well-supported opinions and making informed decisions.

CONCLUSION

Based on the findings of the study, it can be concluded that the level of students' critical thinking skills is moderate. The majority of the students achieved scores between 41-60, which is categorized as moderate. In contrast, there were only 3 students (9.09%) who obtained a score between 61-80, which indicated a high level, and no student was able to reach a very high level. The subjects of the study performed low levels in inference and identifying assumptions, but they had moderate levels of critical thinking skills in deduction, interpretation of information, and analyzing arguments.

A thorough examination of the performances of students in various marking areas of critical thinking highlights the clear strengths and weaknesses to be addressed. Students showcase a low but sufficient skill for deductive reasoning, information interpretation, and argumentation analysis. They show low performance in drawing conclusions and identifying assumptions. These

weaknesses areas reveal a significant gap in students' critical thinking skills in general which sends a message impliedly for more well-guided educational intervention to enhance these specific targeted skills.

The implication of this finding is very important to develop the curriculum and instructional strategies in English language study programs. To better increase the skills of critical thinking for students, especially in drawing conclusions, and identifying assumptions, it is vital to supply more practice-based learning activities. Those activities should be leaned on these flawed areas in critical thinking so that it can give more sufficient opportunities for students to participate in the exercises that train their reasoning and assumption skills.

Concerning this finding, future research should aim to develop this study which involves larger participants and with myriad instruments and assessments. This larger approach will assist in verifying the previous findings and offer more comprehensive insight to students to have critical thinking skills. Therefore, educators and researchers can develop more effective strategies to grow critical thinking skills which validate that students are more ready to succeed in both academic and professional areas.

Regardless of the limitation of the study involving only 33 students in the EFL setting, the findings suggest the need to facilitate students with more practice on critical thinking skills in EFL contexts and further research involving larger subjects and a more comprehensive data collection procedure.

REFERENCES

- Abrar, Y. Al, & Nasrullah, N. (2023). Investigating CTS Connection: Input and Output Ability in Debate for L2 Learners. *Journal of English Development*, 3(02), 54~64.
- Agustina, N. A. S., Tirtanawati, Ratih, M., & Suriyah, P. (2022). *The correlation between extensive reading and students' critical thinking in second grade of SMAN 1 Kedungadem* [Unpublished manuscript, IKIP PGRI Bojonegoro]. <http://repository.ikipgribojonegoro.ac.id/id/eprint/2075>
- Aiyub, Suryadi, D., Fatimah, S., & Kusnandi. (2021). Investigation of Watson-Glaser critical thinking skills of junior high school students in solving mathematical problems. *Journal of Physics: Conference Series*, 1806(1). <https://doi.org/10.1088/1742-6596/1806/1/012090>
- Algharaibeh, S. A. S., & Almomani, R. (2020). Critical thinking among Al-Balqa Applied University students. *Universal Journal of Educational Research*, 8(9), 3834-3841. <https://doi.org/10.13189/ujer.2020.080906>
- Aloqaili, A. S. (2012). The relationship between reading comprehension and critical thinking: A theoretical study. *Journal of King Saud University - Languages and Translation*, 24(1), 35-41. <https://doi.org/10.1016/j.jksult.2011.01.001>

- Ananiadou, K., & Claro, M. (2009). *21st century skills and competences for new millennium learners in OECD countries* (41).
<https://doi.org/10.1787/218525261154>
- Annand, D. (2011). Social presence within the community of inquiry framework. *International Review of Research in Open and Distance Learning*, 12(5), 38–54.
<https://doi.org/10.19173/irrodl.v12i5.924>
- Ariantini, K. P., Suwastini, N. K. A., Adnyani, N. L. P. S., Dantes, G. R., & Jayantini, I. G. A. S. R. (2021). Integrating social media into English language learning: How and to what benefits according to recent studies. *NOBEL: Journal of Literature and Language Teaching*, 12(1), 91–111.
<https://doi.org/10.15642/nobel.2021.12.1.91-111>
- Azwati, A., Setiawan, S., & Purwati, O. (2022). EFL postgraduate students' critical thinking beliefs and their ability in writing research methodology. *Celtic: A Journal of Culture, English Language Teaching, Literature, and Linguistics*, 9(1).
<https://doi.org/10.22219/celtic.v9i1.20166>
- Bachtiar, Juhana, & Pratiwi, W. R. (2024). Indonesian English language teachers' conceptions of critical thinking: challenge and strategy. *International Journal of Evaluation and Research in Education*, 13(1), 617–625.
<https://doi.org/10.11591/ijere.v13i1.26467>
- Beaumont, J. (2010). A sequence of critical thinking tasks. *TESOL Journal*, 1(4), 427–448. <https://doi.org/10.5054/tj.2010.234763>
- Binh, T. T. N. (2017). Integrating critical thinking in EFL classes: Current practices and prospects. *Journal of Inquiry into Languages and Cultures*, 1(3), 14–25.
<https://vjol.info.vn/index.php/nvvh/article/view/49974/40754>
- Birjandi, P., & Bagherkazemi, M. (2010). The relationship between Iranian EFL teachers' critical thinking ability and their professional success. *English Language Teaching*, 3(2). www.ccsenet.org/elt
- Cameron, K. E., & Bizo, L. A. (2019). Use of the game-based learning platform KAHOOT! to facilitate learner engagement in animal science students. *Research in Learning Technology*, 27(1063519), 1–15.
<https://doi.org/10.25304/rlt.v27.2225>
- Curwood, J. S. (2011). The nexus of continuity and change: Digital tools, social identities, and cultural models in teacher professional development. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, 72(10-A), 3646.
<http://ezproxy2.utwente.nl/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=2012-99070-179&site=ehost-live>
- Elder, L., & Paul, R. (2002). Critical thinking: Distinguishing between inferences and assumptions. *Journal of Developmental Education*, 25(3), 34–35.

- Ellerton, P., & Dewey, J. (2022). On critical thinking and content knowledge: a critique of the assumptions of cognitive load theory "Thinking is the method of intelligent learning." *Thinking Skills and Creativity*, 1, 1–14.
- Fisher, K. (2003). Demystifying critical reflection: Defining criteria for assessment. *Higher Education Research and Development*, 22(3), 313–325. <https://doi.org/10.1080/0729436032000145167>
- Fogal, G. G., Graham, F. H., & Lavigne, A. G. (2014). Blended Learning: An Evolving Praxis. *TESOL Journal*, 5(2), 353–373. <https://doi.org/10.1002/tesj.139>
- Fung, D. (2017). The pedagogical impacts on students' development of critical thinking dispositions: Experience from Hong Kong secondary schools. *Thinking Skills and Creativity*, 26(4), 128–139. <https://doi.org/10.1016/j.tsc.2017.10.005>
- Guiller, J., Durndell, A., & Ross, A. (2008). Peer interaction and critical thinking: face-to-face or online discussion? *Learning and Instruction*, 18(2), 187–200. <https://doi.org/10.1016/j.learninstruc.2007.03.001>
- Gunawardena, M., & Wilson, K. (2021). Scaffolding students' critical thinking: A process not an end game. *Thinking Skills and Creativity*, 41(3). <https://doi.org/10.1016/j.tsc.2021.100848>
- Harahap, L. J., Komala, R., & Ristanto, R. H. (2020). Assesing critical thinking skills and mastery concepts: The case of ecosystem. *EDUSAINS*, 12(2), 223–232. <https://doi.org/10.15408/es.v12i2.16544>
- Hidayat, R. H., & Lestari, Y. B. (2023). Challenges teachers face in applying high order thinking skills: A case study at madani super camp english course. *Proceedings of the 3rd Annual Conference of Education and Social Sciences (ACCESS 2021)*, 61–66. https://doi.org/10.2991/978-2-494069-21-3_8
- Indah, R. N. (2017). Critical thinking, writing performance and topic familiarity of Indonesian EFL learners. *Journal of Language Teaching and Research*, 8(2), 229–236. <https://doi.org/10.17507/jltr.0802.04>
- Kamsinah, D. L., Abdullah, & Suryajaya. (2020). Analysis of critical thinking skills in junior high school students. *Journal of Advances in Education and Philosophy*, 4(6), 234–237. <https://doi.org/10.36348/jaep.2020.v04i06.002>
- Koppi, A. J., Lublin, J. R., & Chaloupka, M. J. (1997). Effective teaching and learning in a high-tech environment. *Innovations in Education and Teaching International*, 34(4), 245–251. <https://doi.org/10.1080/1355800970340402>
- Kumar, R., & James, R. (2015). Evaluation of critical thinking in higher education in Oman. *International Journal of Higher Education*, 4(3). <https://doi.org/10.5430/ijhe.v4n3p33>

- Laabidi, Y. (2019). Examining teachers' perceived barriers to the integration of critical thinking in Moroccan high schools. *ASIAN TEFL:Journal of Language Teaching and Applied Linguistics*, 4(2), 83–95. www.asian-tefl.com
- Lai, E. R. (2011). *Critical thinking: A literature review research report*. <http://www.pearsonassessments.com/research>.
- Leedy, P., & Ormrod, J. (2001). *Practical Research: Planning and Design*. 7th Edition. Thousand Oaks, CA: Merrill Prentice Hall and Sage Publications.
- Lestari, F. P., Ahmadi, F., & Rochmad, R. (2020). The critical thinking ability in Watson-Glaser framework in fourth grade students. *Educational Management*, 9(2), 233–240. <http://journal.unnes.ac.id/sju/index.php/eduman>
- Lun, V. M. C., Fischer, R., & Ward, C. (2010). Exploring cultural differences in critical thinking: Is it about my thinking style or the language I speak? *Learning and Individual Differences*, 20(6), 604–616. <https://doi.org/10.1016/j.lindif.2010.07.001>
- Masadeh, T. S. Y. (2021). EFL teachers critical thinking behaviors and the challenges facing them in classrooms. *Journal of English Language Teaching*, 10(2), 185–203. <https://doi.org/10.24036/jelt.v10i2.112215>
- Mbato, C. L. (2019). Indonesian EFL learners' critical thinking in reading: Bridging the gap between declarative, procedural and conditional knowledge. *Jurnal Humaniora*, 31(1), 92. <https://doi.org/10.22146/jh.v31i1.37295>
- Moeljono, E. E., & Lintangari, A. P. (2021). Investigating Indonesian EFL learners' critical thinking: Current state and future directions. *English Review: Journal of English Education*, 10(1), 83–92. <https://doi.org/10.25134/erjee.v10i1.5357>
- Nejmaoui, N. (2018). Improving EFL learners' critical thinking skills in argumentative writing. *English Language Teaching*, 12(1), 98. <https://doi.org/10.5539/elt.v12n1p98>
- Othman, N., & Shah, M. I. A. (2013). Problem-based learning in the English language classroom. *English Language Teaching*, 6(3), 125–134. <https://doi.org/10.5539/elt.v6n3p125>
- Pillay, M. A. L., Omar, A., Raja, N. S. R. H., & Zainal, N. (2016). Issues related to the teaching and learning of higher order thinking skills among tesl student teachers. *Proceedings of the 1st EEIC in Conjunction with the 2nd RGRS- CAPEU between Sultan Idris Education University and Syiah Kuala University*, 451–456.
- Putri, R. N., & Sulistyningrum, S. D. (2021). Incorporating higher-order thinking skills in english lesson plans for senior high school. *Celtic: A Journal of Culture, English, Language Teaching. Literature and Linguistics*, 8(2), 164–176. <https://doi.org/10.22219/celtic.v8i2.18330>

- Robson, C., & McCartan, K. (2016). *Real World Research* (4th Editio). John Wiley & Sons Ltd. United Kingdom.
- Sabado, K. X. (2018). *Exploring Teachers' Perspective of Technology Pedagogy: Implications for Practice*. ProQuest Dissertations and Theses, 197. <https://search.proquest.com/docview/2040502520?accountid=13155>
- Said, H. M. N. M., Ali, M. F., Tahir, L. M., Junaidi, J., Zaid, N. M., Mamman, B., & Yaacob, F. S. (2019). Levels of critical thinking skills among pre-service teachers' in a Nigerian University: A preliminary study. *2019 IEEE International Conference on Engineering, Technology and Education (TALE)*, 1–7. <https://doi.org/https://doi.org/10.1109/TALE48000.2019.9225923>
- Snyder, L. G., & Snyder, M. J. (2008). Teaching critical thinking and problem-solving skills. *Delta Pi Epsilon Journal*, 50(2), 90–99.
- Soto, C., Gutiérrez de Blume, A. P., Jacovina, M., McNamara, D., Benson, N., Riffo, B., & Kruk, R. (2019). Reading comprehension and metacognition: The importance of inferential skills. *Cogent Education*, 6(1). <https://doi.org/10.1080/2331186X.2019.1565067>
- Strobl, C., Ailhaud, E., Benetos, K., Devitt, A., Kruse, O., Proske, A., & Rapp, C. (2019). Digital support for academic writing: A review of technologies and pedagogies. *Computers and Education*, 131, 33–48. <https://doi.org/10.1016/j.compedu.2018.12.005>
- Tarchi, C. (2015). Fostering reading comprehension of expository texts through the activation of readers' prior knowledge and inference-making skills. *International Journal of Educational Research*, 72, 80–88. <https://doi.org/10.1016/j.ijer.2015.04.013>
- Utari, N. (2020). *An analysis of EFL students' critical thinking in speaking at Universitas Masa Depan* [Unpublished master's thesis]. Muhamadiyah Malang University.
- Vucetich, J. A., Burnham, D., Johnson, P. J., Loveridge, A. J., Nelson, M. P., Bruskotter, J. T., & Macdonald, D. W. (2019). The value of argument analysis for understanding ethical considerations pertaining to trophy hunting and lion conservation. *Biological Conservation*, 235, 260–272. <https://doi.org/10.1016/j.biocon.2019.04.012>
- Watson, G., & Glaser, M. E. (1994). *Watson-Glaser critical thinking appraisal form S manual*. The Psychological Corporation.
- Widowati, D. R., & Kurniasih, K. (2018). Critical Reading Skill and Its Implication To Speaking Ability in Multicultural Classroom. *A Journal of Culture English Language Teaching Literature & Linguistics*, 5(2), 18. <https://doi.org/10.22219/celticumm.vol5.no2.18-23>

- Yeh, Y. C. (2009). Integrating e-learning into the direct-instruction model to enhance the effectiveness of critical-thinking instruction. *Instructional Science*, 37(2), 185–203. <https://doi.org/10.1007/s11251-007-9048-z>
- Yuan, R., Yang, M., & Lee, I. (2021). Preparing pre-service language teachers to teach critical thinking: Can overseas field school experience make a difference? *Thinking Skills and Creativity*, 40(2). <https://doi.org/10.1016/j.tsc.2021.100832>
- Zainudin, A., Vianty, M., & Inderawati, R. (2019). The practice and challenges of implementing critical thinking skills in EFL teachers questioning behaviour. *English Review: Journal of English Education*, 8(1), 51–58. <https://doi.org/10.25134/erjee.v8i1.2112>
- Zhang, R. (2020). Exploring blended learning experiences through the community of inquiry framework. *Language Learning and Technology*, 24(1), 38–53. <https://doi.org/10.125/44707>
- Zhang, X. (2018). Developing College EFL Writers' Critical Thinking Skills Through Online Resources: A Case Study. *SAGE Open*, 8(4), 1–12. <https://doi.org/10.1177/2158244018820386>
- Zubaidah, S., Corebima, A. D., Mahanal, S., & Mistianah. (2018). Revealing the relationship between reading interest and critical thinking skills through remap GI and remap jigsaw. *International Journal of Instruction*, 11(2), 41–56. <https://doi.org/10.12973/iji.2018.1124a>