

## Students' Critical Thinking and Their Writing Ability in Analytical Exposition Texts

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### ABSTRACT

This study aimed to examine and explain the relationship between two variables: (1) students' critical thinking ( $X_1$ ) and their ability to write Analytical Exposition texts ( $Y$ ). The population of this research consisted of 321 eleventh-grade students from SMAN 12 Tangerang Selatan. A random sampling technique was employed to select the sample, which included 112 students. The research instruments consisted of a critical thinking test and a writing ability test for Analytical Exposition texts. Regression and correlation analysis were used to explore the relationship between the variables. The findings revealed that (1) there was a relationship between students' critical thinking and their writing ability in Analytical Exposition texts, with a correlation coefficient of 0.231. Additionally, this relationship was categorized as weak, and the simple regression analysis showed that critical thinking contributed to writing ability in Analytical Exposition texts. The R-square value was 0.053, or 5.3%, indicating that critical thinking accounted for 5.3% of the variation in writing ability, while the remaining 94.7% was influenced by other variables not investigated in this study.

**Keywords:** critical, writing ability, and analytical exposition text

### ABSTRAK

*Penelitian ini bertujuan untuk menyelidiki dan menjelaskan hubungan antara dua variabel, yaitu: (1) berpikir kritis siswa ( $X_1$ ) dan kemampuan menulis teks eksposisi analitis ( $Y$ ). Populasi penelitian ini terdiri dari 321 siswa kelas sebelas SMAN 12 Tangerang Selatan. Teknik pengambilan sampel yang digunakan adalah teknik pengambilan sampel acak, dengan sampel yang berjumlah 112 siswa. Instrumen yang digunakan dalam penelitian ini adalah tes berpikir kritis siswa dan tes kemampuan menulis teks eksposisi analitis. Analisis regresi dan korelasi digunakan untuk mengetahui hubungan antara kedua variabel tersebut. Hasil penelitian menunjukkan bahwa (1) terdapat hubungan antara berpikir kritis siswa dan kemampuan menulis teks eksposisi analitis dengan nilai koefisien korelasi 0,231. Selain itu, hubungan antara kedua variabel tersebut tergolong hubungan yang lemah, dan hasil regresi tunggal menunjukkan bahwa berpikir kritis berkontribusi terhadap kemampuan menulis teks eksposisi analitis. Nilai R square adalah 0,053 atau 5,3%, yang berarti kemampuan menulis teks eksposisi analitis dipengaruhi oleh berpikir kritis sebesar 5,3%, sedangkan 94,7% dipengaruhi oleh variabel lain yang tidak diteliti dalam penelitian ini..*

**Kata kunci:** berpikir kritis, kemampuan menulis, dan teks eksposisi analitis.

### A. Introduction

Writing is a crucial language skill that EFL (English as a Foreign Language) learners must master in their journey of learning English. According to Meyers (2018), writing is one of the essential competencies for English

learners to acquire as part of their language development. This skill is vital for creating various written texts as required by the school curriculum. Langan, as cited by Irwan, Syafei, & Marlina (2018), explains that writing is the ability to translate thoughts into

words on paper. It is a skill that improves with practice, requiring continuous effort. Writers often do not fully grasp what they need to express until they have investigated and understood the problems they aim to address. Writing involves gathering, organizing, presenting, refining, and revising ideas on paper. Moreover, for students to succeed academically and earn a proper diploma in literature and communication, they must refine their writing skills as part of their educational journey (Al-Hammadi & Sidek, 2015).

Additionally, to create the content of an Analytical Exposition text, students must develop their skills in presenting relevant arguments related to the topic they are writing about. It is also crucial to persuade readers of the validity of the arguments presented. Furthermore, students need strong cognitive abilities to effectively elaborate on their viewpoints. It is important for students to avoid repetitive sentences, inappropriate verbs, subjects, and words that could make the text disorganized.

Students should focus on assembling the strongest arguments in their writing. To capture the reader's attention, students must present their ideas clearly and accurately. According to the K13 curriculum, the learning objectives for Analytical Exposition texts include students being able to write them following specific guidelines. This includes proper use of generic structure, vocabulary, punctuation, and grammar.

To complete an Analytical Exposition text, students must possess several skills, such as a deep understanding of the issue, constructing strong arguments, organizing knowledge accurately, and drawing clear conclusions. Critical Thinking (CT) is essential for developing arguments and ideas according to established

guidelines. Since Analytical Exposition writing is a key aspect of academic writing, students need to demonstrate strong critical thinking abilities. They must follow a series of steps to present their arguments effectively, including gathering data, categorizing information, evaluating it, and articulating their viewpoint in a clear, precise, and logical manner.

Furthermore, before presenting logical arguments in their Analytical Exposition text, students should first assess and evaluate the concepts. Key considerations should be presented from multiple perspectives. Afshar et al. (2017) suggested that critical thinking involves disciplined and independent thinking, utilizing reflective contemplation in alignment with specific modes or domains of thought.

EFL college students encounter various challenges in writing, which require them to focus on aspects such as grammar, vocabulary, ideas, the structure of their essays, cultural background, personal habits, and the experiences of their teachers. Amer (2013) agrees, noting that the writing difficulties faced by EFL students are not solely related to grammar, vocabulary, or a lack of ideas. One significant challenge is navigating the rhetorical conventions of expository essays, where students may struggle to identify or express the conflicts they face as they transition between the rhetorical practices of their original culture and the culture they have adopted.

Several factors influence students' writing. Burnett and Kastman, as cited in Amer (2013), suggest that encouraging students to pay attention to key components such as the audience, context, goals, and organization can significantly enhance their writing effectiveness.

Furthermore, to select and filter the knowledge we obtained, we need to have good critical thinking to ensure the information is valid and correct. CT means contemplating consciously and deeply about the solutions we need to find related to difficulties we face in order to have great concepts. Critical thinking has an essential role in the success of students both in the academic world and in the real world it is the objective of learning and what students need (Azizah, H., & Fahriany, F, 2017). To write, CT provides a role to support our argument. In line with Afshar et al. (2017, p. 2) stated that CT is described as far as intellectual (skills) and full of feeling factors.

Critical thinking in the cognitive domain is described as an ability that supports considering evaluation, inference, and analysis. CT encourages students to use their information-seeking skills and dig their hidden skills such as fact-finding, self-confidence, and open-mindedness. In addition, the lack of students' critical thinking affects their competence to master and learn bigger things (Qoura & Zahran, 2018). Critical thinking can be described as a cognitive ability or social and emotional disposition.

Critical thinking as a cognitive skill includes a set of higher-order thinking skills, such as evaluation, inference, analysis, deductive, and inductive reasoning, which are assumed to be taught and transferred. However, mastering critical thinking requires the pursuit of reality, acceptance, systematization, examination, improvement, curiosity, and courage. (Ebadi & Rahimi, 2018).

When we talk about the benefits of critical thinking, it becomes clear that this skill is not only important in academic settings, but also plays a key role in professional life, such as

improving our chances of getting a better job. One effective way to deal with challenges is by combining our critical thinking ability with the right methods, because critical thinking helps us respond more wisely and achieve better results. In fact, we actually use critical thinking in many everyday activities—like doing school assignments, watching television, working, or having discussions.

However, it is still important for us to reflect on how effectively we are applying this skill. In the professional world, people rely on critical thinking to solve difficult problems, make decisions, and draw conclusions. This is because critical thinking encourages careful observation, analysis, and sound judgment (Cottre, as cited in Kuek, 2010). Bloom's framework of cognitive skills also supports this idea, as it emphasizes evaluating terms, facts, and conclusions. Valid information is organized, interpreted, assessed, and then presented in written form. This process reflects understanding because it requires someone to connect prior knowledge with new insights.

The next stage is analysis, where supporting evidence is examined carefully to develop strong conclusions. Synthesis follows, which involves shaping meaningful and concise solutions. At the heart of Bloom's taxonomy is analysis itself, the ability to assess an issue both qualitatively and quantitatively. In the same way, a writer should provide solid supporting evidence before forming a judgment in order to produce a truly critical essay.

Hassan Soodmand Afshar (2017) carried out a study to examine the connection between EFL learners' critical thinking ability and their writing performance, with particular attention to the links between specific critical thinking sub-skills and writing

components. The main goal was to identify which critical thinking skills could best predict students' writing proficiency. A total of 104 English majors participated in the research. They completed the California Critical Thinking Skills Test and the IELTS writing task that required them to produce an argumentative essay. Two raters then evaluated the students' work based on four writing sub-skills taken from the IELTS rubric. The findings revealed a significant relationship between participants' critical thinking ability and their overall writing performance. Interestingly, however, only the organization aspect of writing showed a significant correlation with critical thinking skills.

Writing is considered one of the most challenging skills for learners of English to master (Apsah, 2017). Supporting this concern, the Program for International Student Assessment (PISA) reported in 2010 (as cited in Pristiawaty, 2016) that Indonesia ranked 64th out of 65 participating countries in terms of literacy performance. This means Indonesia was placed as the second-lowest country in the world regarding literacy culture. Students' writing achievement is also relatively low, even though the 2013 Indonesian curriculum requires them to develop adequate writing competence.

Therefore, improving students' writing proficiency has become an urgent need. Theoretical perspectives suggest that critical thinking skill is essential components that support students' writing development. A number of studies have shown that both critical thinking ability significantly contribute to improved writing performance.

## B. Research Method

This study employed a quantitative research design. In quantitative research, mathematical models, theories, and hypotheses are used to explain relationships among variables. The assessment process is essential because it allows researchers to link empirical observations with statistical findings in a non-experimental context. All data in this study were converted into numerical form and analyzed using SPSS software.

A correlational design was applied to examine the relationships between the research variables. Since this was a non-experimental study, no treatment or manipulation of variables was conducted. The researcher sought to determine the extent to which students' writing ability and critical thinking skills were related. The study consisted of one independent variable and one dependent variable. Independent variable X1 was correlated with the dependent variable Y. The research was conducted with eleventh-grade students at SMAN 12 South Tangerang.

Data collection took place in March 2021. Although the population consisted of all students at SMAN 12 South Tangerang, only a sample was selected to make the research manageable. Cluster random sampling was used because the participants were grouped into classes that were relatively homogeneous.

Several research instruments were used to collect data, including tests measuring critical thinking and students' ability to write analytical exposition texts. The instruments were selected based on their relevance to hypothesis testing. Before data collection, students were informed about the purpose of the research and assured that their responses would remain confidential. Data were gathered in stages. First, students

completed a critical thinking questionnaire, followed by a vocabulary knowledge test, and finally a writing test in which they produced an analytical exposition text. The questionnaire and critical thinking were administered online before the writing task.

Three main tests were used as primary instruments. The writing test required students to compose an analytical exposition text based on one of several given topics, such as banning mobile phones at school, prohibiting smoking in public areas, banning motorcycles in residential areas, whether students work harder than teachers, and whether online learning is more enjoyable than classroom learning. The writing task was administered in two separate sessions to minimize student anxiety.

In the first session, students completed the multiple-choice critical thinking. In the second session, they wrote an analytical exposition essay. Documents from the classroom teacher were also used as supporting data. These included assessments from critical reading classes and other relevant records related to the teaching of analytical exposition texts.

After the data on students' writing ability and critical thinking were collected, the scores were analyzed to determine whether significant relationships existed among the variables. Parametric statistics were employed in the analysis. Since there was one predictor variables—critical thinking (X1) and vocabulary knowledge (X2), multiple regression analysis was used to examine their combined influence, while correlation analysis was applied to determine the strength of the relationships between the variables.

## C. Result and Discussion

To examine the correlation among the variables in this study, the Pearson product-moment correlation coefficient was used in testing the hypotheses. Pearson correlation produces a value ranging from  $-1$  to  $+1$ , which reflects the strength and direction of a linear relationship between two variables, although it does not necessarily imply causation. A negative coefficient shows that the variables move in opposite directions, while a positive coefficient indicates that they change in the same direction.

In testing the hypotheses, a significance level of  $0.05$  was applied. This means that there is a  $5\%$  probability of rejecting the null hypothesis when it is actually true, or in other words, the results are interpreted with a  $95\%$  level of confidence.

The first hypothesis (H1) proposed in this study states that there is a significant relationship between students' critical thinking skills and their ability to write analytical exposition texts. The correlation coefficient ranges from  $-1$  to  $+1$ . A value closer to either  $1$  or  $-1$  indicates a very strong relationship between the variables, while a value approaching  $0$  suggests that the relationship is very weak. The interpretation of the correlation coefficient values is summarized in the following table.

**Table 1. Coefficient Correlation X towards Y**

	x1	y
X1	Pearson Correlation	1 .231*
	Sig. (2-tailed)	.004
	N	112 112
Y	Pearson Correlation	.231* 1
	Sig. (2-tailed)	.004
	N	112 112

Based on the data presented in the table, the correlation coefficient for critical thinking was found to be 0.231, which falls into the category of a weak relationship. The significance value obtained from the calculation was 0.004, which is lower than 0.05. Since the significance value (sig) is less than 0.05, it indicates that there is a significant correlation between students' critical thinking skills ( $X_1$ ) and their ability to write analytical exposition texts ( $Y$ ). Therefore, the first hypothesis is accepted.

After identifying the relationship between these two variables, a simple regression analysis was then conducted. This analysis aimed to determine the extent to which the independent variable contributes to the dependent variable. Regression analysis is used to examine the influence of a predictor variable on a criterion variable.

**Table 2. Module summary of critical thinking skills**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,231 <sup>a</sup>	,053	,045	14,460

a. Predictors: (Constant),  $x_1$

b. Dependent Variable:  $y$

Based on the data shown in the table above, the R-square value was 0.053 or 5.3%. This indicates that students' critical thinking skills contributed 5.3% to their ability to write analytical exposition texts. Meanwhile, the remaining 94.7% was influenced by other factors that were not examined in this study.

The findings showed that the first hypothesis ( $H_1$ ) was accepted, indicating that there is a significant relationship between students' critical thinking skills and their ability to write analytical exposition texts. The correlation coefficient obtained was 0.231, which

falls into the weak correlation category. Regression analysis further demonstrated that critical thinking contributed to writing ability, with an R-square value of 0.053 or 5.3%. This means that 5.3% of the variance in students' analytical exposition writing ability was explained by critical thinking, while the remaining 94.7% was influenced by other factors not examined in this study.

These results are consistent with previous research. Tahira and Haider (2019) reported that students with low levels of critical thinking tend to have weaker writing performance. When students lack critical thinking skills, their writing scores also tend to decline, highlighting the importance of developing reasoning abilities in analytical exposition writing. Critical thinking, as a cognitive skill, is closely related to the ability to make rational judgments (Vieira & Tenreiro-Vieira, 2016). Similarly, Suparno (2017) found that students often demonstrate weak critical thinking in writing, as many of them produce arguments that are superficial and lack depth. Soodmand Afshar, Movassagh, and Radi Arbabi (2017) also emphasized that critical thinking is an important factor influencing writing quality, as it supports the development of logical argumentation.

Critical thinking enables students to solve problems and evaluate information effectively (Halpern, 2014). It allows them to distinguish facts from misinformation by encouraging clear and comprehensive reasoning. Students with strong critical thinking skills are better able to construct sound arguments and write more effectively (Cottrell, 2017). Such students develop stronger cognitive and intellectual capacities in identifying, analyzing, and evaluating information, which helps them avoid biased judgments. Stobaugh (2013) similarly

argued that higher-order cognitive skills are essential for learning success and for the assessment of writing performance.

In conclusion, critical thinking is one of the variables that shows a correlation with students' writing ability in analytical exposition texts. Although the percentage contribution appears small, it still plays a meaningful role in helping students construct coherent written arguments. However, further research is needed to confirm these findings, as this study was limited to a relatively small sample from a single school in South Tangerang.

Future studies should involve larger samples and broader research settings, and explore additional predictor variables that may be closely related to critical thinking and writing ability in analytical exposition texts.

#### **D. Conclusion and Suggestion**

Based on the research findings and discussion, it can be concluded that there is a correlation between students' critical thinking skills ( $X_1$ ) and their ability to write analytical exposition texts ( $Y$ ). The contribution value was 5.3%, which falls into the weak correlation category.

Therefore, the hypothesis stating that there is a relationship between these two variables is accepted. This indicates that students' critical thinking skills play a role in improving their analytical exposition writing performance. In other words, students with higher levels of critical thinking tend to produce better English writing, whereas students with lower critical thinking skills generally demonstrate weaker performance in writing analytical exposition texts.

It is important for teachers to explain the relationship between critical thinking and students' writing ability in analytical exposition texts so that students become more confident in writing. Teachers also need to emphasize

the value of developing strong critical thinking skills and sufficient vocabulary knowledge when learning to write analytical exposition texts.

Students are expected to continue practicing in order to achieve the goals of analytical exposition writing and benefit from the learning process. The findings of this study provide useful information regarding the links between critical thinking and analytical exposition writing ability. These results may also serve as a reference for developing writing courses and designing programs that support students' English learning in this school.

For future studies, research on critical thinking and analytical exposition writing ability should be conducted with better preparation in terms of time allocation, research instruments, and research settings.

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