

**THE CORRELATION BETWEEN CRITICAL THINKING SKILL AND
ARGUMENTATIVE WRITING SKILL OF THE SECOND YEAR
STUDENTS ISLAMIC HIGH SCHOOL AULIA CENDEKIA
PALEMBANG**



UNDERGRADUATE THESIS

**This thesis was accepted as one of the requirement to get the tittle of
Sarjana Pendidikan (S.Pd)**

by

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ENGLISH EDUCATION STUDY PROGRAM

FACULTY OF TARBIYAH

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RADEN FATAH PALEMBANG

2017

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STUDENTS OF ISLAMIC SENIOR HIGH SCHOOL AULIA CENDEKIA
PALEMBANG**

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defended by the writer in the Final Examination and was approved by the
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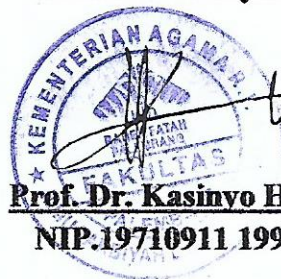


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STATEMENT PAGE

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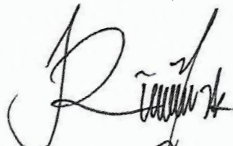
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Palembang, November 2017
The Writer,



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Dedication

"You are not just brother, my parents, my friend, and my partner in crime. I'm so grateful to have you in my life. You are the only one who never leave me behind. Thank you so much my the one and only brother, let me pay you back soon." ☺

Motto

"Always remember to fall asleep with a dream, and wake up with purpose"

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Furthermore, the writer would like to express her appreciation to the school for their assistance and cooperation. She also would like to express her great gratitude to her two advisors, Hj. Lenny Marzulina, M. Pd and Nova Lingga Pitaloka, M. Pd, for the time, guidance, suggestions and patience during the process of writing this thesis from the beginning until the end. In addition, the writer would like to thank the examiners for the suggestions given in order to improve the quality of this thesis.

At last, the writer would like to express gratitude to the Head of English Education Study Program, Hj. Lenny Marzulina, M.Pd., the writer is also grateful of the Dean of Tarbiyah and Teaching Faculty and all his staff members. The greatest gratitude is also given to all of the lecturers who had taught her during the study at English Education Study Program.

Moreover thousands of thanks and appreciations are also dedicated for the headmaster, teachers, and students of MA Aulia Cendekia Palembang who had involved in her study for their cooperation and helps. Special thanks is given to express her deepest appreciation to her family, Father and Brother for their pray, patience, love, and support. This thesis discusses about the students' critical thinking skill and their argumentative writing skill. There are few new things found in this study. Hopefully, this thesis is useful for the writer, the students, the teachers, and the others researchers and everyone who reads it.

Palembang, November 2017

Riza Oktari Putri

ABSTRACT

This study was to find out the significant correlation between critical thinking skill and argumentative writing skill, also the significant influence of critical thinking skill towards argumentative writing skill. The study was conducted at Islamic Senior High School Aulia Cendekia Palembang. The population of the study was second year students of Islamic Senior High School Aulia Cendekia Palembang in academic year 2017/2018. The sample was 60 students of all the second year students by using total population sampling. The collected data were analyzed by using the correlation and regression analysis and computerized with SPSS 20. Furthermore, it was found that there was significant correlation between critical thinking skill and argumentative writing skill, as p-output was 0.00 which was smaller than 0.05 ($0.00 < 0.05$). Besides, the correlation coefficient of the test was .695. Thus, the level of correlation was strong. And also this study indicated that there was a significant influence of critical thinking skill with contribution 48.8% toward argumentative writing skill.

Keyword : critical thinking skill, argumentative writing skill

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CHAPTER I

INTRODUCTION

This is the opening chapter of this study. This chapter presents: (1) background of the study; (2) problems of the study; (3) objectives of the study; and (4) limitation of the study; (5) significance of the study.

1.1 Background.

Writing is one of the essential skills. It is considered as an important skill needed for both academic purposes and lifetime learning (Asgari, 2012; Ifanti, 2012). The definitions of writing are variously stated by some experts. According to Rivers (1981, p. 294), writing is conveying information or expression of original ideas in a consecutive way in the new language. It is also supported by Akkaya & Kirmiz (2013, p. 1138) who claim that writing is the expression of feelings, thoughts, desires and plans in black and white.

As an important tool, writing has so many benefits. As stated by Mandal, (2009), students who are good at writing will bring many benefits. Firstly, writing is a good way to help develop students' ability of using vocabulary and grammar, increasing the ability of using language. Secondly, writing is an essential tool to support other skills. If a student has good writing ability, they can speak and read the text more effectively. Thirdly, writing is a way to approach modern information technology as well as the human knowledge.

In relation to the importance of writing, Kuo (2006, p. 219) asserts that in this competitive era having excellent writing skill is crucial for success in

education and profession. Therefore, Huy (2015, p. 2) emphasizes that the students who do not know how to express themselves in writing, they will find some difficulties to communicate well with the teacher, professor, friends, or just about anyone else. More importantly, Alfaki (2015, p. 40-52) adds that the success of students in learning is often influenced by writing skill. It is because writing skill is needed when students are doing the test, research, writing essay, taking note or any other activities in the process of teaching and learning.

As one of the basic skills in English, compared with listening and speaking skills, writing is more complex skill that it involves constructing a new text rather than dealing with an already created one (Mohammadnia & Ayaz, 2014). Writing ability is only learnable with the help of formal and organized instruction (Emig, 1997). In addition, Hiew (2015, p. 27) claims that writing requires students to be able to write smoothly as the ideas flow through their mind. Jarvis (2000) also emphasizes that many students do not enjoy writing because they feel that if they cannot do it correctly at the first time then they will never get it. Even though low and average proficiency students are recommended to write freely without worrying about their spelling and grammar, they still find it hard to express their thoughts and feelings due to the lack of vocabulary knowledge, writing practice and reading (Muslim, 2014, p. 105).

Meanwhile, Alwasilah (2005, p. 1) argues that writing is the most neglected skill in language education in Indonesia. Then, writing habit in Indonesia is lower than reading habit (Khak, 2011). This situation is basically supported by the fact that Indonesia is in a far move to consider English as the foreign/ second language in the country. Moreover, Scopus and Scimago as the

indexers of many journals in the world note that in 2013, there were only 3.231 journal publications in Indonesia (Arradian, 2014). This number is far from satisfying compared to Malaysia and Singapore's. Thus, as stated in *Surat Dirjen Dikti No. 152/E/T/2012*, there is a rule from Directorate General of Higher Education of Indonesia that students have been required to write a research article and publish it in a journal as a requirement for graduation since August 2012. Masduqi (2011, p. 186) argues that the limited use of critical thinking skills and meaningful activities are the reasons why students in Indonesia tend to be ineffective in exchanging ideas and writing in English.

According to Lowenberg (2000), In Indonesia, there are various types of writing that should be learnt by the students including expository, narrative, descriptive, recount and argumentative. Richards and Schmidt (2010) define argumentative writing as composition which the writers give their opinion and arguments as well as evidence in order to support or defend position. In line with this, Zhu (2011, p. 34) describes argumentative writing as the act of forming reasons, making inductions, drawing conclusions, and applying them to the case in discussion; the operation of inferring propositions, not known or admitted as true, from facts or principles known, admitted, or proved to be true.

Writing argumentative is not an easy task. It is supported by Amalia (2016) who argues that all of those skills are useful for students, however; the ability of argumentative writing seems to be the most crucial one. It is because the ability of argumentative writing is used more in field of education and workplace than other. It is needed for writing article and essay, conducting research and applying scholarship and etc. Moreover, Saito (2010) also claims that

argumentative writing skill as the most difficult among other writing skill. It is because composing argumentative writing requires students to have a critical thinking, scientific ideas, and argumentative expression.

In L1 context, Crowhurst (1991) reviewed the previous studies on argumentative writing and found that even native English speakers have poor performance in writing an argumentative discourse throughout the school system. The problems in argumentative writing identified in those studies were writing shorter texts than narration, insufficient content and ideas, failure to support the point of view, poor organization due to a lack of knowledge concerning argumentative structure and stylistic inappropriateness.

In Indonesian context, there are many explanations accounting for students' difficulties in writing an argumentative essay. According to Rahmatunisa (2014), it is noted that Indonesian students are more familiar with narration, such as writing about their experiences in journals or diaries than any other types of writing. Thus, even when they are assigned to write an argumentative essay, they tend to produce narration and construct their own pattern to write an argumentation. Besides, Al-Khasawneh (2010) clarifies Indonesian students lack implicit knowledge about argumentative conventional pattern. Consequently, they do not know how to write a good argumentative essay.

According to Bakir (2013), it is suggested that Indonesian students' problem in writing argumentative are similar to those of native English speaking. The students' writers problems' include an unclear focus, unawareness of

audience expectations, inadequate to support the point of view, inadequate supporting details, not explicit thesis or claim, and inappropriate transitional words.

As stated by Lai (2011), writing does not only require the mastery of linguistic such as grammar vocabulary, pronunciation, intonation, etc, but also requires the conceptual judgment and critical thinking. Kellog (2001), claims that writing academically is a main cognitive challenge, because it is a test of memory, language and thinking ability as well. Therefore, the writer assumes that the problem of the students' argumentative writing skill is not only because students' lack of English competencies, yet there is another factor influenced students' writing including critical thinking skill.

Accordingly, Facione (1990) discusses critical thinking in the context of perfections of thought. This preoccupation with the ideal critical thinker is evident in the American Philosophical Association's consensus portrait of the ideal critical thinker as someone who is inquisitive in nature, open-minded, flexible, fair-minded, has a desire to be well-informed, understands diverse viewpoints, and is willing to both suspend judgment and to consider other perspectives.

In other hand, Ennis (2011) believes that critical thinking is reasonable and reflective thinking focused on deciding what to believe or do. This is captures the core of the way the term is used in the critical thinking movement. In deciding what to believe or do, one is helped by the employment of a set of critical thinking dispositions and abilities.

Critical thinking theory, promoted by Paul in 1992, has attracted many researchers and educators throughout the world. He has identified that thinking skill has three broad categories: reflective, creative, and critical. He emphasizes

that we all have the critical thinking skill that influenced in all aspects of human life. Fahim and Mirzaii (2014) investigated critical thinking is regarded to be the most effecting writing skill in argumentative and concluded that having critical thinking skill in higher education is crucial and plays a significant role in understanding the learning process.

As Muslims, the command to seek knowledge is almost like a mantra. This is especially important to think about considering how Allah speaks of comprehension and thinking in the Quran. Tafakkur تفكر is the reflexive form of the root فكر, which means to reflect, meditate cogitate, ponder, muse, speculate. Tafakkur means to reflect, meditate cogitate, ponder muse speculate revolve in one's mind, think over, contemplate, and consider. It is mentioned in the Quran 17 times. In Surah A-Rum verse 8 Allah says:

أَوَلَمْ يَتَفَكَّرُوا فِي أَنفُسِهِمْ^ط مَا خَلَقَ اللَّهُ السَّمَاوَاتِ وَالْأَرْضَ وَمَا بَيْنَهُمَا إِلَّا بِالْحَقِّ وَأَجَلٍ مُّسَمًّى^ط
وَإِنَّ كَثِيرًا مِّنَ النَّاسِ بِلِقَاءِ رَبِّهِمْ لَكَافِرُونَ (8)

Do they not contemplate within themselves? Allah has not created the heavens and the earth and what is between them except in truth and for a specified term. And indeed, many of the people, in [the matter of] the meeting with their Lord, are disbelievers. (Sahih International)

The word for “intellect” is ‘aql عقل, meaning sense, sentience, reason, understanding, comprehension, discernment, insight, rationality, mind, intellect, intelligence. The verb form that we will see commonly used in Qur’an is عقل to be endowed with (the faculty of) reason, be reasonable, have intelligence, to be in one’s senses, be conscious, to realize, comprehend, and understand. In the 49 references of the word in the Qur’an, Allah often speaks of the disbelievers who do not comprehend.

Besides, Islam allows critical thinking in other matters. The four major schools of thought in Islamic Fiqh i.e. Hanafi, Shaf'ee, Maliki, Hanbali are the clear proof of the claim. The scholars, having deep knowledge of the Qur'aan, Hadith and Islamic sciences, discussed the matters, which were not explicitly mentioned in the Qur'aan and Hadith, and they perform Ijtihad. The polemics of critical thinking in Islam come about because critical thinking in Islamic studies and devotional education is not something that is valued within the community. Despite the undervaluing of it, there is a great need for critically thinking Muslims, from average lay member of the community, leaders, and scholars (Adsit & Karen, 2011).

Moreover, many researchers have recently proven that critical thinking skill can positively and significantly contribute to the students' writing (Assadi, 2013; Davatgar, 2013; and Jafari, 2013). Ruggiero (2004), stated that writing can improve critical thinking skill because writing make the students' become stronger thinker. Writing reasoned paragraphs requires mental discipline and close attention to the set of logical rules. It will train students' mind to think clearly and prove to be a value in every phase of their life (Langan, 2007). While writing can improve critical thinking, critical thinking is important to produce good writing.

In the course syllabus of Islamic Senior High School Aulia Cendekia Palembang, writing argumentative text already mentioned in the syllabus of the first year students in the second semester. In the syllabus of the first year students of Islamic Senior High School Aulia Cendekia Palembang they are taught about the structure and how to distinguish argumentative text with other text types, but

in the second grade they were asked to make argumentative writing individually. But in fact not more than 40% students get the standard score. Most of the students still have poor writing quality.

Based on the informal interview with 15 second year students of Islamic High School Aulia Cendekia Palembang, it was found that some of them had difficulty in writing. In addition, they revealed that they felt more comfortable when they asked to read an argumentative text although sometimes they got bored, while they felt more stressful when they asked to write an argumentative text. As a result, only few of them stated argumentative writing was an easy task. The reasons could be lack of vocabulary, limited idea, and lack of knowledge in order to express their thoughts into written form. Hence, it is critically essential to illuminate the correlation between critical thinking skill of the students and their argumentative writing skill, and to identify the influence of their critical thinking skill to argumentative writing.

In line with the students' interview, the teacher of English of Islamic High School Aulia Cendekia Palembang supported that the most difficult lesson to teach was writing. He stated that sometimes the students needed more time to make an argumentative writing than other tasks. Sometimes, he had to have 2 meetings of writing activities because students could not finish it in one meeting, and he often made the task of writing as a homework rather than a school assignment. In addition, he revealed that the students' argumentative writing ability was still low due to the difficulties in forming reasons, justifying beliefs, giving opinions, and drawing conclusions in argumentative writing.

From the problems occurred above, the researcher, in the consideration of theories discussed previously predicted that the level of students' critical thinking is the cause of these problems. Therefore, an investigation about the correlation between critical thinking and argumentative writing skill was deemed necessary. In other words, in this study, the researcher attempted to investigate whether or not there was a correlation between students' critical thinking skill and their writing skill especially in argumentative writing at the second year at Islamic Senior High School Aulia Cendekia Palembang.

1.2 Problem(s) of the Study

The problem of this study were formulated into following questions:

1. Was there any significant correlation between critical thinking skill and argumentative writing skill of the second year students of Islamic Senior High School Aulia Cendekia Palembang?
2. Did critical thinking skill significantly influence argumentative writing skill of the second year students of Islamic Senior High School Aulia Cendekia Palembang?

1.3 Objective (s) of the Study

In line with the problem formulated above, the objectives of this study were:

1. To find out if there was any significant correlation between critical thinking skill and argumentative writing skill of the second year students of Islamic Senior High School Aulia Cendekia Palembang.

2. To find out if critical thinking skill significantly influenced argumentative writing skill of the second year students of Islamic Senior High School Aulia Cendekia Palembang.

1.4 Significance of the Study

This study was aimed to describe the correlation between critical thinking skill and argumentative writing skill of the second year students Islamic High School Aulia Cendekia Palembang. The result of this research was expected to be useful for:

1. Students

The result of this study is useful for students, especially students of Islamic Senior High School Aulia Cendekia Palembang, to give some information about their critical thinking skill and argumentative writing skill. Hopefully, it can be the reflection of them, so that they can improve their critical thinking skill and argumentative writing skill.

2. Teacher

The result of the study gives some information to the teacher about the students' ability in writing that correlate with students' critical thinking. Teachers can improve their teaching and learning writing process through some media and method that can help students improve their critical thinking and their writing skill, the skill of argumentative writing in particular.

3. Other Researchers

The result of this research is useful for other researchers who will conduct the research in the same field. It can be a consideration as well as a

recommendation of the other research in case they will carry out any further research in the same field.

4. The Researcher herself

The result of this study is expected to give benefits for herself, so she could increase her knowledge and expand her experience by doing this research.

CHAPTER II

LITERATURE REVIEW

This chapter discusses the followings: (1) correlational research; (2) the concept of critical thinking; (3) the characteristic of critical thinker; (4) the kinds of critical thinking skill; (5) the benefits of critical thinking skill; (6) the concept of writing; (7) characteristic of good writing; (8) the concept of argumentative writing; (9) the role of thinking in writing; (10) previous related study; (11) research setting; (12) research hypotheses; (13) criteria for testing hypothesis.

2.1. Correlational Research

Johnson and Christensen (2012, p. 44) state that in correlational research, the researcher studies the relationship between one or more quantitative independent variables and one or more quantitative dependent variables. There is correlation coefficient, which is a numerical index that provides information about the strength and direction of the relationship between two variables. It provides information how variables are associated. More specifically correlation coefficient is a number that can range from -1 to 1, with zero standing for no correlation at all. If the number is greater than zero, there is a positive correlation. If the number is less than zero, there is a negative correlation. If the number is equal to zero, there is no correlation between the two variables. If the number is equal to +1.00 or equal to -1.00, the correlation is called perfect. Positive correlation is present when scores on two variables tend to move in the same direction while negative

correlation is present when score on two variables tend to move in opposite direction – as one variable goes up, the other tends to go down, and vice versa.

The meaning of a given correlation coefficient can be seen below based on Johnson and Christensen (2012, p. 340):

Table 1
Correlation Coefficient

Interval Coefficient	Level of Correlation
0.00 – 0.34	Very Weak
0.34 – 0.40	Weak
0.41 – 0.64	Fair
0.65 – 0.84	Strong
0.85 – 1.00	Very Strong

1. Correlation coefficients below 0.35 show only slight relationship between variables. These relationships have almost no value in any predictive sense.
2. Correlation coefficients between 0.4 and 0.6 may have theoretical or practical value depending on the context.
3. Correlation coefficients that is 0.65 or higher will make accurate prediction for most purpose.
4. Correlation coefficients over 0.85 indicate a close relationship between the variable correlated and are useful in predicting individual performance.

There are two primary types of correlational research design; explanation and prediction (Creswell, 2005, p. 326). The explanatory research design is a correlational design in which the researcher is interested in the extent to which two variables (more) co-vary, that is, where changes in one variable are reflected in changes in the other. Explanatory design consists of a simple association between two variables or more than two. Creswell (2005, p. 327) shows that the

characteristics of this design are that the researchers correlate two or more variables, collect data at one point in time, analyze all participants as a single group, obtain at least two scores for each individual in the group—one for each variable, report the use of the correlation statistical test (or an extension of it) in the data analysis, and make interpretations or draw conclusions from the statistical test results.

Johnson and Christensen (2012, p. 339) add that in an explanatory study, all the data on both variables will usually be collected within a fairly short time. Often, the instruments used are administered in a single session, or in two sessions—one immediately after the other.

In a prediction design, researcher seeks to anticipate outcomes by using certain variables as predictors. This design is useful because it helps anticipate or forecast future behavior. The purpose of this design is to identify variables that will positively predict an outcome or criterion. In this form of research, the investigator identifies one or more predictor variables and a criterion (or outcome) variable. A predictor variable is the variable used to make a forecast about an outcome in correlational research while criterion variable is the outcome being predicted. Creswell (2005, p. 328) shows that the characteristics of this design are that the researchers typically include the word “prediction” in the title or research questions, measure the predictor variable(s) at one point in time and the criterion variable at a later point in time, and forecast future performance.

In addition, the minimum acceptable sample size for a correlational study is considered by most researchers to be no less than 30 (Fraenkel, Wallen & Hyun, 2012 p. 338; and Creswell, 2005, p. 150).

2.2 The Concept of Critical Thinking

Nikou, Bonyadi, and Amirikar (2015) explain that the definitions of the concept of critical thinking are broad, the definitions range from multiple perspective: philosophical, psychological, and educational. Some of definitions given by experts are sometimes different. However, it is important to gather the serious definition to construct the definition of critical thinking.

Critical thinking can be defined as the ability to identify and analyze problems as well as seek and evaluate relevant information in order to reach an appropriate conclusion (Watson and Glaser, 2012). Good conclusion can be reached by identifying, analyzing, and evaluating the matter issues. Critical thinking is also called as “reasonable thinking”. It means that having good and logical reason is the major characteristic of critical thinking skill needed when drawing conclusion or making decision.

Paul and Elder (2008) define critical thinking as the art of analyzing and evaluating thinking with a view to improving it. In line with Paul and Elder opinion, Freeley and Steinberg (2007) describe critical thinking as the ability to analyze, criticize, and advocate ideas, to reason inductively and deductively, and to reach factual or judgemental conclusions based on sound inferences drawn from unambiguous statements of knowledge or belief. Critical thinking is about analyzing, evaluating, and criticizing something (knowledge, information, problem, and issue) in order to find good conclusion and judgment. Meanwhile, Wasshburn (2010) points out that critical thinking relates to the activity to

criticize people or things both in terms of negative side of them that may lead to the comprehension and best judgment about them.

From the explanation above, it shows that critical thinking ability is a process of evaluating and analyzing the problems or some issues with logical and reasonable thinking. It means that before making decision or judgment, a critical thinker has to think critically about what should to do or believe in order to make a good and reasonable judgment and decision.

To sum up, critical thinking is the ability to think critically, reasonably, and analytically about the problem or the matter issue. Understanding cause and effect as well as evaluating information is required in order to reach good and logical interpretation from the problem or the matter issue. Such thinking is needed in every aspect of people' life as making decision and having problem are the part of life.

2.3 The Characteristic of Critical Thinker

Critical thinking as defined above is the ability to think critically, that kind of ability can be seen by someone ability in analyzing and evaluating the problems or issue. Furthermore, knowing the cause and effect, can evaluate and make argument and interpretation from the problem or the matter issue. Therefore, a critical thinker should have such thinking abilities. Media educator, Ferrent (1997) suggests the following fifteen characteristics of a critical thinker:

1. Ask related questions of the issues.
2. Assess statement and arguments.
3. Able to admit a lack of understanding or information.

4. Have a sense of curiosity.
5. Interested in finding new solutions.
6. Able to define clearly a set of criteria for analyzing ideas.
7. Willing to examine beliefs, assumptions, and opinions and weigh them against facts.
8. Listen carefully to others and are able to give feedback.
9. Suspend judgment until all facts have been gathered and considered.
10. Look for evidence to support assumptions and beliefs.
11. Able to adjust opinions when ne facts are found.
12. Look for evidence.
13. Examine problems closely.
14. Are able to reject information that is incorrect or irrelevant.
15. See that critical thinking process of self-assessment.

Paul and Elder (2008), one of the leading researchers on critical thinking, mentioned some characteristic of a critical thinker as cited below:

1. Find out the critical questions and problems, and clearly formulating them;
2. Collect and evaluate relevant information, using abstract ideas to interpret it effectively;
3. After finding well-reasoned conclusions and solutions, then testing them against relevant criteria and standard;
4. Having open minded though by recognizing and assessing with their assumption, implications, and practical consequences; and
5. Find the solutions of the complete problems by effectively discussing it with other.

From the characteristics mentioned above, it can be drawn a conclusion that a good critical thinker must have the ability to evaluate information, examine, and analyze the evidence, as well as think open mindedly. A cultivated critical thinker could be expressed in the phrase “reasonable person” (Hunter, 2009). Such person always tries evaluate and criticize information, issue and evidence before making decision, judgment as well as conclusion.

2.4 The Kinds of Critical Thinking Skill

Critical thinking includes the component skills of analyzing arguments, making inferences, judging or evaluating, and making decisions or solving problems. Such skill has many levels of thinking as cited by Teys (2007), that critical thinking can be divided into two categories, namely lower order thinking and higher order thinking. Lower order thinking skills or basic skills covers many skills such as memorizing, summarizing, labeling, observing, and sorting. Meanwhile, higher order skills as usually called as comprehension skills include application, synthesis, making inference, comparison/contrast, justification, analysis, evaluation, moral reasoning, and using inductive and deductive reasoning.

Meanwhile, Bloom (1956), proposes six categories of thinking as usually called as “Bloom Taxonomy”. The taxonomy includes these categories; knowledge, comprehension, application, analysis, synthesis, and evaluation. The first two categories, knowledge and comprehension, are regarded as lower order thinking which do not require critical thinking but the last four categories are include application, analysis, synthesis, and evaluation, require the higher order

thinking or critical thinking. Here, is the table of Bloom Taxonomy for the clear explanation:

Table 2
Bloom Taxonomy

No.	Categories	Definition
1.	Knowledge	Memorizing facts, figures, and basic processes
2.	Comprehension	Understanding and illustrating the facts and knowledge
3.	Application	Generalizing or applying the facts to other contexts and situations
4.	Analysis	Understanding why the facts are the way they are; breaking down the problems
5.	Synthesis	Making connections between different elements on one's own and try to combine them
6.	Evaluation	Critically using one's knowledge to ascertain the quality of information

Based on Table 1 above, it shows that the first and the second categories of thinking are basic or lower order thinking. It is about understanding, the knowledge and the fact. Therefore, the higher and critical thinking ability is not required. While, the third until the sixth categories are higher order thinking activity involve application, analysis, synthesis, and evaluation. Consequently, the higher order thinking as usually called as critical thinking ability is needed in those thinking activities. However, using the higher order skill or critical thinking

skill requires both knowledge and comprehension of the content or fact; therefore, all levels of thinking should be encouraged.

In conclusion, the ability of critical thinking can be seen in many kinds of thinking activities. Those thinking activities are investigating, analyzing, judging, evaluating, etc. Some of thinking activities require lower thinking skills, while some needs higher level of thinking that it usually called critical thinking.

2.5 The Benefits of Critical Thinking Skill

Critical thinking skill is very useful in human life, particularly in this modern era. Thinking critically can help people be easier to face their life. The ability to think clearly, critically, and rationally is crucial as those ability are needed in making decision, solving problems or evaluating some issues that cannot be separated from human life. Critical thinking skill is obviously indispensable used in many field such as in education, research, finance, social, politics, management or other aspects of life.

Moreover, critical thinking is valuable for two main reasons as stated by Hunter (2009). First, thinking critically increase knowledge. Second, thinking critically is essential to being autonomous. It means that by thinking critically can make up someone's own mind about what to believe or what to do, which is essential to.

According to Paul and Elder (2008), there are some benefits of critical thinking as mentioned below:

- a. Bringing a clear and accurate formulation of vital questions and problems.
- b. Having an effective interpretation of ideas and information.

- c. Making reasonable conclusion and solutions which are in accordance with relevant criteria and standards.
- d. Thinking inclusively or open minded.
- e. Having an effective communication with other in coping with complex problem.

Meanwhile, Cornell (2005) quoted some benefits of critical thinking ability as stated below:

- a. The work can be conducted accurately and carefully.
- b. The ability to determine something which is relevant in writing (nothing) can be more accurate and specific.
- c. The ability to conduct the problem solving and project management can be done accurately.
- d. It can raise feeling of confident of successful outcome in complex problems and project.
- e. The work and academic attainment can be better improved.

To sum up, the ability of critical thinking obviously beneficial for the people because it is used in many aspects of life such as in workplace, education, politic or social life. Having critical thinking ability can help people solve the problem carefully and accurately. Most importantly, people can make reasonable conclusions and solutions from the issues arise.

2.6 Concept of Writing

Writing is a way of using letters and symbols to represent sounds and words of a language. It is also required to express, elaborate, and communicate thoughts, feelings, ideas, and information. Torrance, Waes and Galbraith (2007,

p. 2) define writing as a higher mental process involved in creating a permanent and extended text, which is adapted to an absent reader's needs and which satisfies the writer's communicative goals. The concept of writing has four main elements (Harmer, 2004, p. 4):

1. Planning: Before starting to write, writer plays what they are going to write. For instance, making detailed notes or jotting a few words. Still others may not actually write down any notes because they may do all their planning in their mind.
2. Drafting: A draft can be referred to the first version of a piece of writing. It is often done on the assumption that it will be amended later.
3. Editing: After writers have produced a draft, they usually read through what they have written to see where it works and where it does not. The order of information is probably not clear even they may use a different form of words or sentences.
4. Final version: Final version is the changes writing that writers make after they have edited their draft. It can be different from both the original plan and the first draft because it has changed in the editing process.

Based on Graham and Perin (2007, p. 9), most contexts of life (school, workplace and community) call for some level of writing skill, and each context makes overlapping, but not identical, demands. Proficient writers can adapt their writing flexibly to the context in which it takes place. In the school setting, writing plays two distinct but complementary roles. First, it is a skill that draws on the use of strategies (such as planning, evaluating, and revising text) to accomplish a variety of goals, such as writing a report or expressing an opinion

with the support of evidence. Second, writing is a means of extending and deepening students' knowledge; it acts as a tool for learning subject matter. There are eleven elements of current writing instruction found to be effective for helping adolescent students learn to write well and to use writing as a tool for learning in accordance with Graham and Perin (2007, pp. 5-6):

1. Writing Strategies, which involves teaching students strategies for planning, revising, and editing their compositions.
2. Summarization, which involves explicitly and systematically teaching students how to summarize texts.
3. Collaborative Writing, which uses instructional arrangements in which adolescents work together to plan, draft, revise, and edit their compositions.
4. Specific Product Goals, which assigns students specific, reachable goals for the writing they are to complete.
5. Word Processing, which uses computers and word processors as instructional supports for writing assignments.
6. Sentence Combining, which involves teaching students to construct more complex, sophisticated sentences.
7. Prewriting, which engages students in activities designed to help them generate or organize ideas for their composition.
8. Inquiry Activities, which engages students in analyzing immediate, concrete data to help them develop ideas and content for a particular writing task.

9. Process Writing Approach, which interweaves a number of writing instructional activities in a workshop environment that stresses extended writing opportunities, writing for authentic audiences, personalized instruction, and cycles of writing.
10. Study of Models, which provides students with opportunities to read, analyze, and emulate models of good writing.
11. Writing for Content Learning, which uses writing as a tool for learning content material.

2.7 Characteristics of Good Writing

When we produce or compose something, we can judge whether our product good or not, in writing as well, some have good quality, some do not have. Good writing is much more than just correct writing. It is writing that has good content as well as free from error. Moreover, words, grammar, ideas, phrase used in the writing generally contains more information rather than in conversation because the writer has time in organizing it (Raymond, 1980).

Futhermore, Hairston (2006) mentions 6 characteristics of good writing as presented detail as follow:

- a. Significant

A writing which is considered as significant work is if it can fulfill the readers' need. In this case, not only they can enjoy as they read it but also they can learn something from it.

- b. Clear

A clear writing provide an apparent depiction or explanation to the readers that lead them not to reread it many times to get its point or idea.

c. Unified and well organized

Unified and well organized writing developed coherently. Each sentence in a paragraph develops or supports the idea of the paragraph and connect to sentences preceding and following it. In other words, it develops with a logical sequence.

d. Economical

Wordiness is not found in an economical writing; in this case, a writer conveys and expresses his/her ideas directly to the point.

e. Adequetely Develop

An adequetely developed writing makes the readers to read easily for it is provided and supported with key points that enable them to understand it well.

f. Grammatically acceptable

Mistake or error (in terms of usage and mechanics) are not found as the writing is grammatically acceptable because the standard or formal language and appropriate punctuation as well as spelling are applied and employed weel.

From the explanation above, it can be interpreted that good writing is the writing which the idea is clear, understandable, and coherence. Words and phrase selectively used to make the writing more beautiful and understandable. In addition, good writing should have good punctuation, capitalization, grammar, and organization so that it is readable for the reader. Those criteria cannot be neglected because all of those are essential to construct a piece of good writing.

2.8 The Concept of Argumentative Writing

Sweat (2012) stated that argumentative writing is a genre of writing that allows writers to express their opinion on a topic and support that opinion with strong logic and evidence. The main purpose of argumentative writing is to convince the readers that the writer's particular view or opinion on a controversial issue is correct and to persuade the audience to take some sort of action (Langan, 2008). In argumentative writing, a writer attempts to support or defend a position or difference point on with his/her logical arguments, ideas, and opinions.

In order to convince the audience in an argumentation essay, it is important to provide them with a clear main point and plenty of logical evidence. In writing argumentative, there are some strategies to convince the readers with writers' words. Langan (2008) gives 5 strategies for argumentation:

- a. Use tactful, courteous language.
- b. Point out common ground.
- c. Acknowledge differing viewpoints.
- d. Grant the merits of differing viewpoint.
- e. Rebut differing viewpoints.

By following the strategies above, the writer can result a good argumentative essay. According to Moore and Parker (2007), good argumentative writing consists of 4 parts as follow: a statement of the issue, a statement of one's position on that issue, argument that support one's position, and rebuttals of arguments that support contrary position.

From the explanation above, it seems that statement is a vital component in argumentative writing. Statements express the writer position on the issue.

Therefore, the statement given should come from both sides (support and contrary position). Moreover, the writer should provide strong and logic statements.

In conclusion, argumentative writing is the writing that consists of some argument and the opinion of the writer. In argumentative writing, some data, example, and other's opinion are needed in order to support the argument. Good argumentation is required because it can help the writer easily convince and persuade the reader. Therefore, the writer should truly know the issue, his/her position, knowledge in order to give good argumentation.

Basically, Lai (2011) mentions 3 elements of argumentative writing that should not be ignored, namely:

1. Thesis statement

Thesis statement is the most important part in argumentative writing. Thesis statement is usually in one sentence at the end of introductory paragraph that summarizes the argument. A thesis statement should be clear and direct, arguing for a specific action or point of view and presenting clear reasons to support that argument.

2. Organization

Organization is crucial component in argumentative writing. The organization of argumentative writing includes introduction with thesis statement, body paragraph and a conclusion.

3. Transition

Transition is important to connect and to oppose the arguments that appear in argumentative writing. Effective transitions connect ideas and evidence without simply stating the contents of each paragraph.

Those elements mentioned above are not the whole elements of argumentative writing, but those are the main elements that cannot be disregarded. Thesis statement, organization and transition are needed in order to build good argumentative writing. Below is the example of argumentative writing:

In Australia there are three levels of government, the federal government. All of these levels of government are necessary. This is so for a number of reasons.

First, the federal government is necessary for the big things. They keep the economy in order and look after things like defense. Similarly, the state governments look after the middle-sized things. For example they look after law and order, preventing things like vandalism in schools.

Finally, local governments look after the small things. They look after things like collecting rubbish, otherwise everyone would have disease.

Thus, for the reasons above we can conclude that the three levels of government are necessary.

(Source: English Textbook, 2014 p.22)

2.9 The Role of Thinking in Writing

Composing writing not only needs good language proficiency, but also needs to be critical as the writer examines viewpoints, facts, and arguments and synthesize them. Langan (2007) pointed out that writing is more than a medium of communication. It is a way of remembering and a way of thinking as well. Writing makes words permanent, thus expands the collective memory of human beings from the relatively small store that we can remember.

Ruggiero (2004) stated that writing is not confined to one stage of the composing process. At one stage you will think creatively, producing imaginative ideas or ways of expressing those ideas. At another stage you will think critically, evaluating the results of your creative thinking. In every stage of writing, we use our thinking to create, to investigate and to revise the idea.

Furthermore, writing can improve critical thinking skill. Writing make you stronger thinker. Writing reasoned paragraphs requires mental discipline and close attention to the set of logical rules. It will train you mind to think clearly and prove to be a value in every phase of your life (Langan, 2007). While through writing can improve critical thinking, critical thinking is important to produce good writing.

To sum up, writing is important to improve thinking skills such as critical and creative thinking. In similarity, critical thinking skill is also crucial in composing writing. It is because each process of writing requires some thinking skills. Therefore, without being able to think and also write critically, the writers can not result a piece of good writing.

2.10 Previous Related Studies

Many studies have been conducted to study about critical thinking in the ESL and EFL learning area in Indonesia and other countries. Many of them investigated about the correlation between critical thinking ability and language proficiency as well as writing ability. This part will refer to some of them:

The first research was conducted by Sugianto (2014). This research was conducted State Islamic University of Syarif Hidayatullah, Jakarta-Indonesia. 60 students from the sixth semester of English Education Department participated in this study. This study aimed to find out whether or not there is any significance relationship between critical thinking ability and writing ability. The study used correlational design which carried out two kinds of instruments, they are; critical thinking test and writing test. The data was analyzed using Pearson Product Moment correlation which the research finding showed that there is no significant correlation between students' critical thinking ability and the writing ability of the students of English Education Department of State Islamic University of Syarif Hidayatullah.

The next research was conducted by Assadi, Davatgar, and Jafari (2013). It was conducted in private English language institute in Tabriz, Iran. It was carried out to find out whether critical thinking has effects on learners' writing. The participants of the study were 60 students whose proficiency level was intermediate. The participants of the research were equally divided randomly into two groups (control and experimental group). The researcher gave some treatments with the successful critical thinking strategies over three weeks instructions to the experimental group; whereas, they did not give any special

treatments to the control group. The result of the study showed that critical thinking instruction had effects on learners' writing, in the case, it showed that the participants from the experimental group had the higher scores in post-test than the control group.

Another research was conducted by Rashid and Hashim (2008). The study was conducted to find out the critical thinking ability of Malaysian undergraduates and its relationship with their language proficiency. It was conducted in Universiti Utara Malaysia of which total participants were 280 undergraduates taken from the university. The instruments used in the study were demographic questionnaire and test. The demographic questionnaire was intended to gain and to collect the undergraduates' language proficiency data, encompassing speaking, reading, writing, and grammar; whereas, the test was conducted to find out the undergraduates' critical thinking ability. Based on the finding of this research, it was found that there was a significant correlation between undergraduates' critical thinking ability and their language proficiency.

In comparison with the previous related studies above, this study has a similarity since it has the same independent variable (critical thinking skill). However, there are some differences among each other. This study is more specific and detail than other investigations conducted by other researchers. The first research above investigated whether or not critical thinking had relationship with language proficiency; while this research focused on investigating the correlation between critical thinking and writing skills. The writing skills that was been scrutinized was argumentative writing. Therefore, this research is really new and different from the other research.

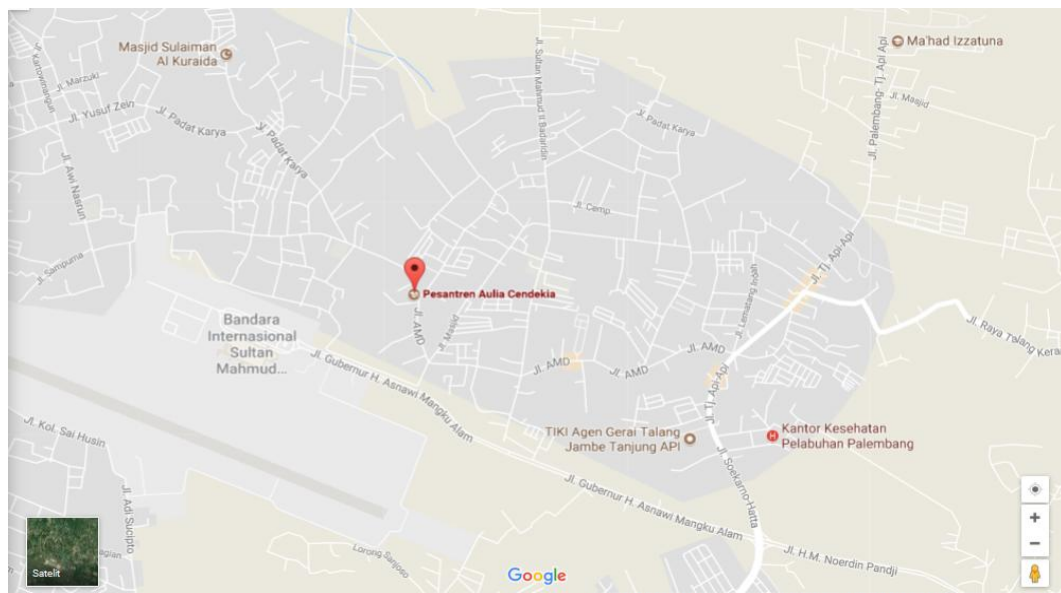
2.11 Research Setting

2.11.1 Profile Islamic Senior High School Aulia Cendekia Palembang

Islamic Senior High School Aulia Cendekia located at Jl. AMD RT.12 RW.03 Talang Jambe Kec. Sukarami Palembang. This school area is not only include Islamic Senior High School (Madrasah Aliyah) but also includes Islamic Junior High School (Madrasah Tsanawiyah), Islamic Elementary School (Madrasah Ibtidaiyah), and also Islamic Kindergarden (Raudhatul athfal).

The location of Islamic Boarding School Aulia Cendekia is very strategic because it is easy to reach. The distance is only about 10 minutes from Sultan Mahmud Badaruddin II airport. Besides the airport, it is also close to other public facilities such as terminals, hospitals, and shopping centers.

Here is the location of Islamic Boarding School Aulia Cendekia Palembang:



(Source: <https://www.google.co.id/maps/place/Pesantren+Aulia+Cendekia/>)

2.11.2 Brief History of Islamic Senior High School Aulia Cendekia Palembang

Islamic Boarding School Aulia Cendekia was found by H. Hendra Zainuddin in 2007. As an Islamic educational institution, the mission of Islamic Boarding School Aulia Cendekia is to create scholars who are simultaneously memorize Al-Qur'an along with *ulum* al-Qur'an which is expected to be able to take part in society.

The existence of Islamic Boarding School Aulia Cendekia is expected by the community of the village of Talang Jambi Kecamatan Sukarami Palembang because there is no similar Islamic educational institutions in this village. As an Islamic educational institution, the *hafidz-hafidzah* are able to answer the dynamics and challenges of the global community in Islamic Boarding School Aulia Cendekia besides being held memorizing and studying Al-Qur'an and Arabic Grammar also implemented formal education level, starting from Madrasah Ibtidaiyah (Islamic Elementary School), Madrasah Tsanawiyah (Islamic Junior High School) and Madrasah Aliyah (Islamic Senior High School).

Until now (2017) the age of Islamic Boarding School Aulia Cendekia is still young. Entering the age of 10 (ten) years, Islamic Boarding School Aulia Cendekia has cleaned up. In managing this boarding school, Aulia Cendekia has applied modern management and built networking with other institutions, especially the Ministry of Religious Affairs and Local Government.

One of the realization of Islamic Boarding School Aulia Cendekia cooperation with Ministry of Religious Affairs of Indonesia, in 2008 the Department of Religious Affairs gave the obligation to the construction of

physical facilities of Madrasah Tsanawiyah (Islamic Junior High School) building through Pogram Madrasah Tsanawiyah One Roof Indonesian-Australian. Through Pogram Madrasah Tsanawiyah One Roof is increasingly accelerate the progress of this learning process at Islamic Boarding School Aulia Cendekia.

2.11.3 Vision and Mission

A. Vision

"Achieving and doing good deeds based on the Qur'an"

B. Mission

1. Growing creativity of students through meaningful learning experiences,
2. Inculcating the basics of science and technology to learners through computer and science education,
3. Improving student outcome based on Al-Qur'an,
4. Developing knowledgeable and employeable students,
5. Empowering students who have good deeds and beneficial to the community.

2.11.4 Teacher

Teachers in Islamic High School Aulia Cendekia Palembang are professional and competent in their fields came from various universities and Islamic Boarding School, among them State Islamic University (UIN) Syarif Hidayatullah Jakarta, UIN Raden Fatah Palembang, University of Sriwijaya (Unsri) Palembang, KMI Al-Amin Prenduan Madura, KMI PP. Gontor Ponorogo,

and PP. Cane Ireng Jombang. Below are the data of the teacher of Islamic Senior High School Aulia Cendekia Palembang:

Table 3
Teacher Composition

Name	Address	Subject	Educational Background
Hendra Zainuddin Thalib, M.Pd.I	Palembang	- Qur'an Hadist	UIN Raden Fatah
Saiful Wardi, S.Th.I	Madura	-Arabic Grammar - Nahwu Shorof	UIN Syarif Hidayatullah
Halimi, S.Pd.I	Madura	-The Chief Secretary	UIN Syarif Hidayatullah
Matlawi, S.Th.I	Madura	- Mahfudzot	Sriwijaya University
Rustam Efendi, S.Th.I	Palembang	-Qur'an Hadits	UIN Syarif Hidayatullah
M. Tanzili, S.Th.I	Palembang	- Qur'an Hadits	UIN Raden Fatah
Jhoni Saputra, S.Pd.I	Palembang	- Mudir Tahfidz Qur'an	UIN Raden Fatah
Munir Al-Rasyid	Senuro	- Arabic Grammar	KMI Al-Amin Prenduan Madura
Dzul Kifli	Palembang	- Geography	
Asror	Madura	- History	KMI PP. Gontor Ponorogo
Muslih Bashori, S.Pd.I	Palembang	- The headmistress of ladies students	UIN Raden Fatah
Achmad Fauzi	Madura	- History and Cultur of Islam	KMI Al-Amin Prenduan Madura
Hizam Fikri Aditama	Madura	- Math	PP. Cane Ireng Jombang
M. Zazili, SE	Palembang	- Economy	Sriwijaya University
Mursal BA	Palembang	- Art and Culture	
Ikang Fauzi		- Social	Sriwijaya University
Dumyati, S.Pd.I		- Head Master	UIN Raden Fatah
Sarwin, S.Th.I		- The headmistress of day-scholl	UIN Raden Fatah
Evi Priadi,SH	Gasing	- History	PGRI University
Neti Herawati, S.Pd	Palembang	- Bahasa	PGRI University
Nurhayati	Palembang	- English	Bina Darma

Zulaiha, S.Pd			University
Sitta Kurniaty, SH	Palembang	-Civic Education	PGRI University
Desti Rahmawati, SS	Palembang	- Arabic	Sriwijaya University
Rismiana,S.Pd.I		- Arabic	UIN Raden Fatah
Boby Kurniawan	Lampung	- Arabic	UNILA
Ansyarullah,S.Pd		- English	Sriwijaya University
Rahman Saputra,S.Pd		- Social	PGRI University
Ediyanto,S.Pd	Gasing	-Technology and Computer	Palcomtech
Syaifuddin Zuhri,S.Pd		- Sociology	Sriwijaya University
Herna Ningsih,S.Ag	Palembang	- Fiqh	UIN Raden Fatah
Lili Peni Lestari	Palembang	- Math	Sriwijaya University
Sholeha,S.Pd		- Bahasa	Sriwijaya University
Nurmaini JR,S.Pd.I		- Aqidah Akhlak	UIN Raden Fatah
Nurani,S.Pd		- Math	Bina Darma University
Zepriani,S.Pd		- Math	PGRI University
Rismiana,S.Pd.I		- English	UIN Raden Fatah
Izal Fahrizal		- Physical Education	PGRI University
Musyadat		- Physical Education	PGRI University

(Source: *The school of administration of Islamic Senior High School Aulia Cendekia Palembang, 2017*)

2.11.5 Students

Students who study in Islamic Senior High School Aulia Cendekia Palembang come from various family background and economic. Mostly, students who studied at Islamic Senior High School Aulia Cendekia Palembang background as laborers and plantation farmers. The students are mostly from the area around Talang Jambi village and some of them are from the city of Palembang and outside the city of Palembang, such as from Ogan Komering Ilir, and so on. Below are annual student statements in academic year 2017/2018:

Table 4
Annual Students Composition

N O	Class	Students		
		Male	Female	Total
1	X	23	45	68
2	XI	26	47	73
3	XII	18	19	37
	Total	61	111	188

(Source: The school of administration of Islamic Senior High School Aulia Cendekia Palembang, 2017)

2.11.6 Facilities

Table 5
Facilities of Islamic High School Aulia Cendekia

No.	Facilities	Total
1.	Classroom	12
2.	Library	2
3.	Laboratory	1
4.	Consulting Room	2
5.	Canteen/Cafeteria	1
6.	Computer Room	1
7.	Boy's Restroom	2
8.	Girls's Restroom	2
9.	Teacher's Restroom	2
10.	Teacher's Room	1

11.	Principal's Room	1
12.	Medical Clinic	1
13.	Field	1
14.	Auditorium	1

2.11.7 Curriculum

The curriculum of education in Islamic Senior High School Aulia Cendekia Palembang is not only about learning programs in the classroom in the sense of formal education, but the emphasis is on teachers outside the classroom (learning in a 24-hour Islamic Boarding School). Students of Islamic Senior High School Aulia Cendekia Palembang still get education in the classroom and also outside the classroom. The curriculum of Islamic Senior High School Aulia Cendekia Palembang consist of:

1. National Curriculum (regular), the curriculum obtained by students through formal education in the classroom.
2. Islamic Curriculum, the curriculum consisting of the main subject that must be accepted by students, for example: Faith (Aqidah and Worship), Akhlak al-Karimah (Ethics and mental attitude), recitation of the Qur'an (tahsin and tajwid), ulumul Qur'an (tafsir and qiro'ah), Arabic (nahwu, sharaf and balaghah) and ulumul tanziliyah (insight of Islam).
3. Curriculum Integration, which is curriculum in the form of integrated curriculum (curriculum that has a link between each subject / not separated) that the whole program in Islamic Senior High School Aulia Cendekia

Palembang is packaged and implemented in an integrated and programmed for 24 hours.

2.11.8 Extracurricular

Students, structurally, involve in some students activities which are run and organized by school organization. Besides, they also get active in some student unit activities, such as; scout, red-cross teen, basketball, soccer, futtsall, and some other extracurricular such as; martial art, tilawatil Qur'an, and Tahfidzul Qu'an. Those activities, then, support the students, ability in the organization competence and social competence.

2.12 Research Hypotheses

The hypotheses of this study were proposed in the forms of null and research hypotheses below:

1. H_0 : There was no significant correlation between students' critical thinking skill and their argumentative writing skill of the second year students Islamic High School Aulia Cendekia Palembang
 H_1 : There was a significant correlation between students' critical thinking skill and their argumentative writing skill of the second year students Islamic High School Aulia Cendekia Palembang
2. H_0 : Critical thinking skill did not significantly influences argumentative writing of the second year students Islamic High School Aulia Cendekia Palembang.

H_1 : Critical thinking skill significantly influences argumentative writing of the second year students Islamic High School Aulia Cendekia Palembang.

2.12 Criteria for Testing Hypothesis

To test the hypothesis above, the researcher used these criterions;

1. If p- value is higher than 0.05 ($p > 0.05$), the level of significance is 5%, H_0 is accepted and H_1 is rejected.

If p- value is less than 0.05 ($p < 0.05$), the level of significance is 5%, H_0 is rejected and H_1 is accepted.

2. If coefficient correlation is equal 0.49, H_1 is accepted and H_0 is rejected.

If coefficient correlation is not equal 0.49, H_1 is rejected and H_0 is accepted.

CHAPTER III

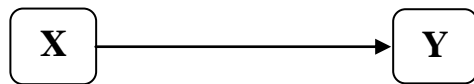
RESEARCH METHOD

This chapter discusses the following sub topics: (1) research design; (2) research variable; (3) operational design; (4) subject of the study; (5) data collection; (6) validity and reability; and (7) data analysis.

3.1. Research Design

The researcher used correlational research in conducting the study. Creswell (2012, p. 338) says that correlational designs provide an opportunity to predict scores and explain the relationship among variables. There is correlation coefficient, which is a numerical index that provides information about the strength and the direction of the relationship between two variables.

The research was in the notions of explanatory and prediction research design in order to find out the correlation between variables and explain and interpret the results found. However, the procedures were, first; the researcher identified the students' critical thinking skill by using Cornell Critical Thinking Test (CCTT). Second, the students' argumentative writing skill was obtained by using argumentative writing test. Third, SPSS 20 was used in order to find out the correlation between the variables based on the result of Cornell Critical Thinking Test (CCTT) and argumentative writing test, the influence, and the predictor of the variable(s). At last, the researcher discussed the explanation and interpretation of the results. The research design was as follows:



X = Students' Critical Thinking Skill

Y = Students' Argumentative Writing Skill

3.2 Research Variables

According to Fraenkel et al. (2012, p. 80), a common and useful way to think about variables is to classify them as independent or dependent. Independent variable is what the researcher chooses to study in order to assess their possible effect(s) on one or more other variables. The variable that the independent variable is presumed to affect is called a dependent variable. In commonsense terms, the dependent variable depends on what the independent variable does to it, how it affects it. It is possible to investigate more than one independent (and also more than one dependent) variable in a study. In this study, the independent variable was the second year students' critical thinking skill at Islamic Senior High School Aulia Cendekia Palembang, while the dependent variable was their argumentative writing skill.

3.3 Operational Definitions

To avoid the possibility of misinterpretation about some terms in this research, especially those used in the title, the definitions are provided. *Correlation* is a statistical measure to determine the tendency of two or more variables to vary consistently (Creswell, 2005, p. 325). In this research, there are

two variables that will be correlated which are students' critical thinking skill and argumentative writing skill.

Critical thinking skill refers to skills of analyzing arguments, making inferences, judging or evaluating, and making decisions or solving problems. Those critical thinking activities are investigating, analyzing, judging, evaluating, etc. The Cornell Critical Thinking Test (CCTT) was use to determine the critical thinking abilities of the students. The Cornell Critical Thinking Test includes the following skills: induction, deduction, credibility, and identification of assumptions that will be tested.

Argumentative writing skill refers to skills to express the opinion on a topic and support that opinion with strong logic and evidence, support or defend a position or difference point on with his/her logical arguments, ideas, and opinions in a written form possessed by second year students of Islamic Senior High School Aulia Cendekia Palembang. In this study, students' argumentative writing skill have been measured by using argumentative writing test.

3.4 Subject of the Study

3.4.1. Population

Population is the larger group to which one hopes to apply the results. (Fraenkel, Wallen & Hyun, 2012, p. 91). The population of this study was all the second year students of Islamic Senior High School Aulia Cendekia Palembang in the academic year 2017-2018. The distribution of population of the study can be seen below.

Table 6
Distribution of Population

No.	Class	Number of Students
1.	XI. A	32
2.	XI. B	28
Total		60

(Source: The school of administration of Islamic Senior High School Aulia Cendekia Palembang, 2017)

3.4.2 Sample

Sample is finite part of population whose property are study to gain information about the whole. Fraenkel, Wallen, and Hyun (2012, p. 91) explained that sample in a research study is a group on which information is obtained. Futhermore, Creswell (2012, p. 142) adds that it is the subgroup of the target population that the researcher plans to study for generalizing about the target population.

The sample of this study was taken by using total population sampling technique. According to Etikan, Musa, and Alkasim (2016, p. 3), total population sampling is a technique where the entire population that meet the criteria (e.g. spesific skill set, experience, etc.) are included in the research being conducted. In addition, Alkasim, et.al (2016, p. 3) also argue it is commonly used where the number of cases being investigated is relatively small.

In this study, all of the second year students from two classes of Islamic Senior High School Aulia Cendekia Palembang who have 60 students was taken as the sample because the number of population was less than 100 students. It was supported by Baker (2012) that if the population is less than 100, include

them all (and strive to get an 80% response rate), if the population is bigger than 100 select a probability sample. It is also suitable with Fraenkel, et. al (2012, p. 102) the minimum acceptable sample size for correlational study is considered by most researchers to be no less than 30. The distribution of sample of the research can be seen below.

Table 7
Distribution of Sample

No.	Class	Number of Students
1.	XI. A	32
2.	XI. B	28
Total		60

3.5 Data Collection

There were two kinds of instruments used to collect the data; Cornell Critical Thinking Test (CCTT), and argumentative writing test.

3.5.1 Cornell Critical Thinking Test

The critical thinking test used in this research was Cornell Critical Thinking Test (CCTT) series. The Cornell Critical Thinking Test (CCTT) is a standardized test developed by Ennis, Millman, and Tomko (1980). In this study, *Level X* was chosen as the instrument to measure the students' critical thinking skill as the samples of this study are second year students. This test was considered suitable to use in the present study because it was claimed by its developers to be a general critical thinking test which attempts to measure the critical thinking skills as a whole and it is best used for grade 9 to 12. *Level X*

includes the following skills: induction, deduction, credibility, and identification of assumptions. This test consisted 78 multiple choice items in which 6 of them are the sample items (1, 2, 3, 4, 5, and 6) so, there were 72 questions that be completed within 50 minutes.

Table 8
Specifications of Cornell Critical Thinking Test

No.	Aspects	Indicators	Number of Items
1.	Induction	The students are able to generalize and explain the arguments.	7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 48, 50
2.	Deduction	The students are able to make decision and conclusion about the arguments.	51, 52, 53, 54, 55, 56, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78
3.	Credibility	The students are able to assess the credibility of sources of information and claims they make.	26, 27, 28, 29, 30, 31, 32 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50
4.	Identification of assumption	The students are able to identify assumptions, reason, and examine the arguments.	66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77
Total			72

(Source: Ennis, 2011)

3.5.2 Argumentative Writing Test

This test was conducted to measure the students' argumentative writing skill. There were three topics given to develop by the students. The topics were adopted from the student textbook.

In assessing writing, the assessment rubric which adopted from the book entitled *Assessing Writing* was applied in this study.

3.6 Validity and Reliability

Before the questionnaire and real test were administered, the researcher considered the validity and reliability of the instruments. Johnson and Christensen (2012, p. 137) explain that validity and reliability are the two most essential psychometric properties to consider in using a test or assessment procedure. Validity refers to the accuracy of the inferences or interpretations made from the test scores, while reliability refers to the consistency or stability of the test scores.

3.6.1 Validity

3.6.1.1 Cornell Critical Thinking Test (CCTT)

In this study, the writer was use a ready made critical thinking test, the Cornell Critical Thinking Test (CCTT). For critical thinking test, the Cornell Critical Thinking Test (CCTT) was already being tested in the term of validity. The developers argue for the construct validity of the Cornell Critical Thinking Test (CCTT) based on its content validity. Moreover, level X was chosen by several researchers (Rosyanti and Awang: 2008, Ismail: 2003) to measure students critical thinking skills. Since, the critical thinking test taken from Ennis, Millman, and Tomko (1980), there was no need to conduct the validity test anymore.

3.6.1.2 Argumentative Writing Test

To validate the argumentative writing test, construct validity was used by using expert judgement. The experts were asked to analyze the proposed components, as well as the sub-components. Their judgements showed that the instructions, topics, time allocation, content, and rubric were appropriate. In choosing the experts, the following criteria were considered:

1. The raters had TOEFL score ≤ 550 .
2. The raters had teaching experience ≤ 5 years.
3. The raters were Magister graduate of English Education Study Program.

3.6.2 Reliability

3.6.2.1 Cornell Critical Thinking Test (CCTT)

Johnson and Christensen (2012, p. 340) state that when used to check reliability of scores, the coefficient should be at least 0.70, preferably higher. Since it was a ready made, reliability rating of CCTT was 0.90 which was very high reliability (Ennis and Norris, 1989). Thus, this Cornell Critical Thinking Test (CCTT) could be used since it was reliable.

3.6.2.2 Argumentative Writing Test

To get the reliability of the writing test, inter-rater reliability was used. Inter-rater reliability allowed the raters to give a degree or rating to the instruments whether it was appropriate for the sample or not. From three raters, the result showed the instruction, topic, time allocation and rubric were appropriate, and content was appropriate. Thus, argumentative writing test was reliable.

3.7 Data Analysis

There were five procedures to analyze the data which function is to answer the problem. The first; researcher did the pre-requisite test. Then, the students' critical thinking test and argumentative writing test were observed and analyzed. The next step was, after the data from both instruments input to SPSS, answering the first problem by doing the correlation test. Then, if there was a correlation between the variables, the analysis would be continued to establish the influence of critical thinking skill to argumentative writing skill. At last, there was descriptive analysis in order to answer the result that occurred.

3.7.1 Instrument Analysis

The instruments, both critical thinking questionnaire and argumentative writing test, were analyzed in order to gain the data of the study.

3.7.1.1 Cornell Critical Thinking Test (CCTT) Analysis

Firstly, the data from critical thinking test were analyzed to determine the students' critical thinking skill. The minimum score was 0 if a student's correct answer is 0 and the maximum score is 100 if a student's correct answer is 72 from total 72 questions.

$$\frac{\text{Number of correct answer}}{\text{All questions}} \times 100$$

From the result of students' score of critical thinking test, the categories of students' critical thinking skill then were made into three levels as follows.

Table 9
Students' Competency Level of Cricital Thinking

No.	Level Category	Score Interval
1.	High	71 – 100
2.	Medium	50 – 70
3.	Low	0 – 49

(Source: critical thinking disposition self-rating form, 2011, p.13)

3.7.1.2 Argumentative Writing Test Analysis

Secondly, the students' argumentative writing test was analyzed by the three raters, those who validated the argumentative writing test, by using the rubric for argumentative writing from Jacob et. al. There were five aspects of the argumentative writing scoring system which were content, vocabulary, usage, organization, and mechanism. As a result, the highest point of all was 100. Since there were three raters, the average points from them was determined as the students' argumentative writing skill.

The result of students' argumentative writing test was categorized into four categories as follows.

Table 10
Range of Student's Argumentative Writing Skill

No.	Range	Qualification	Grade
1.	86 – 100	Excellent	A
2.	76 – 85	Good	B
3.	56 – 75	Average	C
4.	< 56	Poor	D

(Source: Jacob et. Al, 2002)

3.7.2 Pre-requisite Analysis

Since the study is in the notion of parametric statistics, correlation and regression, it is necessary to do pre-requisite analysis. Thus, before analyzing the data, the researcher find out whether the data distribution between the variables was normal and linear or not.

3.7.2.1 Normality Test

A normality test is used to determine whether sample data has been drawn from a normally distributed population or not. It was conducted due to many parametric statistical methods, including Pearson correlation test and multiple linear regression test, require an approximately normally distributed dependent variable (Lofgren, 2013). Therefore, the researcher applied Kolmogorov-Smirnov test by using SPSS 20. The data was normally distributed if the p-value is greater than 0.05 ($p > 0.5$).

3.7.2.2 Linearity Test

The type of relationship that is present in a set of data was the overall direction in which Y scores change as the X score change. There are two general types of relationships namely, linear and nonlinear relationship. In a linear relationship, as the scores increase, the scores tend to change in only one direction. In contrast, in a no linear, the other name is curvilinear, as the X score changes, the Y score does not tend to only increase or only decrease: at some point, the Y score changes the direction of change (Heiman, 2011, p. 139-141).

The linearity test was conducted in order to recognize whether the correlation between the variables was linear or not. The test was established as the prerequisite test of multiple linear regression test (Puriyatno, 2010, p. 73). Hence, test for linearity by using SPSS 20 was conducted in order to recognize whether the correlation of the variables was linear or not. Therefore, if the p-value (linearity) is less than 0.05 ($p\text{-value} < 0.05$), the data correlation is linear.

3.7.3 Correlation Analysis

To find out whether critical thinking skill of students had any correlation with students' argumentative writing skill or not, Pearson- Product Moment Correlation Coefficient was used. There was no significant correlation if P-value is higher than 0.05 and there was a significant correlation if P-value is less than 0.05. After that, if any significant correlation between the variables was found, the analysis could be continued to see if there is any significant influence between students' critical thinking skill and argumentative writing skill.

3.7.4 Regression Analysis

As there was a probability of correlation, thus, in the study were conducted Simple Regression test in relation to see the influence of students' critical thinking skill as whole to the students' argumentative writing skill. The influence of the independent variable, critical thinking skill, was gained by looking at the coefficient determination (*R Square*).

CHAPTER IV

FINDINGS AND INTERPRETATIONS

This chapter (1) research findings, (2) statistical analysis, and (3) interpretations.

4.1. Research Findings

There were two kinds of research findings in this study: (1) the result of students' critical thinking skill and (2) the result of students' argumentative writing skill.

4.1.1 Result of Students' Critical Thinking Skill

The total active students in the second year students of Islamic Senior High School Aulia Cendekia Palembang were 60 students. All the 60 students participated in this study. The 72 items of Cornell Critical Thinking Test (CCTT) were used to investigate the level of students' critical thinking skill. The items were scored based on the students' correct answer. The options of the students' answer were yes, no, and maybe. The score 71-100 means high critical thinking skill, then the students with 50 until 70 that means had medium in critical thinking skill and the students had low critical thinking skill when getting lower than 49.

The descriptive statistical analysis of critical thinking skill of the students was shown below. The maximum score was 93, and the minimum score was 55. The mean of critical thinking skill is 74.65 and the standard deviation is 9.010.

Table 11
Descriptive Statistics of Critical Thinking Skill

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Critical Thinking Skill	60	55	93	74.65	9.010
Valid N (listwise)	60				

The result of the critical thinking test revealed that the majority of students, 35 out of 60 (58%), had high critical thinking skill and as much as 25 students out of 60 (42%), had medium critical thinking skill. Last but not least, there was no one categorized as low critical thinking skill. The distribution of students' critical thinking skill can be seen the table below:

Table 12
Score Distribution of Critical Thinking Skill

Level of Critical Thinking Skill	Range Score	Number of Students	Percent (%)
High	71 – 100	35	58
Medium	50 – 70	25	42
Low	0 – 49	0	0
Total		60	100

4.1.2 Result of Students' Argumentative Writing Skill

The descriptive statistical analysis of students' argumentative writing skill was shown in Table 13. The students' score were calculated from the result of the three raters. The maximum score was 88 and the lowest score was 62. the mean of students' argumentative writing skill was 75.15, and the standard deviation was 6.903, this mean score indicated that the level of students' argumentative writing skill is average.

Table 13
Descriptive Statistics of Students' Argumentative Writing Skill

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Argumentative Writing Skill	60	62	88	75.15	6.903
Valid N (listwise)	60				

For each category, 5 students had excellent argumentative writing skill. 24 students had good argumentative writing skill, 31 students had average argumentative writing skill and there was no students had poor argumentative writing skill. The distribution was presented in the following table:

Table 14**Distribution of Students' Argumentative Writing Skill**

Categories of Argumentative Writing Skill	Score Interval	Number of Students	Percent (%)
Excellent	86 – 100	5	8
Good	71 – 85	24	40
Average	56 – 70	31	52
Poor	41- 55	0	0
Very Poor	0 - 40	0	0
Total		60	100

4.2 Statistical Analysis

There were three statistical analysis that the researcher applied in this study:

1. The statistical analysis of normality and linearity
2. The statistical analysis of correlation analysis between students' critical thinking skill and argumentative writing skill.
3. The statistical analysis of regression analysis between students' critical thinking skill and argumentative writing skill.

4.2.1 Normality Test

Normality test were conducted prior to data analysis through SPSS version 20 for windows. It was fundamental to see if the distribution of data were normal for each variable and linear between variables. The data are interpreted normal if

$p > 0,05$. If $p < 0.05$, it means the data are not normal. Kolmogorov-smirnov was used to see the normality.

4.2.1.1 Normality Test of Critical Thinking Skill

The result of normality test by using Kolmogorov-smirnov of critical thinking skill can be seen below.

Table 15
Test of Normality of Critical Thinking Skill

One-Sample Kolmogorov-Smirnov Test		Critical Thinking Skill
N		60
Normal Parameters ^{a,b}	Mean	74.65
	Std. Deviation	9.010
	Absolute	.114
Most Extreme Differences	Positive	.114
	Negative	-.108
Kolmogorov-Smirnov Z		.882
Asymp. Sig. (2-tailed)		.418

a. Test distribution is Normal.

b. Calculated from data.

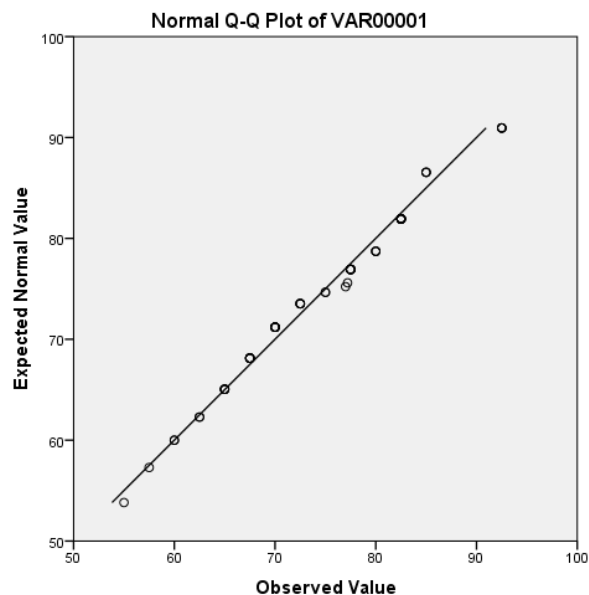
The data from the normality test was shown in table 15 indicated that the data of critical thinking skill was normal and appropriate for data analysis with

coefficients .418. Since the significance value is higher than 0.05, it can be concluded that the data is normally distributed.

Moreover, Q-Q plot was also used to see the normality of the data distribution of critical thinking skill. The normal Q-Q plot of critical thinking skill is illustrated in the following figures.

Figure 1

Q-Q Plot of Critical Thinking Skill



The Q-Q plot showed that all the circles close to the line and it is not to far from one circle to another. It can be concluded that there was a normal distribution of the data.

4.2.1.2 Normality Test of Argumentative Writing Skill

The result of normality test by using Kolmogorov-smirnov of argumentative writing skill can be seen below.

Table 16
Test of Normality of Argumentative Writing Skill

One-Sample Kolmogorov-Smirnov Test		Argumentative Writing Skill
N		60
Normal Parameters ^{a,b}	Mean	75.15
	Std. Deviation	6.903
	Absolute	.085
Most Extreme Differences	Positive	.081
	Negative	-.085
Kolmogorov-Smirnov Z		.658
Asymp. Sig. (2-tailed)		.779

a. Test distribution is Normal.

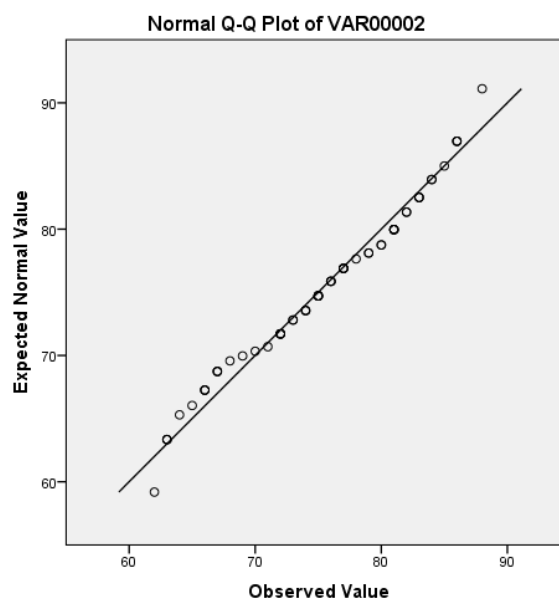
b. Calculated from data.

The data from the normality test was shown in table 16 indicated that the data of argumentative writing skill was normal and appropriate for data analysis with coefficients .779. Since the significance value is higher than 0.05, it can be concluded that the data is normally distributed.

Moreover, Q-Q plot was also used to see the normality of the data distribution of argumentative writing skill. The normal Q-Q plot of argumentative writing skill is illustrated in the following figures.

Figure 2

Q-Q Plot of Argumentative Writing Skill



The Q-Q plot showed that all the circles close to the line and it is not to far from one circle to another. It can be concluded that there was a normal distribution of the data.

4.2.1.3 Linearity Test

For linearity test, deviation of linearity was obtained by using SPSS 20 in order to recognize whether the variables were linear or not. Therefore, if the probability was more than 0.05, the two variables were linear. The result of linearity test can be seen below.

Table 17
Linearity Test

ANOVA Table

	Df	Mean Square	Sig.
(Combined)	15	117.645	.000
Between Groups	1	1359.701	.000
Deviation from Linearity	14	28.927	.299
Within Groups	44	23.795	
Total	59		

Based on the ANOVA output table, value sig. deviation from linearity was $.299 > 0,05$, it can be concluded that there is a linear relationship between the variables of critical thinking skill and argumentative writing skill.

4.2.2 Correlation Analysis

Related to the first problem in the research which aim was to seek the significant correlation between students' critical thinking skill and their argumentative writing skill, the researcher used Pearson Product Moment Correlation Coefficient to answer the first question. Moreover, based on the correlational analysis which can be seen in the Table 18 revealed that the correlational coefficient of the test was $.695$. It was showed that r-obtained ($.695$)

was higher than r-table (.254), which means that there was a correlation between critical thinking skill and argumentative writing skill of the second year students Islamic High School Aulia Cendekia Palembang.

Table 18
The Correlation between Students' Critical Thinking Skill and
Argumentative Writing Skill

Correlations

		VAR00001	VAR00002
Critical thinking skill	Pearson Correlation	1	.695**
	Sig. (2-tailed)		.000
	N	60	60
Argumentative Writing Skill	Pearson Correlation	.695**	1
	Sig. (2-tailed)	.000	
	N	60	60

** . Correlation is significant at the 0.01 level (2-tailed).

Moreover, since the correlational coefficient of the test was .695, Johnson and Christensen (2014, p. 340) claim that this level of correlation was strong since the correlation coefficient almost reached 1 point hence it also could be inferred that there was a strong correlation between the variable and the correlation was in the positive direction. The positive direction means the higher critical thinking skill level the students have, the higher their score of argumentative writing.

Therefore, since the data provided that there was a significant correlation between the variables, the further analysis was conducted in the term of finding the significant influence between the variables.

4.2.3 Regression Analysis

This section answered the second research problem by analysing the result of descriptive statistic for critical thinking skill and argumentative writing skill. In addition, since there was significant correlation between critical thinking skill and argumentative writing skill, it can be inferred that students' critical thinking skill has significant influence on their argumentative writing skill. However, regression analysis was still used to find out if students' critical thinking skill influenced their argumentative writing skill.

Table 19

**The Regression Analysis of Students' Critical Thinking Skill and
Argumentative Writing Skill**

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	35.372	5.436		6.507	.000
	Critical Thinking Skill	.533	.072	.695	7.370	.000

a. Dependent Variable: Argumentative Writing Skill

The result indicated that the students' critical thinking skill significantly influenced argumentative writing skill with t-value (7.370) was higher than t-table (1.671) with sig.value (.00) was lower than probability (.05). Therefore, there was significant influence between student's critical thinking skill and argumentative writing skill of the second year students of Islamic Senior High School Aulia Cendekia Palembang. It means that there was a significant influence of students' student's critical thinking skill on their argumentative writing skill.

In addition, to know the percentage of critical thinking skill influence on argumentative writing skill, R-square was obtained. The result of the analysis shown in Table 20 below.

Table 20
R-square Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.695 ^a	.484	.475	5.003

a. Predictors: (Constant), VAR00001

Table 20 revealed that the R-square was .484. It means that the students' critical thinking skill gave significant effect in the level of 48.4% toward argumentative writing skill, and 51.6% was unexplained factors value.

4.3 Interpretation

In order to strengthen the value of this study the interpretation is made based on the result of data analysis. According to the findings, there was a significant correlation between critical thinking skill and argumentative writing skill. Also, there was a significant influence of critical thinking skill on argumentative writing skill in which critical thinking skill contributed 48.4% to students' argumentative writing skill.

Based on the result of pearson product moment correlation, it was found that there was a strong and positive correlation between critical thinking skill and argumentative writing skill of the second year students of Islamic Senior High School Aulia Cendekia Palembang ($r = .695$). This means that critical thinking skill had relation to their performance in argumentative writing. The explanation to support this finding is that from the beginning of their life, the students had been involved in critical thinking process. From they were born, they use critical thinking to analyze, evaluate, and criticize something (knowledge, information, problem, and issue) in order to find good conclusion and judgment. Wasshburn (2010) points out that critical thinking relates to the activity to criticize people or things both in terms of negative side of them that may lead to the comprehension and best judgment about them. It means that before making decision or judgment, a critical thinker has to think critically about what should to do or believe in order to make a good and reasonable judgment and decision. Critical thinking skill is obviously indispensable used in many field such as in education, research, finance, social, politics, management or other aspects of life.

Furthermore, it might be because the students of Islamic Senior High School Aulia Cendekia Palembang are aware of their critical thinking skill, students can easily use their ability in analyzing, evaluating, and criticizing to make argumentative writing from a certain topics. They assess themselves of how capable they were to accomplish a given task. Critical thinking skill could affect their judgement and opinion which is necessary in making argumentative writing. Student with high critical thinking skill would give great reason and evidence when facing difficulties or problems, they probably look for strong evidence to support their opinion. On the other words, the critical thinking skill level effects argumentative writing activity. Moreover, level of critical thinking skill, in fact, gives different performance in argumentative writing skill. Students with high critical thinking skill can provide a strong evidence to support their idea and make a rational reason about the problem. In the other words, the higher critical thinking skill level the students have, the more they easily to make an argumentative writing. It means students with high critical thinking skill can be more easily to gather their ideas than students with low critical thinking skill. It can be assumed that critical thinking skill is crucial in composing writing. It is because each process of writing requires some thinking skills. Therefore, without being able to think and also write critically, the writers can not result a piece of good writing. Besides, argumentative writing requires mental discipline and close attention to the set of logical rules which is include in critical thinking (Langan, 2007).

Langan (2007) points out that composing writing not only needs good language proficiency, but also needs to be critical as the writer examines

viewpoints, facts, and arguments and synthesize them. In short, a student having knowledge and skill needed in language learning did not always succeed proficiently to perform it. It was because in every stage of writing, we use our thinking to create, to investigate and to revise the idea.

The finding in the study was in line with the study of Assadi, Davatgar, and Jafari (2013). They found that students satisfaction critical thinking skill had significant positive correlations with writing skill. Results of this study show that students with higher critical thinking skill are more likely to receive higher scores in writing. Ruggiero (2004) stated that it can be due to the fact that critical thinking in general can help students to participate in tasks, and students with high critical thinking skill set higher goals and engage themselves in tasks which require considerable fact and evidence (Tays, 2007).

Rashid and Hashim (2008) also revealed the existence of positive and significant relationships among critical thinking ability and language proficiency in foreign language learner. They found that there was a statistically significant positive relationship between critical thinking ability and language proficiency. Students who had high critical thinking ability also achieve at least a satisfactory level of proficiency in the target language.

Besides, Agustina (2013) found that there was relationship reading attitude, critical thinking, and self-determination, in a college sample. Critical thinking as the predictor is used in the model to measure of academic reading attitude, although social self-determination is also shown to have a significant effect. Such a theory would predict that students with high levels of critical

thinking are generally higher achievers than those who have lower levels of critical thinking.

Nikou, Boyadi, and Amirikar (2015) also show the existence of a significant positive correlation between critical thinking skill with the quality of argumentative writing. Therefore, the students who have good critical thinking skill, they must have good writing skill as well, particularly in argumentative writing. Meanwhile, the students who lack of the critical thinking skill, they usually have poor argumentative writing skill. Because having critical thinking skill make the students be able to develop the idea critically and creatively.

On the contrary, Sugianto (2014) could not find any significant effect between critical thinking skill and writing skill. It indicates that the differences of means between high critical thinking skill and low one are not significant. Even though college-students with higher critical thinking skill also perform higher in writing activity, in fact, the differences between high and low critical thinking are not quite significant in writing activities. The level of critical thinking skill either low or high, surprisingly does not give significant effect in writing activities though students with high critical thinking could make better writing. This indicates that high critical thinking does not automatically emerge and initiate students to make better writing task. This is contrary to research by Helix (2015) which showed a large significant positive correlation between critical thinking and writing of students in Florida State University; in writing activities for college students of Florida State University, students' level of critical thinking skill affect students' ability in writing.

In short, the total contribution of students' critical thinking skill and their argumentative writing skill showed significant correlation and influence. However the unexplained factors also had contribution on students's argumentative writing skill. The findings of this study may have some pedagogical implications for teachers, students, and next researcher.

Finally, this study was successful in investigating the correlation and the influence between critical thinking skill and argumentative writing skill of the second year students Islamic Senior High School Aulia Cendekia Palembang.

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

This chapter draws the conclusion and suggestion which is laid from all of the description, explanation and discussion from all of the previous chapters.

5.1 Conclusions

Based on the findings and discussions, it was found that the finding accepted the theory that students' critical thinking skill is factor that affects their argumentative writing skill significantly. The finding indicated that the alternative hypothesis was accepted while the null hypothesis was rejected as the correlation coefficient was .695, and the p-value was .00 which was less than .05 ($.000 < .05$). It can be implied that there was a significant correlation between students' critical thinking skill and argumentative writing skill of the second year students of the Islamic Senior High School Aulia Cendekia Palembang. This result also means that the students with high level critical thinking, has good argumentative writing skill. Whereas, the students who has poor critical thinking skill tends to have poor argumentative writing skill as well. It is proven by the Pearson Product Moment correlation coefficient result which the value is 0.695. Futhermore, critical thinking skill has 48 % contribution in the students' argumentative writing skill. Therefore, it can be concluded that the more critical the students think, the more creative and critical they are in developing the ideas. Those ability can lead the students have good writing skills, particularly in argumentative writing skill.

5.2 Suggestions

The results of this study show that there was a significant correlation between critical thinking skill and argumentative writing skill. It can be reached some suggestions for the students, teachers, and everyone involved in the teaching and learning process of writing skills.

For the teacher of English Islamic High School Aulia Cendekia Palembang, they are expected to design the writing course where they can teach both critical thinking skill and writing skill, argumentative writing in particular. It is because there is significant relationship between critical thinking skill and argumentative writing skill. Furthermore, time for teaching critical thinking techniques in argumentative writing is recommended to increase.

For the teacher, they should teach critical thinking skill to the students because it has many impacts in students' real life. It is not only important for the students' academic performance such as writing skill but also can help students to face the problems in their real life because it is highly importance for students to be taught in lower grades so that they will be critical thinkers since early grade.

For students, especially students of Islamic High School Aulia Cendekia Palembang, they should be aware with the issue and problem happend around them. They have to always analyze and evaluate it to build their critical thinking skill. Hopefully, it can help them improve their critical thinking skill and argumentative writing skill as well.

Finally, it was recommended that further research be conducted to consider whether teaching approach, teaching method, teaching strategy, or teaching technique related to develop students' critical thinking skill. Additionally, for future researchers who have interest in this subject and their are possibilities to correlate them with other variables since there are still many unexplained factors that can give contribution for students' argumentative writing skill.

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Cornell Critical Thinking Test Series
THE CORNELL CLASS-REASONING TEST, FORM X

by

Robert H. Ennis
William L. Gardiner
Richard Morrow
Dieter Paulus
Lucille Ringel

Fill in the blanks when you are asked to do so:

Print your last name only _____

Print your first and middle names _____

Your age on your last birthday _____

Your date of birth: _____

Your grade _____

Your school _____

Your regular teacher at this time _____

Today's date: month _____

General directions:

This is a test to see how well you do a particular kind of thinking. We call it "class reasoning". You will see that you already do some of this kind of thinking. The sample questions make clear what is expected.

DO NOT GUESS WILDLY. There is a scoring penalty for guessing wrong. If you think you have the answer, but are not sure, mark that answer. But if you have no idea, then skip the question.

There are 6 sample questions, then 72 others. You should work as quickly as you can, but do not rush. This is not a speed test. Once you do the samples, you will be able to move right along.

DO NOT TURN THE PAGE UNTIL YOUR EXAMINER TELLS YOU TO DO SO.

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Published by Illinois Critical Thinking Project, Department of Educational Policy Studies, University of Illinois at Urbana-Champaign.

Answering the questions:

In answering each question, use only what you are told in that question. In order to do this, you should imagine that your mind is blank, because some of the things you are told are obviously false. Even so, you should suppose that they are true--for that question only.

You will be given one or more sentences with which to think. You will then be given another sentence, about which you must decide, using only what you were told.

There are three possible answers. This is what they mean:

- A. YES It must be true.
- B. NO It can't be true.
- C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

The meaning of the possible answers is given at the top of each page to help you remember. Each question has only one correct answer.

Mark your answers on this booklet by drawing a circle around the right answer. Remember: If you have no idea what the answer is, skip the question and go on to the next. Do not guess wildly, but if you think you know, then answer the question.

Sample questions:

Read the first question and see how it is marked.

1. Suppose you know that

Bill is next to Sam.

Then would this be true?

Sam is next to Bill.

- | | |
|----|---|
| 1. | <input checked="" type="radio"/> A. YES |
| | <input type="radio"/> B. NO |
| | <input type="radio"/> C. MAYBE |

The correct answer is A, "YES". If Bill is next to Sam, then Sam must be next to Bill. It must be true, so a circle is drawn around "YES".

Here is another sample. This time you circle the answer.

2. Suppose you know that

The sparrow is over the hawk.

Then would this be true?

The hawk is over the sparrow.

- | | |
|----|--------------------------------|
| 2. | <input type="radio"/> A. YES |
| | <input type="radio"/> B. NO |
| | <input type="radio"/> C. MAYBE |

You should have circled B. "NO". If the sparrow is over the hawk, then the hawk can't be over the sparrow. It can't be true.

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
 B. NO It can't be true.
 C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

Circle the answer to this next sample. Be careful:

3. Suppose you know that

Jane is standing near Betsy.

Then would this be true?

Betsy is standing near Jane.

3. A. YES

B. NO

C. MAYBE

The correct answer is C, "MAYBE". Even if Jane is standing near Betsy, Betsy may be sitting. Betsy might be standing near Jane, but she might be sitting near Jane, or something else. You were not told enough to be certain about it, so "MAYBE" is the answer.

Circle the answer to this next sample question. Remember that your mind is supposed to be blank at the beginning of each question.

4. Suppose you know that

California is near
New York.

Then would this be true?

New York is near
California.

4. A. YES

B. NO

C. MAYBE

The correct answer is A, "YES", even though New York and California are not really near to each other. If California were near to New York, then New York would be near to California. It would have to be true.

Remember: You should suppose that what you are told is true--for the question you are answering.

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
B. NO It can't be true.
C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

So far in the sample questions you were told only one thing. In this one you are told two things. Circle your answer.

5. Suppose you know that

The pit is inside of the mouth of the fox.

The cherry is inside the mouth of the fox.

Then would this be true?

The pit is inside the cherry.

5. A. YES
B. NO
C. MAYBE

Here is the last sample question. This time the letters "X" and "Y" are used. They can stand for anything you like. Circle your answer.

6. Suppose you know that

X is next to Y.

Then would this be true?

Y is next to X.

6. A. YES
B. NO
C. MAYBE

The correct answer is A, "YES", no matter what X and Y stand for. If X is next to Y, then Y must be next to X.

Now that you have done the practice questions you probably understand what is expected. If you have any questions, ask them now.

DO NOT TURN THE PAGE UNTIL YOU ARE TOLD TO DO SO.

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
 B. NO It can't be true.
 C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

7. Suppose you know that

All the cars in the garage are Mr. Smith's.
 All Mr. Smith's cars are Fords.

Then would this be true?

7. A. YES

B. NO

C. MAYBE

All of the cars in the garage are Fords.

8. Suppose you know that

All John's pencils are blue.

Then would this be true?

At least some of John's pencils are not blue.

8. A. YES

B. NO

C. MAYBE

9. Suppose you know that

All the books about sailing are Bill's.
 All the green books are Bill's.

Then would this be true?

At least some of the green books are about sailing.

9. A. YES

B. NO

C. MAYBE

10. Suppose you know that

None of Jane's dolls have hats.

Then would this be true?

None of the dolls that have hats are Jane's

10. A. YES

B. NO

C. MAYBE

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
 B. NO It can't be true.
 C. MAYBE It may be true or it may not be true. You
 weren't told enough to be certain whether it
 is "YES" or "NO".

15. Suppose you know that

All X's are Y's.
 No Z's are Y's.

Then would this be true?

At least some X's are Z's.

15. A. YES

B. NO

C. MAYBE

16. Suppose you know that

At least some of Fred's pencils are green.

Then would this be true?

None of Fred's pencils are green.

16. A. YES

B. NO

C. MAYBE

17. Suppose you know that

None of Sue's books are about animals

Then would this be true?

None of the books about animals are
 Sue's.

17. A. YES

B. NO

C. MAYBE

18. Suppose you know that

At least some of Kate's pencils are blue.
 All the pencils in the box are blue.

Then would this be true?

At least some of Kate's pencils are in the
 box.

18. A. YES

B. NO

C. MAYBE

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
- B. NO It can't be true.
- C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

19. Suppose you know that

All Z's are Y's.
All Y's are X's.

Then would this be true?

All Z's are X's.

- 19. A. YES
- B. NO
- C. MAYBE

20. Suppose you know that

None of the fifth grade boys are on the football team.
John is a fifth grade boy.

Then would this be true?

John is not on the football team.

- 20. A. YES
- B. NO
- C. MAYBE

21. Suppose you know that

All the members of the school band have been in Boston.
No one in Frank's class has been in Boston.

At least some members of the school band are in Frank's class.

- 21. A. YES
- B. NO
- C. MAYBE

22. Suppose you know that

All X's are Y's.

Then would this be true?

At least some X's are not Y's.

- 22. A. YES
- B. NO
- C. MAYBE

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
- B. NO It can't be true.
- C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

23. Suppose you know that
 All boys are painters.
 All children are painters.
 Then would this be true?

- 23. A. YES
- B. NO
- C. MAYBE

At least some children are boys.
 24. Suppose you know that
 All the second grade children are out on
 the playground.
 Then would this be true?

- 24. A. YES
- B. NO
- C. MAYBE

All the children out on the playground
 are in the second grade.
 25. Suppose you know that
 At least some of the books on the table
 are about stars.
 None of Bob's books are about stars.
 Then would this be true?

- 25. A. YES
- B. NO
- C. MAYBE

All of the books on the table are Bob's.
 26. Suppose you know that
 All the boys in John's class are football
 players.
 Fred is a football player.
 Then would this be true?

- 26. A. YES
- B. NO
- C. MAYBE

Fred is not in John's class.

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
 B. NO It can't be true.
 C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

27. Suppose you know that

All the pets of the Greens won some prize in the pet show.
 Fido is one of the Greens' pets.

Then would this be true?

Fido won a prize in the pet show.

27. A. YES

B. NO

C. MAYBE

28. Suppose you know that

No animals are dogs.

Then would this be true?

No dogs are animals.

28. A. YES

B. NO

C. MAYBE

29. Suppose you know that

Eileen is one of the children on the playground.

Then would this be true?

Eileen is not one of the children on the playground.

29. A. YES

B. NO

C. MAYBE

30. Suppose you know that

All X's are Y's.

Then would this be true?

All Y's are X's.

30. A. YES

B. NO

C. MAYBE

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
 B. NO It can't be true.
 C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

31. Suppose you know that
 All cats can fly.
 All animals that can fly are black.
 Then would this be true?
 All cats are black.
31. A. YES
 B. NO
 C. MAYBE
32. Suppose you know that
 All the things in the trunk are Bill's.
 The brown baseball bat is Bill's.
 Then would this be true?
 The brown baseball bat is in the trunk.
32. A. YES
 B. NO
 C. MAYBE
33. Suppose you know that
 None of Bob's books are on the table, but
 there are books on the table.
 Then would this be true?
 At least some of the books on the table
 are not Bob's
33. A. YES
 B. NO
 C. MAYBE
34. Suppose you know that
 All X's are Y's.
 All Z's are Y's.
 Then would this be true?
 At least some Z's are X's.
34. A. YES
 B. NO
 C. MAYBE

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
- B. NO It can't be true.
- C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

35. Suppose you know that
All Mary's pencils are yellow.
Then would this be true?
At least some of Mary's pencils are not yellow.
35. A. YES
B. NO
C. MAYBE
36. Suppose you know that
All pencils are heavy.
Nothing made of wood is heavy.
Then would this be true?
At least some pencils are made of wood.
36. A. YES
B. NO
C. MAYBE
37. Suppose you know that
At least some of the green pencils are Dick's.
Then would this be true?
All Dick's pencils are green.
37. A. YES
B. NO
C. MAYBE
38. Suppose you know that
No X's are Y's.
Then would this be true?
No Y's are X's.
38. A. YES
B. NO
C. MAYBE

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
- B. NO It can't be true.
- C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

39. Suppose you know that
All dogs are brown.
Then would this be true?
At least some dogs are not brown.
39. A. YES
B. NO
C. MAYBE
40. Suppose you know that
All the cookies Jane made for the fair had nuts in them.
All the cookies with nuts in them were sold.
Then would this be true?
All the cookies Jane made for the fair were sold.
40. A. YES
B. NO
C. MAYBE
41. Suppose you know that
All brown animals have four legs.
Then would this be true?
All animals with four legs are brown.
41. A. YES
B. NO
C. MAYBE
42. Suppose you know that
All members of the football team weigh over 150 pounds.
Henry does not weigh over 150 pounds.
Then would this be true?
Henry is on the football team.
42. A. YES
B. NO
C. MAYBE

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
- B. NO It can't be true.
- C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

43. Suppose you know that

All of John's candy is in the box.
All of the candy that is not chocolate is also not in the box.

43. A. YES

B. NO

Then would this be true?

C. MAYBE

At least some of John's candy is not chocolate.

44. Suppose you know that

All the papers in the box are torn.
None of John's papers are in the box.

40. A. YES

B. NO

Then would this be true?

C. MAYBE

None of John's papers are torn.

45. Suppose you know that

All of the boys are singing.

45. A. YES

B. NO

Then would this be true?

C. MAYBE

All of the people who are not singing are also not boys.

46. Suppose you know that

All the math homework is due today.
None of John's homework is due today.
All the homework for Mr. Miller's class is math homework.

46. A. YES

B. NO

Then would this be true?

C. MAYBE

None of John's homework is for Mr. Miller's class.

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
- B. NO It can't be true.
- C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

47. Suppose you know that

All the pencils in the box are green.
 All Sue's pencils are sharp.
 All the green pencils are Sue's.

Then would this be true?

- 47. A. YES
- B. NO
- C. MAYBE

At least some of the pencils in the box are not sharp.

48. Suppose you know that

None of my shirts are wool.
 None of the shirts hanging up in the closet are wool.

Then would this be true?

- 48. A. YES
- B. NO
- C. MAYBE

At least some of my shirts are hanging up in the closet.

49. Suppose you know that

All X's are Y's.

Then would this be true?

- 49. A. YES
- B. NO

All things that are not Y's are also not X's.

50. Suppose you know that

All four-legged animals can fly.
 No horses can fly.
 All fast runners are four-legged animals.

Then would this be true?

- 50. A. YES
- B. NO
- C. MAYBE

No horses are fast runners.

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
- B. NO It can't be true.
- C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

51. Suppose you know that

All of the boys in the class collect stamps.
 All students who are not members of the Stamp Club also do not collect stamps.

Then would this be true?

- 51. A. YES
- B. NO
- C. MAYBE

At least some of the boys in the class are not members of the Stamp Club.

52. Suppose you know that

All of the boys are running, but not everyone is running.

Then would this be true?

- 52. A. YES
- B. NO
- C. MAYBE

At least some of the people not running are not boys.

53. Suppose you know that

None of Tom's books are on the shelf.
 No science books are on the shelf.

Then would this be true?

- 53. A. YES
- B. NO

At least some of Tom's books are science books.

54. Suppose you know that

All of Bill's five uncles are allowed to drive.
 All people who have a license have passed a driving test.
 All people who are allowed to drive have a license.

Then would this be true?

- 54. A. YES
- B. NO
- C. MAYBE

At least one of Bill's uncles has not passed a driving test.

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
- B. NO It can't be true.
- C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

55. Suppose you know that
 All of the band members are working.
 Then would this be true?

- 55. A. YES
- B. NO

 Everyone who is not working is also not
 in the band.

- C. MAYBE

56. Suppose you know that
 All the books on the shelf belong to the
 library.
 No science books belong to the library.
 At least some of the books that Elmer
 likes are on the shelf.
 Then would this be true?

- 56. A. YES
- B. NO
- C. MAYBE

 At least some of the books that Elmer
 likes are not science books.

57. Suppose you know that
 All the people who live on Main Street
 were born in Milltown.
 None of the students in Room 352 live
 on Main Street.
 Then would this be true?

- 57. A. YES
- B. NO
- C. MAYBE

 None of the students in Room 352 were
 born in Milltown.

58. Suppose you know that
 At least some of Mr. Johnes' students
 ride the bus to school.
 All students who live on Route 55 own
 dogs.
 All students who ride the bus to school
 live on Route 55.

- 58. A. YES
- B. NO
- C. MAYBE

Then would this be true?

None of Mr. Johnes' students own dogs.

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
 B. NO It can't be true.
 C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

59. Suppose you know that

All Y's are X's.
 No Z's are Y's.

Then would this be true?

No Z's are X's.

59. A. YES

B. NO

C. MAYBE

60. Suppose you know that

All teachers are college graduates.
 All people who have gone to high school are men.
 All college graduates have gone to high school.

Then would this be true?

At least some teachers are not men.

60. A. YES

B. NO

C. MAYBE

61. Suppose you know that

All Z's are Y's.
 No X's are Y's.
 All T's are Z's.

Then would this be true?

No X's are T's.

61. A. YES

B. NO

C. MAYBE

62. Suppose you know that

All students who do not have a star are also not swimmers.
 Frances is a swimmer.

Then would this be true?

Frances does not have a star.

62. A. YES

B. NO

C. MAYBE

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
 B. NO It can't be true.
 C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

63. Suppose you know that
 All the people in the auditorium are watching a movie.
 All students in the senior play are in the auditorium.
 Esther is a student in the senior play.
- Then would this be true?
 Esther is not watching a movie.
63. A. YES
 B. NO
 C. MAYBE
64. Suppose you know that
 All birds have three eyes.
 No ducks are birds.
- Then would this be true?
 No ducks have three eyes.
64. A. YES
 B. NO
 C. MAYBE
65. Suppose you know that
 No Z's are Y's.
 No X's are Y's.
- Then would this be true?
 At least some Z's are X's.
65. A. YES
 B. NO
 C. MAYBE
66. Suppose you know that
 All of the red pencils are broken.
 Emil's pencil is not broken.
- Then would this be true?
 Emil's pencil is not red.
66. A. YES
 B. NO
 C. MAYBE

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
 B. NO It can't be true.
 C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

67. Suppose you know that

All Z's are Y's.
 All Things that are not X's are also not Y's.

67. A. YES

B. NO

Then would this be true?

C. MAYBE

At least some Z's are not X's.

68. Suppose you know that

At least some of Mrs. Brown's flowers are not roses.
 At least some of the flowers in the flower show are not roses.

68. A. YES

B. NO

Then would this be true?

C. MAYBE

At least some of Mrs. Brown's flowers are in the flower show.

69. Suppose you know that

All the pencils in the box are yellow.
 None of the broken pencils are yellow.
 All Dick's pencils are in the box.

69. A. YES

B. NO

Then would this be true?

C. MAYBE

None of the broken pencils are Dick's.

70. Suppose you know that

All the people who live near the lake can swim.
 None of the students in Mr. Smith's class live near the lake.

70. A. YES

B. NO

Then would this be true?

C. MAYBE

At least some of the students in Mr. Smith's class cannot swim.

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
 B. NO It can't be true.
 C. MAYBE It may be true or it may not be true. You weren't told enough to be certain whether it is "YES" or "NO".

71. Suppose you know that
 None of the houses on Main Street are made of brick.
 Allan's house is not made of brick.
 Then would this be true?
 Allan's house is on Main Street.
71. A. YES
 B. NO
 C. MAYBE
72. Suppose you know that
 At least some of the boys in the class have bicycles.
 All those who are not here also do not have bicycles.
 Then would this be true?
 No boys in the class are here.
72. A. YES
 B. NO
 C. MAYBE
73. Suppose you know that
 All dogs are red.
 Then would this be true?
 All animals that are not red are also not dogs.
73. A. YES
 B. NO
 C. MAYBE
74. Suppose you know that
 All Mr. Smith's cars have polished bumpers.
 The red car does not have a polished bumper.
 All the cars in the garage are Mr. Smith's.
 Then would this be true?
 The red car is not in the garage.
74. A. YES
 B. NO
 C. MAYBE

Here is a reminder of the meaning of the possible answers:

- A. YES It must be true.
 B. NO It can't be true.
 C. MAYBE It may be true or it may not be true. You
 weren't told enough to be certain whether it
 is "YES" or "NO".

75. Suppose you know that
 No ducks are birds.
 Nothing with large feathers is a bird.
 Then would this be true?
 At least some ducks have large feathers.
75. A. YES
 B. NO
 C. MAYBE
76. Suppose you know that
 All alligators are smart animals.
 All animals that cannot sing are also not
 smart.
 Then would this be true?
 At least some alligators cannot sing.
76. A. YES
 B. NO
 C. MAYBE
77. Suppose you know that
 All the students who live in the country
 have pets.
 Barbara does not live in the country.
 Then would this be true?
 Barbara does not have a pet.
77. A. YES
 B. NO
 C. MAYBE
78. Suppose you know that
 All X's are Y's.
 All Z's are T's.
 All Y's are Z's.
 Then would this be true?
 At least some X's are not T's.
78. A. YES
 B. NO
 C. MAYBE

END OF TEST. GO BACK AND CHECK YOUR ANSWERS .

TEST OF ARGUMENTATIVE WRITING

Time : 60 minutes

Directions :

1. Read the questions/topics carefully.
2. There are three topics given, and you are free to choose only **ONE** of them.
3. You have to write an **ARGUMENTATIVE TEXT**.
4. You have 60 minutes to plan, write, edit, and revise your work.
5. Write an argumentative text max. **250 words**.

Questions/topics:

1. Do you agree with this statement? **Internet is bad for children**. Give specific reasons and details to support your answer.
2. **National Exam (UN) is not important for students**. Do you agree with this idea? Give specific reasons and details to support your answer.
3. Do you agree with following statement? **Computer game causes violence in children**. Give specific reasons and details to support your answer.

Argumentative Writing Assessment Rubric

Participant:		Topic : 1/ 2/ 3	Date:
Aspect	Score scale	Criteria	Score
Content	30-27	EXCELLENT TO VERY GOOD: knowledge, substantive, thorough development of thesis, relevant to assign topic	
	26-22	GOOD TO AVERAGE: some knowledge of subject, adequate range, limited development of thesis, mostly relevant to topics but lacks detail	
	21-17	FAIR TO POOR: limited knowledge of subject, little substance, inadequate development topic	
	16-13	VERY POOR: does not show knowledge of subject, not substantive, not pertinent, OR not enough to evaluate	
Vocabulary	29-18	EXCELLENT TO VERY GOOD: fluent expression, ideas clearly stated/supported, succinct, well-organized, logical sequencing, cohesive	
	17-14	GOOD TO AVERAGE: somewhat choppy, loosely organized but main ideas stand out, limited support, logical but incomplete sequencing	
	13-10	FAIR TO POOR: non-fluent, ideas confused or disconnected, lacks logical sequencing and development	
	9-7	VERY POOR: does not communicate, no organization, OR not enough to evaluate	
Usage	20-18	EXCELLENT TO VERY GOOD: sophisticated range, effective word/idiom choice, usage, word form mastery, appropriate register	
	17-14	GOOD TO AVERAGE: adequate range, occasional errors of word/idiom, word choice, usage, but meaning not obscured	
	13-10	FAIR TO POOR: limited range, frequent errors of word/idiom form, choice, usage, meaning confused or obscured	
	9-7	VERY POOR: essentially translation, little knowledge of English vocabulary, idioms, word form, OR not enough to evaluate	
Organization	25-22	EXCELLENT TO VERY GOOD: effective complex construction, few errors of agreement, tense, number, word order/function, article, pronouns, preposition	
	21-18	GOOD TO AVERAGE: effective but simple construction, minor problems in complex construction, several errors of agreement, tense, number, word order/function, articles, pronouns, prepositions but meaning seldom obscured	
	17-11	FAIR TO POOR: major problems in simple/complex construction, frequent errors of negation, agreement, tense, number, word order/function, articles, pronouns, prepositions and/or fragments, run-ons, deletions, meaning confused or obscured	
	10-5	VERY POOR: virtually no mastery of sentence construction rules, dominated by errors, does not communicate, OR not enough to evaluate	
Mechanics	5	EXCELLENT TO VERY GOOD: demonstrates mastery of conventions, few errors of spelling, punctuation, capitalization, paragraphing	
	4	GOOD TO AVERAGE: occasional errors of spelling, punctuation, capitalization, paragraphing, but meaning not obscured	
	3	FAIR TO POOR: frequent errors of spelling, punctuation, capitalization, paragraphing, poor handwriting, meaning confused or obscured	
	2	VERY POOR: no mastery of conventions, dominated by error of spelling, punctuation, capitalization, handwriting illegible, OR not enough to evaluate	
Total Score			
Comment:		Rater:	

Developed by: Weigle, S. C. (2002). Assessing Writing. Cambridge University Press, New York.

Raw Data of Critical Thinking

No.	Participants	Score
1.	R1	65
2.	R2	67.5
3.	R3	70
4.	R4	77.5
5.	R5	80
6.	R6	82.5
7.	R7	82.5
8.	R8	70
9.	R9	85
10.	R10	65
11.	R11	72.5
12.	R12	82.5
13.	R13	77.5
14.	R14	70
15.	R15	85
16.	R16	62.5
17.	R17	55
18.	R18	67.5
19.	R19	70
20.	R20	75
21.	R21	57.5
22.	R22	92.5
23.	R23	77.5
24.	R24	92.5
25.	R25	77.5
26.	R26	92.5
27.	R27	60
28.	R28	72.5
29.	R29	82.5
30.	R30	70
31.	R31	72.5
32.	R32	77.5
33.	R33	67.5
34.	R34	65
35.	R35	82.5
36.	R36	82.5
37.	R37	67.5
38.	R38	82.5
39.	R39	65

40.	R40	77.2
41.	R41	82.5
42.	R42	65
43.	R43	60
44.	R44	75
45.	R45	70
46.	R46	92.5
47.	R47	72.5
48.	R48	80
49.	R49	85
50.	R50	82.5
51.	R51	77
52.	R52	70
53.	R53	67.5
54.	R54	62.5
55.	R55	70
56.	R56	80
57.	R57	82.5
58.	R58	82.5
59.	R59	67.5
60.	R60	77.5
Total		4479.20
Maximum		92.50
Minimum		55.00
Mean		74.65

Raw Data of Argumentative Writing

No.	Participant	Rater 1	Rater 2	Rater 3	Total Score
1.	R1	78	76	74	76
2.	R2	75	75	75	75
3.	R3	74	73	72	73
4.	R4	77	78	76	77
5.	R5	82	80	90	84
6.	R6	82	81	80	81
7.	R7	70	71	72	71
8.	R8	74	76	75	75
9.	R9	84	83	82	83
10.	R10	73	73	73	73
11.	R11	75	76	74	75
12.	R12	86	84	88	86
13.	R13	69	67	65	67
14.	R14	80	82	78	80
15.	R15	86	84	88	86
16.	R16	74	73	75	74
17.	R17	67	69	65	67
18.	R18	70	69	68	69
19.	R19	83	84	82	83
20.	R20	65	64	63	64
21.	R21	72	72	72	72

22.	R22	85	84	86	85
23.	R23	76	74	75	75
24.	R24	82	83	84	83
25.	R25	78	76	77	77
26.	R26	80	81	82	81
27.	R27	76	74	75	75
28.	R28	76	77	75	76
29.	R29	78	79	80	79
30.	R30	78	77	76	77
31.	R31	68	68	68	68
32.	R32	89	87	88	88
33.	R33	64	62	63	63
34.	R34	72	75	75	74
35.	R35	81	80	82	81
36.	R36	82	80	84	82
37.	R37	65	67	66	66
38.	R38	84	86	82	84
39.	R39	61	68	69	66
40.	R40	75	77	76	76
41.	R41	80	80	80	80
42.	R42	62	62	65	63
43.	R43	65	65	68	66
44.	R44	72	70	74	72
45.	R45	72	72	72	72
46.	R46	88	86	84	86

47.	R47	72	76	74	74
48.	R48	78	80	76	78
49.	R49	81	82	80	81
50.	R50	81	78	78	79
51.	R51	72	74	70	72
52.	R52	65	67	69	67
53.	R53	60	62	64	62
54.	R54	61	63	65	63
55.	R55	70	70	70	70
56.	R56	76	77	78	77
57.	R57	82	81	80	81
58.	R58	80	84	82	82
59.	R59	63	69	63	65
60.	R60	72	70	74	72
Total		4509.00			
Maximum		88.00			
Minimum		62.00			
Mean		75.15			

INTERVIEW IN PRELIMINARY STUDY

The researcher already made an appointment to the teacher and students first. The informal interview was conducted on April 19th 2017 at Islamic Senior High School Aulia Cendekia Palembang. The first interview was with the students, and the second interview was with the teacher.

STUDENTS

1. Apakah kalian suka belajar bahasa inggris?
= Ya terkadang suka, kadang juga membosankan, dan terkadang malas belajar.
2. Menurut kalian, diantara 4 skill dalam bahasa inggris mana yang paling sulit?
= Skill yang paling sulit itu listening karena kadang tidak jelas apa yang dibicarakan, setelah itu writing karena menulis dalam bahasa inggris itu sulit.
3. Mengapa demikian? Apa sajakah yang menjadi kendala dalam menulis bahasa inggris menurut kalian?
= Karena dalam menulis text bahasa inggris kita harus memahami konsep-konsep dan juga punya banyak kosakata bahasa inggris agar bisa mengungkapkan apa yang kita ingin utarakan. Ditambah lagi dalam menulis text bahasa inggris kita harus memperhatikan grammar yang digunakan. Kadang juga bingung untuk mengungkapkan pikiran kami dalam tulisan karena tidak punya kemampuan yang baik dalam bahasa inggris.
4. Disekolah biasanya jenis text bahasa inggris apa yang kalian buat? Bagaimana dengan dirumah?
= Kalau disekolah biasanya guru meminta kami untuk membuat narrative text yang menceritakan tentang pengalaman, liburan, dll. Kalau dirumah seringnya buat jurnal tentang kegiatan sehari-hari.
5. Menurut kamu apa saja yang harus diperhatikan dalam menulis text bahasa inggris?

- = Menurut saya yang paling penting itu paham tema dari tulisan tersebut, terus punya banyak kosakata bahasa inggris sehingga tulisan yang kita buat lebih bervariasi dan mudah dimengerti, dan yang terakhir yang pasti grammar.
6. Sudah pernah menulis argumentative writing atau belum?

= Dulu dikelas X (sepuluh) sudah pernah baca dan belajar tentang argumentative text tapi belum pernah menulis argumentative text.
 7. Menurut kamu apa yang membedakan argumentative text dengan text jenis lain?

= Kalau argumentative isinya lebih ke opini atau pendapat tentang topik tertentu, ditambah lagi dalam menulis argumentative text harus punya ilmu yang luas agar bisa menguatkan pendapat kita tentang topik yang dibahas sedangkan kalau text bentuk lain gak terlalu banyak memerlukan pendapat pribadi.
 8. Pernah dengar istilah “critical thinking”? kalau pernah, menurut kamu “critical thinking” itu apa?

= Pernah, berpikir kritis. Misalnya kita dihadapkan dalam suatu masalah lalu tanggapan kita terhadap masalah itu seperti apa juga solusinya.
 9. Menurut kamu, perlukah kita memiliki kemampuan berpikir kritis?

= Perlu. Karena berpikir kritis sudah jadi bagian dari kehidupan kita sehari-hari. Untuk membuat keputusan misalnya kita harus kritis, disekolah juga kita menggunakan kemampuan berpikir kritis untuk memberikan pendapat, memecahkan masalah, dll.
 10. Percayakah kamu jika memiliki kemampuan berpikir kritis yang baik dapat meningkatkan kemampuan menulis dalam bahasa inggris? Kenapa?

= Iya. Karena saya percaya berpikir kritis itu banyak manfaatnya termasuk membantu kita belajar baik bahasa inggris maupun pelajaran yang lainnya.

TEACHER (Anshorullah, S.Pd)

1. How long have you been working as a teacher at this school?

= I have been teaching for more than 5 years.
2. How many classes do you teach in this school?

= 4 classes, X.A, X.B, XI.A, and XI.B
3. What is the main subjects that you teach in this school in this school year?

= For MA I only teach English, but at Mts I teach Arabic as well.

4. In your opinion, what is the most difficult skills in English to be taught?
= I think it's listening because the students still have difficulties to catch the meaning from what they hear, and writing is also difficult because sometimes I have to have 2 or more meetings everytime I give them an assignment to make an English text, I never make it as a school assignment and make it into homework because they can not finish it in one meeting.
5. What is the biggest problem to teach writing on your class?
= It is because they lack of vocabulary so it's hard for them to create the paragraph because they only know several words. Lack of grammar is also the factor, they seem hard to differentiate between when they have to use past tense or present tense. And the last is lack of knowledge, their limited ideas make them hard to understand the topic and express their thoughts in writing.

DOCUMENTATION





