

**THE CORRELATION BETWEEN CRITICAL THINKING AND
WRITING ACHIEVEMENT OF THE FIFTH SEMESTER
STUDENTS OF ENGLISH EDUCATION STUDY PROGRAM OF
UIN RADEN FATAH PALEMBANG**



UNDERGRADUATE THESIS

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

by

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Assalamualaikum Wr. Wb.

Setelah kami periksa dan diadakan perbaikan-perbaikan seperlunya, maka skripsi berjudul "THE CORRELATION BETWEEN CRITICAL THINKING AND WRITING ACHIEVEMENT OF THE FIFTH SEMESTER STUDENTS OF ENGLISH EDUCATION STUDY PROGRAM OF UIN RADEN FATAH PALEMBANG", ditulis oleh saudara Andi Jaya Saputra telah dapat diajukan dalam sidang munaqasyah Fakultas Tarbiyah UIN Raden Fatah Palembang.

Demikianlah terima kasih

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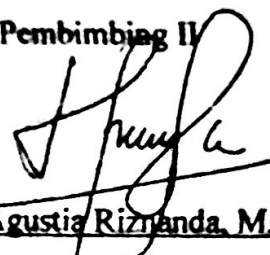
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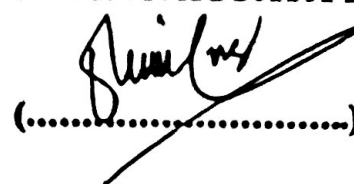
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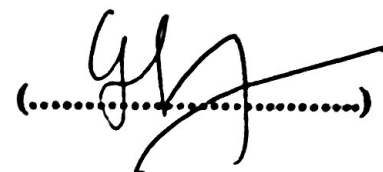
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DEDICATION

This thesis is dedicated special for:

- ✚ *Allah SWT that always gives me chance to finish this thesis.*
- ✚ *My beloved mother (Hasmi Suyati), who always pray, love and support me in every single step in my life. No words can be described how much I love you.*
- ✚ *My beloved uncle (M. Fachrudin, S.Pd), aunt (Eka Elpiani, S.Pd), My grandpa (M. Japas) and grandma (Amnah), who takes care of me and gives so much love. I give millions thank for your love.*
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Motto

"do something and don't stop until it's complete, no matter how long it takes"
"Man Jadda Wajada"



SURAT PERNYATAAN

Dengan ini saya menyatakan bahwa skripsi yang berjudul **“The Correlation between Critical Thinking and Writing Achievement of the Fifth Semester Students of English Education Study Program of UIN Raden Fatah Palembang”** adalah karya saya sendiri. Apabila ternyata bukan hasil kerja saya, saya bersedia diberi sanksi sesuai dengan pasal 70, Undang-undang No. 20 tahun 2003 tentang “Sistem Pendidikan Nasional” yang berbunyi “Lulusan Karya Ilmiah yang digunakan untuk gelar akademik, profesi atau vokasi sebagaimana dimaksud pada ayat 25 (2) terbukti merupakan jiplakan dipidanakan dengan pidana penjara paling lama dua tahun atau pidana denda paling banyak Rp. 200.000.000 (Dua Ratus Juta Rupiah)”.

Demikian surat pernyataan ini dibuat dengan sebenarnya.

Palembang, April 2017
Yang Menyatakan,




Andi Jaya Saputra
12250005

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Andi Jaya Saputra

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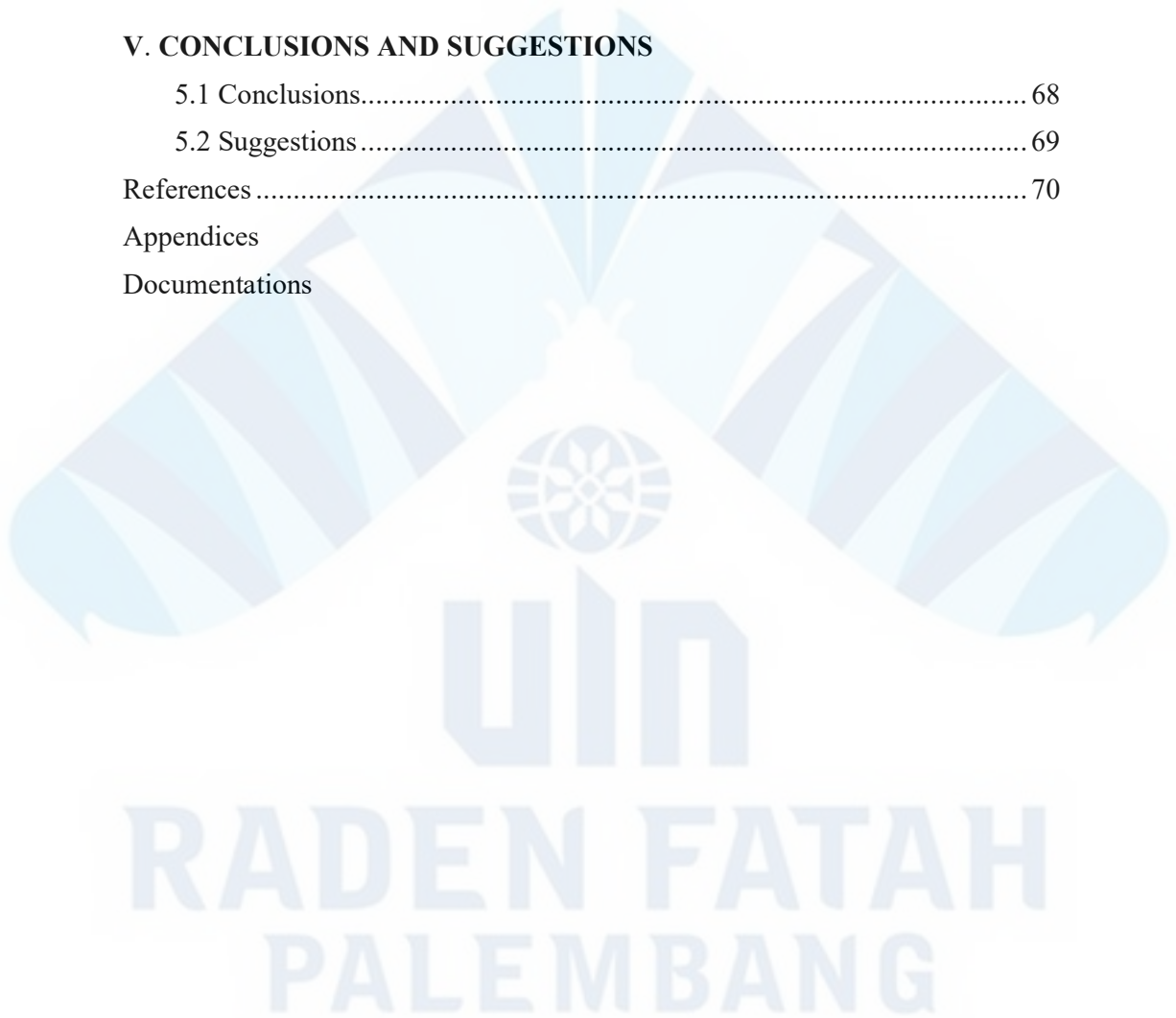
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ABSTRACT

This study aimed to seek the correlation between critical thinking and writing achievement, and investigate the influence of critical thinking on writing achievement of the fifth semester students of English Education Study Program students at UIN Raden Fatah Palembang. All the fifth semester students were selected as the participants of this study by using total population sampling technique. To achieve the goals of this study, the CAAP (College Assessment of Academic Proficiency) critical thinking test (2008) was administered to measure students' critical thinking. Then, the researcher asked the participants to write on a given topic and their writing were rated by three raters by following rules of scoring in Diablo Valley College's essay writing assessment rubric (2012). The *Pearson Product Moment Correlation* was used to show the correlation between students' critical thinking and their writing achievement, moreover, *regression analysis* was applied to find the influence of students' critical thinking on their writing achievement. The result of data analysis indicated that there was a significant correlation between students' critical thinking and their writing achievement with $r = .796$. Besides, there was also a significant influence of students' critical thinking on their writing achievement with $R\text{-square} = 63,4\%$. This study could have implications for English language teachers, students, text book writers, and other researchers.

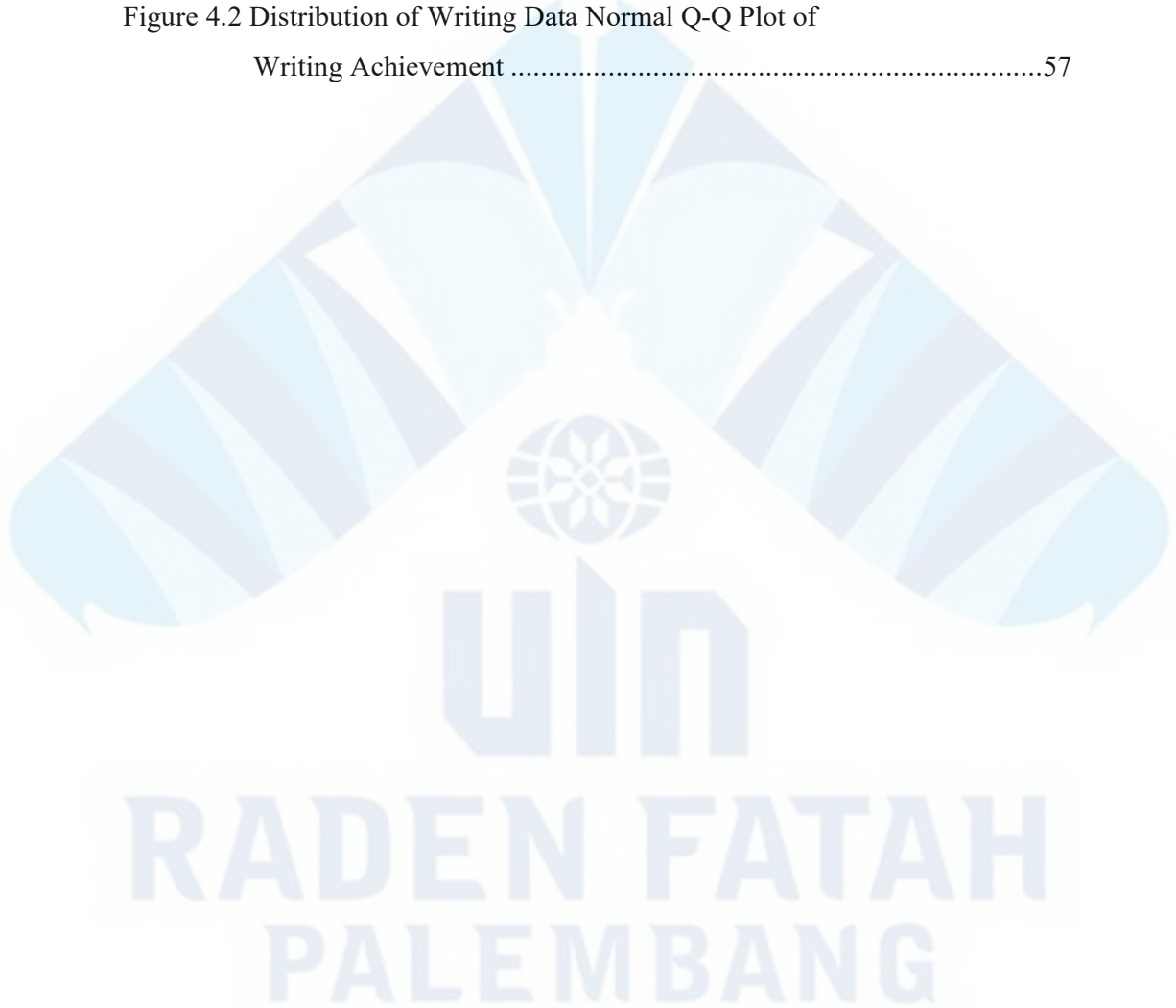
Keywords: critical thinking, writing achievement, testing writing, UIN students of English

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CHAPTER I

INTRODUCTION

This chapter presents: (1) background, (2) problems of the study, (3) objectives of the study, and (4) significance of the study.

1.1. Background

Writing is considered as one of the important media of communication which may cross space and through time (Fromkin, Rodman, & Hyams, 2013, p. 527). Through writing, the development of culture and civilization of one nation and country in the past time may be traced and known by people in the present time and such development may also be traced and known by people in the future time. Moreover, Tompkins (2011, p. 217) argues that writing is a medium of human communication that represents language and emotion through the inscription or recording of signs and symbols.

In educational context, writing is one of the important skills. Harmer (2004, p. 3) puts forward that “writing proficiency” is still being used as the main instrument to measure students’ knowledge in most exams, whether to test “foreign abilities” or other skills. Similarly, Brown (2000, p. 340) affirms that writing reflects students’ knowledge about what they have learned. Moreover, it is also integrated to reading and listening as guidance during the process to understand and organize idea (Richards, 1990, p. 100).

According to Massi (2001), writing is a tool for creation of ideas and consolidation of the linguistic system for communication in interactive way. Writing is one kind of the activities done by the language learners and it is

one of the productive skills (Harmer, 2007, p. 265). It displays a variety of features which can be observed within the sentence at the level of grammar, and beyond the sentence at the level of text structure (Nunan, 1999, p. 275). Regarding this idea, writing English is not a simple matter because when one is writing (Gibbons and Cummins, 2002, p. 52), they demonstrate not only their competence or their ability in grammar of English, but also their knowledge in the acceptable English rhetoric or the communicative aspects of writing in English. Thus, writing is a complex matter. It is a productive skill which combining ideas and knowledge of grammar in the sentences.

Saddler, Moran, Graham and Harris (2004, p. 3) wisely remarks that, a good writing is not only a hard work; it is an extremely complex and challenging mental task. It means that to understand and to master the writing need a hard work and mental readiness as the helping to take a part in the world of writing. Sturm and Koppenhaver (2000) also inform that composing for writing involves a complex thinking that must integrate multiple components including the topic or theme, choice of words, organization, purpose, audience, clarity, sequence, cohesion and transcription. Therefore, writing is not an easy activity and mastering writing is not easy too.

Specifically, writing is often considered as the most difficult and complex activity among the four language skills in English, because the process of writing requires a set of competencies (Brown, 2007, p. 391). Based on the fifth semester students' score in the English Education Study Program, it shows that 45,9% students got smaller score in writing than other

language skills. Writing assists people to learn how to form language, how to spell, and how to put the idea together in a good plot. It becomes one way to enable people to express their thoughts to other. It deals with the interpersonal communication which exists in the reflection of what people are thinking (Brown, 2007, p. 335; Harmer, 2004, p. 112). Thus, writing is not just a speech written down. It is necessary to make written texts full of information, than spoken texts, for there is no chance of adding information (Gibbons and Cummins, 2002, p. 52).

However, Alwasilah (2005, p. 1) claims that writing is the most neglected skill in language education in Indonesia. It is proven that due to the lack of publication in international journals, Indonesian universities' ranking dropped drastically in QS World University Rankings 2013 for 100 levels down. For example, Universitas Airlangga (Unair), Institut Pertanian Bogor (IPB), Universitas Diponegoro (Undip), Institut Teknologi Sepuluh Nopember (ITS), dan Universitas Brawijaya (UB), they were ranked about 701st in 2013, whereas their rankings were about 601st in 2012 (Nurfuadah, 2013). Furthermore, Scopus and Scimago as the indexers of many journals in the world note that in 2015, Indonesia was ranked 61st out of 239 countries. There were only 25.481 journal publications in Indonesia (Subekti, 2015). This number is far satisfying compared to its ASEAN neighbors such as Malaysia, which was ranked 37th with 125.084 publications of scientific papers, Singapore which was ranked 32nd with 171 037 publications , and Thailand which was at the 43th with 95.690 publications. 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.

Alderson & Bachman (2002, p. 5) defines writing as a standardized system of communication and as a tool for learning that indicates students' thinking and reasoning skills. Similarly, Reichenbach (2001) claims that writing is a process that assists us in producing thoughts, in clarifying our points of view or belief, and in sorting out the evidence for thinking our beliefs are true. Chaffee, McMahon and Stout (2002, p. 4) agree that writing has strong relation with our thinking, as the representation of our thoughts, feelings, and experiences is the most essential instrument of our thinking process. Furthermore, Langan (2007, p. 4) believes that any idea in writing must be supported by specific reasons or details. It is clear that writing is related to critical thinking.

As language reflects thinking (Chaffee, 2009), writing does not only require the mastery of linguistic such as grammar, vocabulary, punctuation, but also requires the conceptual judgment and critical thinking (Heaton, 1989, p. 135). The writing process, given as a task to the students, can help them develop critical thinking. This is because writing is a process through which students can practice and apply their critical thinking since it requires them to collect, analyze, synthesize and evaluate information (Fliegel and Hollan, 2011; Sharadgah, 2014).

Human quality of life is primarily determined by their thinking (Elder and Paul, 2012, p. 1). Critical thinking is a highly valued life competence needed to succeed in the age of technology and information (Paul and Elder, 2006). The ability to think critically brings potential benefits to the quality of human life. Nowadays, critical thinking is a powerful tool to prepare students in the workplace, particularly because it is closely related to important abilities such as analysis and evaluation (Erwin and Sebrell, 2003; Snyder and Snyder, 2008). In higher education, critical thinking is highly desirable, even considered as the top priority (Qing, 2013; Sharadgah, 2014; Golpour, 2014).

The significance of critical thinking in education, particularly higher education, is now acknowledged by a great numbers of educators (Schafersman, 1991; Emilia, 2010) who argued that education must involve critical thinking. As students in higher education are demanded to think critically, practices are required for students to apply their critical thinking. Critical writing in higher education is essential because students in higher education are required to be able to go beyond basic writing into more advanced elements of critical thinking (Nariza & Salam, 2014).

Moreover, Egege and Kutieleh (2004) found that Asian students tend to lack critical attitude as well as awareness of the principles of analysis and critique. Some studies also found that EFL students often find difficulties in making good argumentative statements and have lack of sufficient knowledge of critical thinking (Nariza & Salam, 2014). In this regards, students, then, are required to be given tasks that can accommodate and improve their critical

thinking since teaching critical thinking is closely related to the tasks given to the students (Grant, 1988).

The level of English competencies at UIN Raden Fatah Palembang, especially the English Education Study Program students commonly varies as English is their main language used in teaching and learning process. However, there were some differences on the score that the students reached in writing. There were 29.5% students who got A, 45.9% students who got B, no students who got C, 0.8% students who got D and E, 23% students who have not got their writing IV scores (*Appendix A*).

Based on the informal interview on October 19th, 2016 at English Education Study Program's Classes. The researcher gave 6 questions about critical thinking and writing to ten students in the fifth semester of English Education Study Program. The researcher selected them in order to know writing achievement, so that a group of students who had taken all of the writing courses were considered as the population and sample. It found that some students felt hard to write because they felt difficult to develop the topic and they often got stuck in the middle of writing. Thus, it happened because the students felt bored and stressed in composing their writing. Another problem faced by the students when they write is the lack of English competencies such as vocabulary and grammar. Kellogg (2001, p. 43) claimed that writing academically is a main cognitive challenge, because it is a test of memory, language, and thinking ability as well. Since the level of thinking ability is one of the factors influenced writing skill, it also could be

the factor impeding the students writing skill of the students of English Education Study Program of UIN Raden Fatah Palembang. Furthermore, most of the students never test their thinking skills, especially critical thinking, since they did not know specifically the importance of critical thinking. They were also not aware that critical thinking could influence their writing skill.

Some studies have examined students' critical thinking in writing. Previously, some studies have revealed and found that the critical thinking ability has some relationships with the language proficiency and has some effects to the writing ability (Assadi, Davatgar and Jafari, 2013; Nikou, Bonyadi and Amirikar, 2015; Hashemi, Behrooznia and Mahjoobi, 2014; Golpour, 2014; Sugianto, 2014). However, although those previous studies above have revealed that writing ability was influenced by critical thinking ability, there was no inspection that specifically focused on investigating critical thinking ability in relation to writing ability in this study context.

Based on the explanations above, to find out and reveal the further information and empirical evidence about the problems, particularly the critical thinking ability in relation to writing ability, this study was conducted.

1.2. Research Problems

This study attempts to answer the following research questions:

1. Is there any significant correlation between critical thinking and writing achievement of the fifth semester students of English Education Study Program of UIN Raden Fatah Palembang?

2. Is there any significant influence of critical thinking on writing achievement of the fifth semester students of English Education Study Program of UIN Raden Fatah Palembang?

1.3. Objectives of the Study

As previously mentioned, this study is aimed at obtaining two following objectives:

1. To find out if there is a significant correlation between critical thinking and writing achievement of the fifth semester students of English Education Study Program of UIN Raden Fatah Palembang.
2. To know if there is a significant influence of critical thinking on writing achievement of the fifth semester students of English Education Study Program of UIN Raden Fatah Palembang.

1.4. Significance of the Study

This study is expected to provide some significance to the following parties:

1. Students

The result of this study is expected to provide the students, particularly the students of English Education Study Program of UIN Raden Fatah Palembang, the reflection and information in terms of their critical thinking ability in relation to their writing ability;

2. Teachers and Lecturers

The result of this study is expected to be useful for the lecturers and teachers, as the consideration and concern to design a course that can

facilitate their students to explore more about critical thinking ability through writing. The result of this research is expected to provide information about the concept of critical thinking as one factor that can affect the students' writing achievement;

3. Other researchers

The result of this study is expected to be useful for other researchers as a consideration as well as a recommendation to carry out any further studies in the same field.

4. The writer himself

This study is expected to facilitate implementation of the theories from the courses. It also will become an experience for the writer in conducting educational research, especially the correlational study.

CHAPTER II

LITERATURE REVIEW

This chapter presents: (1) the concept of critical thinking, (2) the concept of writing, (3) the relationship between critical thinking and writing, (4) previous related study, (5) research hypotheses, and (6) criteria for testing hypotheses.

2.1. The Concept of Critical Thinking

2.1.1. Definition of Critical Thinking

Critical thinking may be considered as a complex activity since it involves many aspects to consider. Besides, it has recently become one of the foremost subject matters of many experts to discuss and explore. Regarding to this condition, a number of proposals related to the definitions of critical thinking are suggested by some experts.

First, according to Cottrell (2005, p. 1), critical thinking is defined as “a cognitive activity, associated with using the mind.” From this, it can be considered that critical thinking is an activity in which one involves one’s mind to cope with the matters found.

Furthermore, Paul and Elder (2006, p. 4) reveals that critical thinking is the art associated with the ability to analyze or to evaluate thought. Similarly, Washburn (2010, p. 3) points out that critical thinking relates to the activity to criticize people or things both in terms of the negative side and the positive side of them that may lead to the comprehension and best judgment

about them. Thus, one should carefully consider every aspect in case one is thinking critically.

Next, Moore and Parker (2007, p. 4) state that critical thinking is the activity of evaluating specific claims through considering arguments plausibly. Furthermore, Ruggiero (1981, p. 52) explains that critical thinking is the mental process involving the activity to investigate ideas as well as to find out the meaning of the ideas and to judge the power of the meaning of the ideas whether or not it is defensible. In other words, to think critically one should logically consider the matter found by investigating as well as making interpretation, and evaluating the weakness and the strength of the matters found.

To sum up, based on the definitions and explanations above, critical thinking is ability as well as an activity employing mind to think of, to criticize, to analyze, to evaluate, to extend arguments, people or things carefully, not only the bad side but the positive side of them as well. Besides, it is conducted through a series of processes started from investigating ideas to making a judgment of the strength of the meaning of the ideas.

2.1.2. Kinds of Critical Thinking Abilities

Critical thinking involves many levels of thinking. Bloom (1956, p. 130) 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 which are include application, analysis, synthesis, and evaluation, require the higher order thinking or critical thinking.

Moreover, Teays (2006, p. 3) states that critical thinking covers the lower and higher order thinking, which, in this case, the lower order thinking consists of the activities of memorizing, summarizing, labeling, observing, and sorting; meanwhile, higher order thinking encompasses the activities of applying, synthesis, drawing inferences, comparison or contrast, justification, analysis, evaluation, moral reasoning, and using deductive and inductive reasoning.

From Teays' statement above, critical thinking is described in a broader sense involving all levels of thinking in which in terms of cognitive process it relates to many activities or levels in the revised Bloom's Taxonomy which is presented in Table 2.1 as follows:

Table 2.1
The Revised Bloom Taxonomy

No.	Structure	Description
1.	Remember	to recall or recognize knowledge which is relevant, particularly taken from long term memory. Other terms used beside <i>remember</i> are <i>recall</i> and <i>recognize</i> .
2.	Understand	to consider and decide the meaning of oral or written messages received. Other variant terms of this level are <i>interpret</i> , <i>exemplify</i> , <i>classify</i> , <i>summarize</i> , <i>infer</i> , <i>compare</i> , and <i>explain</i> .
3.	Apply	to conduct something in a certain situation. Other terms used, having the same sense as <i>apply</i> , are <i>execute</i> and <i>implement</i> .
4.	Analyze	to divide things in an organized way and then observing the relationship between them. Other terms used other than <i>analyze</i> are

		<i>differentiate, organize, and attribute.</i>
5.	Evaluate	to judge something in accordance with criteria and standards. In the same sense, instead of <i>evaluate</i> , the terms <i>check</i> and <i>critique</i> may be used.
6.	Create	to produce a new original product through unifying some elements of something. Other similar terms to <i>create</i> are <i>generate, plan, and produce.</i>

Source: Krathwohl (2002, p. 215)

Table 2.1 above presents the structure of the cognitive level of the Revised Bloom's Taxonomy which is explained hierarchically, from lower order thinking level to higher order thinking level, or from the structure of *remember to create*.

On the other hand, based on Ruggiero (2004, p. 21), there are 3 basics of thinking, they are investigation, interpretation, and judgement. For the further explanation, we can see the table below:

Table 2.2
The Activity of Critical Thinking

No.	Activity	Definition	Requirements
1.	Investigation	finding the evidence such as data that will be the answer key of the questions about the issue	the relevant and adequate evidence is must
2.	Interpretation	deciding what the meaning is of the evidence	the interpretation must be more reasonable than competing interpretations
3.	Judgement	determining a conclusion about the matter issue	the conclusion must meet the test of logic

Source: Ruggiero (2004, p. 21)

Based on Table 2.2 above, the critical thinking encompasses the activity of investigation which is the activity to find the evidence such as data or fact in order to solve the issue, the activity of interpretation which is the

activity to decide the evidence meaning, and the activity of judgment, this is the activity of drawing the conclusion about the matter issue. All of the three activities stated above are the basic of critical thinking activities.

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

2.1.3. Benefits of Critical Thinking

Through thinking critically, one may make precise consideration towards one's works, and one may obtain several benefits that will facilitate not only in terms of the academic performance but also in terms of dealing with the real life problems. As Cotrell (2005, p. 4) finds that by thinking critically, a number of benefits can be obtained as follows:

1. The work can be conducted accurately and carefully;
2. The ability to determine something which is relevant in writing (nothing) can be more accurate and specific;
3. The ability to conduct the problem solving and project management can be done accurately;
4. It can raise a feeling of confidence of successful outcome in complex problems and projects;
5. The work and academic attainment can be better improved.

Meanwhile, Paul and Elder (2007) mention that critical thinking may be beneficial in terms of:

1. Bringing a clear and accurate formulation of vital questions and problems;
2. Having an effective interpretation of ideas and information;
3. Making reasonable conclusions and solutions which are in accordance with relevant criteria and standards;
4. Thinking inclusively or open minded;
5. Having an effective communication with others in coping with complex problems.

Based on the explanations above, critical thinking may be considered as the ability which is important for every individual and particularly for students since it helps them do their tasks effectively and accurately, for instance as they are writing, they may find themselves easily develop their ideas since they can think the ideas inclusively, also they may find themselves will be able to keep in touch with others effectively to deal with any problems. All of these tasks can be facilitated as they have the adequate critical thinking ability.

2.1.4. The Ways to Improve Critical Thinking

Development in thinking requires a gradual process requiring plateaus of learning and just plain hard work. It is not possible to become an excellent thinker simply because one wills it. Changing one's habits of thought is a long-range project, happening over years, not weeks or months. The essential

traits of a critical thinker require an extended period of development. Wiley (2017) proposed strategies that will help to grow critical thinking skills :

1. Be a continuous learner.

Learners have a natural sense of curiosity about the world and their profession. They read and talk to people. Basically, they educate themselves without being told to. This can come from reading, talking to subject matter experts, listening to lectures online, or attending conferences. The more workers know, the more evidence they have to consider when making a decision.

2. Make the right decision for the majority.

Critical thinkers put their egos aside and think about what is best for the overall organization, even if that is not the best solution for the individual. Their goal is seeking to understand and then making a clear and rational decision that is best for the majority.

3. Listen and consider unconventional opinions.

Critical thinkers have a tendency to seek out new solutions to old problems. They don't like the phrase "that is the way we have always done it." They also see that collaboration with their team, their profession, and sometimes their competitors will bring about the best solutions, and they deal with that.

4. Avoid analysis paralysis.

Critical thinkers will avoid the trap of too much information and getting stuck in the decision-making process by looking at the big

picture and the details. They recognize they will never have 100% of the information they might be able to gather, but they also know they can move forward and adjust a decision later if necessary.

5. Analyze yourself.

Critical thinkers develop a skill for explaining to others why they came to a specific conclusion. Others can follow their reasoning and can understand their thinking. They are willing to change their views when they are provided with more information that allows greater understanding.

Furthermore, Gelder (2015) explained six lessons from cognitive science for teachers to help their students for improving their critical thinking skills.

1. First, being expert in critical thinking is hard. Because human beings are not critical by nature, so they should not be expected to acquire expertise in it overnight. It should be considered as a long-life journey rather than considering it accessible as a two-week module.
2. Second, practice in critical thinking skills themselves enhances skills. The practice should be deliberate, which means it is not only enough to think critically about a topic, but also engaging specific exercises related to critical-thinking improvement is necessary.
3. Third, the transfer of skills must be practiced. Transferring the skills from one situation to another is essential for students to practice.

Because usually a skill picked up in one situation cannot be applied in another situation.

4. Fourth, some theoretical knowledge is required. A critical thinker improves in case of acquiring knowledge about the theory of critical thinking, because it provides a situation for receiving feedbacks from teacher.
5. Fifth, diagramming arguments, “Argument Mapping”, promotes skills. Argument constitute a body of evidence in relation to some proposition. The proposition is expressed in some claims and the evidence is explained in other claims. It is beneficial to draw maps that make the logical structure of the argument completely explicit. So, asking student to draw a map of their reasoning helps to enhance their argumentation skills.
6. Sixth, students are prone to belief preservation. Belief preservation is the tendency to use evidence to preserve our opinion rather than guide them. So a good critical thinker, searches for those evidences, which are opponent to his or her current beliefs, respects to those arguments that goes against her position and is ready to open her mind to those more proper evidences.

In conclusion, the key point to keep in mind when devising strategies to improve our critical thinking is that we have to be engaged in a personal experiment. We must test ideas in our everyday life. We integrate them, and build on them, in the light of our actual experiences. By practicing, it will

bring advancement. And with advancement, skilled and insightful thinking should become more and more natural to us.

2.1.5. Critical Thinking Test

Critical thinking is an ability or skill that can be assessed by CT test instruments. The test instrument used depends on which type of thinking skills are to be tested. CT test instruments measure different thinking skills and categorize each of these tests into multiple test categories. Each test is vary, depending on the type of categories that being tested. There are many examples of CT test instruments, namely:

1. Watson-Glaser Critical Thinking Appraisal (W-GCTA)

The Watson-Glaser Critical Thinking Appraisal (W-GCTA) is a psychometric test of critical thinking and reasoning. It was developed by Watson and Glaser. It measures skills related to problem solving and decision making in a variety question types. The W-GCTA measures the fundamental cognitive ability of critical thinking. It tests for five critical thinking skills: inference, recognition of assumptions, deduction, interpretation, and evaluation of arguments.

2. Cornell Critical Thinking Test

The Cornell Critical Thinking Test (CCTT) is an exam that helps teachers to determine the critical thinking abilities of their students. First developed in 1985 by Robert Ennis. The Cornell Critical Thinking Test series offers two levels of testing: level X is used for grades five through twelve and level Z is used for grades ten through

twelve. The tests may also be used at the college level as well. *Level X* includes the following skills: induction, deduction, credibility, identification of assumptions. *Level Z* includes the skills in *Level X* (induction, deduction, credibility, identification of assumptions), plus; semantics, definition, prediction in planning experiments.

3. College Assessment of Academic Proficiency (CAAP) Critical Thinking Test

A College Assessment of Academic Proficiency (CAAP) Test done by ACT, this test aimed at students at the end of their second year in college, often used to assess student mastery of critical thinking acquired in general education. All item are multiple-choice items based on four passages. Aspects assessed include identifying conclusions, inconsistency, and loose implications; judging direction of support, strength of reasons, and representativeness of data; making predictions; noticing other alternatives; and hypothesizing about what a person thinks. The test has three content categories: analysis of elements of an argument, evaluation of an argument, and extension of an argument.

Test instruments that are used to measure critical thinking skills typically require the student to read and evaluate statements that measure various aspects of thinking ability include investigation, analysis, evaluation and argumentation. From these measures, it is hoped that the quality or the level of the student's critical thinking can be determined.

In this study, CAAP critical thinking test was used to measure the students' critical thinking skills. It was chosen because of the availability and providing information on validity and reliability. Moreover, it is appropriate for college students who become the samples of this study.

2.1.6. The Characteristics 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, they also know 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, Ferrett (1997), suggests the following fifteen characteristics of a critical thinker:

1. Ask related questions of the issues.
2. Assess statements 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 new facts are found.
12. Look for proof.
13. Examine problems closely.
14. Are able to reject information that is incorrect or irrelevant.
15. See that critical thinking is a lifelong process of self-assessment.

Paul and Elder (2006, p. 8), one of the leading researchers on critical thinking, mentioned some characteristic of a critical thinker as cited below:

1. find out the crucial 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 standards;
4. having open minded thought by recognizing and assessing with their assumptions, implications, and practical consequences; and
5. find out the solutions of the complex 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, p. 3). Such person always tries to

evaluate and criticize information, issue and evidence before making decision, judgment as well as conclusion.

2.2. The Concept of Writing

2.2.1. Definition of Writing

Writing is one of the major skills in English considered as active or productive skills. Writing is the way to communicate to the other through written symbol. In writing, the writer needs to express the idea in the mind to the paper or any other kinds of writing tool which is readable. As Browne (2007, p. 81) stated writing is a complex activity involving many skills to determine ideas and to transfer the ideas onto a piece of a paper clearly and comprehensibly for the reader.

Moreover, writing is defined as a process to express “idea, feeling, and thought” from writer to the readers in the written form (Byrne, 1996). Aldersen and Bachman (2002, p. 5) defines writing as a standardized system of communication and as a tool for learning that indicates students’ thinking and reasoning skill. In addition, Reichenbach (2001) claims that writing is a process that assists us in producing thoughts, in clarifying our points of view or belief, and in sorting out the evidence for thinking our beliefs are true.

Based on explanation above, writing achievement is the students’ ability in expressing their ideas, thoughts, and feelings in writing that is measured by a writing assessment. In other word, assessment means making judgment towards writing product whether it is good or not, correct or wrong.

It evaluates and judges the quality of writing by using assessment methods and appropriate criteria.

2.2.2. Writing Process

There are many steps of writing process as proposed by some experts. The process of writing is mainly depend on the reader, the purpose, the content and the situation in which the writer composing writing. Dietsch (2006, p. 11) proposes the stages of writing into 4 steps as follow:

1. Prewriting

This is the first stage of writing. In this stage the writer produces some ideas and decides the purpose and the reader of the writing.

2. Drafting

Drafting is primarily a stage of discovery and exploration. This stage requires the writers to transform ideas into sentences in semi organized manner. The aim is to let the writers' ideas develop, expand and build connection.

3. Revision

Revising is the activity of deleting, expanding and clarifying the ideas. Revising can be done during all the process of writing.

4. Editing/ proofreading

In this stage, it requires examining ideas, details, words, grammar, and punctuation. Here the emphasis is on accuracy, correctness and clarity.

The various processes of writing need various skills to meet the aims in a writing activity. Oshima and Hogue (2007, p.15) state that the process of

writing consists of four steps, those are: pre-writing, organizing, writing a draft and the last is polishing the draft by editing and revising. Other opinion was given by Miller (2006, p. 27-34) who suggests three steps of writing as follow:

1. Drafting

Drafting means writing preliminary version of a work that the writers will later revised their work. In this stage, the writer puts his/her ideas on paper so that he/she can work with them.

2. Revising

Revising is seeing again or taking another look. Appraising the content, checking the organization, refining the style in order to see what work and what might need changing.

3. Editing

Editing is the stage on which the spelling, mechanics and punctuation are rechecked again.

Moreover, Harmer (2006, p. 6) suggest 4 elements for the process of writing which called the process of wheel. They are planning, drafting, editing and final version. Planning which is also sometimes called as pre-writing is the stage where the writer collecting the ideas of writing through brainstorming, clustering, and the like. Meanwhile, drafting is the stage where writer puts ideas and information into paper. The last step is editing or revising. Here, the writer produces the final version. Checking grammar and

spelling accuracies, punctuations, and word choices usually becomes the main task to be done at this stage.

In conclusion, producing good writing needs some processes that should be followed by the writer. The process is varying and sometimes different depending on the writer. Those processes are planning, drafting, editing and revising. The writing process can help the writer writes easily, effectively and systematically.

2.2.3. Writing Assessment

There are several ways to assess writing. The most common method is to use some sort of rubric. Items on the rubric range from the contents, organization until the mechanical aspect. Other forms of writing assessment include checklists or rating scale.

In assessing writing there are several criteria that can be evaluated, for instance, content, and organization of the idea, punctuation as well as language used in writing. Weigle (2002, p. 116) wrote 5 criteria of writing assessment, namely:

1. Content

The content of writing should be relevant with the topic of writing.

Most importantly, the idea must be clear and understandable.

2. Vocabulary

To be writers, they should be able to use the vocabulary correctly. The vocabulary chosen should be appropriate and easy to understand by the reader.

3. Usage

The grammatical is one of the essential parts in writing because the grammar error can cause the reader misunderstanding of the content and the meaning of the text. Therefore, good grammar is obviously important to be assessed.

4. Organization

Well organized (idea, coherence, cohesive) is essential in writing. Ideas must be clear, supported and organized.

5. Mechanics

Punctuation, capitalization, spelling and paragraphing are the criteria in mechanics of writing.

The criteria mentioned above are important in writing that should not be ignored in assessing writing. Those criteria have their own sub categories to be assessed.

To sum up, many ways and methods that can be used to assess writing such as using assessment rubric, rating scale, or checklist. Those instruments can be modified with the criteria of assessment based on the rater want and what aspect wants to be assessed. The instrument chosen should be able to evaluate and assess the writing correctly, reliably and responsibly. More importantly, credible rater is must to result reliable judgment.

2.2.4. Argumentative Writing

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 (Sweat, 2017). Langan (2007, p. 326) stated that 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. In argumentative writing, writers attempt to support or defend a position or difference point on with their logical arguments, idea and opinion.

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 (2017, p. 320-322) gives five 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, p. 42), a good of argumentative essay consist of 4 parts: 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. Obviously, argumentative essay is weakened by statement that are obscure.

For 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, their position, knowledge in order to give good argumentation.

2.2.5. 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, p. 8).

Furthermore, Hairston (1986, pp. 5-10) mentions 6 characteristics of good writing as presented detail as follow:

1. 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.

2. 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.

3. Unified and Well Organized

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

4. Economical

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

5. Adequately Develop

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

6. 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 well.

From the explanation above, it can be interpreted that good writing is the writing in 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.

2.3. The Relationship between Critical Thinking and Writing Achievement

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, p. 10) points 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.

Moreover, Ruggiero (2004, p. 4) states 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. Raymond (1980, p. 2) states that writing make you stronger thinker. Writing reasoned paragraphs requires mental discipline and close attention to the set of logical rules. It will train your mind to think clearly and prove to be a value in every phase of your life. While through writing can improve critical thinking, critical thinking is important to produce good writing.

Finally, 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.

2.4. Previous Related Studies

Many studies have been conducted to study 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 is entitled *The Effect of Critical Thinking on Enhancing Writing among the Iranian EFL Learners* which 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. This previous research investigated the same variables as this research, but it is experimental research, whereas this research is correlational research.

The second research was conducted by Nikou, Bonyadi and Amirikar (2015) who investigated the relationship between critical thinking skills and the quality of Iranian intermediate TEFL students' writing. 140 students who were homogeneous in their language proficiency were selected non-randomly. The researcher asked students to take part in a proficiency test named Nelson test (intermediate 200B) and she chose students whose level was intermediate as participants of the study. To achieve the goal of the study California Critical Thinking Test (form B) was administered among intermediate students to measure students' critical thinking skills (analysis, evaluation, inference). Then the researcher asked the participants to write on a given topic and their writings were rated by two language teachers by following the rules of scoring in Quellmaz's scale. The inter-rater correlation across all papers calculated in order to be sure about the objectivity and

reliability of scores. The Pearson-Product Moment was used to examine the relationship between variables, furthermore multiple regressions was applied to predict the degree of their relationship. The results of the study revealed that there is a positive relationship between critical thinking skills and writing quality. Furthermore, it was proved that evaluation has the strongest degree of relationship with the quality of writing. This previous research investigated relationship between critical thinking and writing skill which is the same as this study, but this study used different instrument to collect the data.

The third research was conducted by Hashemi, Behrooznia and Mahjoobi (2014) that entitled *A critical look into Iranian EFL university students' critical thinking and argumentative writing*. The study sought the correlation between Iranian EFL learners' critical thinking ability and their argumentative writing achievement, and investigate the predictability of the students' argumentative writing achievement based on their scores on critical thinking scale. Furthermore, the effect of gender on Iranian EFL learners' argumentative writing achievement was investigated. In so doing, 'Watson-Glaser Critical Thinking Appraisal' (2002) as well as an argumentative writing assignment was employed, and the participants of the study included 178 EFL learners in three universities in Mashhad, Iran. Structure Equation Modeling (SEM) was utilized to analyze the data. The results substantiated the positive correlation between critical thinking ability and argumentative writing revealing that these two variables significantly and positively related to each other; among the predictors

(subscales of the critical thinking). This previous research investigated relationship between critical thinking and writing skill which is the same as this study, but this study used different instrument to collect the data.

Bazrafkan and Bagheri (2014) also investigated the relationship between critical thinking, autonomy and writing skill of the Iranian EFL learners. 90 IELTS learners (47 female and 43 male), with the average age of 25, from different English language institutes (Bahar, Novin, ILI, Farda, Respina) of Shiraz, were selected and were given three questionnaires (a questionnaire of critical thinking, a questionnaire of autonomy, and a writing test). The results of this study indicated that there is a significant and positive relationship between EFL learners' critical thinking and learner autonomy, critical thinking and writing ability and learner autonomy and writing ability. It can be concluded that the obtained results may help EFL teachers and educational policy makers to bear in mind the benefits of developing their learners' autonomy and critical thinking to enhance their writing ability. This previous research investigated relationship between critical thinking and writing skill which is the same as this study, but this study used different instrument to collect the data.

Other research was conducted by Nikou, and Amirikar (2016) who investigated the relationship between the critical thinking skills and the fluency of Iranian intermediate TEFL students' writing. In this study, Critical Thinking refers to analysis, evaluation and inference. To fulfill the objective

of the study, California Critical Thinking Test (form B) and Nelson test (400B) were distributed among 150 male and female TEFL students at Azad University in Urmia, Iran. One-hundred forty students who were homogeneous in their language proficiency were selected. Then, the participants were asked to write on a given topic and the writing fluency was measured by words per T-units. The result of data analysis indicated that the correlation between critical thinking skills and writing fluency was significant. Furthermore, it was found that evaluation skill has the highest degree of relationship with writing fluency. This previous research investigated relationship between critical thinking and writing skill which is the same as this study, but this study used different instrument to collect the data.

In other EFL context, Golpour's (2014) study investigated the relationship between critical thinking levels of Iranian EFL learners and their performance on different model of writing, including on students' argumentative texts. The study involved 94 advanced level of EFL learners and employed a paper and pencil test, a questionnaire and analytic scale. It was revealed that high critical thinkers' writing was better in the argumentative texts compare to the low critical thinkers. In addition, critical thinkers' writing tended to show more coherence, correct form of grammatical sentences and content words, as well as well-organized thoughts. This previous research investigated relationship between critical thinking and

writing skill which is the same as this study, but this study used different instrument to collect the data.

Other research was conducted by Sugianto (2014) that entitled *The Relationship between Critical Thinking Ability and Writing Ability, A Correlational Study of the Sixth Semester Students of State Islamic University, Jakarta*. This research was conducted in State Islamic University, 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 (Watson Glaser Critical Thinking Appraisal) and writing test. The data was analyzed using Pearson Product Moment correlation which the research finding showed that there is a significant correlation between students' critical thinking ability and the writing ability of the students of English education department of *UIN Jakarta*. This previous research investigated relationship between critical thinking and writing skill which is the same as this study, but this study used different instrument to collect the data.

In comparison with the previous related studies above, this study has some similarities since it has the same independent variable (critical thinking ability) and dependent variable (writing achievement). However; there are some differences among each other. The first research above investigated same variables, i.e. critical thinking and writing, he applied different design

from this study. His study designs are categorized as an experimental design since his study is intended to find out the impact or influence of critical thinking toward the writing skill. While this research focused on investigating the correlation between critical thinking and writing skill. In other hand, the other research investigated relationship between critical thinking and writing skill which is the same as this study, but this study used different instrument to collect the data, the two previous studies used questionnaire or different critical thinking test. Furthermore, this study conducted in different setting and different size of sample from the previous studies.

2.5. Research Hypotheses

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

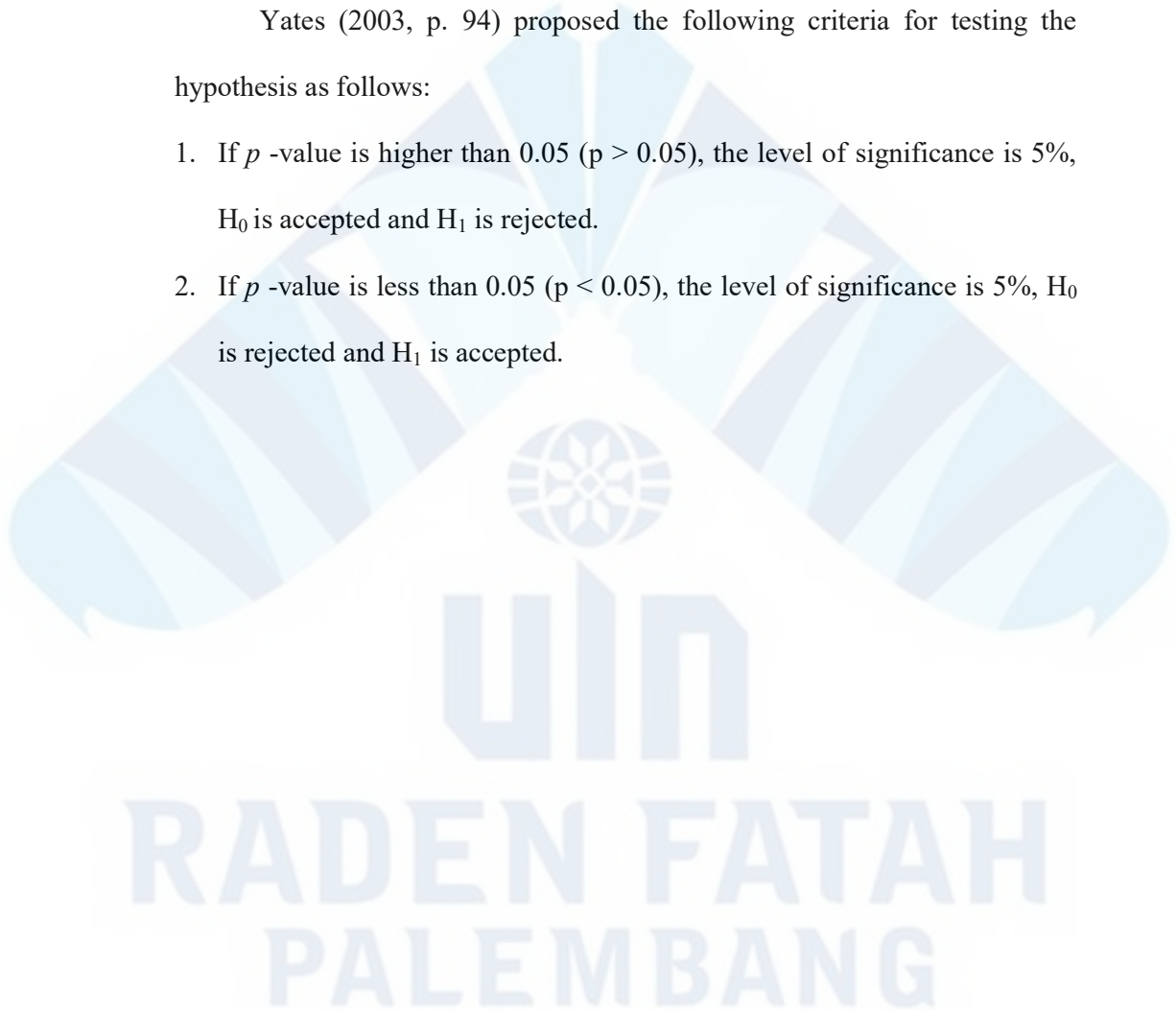
1. H_0 : There is no significant correlation between critical thinking and writing achievement of the fifth semester students of English Education Study Program of UIN Raden Fatah Palembang.
 H_1 : There is a significant correlation between critical thinking and writing achievement of the fifth semester students of English Education Study Program of UIN Raden Fatah Palembang.
2. H_0 : There is no significant influence of critical thinking over writing achievement of the fifth semester students of English Education Study Program of UIN Raden Fatah Palembang.

H_1 : There is a significant influence of critical thinking over writing achievement of the fifth semester students of English Education Study Program of UIN Raden Fatah Palembang.

2.6. Criteria for Testing Hypotheses

Yates (2003, p. 94) proposed the following criteria for testing the hypothesis as follows:

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.
2. 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.



CHAPTER III

METHOD AND PROCEDURES

This chapter presents: (1) research design, (2) research variables, (3) operational definitions, (4) subject of study, (5) data collections, (6) data instruments analysis, and (7) data analysis.

3.1. Research Design

In conducting this research, correlational research with the explanatory design was used to find out the correlation between variables and explain and interpret the appeared results. The procedure and research setting were, first; the students' critical thinking were identified by using critical thinking test. Second; by using writing essay test, the students' writing achievement were obtained. Then the correlation, and the influence between variables was analyzed through Statistical Package for Social and Science (SPSS) 16.00 based on the results of the critical thinking test and writing essay test. Last, explanation and interpretation of the results was discussed. The research design is as follows:

Figure 3.1
The Research Design



Source : Creswell (2012, pp. 115-116)

X = Students' Critical Thinking

Y = Students' Writing Achievement

3.2. Research Variables

According to Creswell (2012, p. 112), a variable is a characteristic or attribute of an individual or an organization that (a) researchers can measure or observe and (b) varies among individuals or organizations studied. There are two variables in a correlational study; the independent variable and the dependent variable (Creswell, 2012, pp. 115-116).

An independent variable is an attribute or characteristic that influences or affects an outcome or dependent variable. Meanwhile, dependent variable is an attribute or characteristic that is dependent on or influenced by the independent variable (Creswell, 2012, pp. 115-116).

In this study, the independent variable is the fifth semester students' critical thinking at English Education Study Program of UIN Raden Fatah Palembang, while the dependent variable is their writing achievement.

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 the study to find out the relationship between two variables; even more than two variables are common. In this research, there are two variables that correlated which are English Education Study Program students' critical thinking and their writing achievement.

Critical Thinking refer to the students' critical thinking ability as well as an activity employing mind to think of, to criticize, to analyze, to evaluate and to extend arguments, people or things carefully, not only the bad side but the

positive side of them as well. In this research, the students' critical thinking was measured by using a critical thinking test provided by ACT CAAP (College Assessment of Academic Proficiency).

Writing achievement refers to students' ability in expressing their ideas, thoughts, and feelings in writing form that is measured by a writing assessment. The assessment is in the form of academic essay writing. In this research, the students' essay writing was measured by using rubric for essay writing assessment by Diablo Valley College.

At last, *the fifth semester students of English Education Study Program of UIN Raden Fatah Palembang* refers to the fifth semester students of English Education Study Program of UIN Raden Fatah Palembang in the academic year 2016-2017.

3.4. Subject of the Study

3.4.1. Population

According to Creswell (2012, p. 142), population is a group of individuals who have the same characteristic. The population of this study was the fifth semester students of English Education Study Program of UIN Raden Fatah Palembang in the academic years 2016-2017. It consists of different amount of classes that have different number of students from each classes. In this study, the students' critical thinking and their writing achievement was correlated. Therefore, in order to know the students' writing achievement, a group of students who had accomplished the writing subject (Writing I to IV) was considered as the population and sample. Since the fifth

semester students had already finished with them all, they were become the population. The seventh semester students were not selected as the population because of the availability, they had to do some subject outside the university. In addition, the first and third semester students were not included as the population because they had not taken and finished with Writing I, Writing II and Writing III courses yet. The distribution of population of the study can be seen in the table 3.1.

Table 3.1
Distribution of Population

No	Class	Number of Students
1	PBI. A	26
2	PBI. B	22
3	PBI. C	26
4	PBI. D	29
Total		103

(Source: English Education Study Program of UIN Raden Fatah Palembang 2016-2017)

3.4.2. Sample

In selecting the samples, this study use total population sampling technique, since the entire population was selected as the samples. Total population sampling is a type of purposive sampling technique that involves examining the entire population (i.e., the total population) that have a particular set of characteristics (“Total Population Sampling,” n.d.). Samples of this research were all the fifth semester students of English Education Study Program in UIN Raden Fatah Palembang. Since all the fifth semester students had accomplished the writing subject (Writing I to IV). They also were available to be participants of this study. The distribution of sample of the study can be seen below.

Table 3.2
Distribution of Sample

No	Class	Number of Students
1	PBI. A	26
2	PBI. B	22
3	PBI. C	26
4	PBI. D	29
Total		103

3.5. Data Collection

There were two kinds of instruments used to collect the data, the instruments were critical thinking test which attempt to measure students critical thinking skill, and writing test measure the students writing in the form of essay which was used to measure students writing achievement. Those instruments were used in order to achieve the goal of the study; to find out the correlation between those variables.

3.5.1. Critical Thinking Test

The critical thinking test used in this research is College Assessment of Academic Proficiency (CAAP) test that developed by ACT, inc. The CAAP Critical Thinking Test is a 32-item, 40-minute test that measures students' skills in analyzing, evaluating, and extending arguments (*Appendix B*). It is multiple-choice test with four answer options. An argument is defined as a sequence of statements that includes a claim that one of the statements, the conclusion, follows from the other statements. The critical thinking test consists of four passages that are representative of the kinds of issues commonly encountered in the courses. Each passage is accompanied by a set of multiple-choice test items. The following is the table of critical thinking test specification.

Table 3.3
The Test Specification of CAAP Critical Thinking Test

No.	Indicator	Test Number in the instrument	Total of test item
1	Analysis of elements of argument	2,3,4,7,8,9,10,11,13,14,17,19,20,21,25,26,29,31	18
2	Evaluations of an argument	6,12,16,18,23,24,27,28,32	9
3	Extensions of an argument	1,5,15,22,30	5
Total			32

(Source: ACT CAAP technical handbook)

3.5.2. Writing Essay Test

This test was provided to find out the students' writing ability. There were four topics to develop by the participants in this test (*Appendix C*). The topics were taken from TOEFL® as a standardized test for testing English as a foreign language. The time allocation for this test was 30 minutes. The students' writing test was measured by the three raters, using the rubric for essay writing assessment from Diablo Valley College (*Appendix D*). This rubric was used because of the appropriateness to measure college-level essay writing.

3.6. Data Instrument Analysis

Before the real tests were administered, the validity and reliability were considered. 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. To know the validity and

reliability of the instruments in this research, the validity and reliability tests will be done.

3.6.1. Validity Test

Fraenkel, Wallen and Hyun (2012, p. 147) state that validity has been defined as referring to appropriateness, correctness, meaningfulness and usefulness of the specific inferences researchers make based on the data they collect.

3.6.1.1. Validity of CAAP Critical Thinking Test

The CAAP critical thinking test was already being tested in term of validity. The developers in CAAP technical handbook, argue for the construct validity of the CAAP based on its content validity. The test was developed based on a sound rationale, test specifications and ACT's requirements as the developer. The test items were intensively evaluated by the ACT test development staff and reviewed from at least two different perspectives by consultants commissioned by ACT.

There were 58 postsecondary institutions participated in research projects designed to provide validity evidence for several uses of CAAP scores including critical thinking test. The specific uses investigated were measuring students' academic knowledge and skills in common core areas, predicting students' academic performance in the junior year of college, and measuring the changes in students' academic knowledge and skills due to their completing a general education core curriculum.

Both two-year and four-year, public and private institutions were included in the research projects. Institutions were asked to select a random sample consisting of at least 10 percent of their students, or 100 students, whichever was greater. The positive median correlations found between students' CAAP critical thinking scores and GPAs indicate that CAAP can be used to measure some of the knowledge and skills acquired during the freshman and sophomore years at most postsecondary institutions.

3.6.1.2. Validity of Essay Writing Test

Content validity was used to find out the validity of the writing test by having expert judgment. There were three raters evaluating the test whether the instruction, topic, time allocation, content and rubric of the test will be appropriate or not. The following is the qualifications of the raters:

1. Master degree of English Department,
2. TOEFL score should be at least 500,
3. have experience in teaching English and scoring writing.

The results from each rater was calculated in order to get the mean score (*Appendix E*).

Table 3.4
Level of Appropriateness of Writing Test Items

No.	Test Item	Level of Appropriateness of Writing Test Items			Mean	Categorization
		Rater 1	Rater 2	Rater 3		
1	Instruction	5	4	4	4	Appropriate
2	Topic	5	4	4	4	Appropriate
3	Time Allocation	4	4	4	4	Appropriate
4	Content	5	4	4	4	Appropriate
5	Rubric	5	5	4	5	Very Appropriate

The result of each writing test item is appropriate or very appropriate. It means that this instrument is valid and able to be used to measure students' writing achievement.

3.6.2. Test of Reliability

Fraenkel, Wallen and Hyun (2012, p. 154) say that reliability refers to the consistency of the scores obtained – how consistent they are for each individual from one administration of an instrument to another and from one set of items to another.

3.6.2.1. Reliability of CAAP Critical Thinking Test

The reliability of CAAP critical thinking test was already been tested. The developers claimed that the reliability coefficient of the CAAP critical thinking test is .85 that indicates a high reliability. The reliability of this test, measured by using Kuder-Richardson (KR-20) equation. Kuder-Richardson Formula 20 (K-R 20) reliability estimates were reported in for two forms of the CAAP examinations. For tests of a given length, the K-R 20 measures the extent to which all items in a test are correlated with one another. There were 26.451 samples for CAAP critical thinking test form 11A and 43.339 samples for CAAP critical thinking test form 12A. The result of each internal consistency reliability estimate (KR-20) for forms 11 and 12 is .85.

3.6.2.2. Reliability of Essay Writing Test

Inter-rater reliability was used to find the reliability of the writing test. It generally refers to the consistency of scores that are assigned by three independent raters. The degree of inter-rater reliability was established by

correlating the score obtained by participants from three raters. To find out the reliability coefficient of the test, the students' score was analyzed by using Pearson Product Moment Correlation to measure whether the essay writing scores that were rated by the raters are interchangeable or not. It showed that there were very strong correlations among them with correlation coefficients .568, .816 and .710 that were significant at 0.01 level (*Appendix J*).

3.7. Data Analysis

After the data of students' critical thinking and writing achievement had been collected, the scores of the two tests were analyzed by using SPSS. The analysis was done as follow:

3.7.1. Analysis of CAAP Critical Thinking Test

The data from CAAP critical thinking test was analyzed to determine the students' critical thinking by checking the correct items. Every question carries the same value. Therefore, there are no questions within a single module which will be awarded more marks than another question. Marks are awarded according to the number of correct responses. Incorrect responses and questions left blank are ignored. In other words, no marks are deducted for incorrectly answered questions or for answers left blank. The scoring scale used for this test is from 40 to 80 as the table 3.5.

Table 3.5
Scaled Score of CAAP Critical Thinking Test

Raw Score	Scaled Score		
0	40	15 – 16	58.75 – 60
1 – 2	41.25 – 42.5	17 – 18	61.25 – 62.5
3 – 4	43.75 – 45	19 – 20	63.75 – 65
5 – 6	46.25 – 47.5	21 – 22	66.25 – 67.5
7 – 8	48.75 – 50	23 – 24	68.75 – 70
9 – 10	51.25 – 52.5	25 – 26	71.25 – 72.5
11 – 12	53.75 – 55	27 – 28	73.75 – 75
13 – 14	56.25 – 57.5	29 – 30	76.25 – 77.5
		31 – 32	78.75 – 80

Source: <http://www.testpreppractice.net/CAAP/caap-scores.aspx>

The following is the category of critical thinking:

Table 3.6
The Category of Critical Thinking

No	Score Interval	Category
1	68 – 80	High Critical Thinking
2	65 – 67	Above Average Critical Thinking
3	61 – 64	Average Critical Thinking
4	40 – 60	Low Critical Thinking

Source: ACT CAAP Guide to Successful General Education Outcomes Assessment (2015)

3.7.2. Analysis of Writing Essay Test

The students' writing test were analyzed by three raters, those who validate the writing test, by using the rubric for essay writing assessment from Diablo Valley College (*Appendix C*). There are five aspects of the writing scoring system and the scale of each aspect is from one to six. As a result, the highest point of all is 30. Since there were three raters, the total points from them determined the students' writing achievement. The following is the category of the students' writing achievement.

Table 3.7
The Category of Students' Writing Achievement

No	Score Interval	Category
1	25 – 30	Very Good
2	19 – 24	Good
3	13 – 18	Average
4	7 – 12	Poor
5	1 – 6	Very Poor

Source: Diablo Valley College (2012)

3.7.3. Correlation Analysis

Correlations' analysis was applied after analyzing the data from critical thinking test and student's writing essay test. In order to find out the correlation between students' critical thinking and their writing achievement, *Pearson – Product Moment Correlation* was used. The meaning of a given correlation coefficient can be seen below based on Cohen, Manion, and Morrison (2005).

Table 3.8
The Category of Correlation

Interval Coefficient	Level of Correlation
0.20 – 0.35	Weak
0.35 – 0.65	Fair
0.65 – 0.85	Strong
Over 0.85	Very Strong

Source : Cohen, Manion, and Morrison (2005)

3.7.4. Regression Analysis

To answer the second question, *Regression Analysis* was used. To know the size of the correlation or the contribution of critical thinking skill towards variable writing achievement, the determination coefficient (R) was calculated. The result showed the percentage of contribution of critical thinking towards writing achievement. This was to find out how far students' critical thinking influences their writing achievement.

CHAPTER IV

FINDINGS AND INTERPRETATIONS

This chapter presents: (1) research findings, (2) statistical analyses, and (3) interpretations.

4.1. Research Findings

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

4.1.1. Results of Students' Critical Thinking

The total active students in the fifth semester of English Education Study Program were 103 students. However, 84 students participated in this study, the others students did not feel disposed to be the participants and did not attend when the researcher was conducting this study. The 32 items of CAAP critical thinking test were used to investigate the participants' critical thinking. The CAAP critical thinking test is in multiple choice form. In answering each question in the test, the students read the passages, then chose the best answer to each question by intersecting the corresponding answer option. After the students chose, the result was analyzed by adding up the correct answer and writing the total. The final score was obtained by converting total correct item into scaled score.

The descriptive statistical analysis of CAAP critical thinking test for the participants is shown in the table 4.1. The maximum score is 72.50, and the lowest score is 55. The mean of the critical thinking' scores for the participants is 64.94 and the standard deviation is 4.83. This mean score

indicates that the level of critical thinking of participants is average critical thinking.

Table 4.1
Descriptive Statistics of Critical Thinking

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Critical Thinking	84	55.00	72.50	64.9405	4.83502
Valid N (listwise)	84				

It revealed that from the critical thinking test, the four levels of critical thinking were all obtained by the students with different numbers; “Average Critical Thinking” as the least obtained category and “High Critical Thinking” as the most obtained category. The details are as follow:

Table 4.2
Distribution of Students' Critical Thinking

No	Score Interval	Category	Frequency	Percentage
1	68 – 80	High Critical Thinking	26	31%
2	65 – 67	Above Average Critical Thinking	23	27.4%
3	61 – 64	Average Critical Thinking	16	19%
4	40 – 60	Low Critical Thinking	19	22.6%
Total			84	100%

The results showed that there were 26 students (31%) in high critical thinking category, 23 students (27%) were in above average critical thinking, 16 students (19%) were in average critical thinking, 19 students (22.6%) were in low critical thinking. In conclusion, it revealed that from the critical thinking test, high critical thinking level was the most obtained by the students.

4.1.2. Result of Students' Writing Achievement

The descriptive statistic analysis of writing achievement for the participants is shown below. The maximum score is 25.30, and the lowest score is 14.30. The mean of the writing scores for the participants is 20.92 and the standard deviation is 2.67. This mean score indicates that the level of writing achievement of participants is good.

Table 4.3
Discriptive Statistics of Writing Achievement

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Writing	84	14.30	25.30	20.9238	2.67413
Valid N (listwise)	84				

It revealed that from the critical thinking test, the five categories of writing achievement were all obtained by the students with different numbers; "Very Good" as the least obtained category and "Good" as the most obtained category. The distribution is presented in the following table:

Table 4.4
Distribution of Students' Writing Achievement

No	Score Interval	Number of Students	Category	Percentage
1	25 – 30	9	Very good	10.7%
2	19 – 24	58	Good	69.1%
3	13 – 18	17	Average	20.2%
4	7 – 12	-	Poor	-
5	1 – 6	-	Very poor	-

The results showed that there were 9 students (11%) in very good writing achievement category, 58 students (69%) were in good writing achievement, 17 students (20.2%) were in average writing achievement.

There were no students in poor and very poor writing achievement. In conclusion, it revealed that from the essay writing test, good writing achievement was the most obtained by the students.

4.2. Statistical Analyses

There were three statistical analyses 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 and their writing achievement in all participants.
3. The statistical analysis of regression analysis between students' critical thinking and their writing achievement in all participants.

4.2.1. Normality Test and Linearity Test

Normality test and linearity test were conducted prior to data analysis through SPSS 16th version for windows. As parametric statistics, in term of correlation and regression, and total population sampling technique were used in this research, it was fundamental to see if the distribution of data were normal for each variable and linear between variables.

4.2.1.1. The Result of Normality Test

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. The results of normality test is shown below indicated that the data from each variable were all normal and appropriate for data analysis with coefficients .294 for critical thinking and .481 for writing achievement (*Appendix N*).

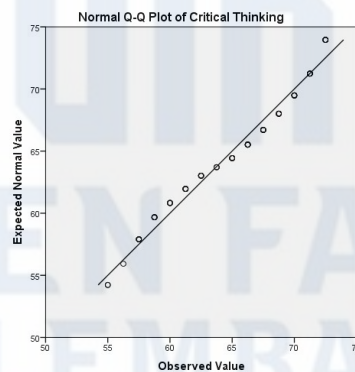
Table 4.5
Normality Test

One-Sample Kolmogorov-Smirnov Test

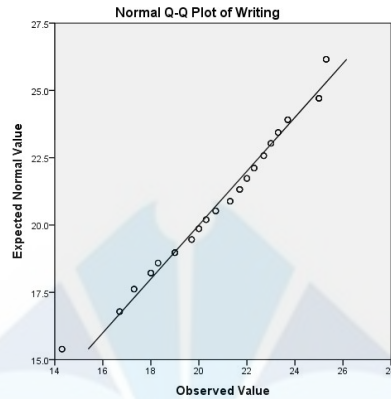
		Critical Thinking	Writing
N		84	84
Normal Parameters ^a	Mean	64.9405	20.9238
	Std. Deviation	4.83502	2.67413
Most Extreme Differences	Absolute	.107	.092
	Positive	.087	.051
	Negative	-.107	-.092
Kolmogorov-Smirnov Z		.978	.840
Asymp. Sig. (2-tailed)		.294	.481
a. Test distribution is Normal.			

The normal Q-Q plot of each variable is illustrated in the following figures:

Figure 4.1 Distribution of Critical Thinking Data
Normal Q-Q Plot of Critical Thinking



**Figure 4.2 Distribution of Writing Achievement Data
Normal Q-Q Plot of Writing Achievement**



4.2.1.2. The Result of Linearity Test

For linearity test, deviation of linearity was obtained. If probability is more than .05, the two variables are linear. The results showed that, the deviation from linearity between critical thinking and writing achievement was .429. To sum up all the data were linear for each correlation and regression (*Appendix P*).

**Table 4.6
Linearity Test
ANOVA Table**

			Sum of Squares	df	Mean Square	F	Sig.
Writing * Critical Thinking	Between Groups	(Combined) Linearity	411.949	14	29.425	11.181	.000
		Deviation from Linearity	376.528	1	376.528	143.077	.000
			35.421	13	2.725	1.035	.429
	Within Groups		181.584	69	2.632		
Total			593.532	83			

4.2.2. Correlation between Students' Critical Thinking and Their Writing Achievement

This section answered the first research problem. By analyzing the result of descriptive statistics for the CAAP critical thinking test and writing achievement, the correlation between those variables was obtained.

Based on Pearson Product Moment Correlation Coefficient, the result indicated that the pattern of correlation between critical thinking and writing achievement was positive. The correlation coefficient or the r -obtained (.796) was higher than r -table (.2146). Then the level of probability (p) significance (sig.2-tailed) was .000. It means that p (.000) was lower than .05. Thus, there was a significant correlation between the students' critical thinking and their writing achievement.

Table 4.7
Correlation between Students' Critical Thinking and Their Writing Achievement

		Correlations	
		Critical Thinking	Writing
Critical Thinking	Pearson Correlation	1	.796**
	Sig. (2-tailed)		.000
	N	84	84
Writing	Pearson Correlation	.796**	1
	Sig. (2-tailed)	.000	
	N	84	84

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

4.2.3. Influence of Students' Critical Thinking on Their Writing Achievement

This section answered the second research problem. By analyzing the result of descriptive statistic for the CAAP critical thinking test and writing achievement, the influence of students' critical thinking on their writing achievement was obtained.

In addition, since there was a significant correlation between the critical thinking and writing achievement, it can be inferred that students' critical thinking has significant influence on their writing achievement. However, regression analysis was still used to find out if students' critical thinking influenced their writing achievement.

The results indicated that the students' critical thinking influenced writing achievement significantly with t_{value} (11.928) was higher than t_{table} (1.663) with sig. value (.00) was lower than probability (.05). Therefore, there was a significant influence between students' critical thinking toward their writing achievement of English Education Study Program of UIN Raden Fatah Palembang. It means that there was a significant influence of students' critical thinking on their writing achievement.

Table 4.8
The Regression Analysis of Students' Critical thinking and Their Writing Achievement
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-7.683	2.405		-3.195	.002
	Critical Thinking	.441	.037	.796	11.928	.000

a. Dependent Variable: Writing

In addition, to know the percentage of critical thinking influence on writing achievement, R-Square was obtained. The result of the analysis revealed that the R Square (R^2) was .634. It means that students' self esteem gave significant effect in the level of 63.4 % toward writing achievement, and

36.6% was unexplained factors value. Table 4.8 is shown as the result of Model Summary.

Table 4.9
Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.796 ^a	.634	.630	1.62677

a. Predictors: (Constant), Critical Thinking

b. Dependent Variable: Writing

4.3. Interpretation

In order to strengthen the value of this study the interpretations are made based on the result of data analyses. According to the findings, there was a significant correlation between students' critical thinking and students' writing achievement. Also, there was a significant influence of students' critical thinking on students' writing achievement.

First, based on the result of Pearson-Product Moment correlations, it was found that there was a positive and a significant correlation between critical thinking and writing achievement of the fifth semester students of English Education Study Program at UIN Raden Fatah Palembang ($r = .796$). It was also found that critical thinking significantly influenced students' writing achievement (63%). This means that critical thinking had relation and influence on their performance in writing achievement. The explanation to support this finding is that from the beginning of the first semester, the participants had been involved in English writing practices and writing assignments. They also had explored English writing materials and had interactions from printed textbooks, online media, English speaking and

writing environment, and social networks. Dixon, Cassady, Cross, and Williams (2005, p. 181) stated that writing is a vehicle through which students can readily express their critical thinking. Also, McKeachie, Chism, Menges, Svinicki, and Weinstein (1994) argued that learning to think critically requires contemplation and communicating the thinking through talking, writing, or doing so that others can react to it. They explain that writing seems to be an expression of critical thinking when students are trained to use a critical thinking method consistently in writing.

Furthermore, Ruggiero (2004, p. 4) 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. In addition, Sachs (2004) defined that writing is both a process of doing critical thinking and a product communicating the results of critical thinking. Hence, it means that critical thinking is one of aspects which is required and influenced on producing writing.

Additionally, it might be because the fifth semester students of English Education Study Program of UIN Raden Fatah are aware of their critical thinking skill. They have developed their critical thinking by practicing some skills or tasks in their daily lives, including teaching and learning process in the courses. Paul (1996) argued that to become a critical thinker is to practice skills that enable one to start to take charge of ideas that

run one's life. Moreover, they tried to be critical thinkers who always tries to evaluate and criticize information, issue and evidence since critical thinking is essential for students in higher education. Schafersman (1991) and Emilia (2010) explained that education must involve critical thinking. As students in higher education are demanded to think critically, practices are required for students to apply their critical thinking. Besides, Moon (2008) asserted that critical thinking and its relationship to the educational process has become a central issue and it is time to explore the term. Moon (2008) adds since critical thinking is a process which is involved in any research activity; it can be considered as a principal concept to education, especially at higher levels.

The result of this present study is in agreement with the studies of Nikou, Bonyadi, and Amirikar (2015) who found that there was a positive correlation between three aspect of critical thinking (analysis, inference, and evaluation skill) and writing quality. The results indicated that correlation between writing quality and analysis is ($r= +0.619$), inference is ($r= +0.597$), evaluation is ($r= +0.713$) with the significance level of ($p= 0.000$). They also revealed that the degree of relationship between critical thinking and dependent variable writing quality is 32% for analysis skill, 35% for inference and 50% for evaluation. It can be argued that the academic writers use their critical thinking skill to write high quality writing and it was supported by the results of this study.

Hashemi, Behrooznia, and Mahjoobi (2014) also indicated that all the critical thinking subscales (inference, assumptions, deductions, interpretation

and arguments) were positively and moderately correlated with argumentative writing. The causes were the students who had higher critical thinking had also better argumentative writing ability. They also revealed that arguments ($\beta=.62, p<.001$) as the critical thinking subscales was the strongest predictor of argumentative writing. Moreover, Rashid and Hashim (2008) showed that there was a strong positive correlation between students' critical thinking and their English language proficiency including writing ability. Wherefore, students who have high score in MUET and SPM English, showed that they have good critical thinking ability.

Besides, Bazrafkan and Bagheri (2014) showed that there is a positive and moderate relationship between critical thinking and writing achievement. Therefore, one can conclude that by increasing the levels of critical thinking, the learners' writing ability goes up. They also found that EFL critical thinking can predict the learners' writing scores. This correlation is in part with Chaffee (2002) who argued that critical thinking facilitates thoughtful writing, gives way to thoughtful writing, helps ideas to flourish and generates substantive ideas. Hence, a critical thinking framework permits students to understand the reciprocal relationships between the process of thinking and the process of writing. Additionally, the emphases of critical thinking on actively exploring ideas, listening to others, and evaluating opinions and arguments, provide a context for cooperative learning and writing.

Moreover, Amirikar and Nikou (2016) found that there was a positive significant correlation between critical thinking and writing fluency. They

stated that the correlation between two variables is ($r= +0.587$) with the significance level of ($p= 0.000$). They also revealed that critical thinking influenced the quality and fluency of writing. So, it is necessary in writing courses to practice on students' critical thinking skills in order to provide a writing class with high quality. In this regard, Rafi (2005, p. 107) argued that the promotion of critical thinking into the foreign language classrooms is of high significance for several reasons, such as the students can monitor and evaluate their own ways of learning more successfully. He also explained that critical thinking expands the learning experience of the learners and makes the language more meaningful for them. Additionally, critical thinking has a high degree of correlation with the learners' achievements.

Golpour (2014) also concluded that there was significant correlation between critical thinking and descriptive and argumentative writing. This study showed that critical thinking ability of the learners affected their writing and those who thought more critically wrote more coherently and used more correct forms of grammatical sentences and content words. In other words, those who had higher level of critical thinking ability obtained higher writing scores. It is implied that those with higher critical thinking can organize their thought better and this can be correlated with using higher levels of cognitive and metacognitive strategies that they use while writing.

The result of this present study was in part with Sugianto (2014) who found that critical thinking ability and writing ability have significant and high correlation. Students who are able to think critically of what they have

written will be able to refine any ideas in their composition which lead to their attainment in writing, as what Ruggiero (2004, p. 22) pointed out abundance of ideas will appear and flow as critical thinking ability is employed in writing. Sugianto (2014) also revealed that critical thinking influenced writing ability. The students writing ability was influenced by 37.21% of their critical thinking ability and it was influenced by 67.29% other factors, for instance knowledge of vocabulary and usage or grammar. As Hedge (1990, p. 5) proposed that to write effectively, people not only should pay attention to the ideas and information they organize, but they also need to equip themselves with knowledge of grammatical devices, the word choice, and sentence structure.

In addition, Hasanah (2015) also revealed that there was significant correlation between critical thinking skill and writing skill in term of argumentative writing. She also found that critical thinking significantly influenced writing skill. It had 32.8% contribution towards argumentative writing skill. 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 ability to think critically, they usually have poor argumentative writing skill. Because having critical thinking is able to the students to develop the idea critically and creatively.

Historically, writing is thought to contribute to the development of critical thinking skills (Kurfiss, and Association for the Study of Higher Education, 1988). Applebee (1984) suggested that writing improves thinking

because it requires an individual to make his or her ideas explicit and to evaluate and choose among tools necessary for effective discourse. Resnick (1987) stressed that writing should provide an opportunity to think through arguments and that, if used in such a way, could serve as a “cultivator and an enabler of higher order thinking.” Marzano (1991) suggested that writing used as a means to restructure knowledge improves higher-order thinking. In this context, writing may provide opportunity for students to think through arguments and use higher-order thinking skills to respond to complex problems (Marzano, 1991).

Moreover, Daempfle (2002) identified nine empirical studies that generally support the hypothesis that students who experience writing (and other nontraditional teaching methods) have higher reasoning skills than students who experience traditional science instruction. Of the relatively few noninstructional variables identified in those studies, gender and major did not affect critical thinking performance; however, the amount of time spent on and the explicitness of instruction to teach reasoning skills did affect overall critical thinking performance. Furthermore, the use of writing and other nontraditional teaching methods did not appear to negatively affect content knowledge acquisition (Daempfle, 2002). Daempfle justified his conclusions by systematically describing the methodological inconsistencies for each study. Specifically, incomplete sample descriptions, the use of instruments with insufficient validity and reliability, the absence of suitable comparison groups, and the lack of statistical covariate analyses limit the

scope and generalizability of existing studies of writing and critical thinking (Daempfle, 2002).

In short, the total contribution of students' critical thinking and their writing achievement showed significant correlated and influenced. However the unexplained factors also had contribution on students' writing achievement. The findings of the study may have some pedagogical implications for foreign language teachers, course designers, parents, next researchers, and students.

Finally, this study was successful in investigating the correlation and the influence between critical thinking and writing achievement of the fifth semester students of English Education Study Program at UIN Raden Fatah Palembang.

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

This chapter presents: (1) conclusions, and (2) suggestions based on the findings of the research

5.1. Conclusions

Based on the findings and interpretations of the study, there are some conclusions can be drawn:

- 1) There was a significant correlation between students' critical thinking and their writing achievement ($r=0.796$). The finding showed that the alternative hypothesis (H_a) was accepted and the null hypothesis (H_0) was rejected.
- 2) Based on the finding, it showed that there was significant influence (63.4%) of students' critical thinking on their writing achievement. It means that students' critical thinking give dominant effect on their writing achievement. It also means that the students who is good at using their critical thinking would have good achievement in writing and the students who is not good at using their critical thinking would have bad achievement in writing.

5.2.Suggestions

Based on the conclusion above, some suggestions were provided for lecturers or teachers, the students and everyone involved in the teaching and learning process of writing skill.

- 1) Teachers or lecturers are suggested to help the students to develop critical thinking, because it has many impacts in students' real lives. The teachers or lecturers also are expected to design the writing course where they can teach or develop both students' critical thinking skill and writing skill. It is because there is significant correlation between students critical thinking and their writing achievement.
- 2) Students are suggested to be aware of the issues and problems happened around them. They have to analyze and evaluate it to build their critical thinking skills. Hopefully, it can help them to improve their critical thinking skills and writing skills as well.
- 3) Syllabus designers and material developers of writing course books are suggested to see critical thinking as one of the effective elements in both academic and future career success. Incorporating critical thinking in course books would produce educated intellectual students with analytical abilities.
- 4) Other researchers are suggested to conduct further studies on critical thinking and writing achievement in order to reveal any aspects that support, enhance and develop the quality of the researches of critical thinking and writing achievement.

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**RADEN FATAH
PALEMBANG**

**APPENDIX A
STUDENTS' WRITING IV SCORE**

Name	Score
Student 1	A
Student 2	A
Student 3	B
Student 4	-
Student 5	B
Student 6	B
Student 7	A
Student 8	B
Student 9	B
Student 10	A
Student 11	B
Student 12	B
Student 13	B
Student 14	-
Student 15	B
Student 16	A
Student 17	B
Student 18	B
Student 19	B
Student 20	-
Student 21	B
Student 22	A
Student 23	-
Student 24	B
Student 25	A
Student 26	B
Student 27	B
Student 28	B
Student 29	B
Student 30	A
Student 31	B
Student 32	A
Student 33	B
Student 34	B
Student 35	A
Student 36	B
Student 37	A
Student 38	B
Student 39	-
Student 40	B

Student 41	B
Student 42	-
Student 43	A
Student 44	-
Student 45	A
Student 46	B
Student 47	A
Student 48	A
Student 49	-
Student 50	B
Student 51	B
Student 52	-
Student 53	-
Student 54	-
Student 55	-
Student 56	B
Student 57	A
Student 58	-
Student 59	A
Student 60	B
Student 61	-
Student 62	-
Student 63	-
Student 64	A
Student 65	B
Student 66	A
Student 67	-
Student 68	A
Student 69	D
Student 70	B
Student 71	A
Student 72	A
Student 73	B
Student 74	A
Student 75	A
Student 76	A
Student 77	B
Student 78	-
Student 79	B
Student 80	-
Student 81	B

Student 82	A
Student 83	A
Student 84	B
Student 85	-
Student 86	B
Student 87	A
Student 88	B
Student 89	A
Student 90	-
Student 91	A
Student 92	A
Student 93	B
Student 94	B
Student 95	A
Student 96	B
Student 97	-
Student 98	A
Student 99	B
Student 100	B
Student 101	B
Student 102	B
Student 103	B
Student 104	-
Student 105	A
Student 106	E
Student 107	B
Student 108	B
Student 109	B
Student 110	-
Student 111	B
Student 112	A
Student 113	B
Student 114	B
Student 115	-
Student 116	B
Student 117	A
Student 118	-
Student 119	B
Student 120	B
Student 121	-
Student 122	-

CAAP



Collegiate Assessment of Academic Proficiency

Critical Thinking Questions Booklet

CRITICAL THINKING TEST

40 Minutes—32 Questions

DIRECTIONS: There are four passages in this test. Each passage is followed by several questions. After reading a passage, choose the best answer to each question by intersecting the corresponding answer option. You may refer to the passages as often as necessary.



Passage I

Keepit, Givit, and Wait are discussing whether to make regular voluntary donations to charitable organizations.

Keepit: I ought not contribute to charities. What good would it do? My contribution would never be noticed as part of a million-dollar budget. But that same amount of money would be very noticeable if kept in my own family budget; that's where it makes the biggest difference, and hence does the most substantial good. In any case, our first moral obligation is always to the well-being of our own families. My family would rightly resent my favoring strangers over them. Given my level of income, any money of mine that is not needed for their present well-being should be saved for their future.

Givit: People have a right to have their most basic needs satisfied. Rights entail obligations. So anyone who has more than enough money to satisfy his or her own basic needs has a constant moral obligation to help meet the most basic needs of others. Hence we are each morally obliged to contribute to charities, and to refuse is blameworthy.

Wait: I haven't decided what to do yet. I agree that it is good to contribute; still, it is not morally obligatory for us. Our money comes from wages we earn by our own labor, utilizing our own abilities. And so long as people don't use the money to harm others, they are morally entitled to put earned wages to whatever use they choose. People who contribute hard-earned money to charities deserve praise. But no one should be blamed for not contributing such money.

Givit: Some people are not as lucky as you: their abilities are fewer, or their legitimate needs are greater. For example, some people are born with serious physical or mental disabilities; others require expensive medical treatments. Why should they suffer for such accidents of fate? When our economic system provides you with luxuries while failing to meet their most basic needs, you are getting more than your fair share. I'm not saying that money should be taken from you by force, but I am saying that you have a constant moral obligation to help right such wrongs.

Wait: Your principles go too far. Suppose we do have a constant moral obligation of the kind you describe. Then even if people act morally, they will find themselves with a continuing obligation to *keep* giving until they can just barely satisfy their own most basic needs. Be honest. We are all planning to buy season football tickets, which are not basic needs. Do you think we are obliged to forgo the tickets and give the money to charity instead?

Keepit: The economic system may treat some people unfairly, but that does not mean that I am obliged to help them at the expense of my own family. The wealthiest 5 percent own 35 percent of the country's wealth, so obviously they have more money than they can use for their own families. And if they

would contribute just a tenth of that wealth, charities would have all the money they need. Thus, there is no need for ordinary people like us to contribute, and hence no obligation.

1. Keepit's stated principles entail that:
 - A. people who have no families have no moral obligations.
 - B. Keepit is not morally obligated to contribute earned wages to charities.
 - C. every action is either praiseworthy or blameworthy.
 - D. it is fair to pay people on the basis of their abilities as well as their labor.
2. Wait states that so long as people don't use the money to harm others, they are morally entitled to put earned wages to whatever use they choose. In making this statement, Wait is:
 - F. trying to establish that Wait, Keepit, and Givit are not morally obligated to contribute to charities.
 - G. trying to establish that it is good to contribute to charities.
 - H. trying to establish that charities should receive money from sources other than earned wages.
 - J. contradicting Wait's own claim that those who contribute hard-earned money to charities deserve praise.
3. Givit's argument assumes, although it does not explicitly state, that:
 - I. Keepit, Givit, and Wait each have more than enough money to satisfy their most basic needs.
 - II. contributing to charities is a way to help some people satisfy their most basic needs.
 - III. if people refuse to contribute to charities voluntarily, governments should force them to contribute.
 - A. I only
 - B. II only
 - C. III only
 - D. I and II only

4. Keepit states that the truly wealthy have more money than they can use for their own families. Which of the following is NOT true of Keepit's statement?
- F. It is part of Keepit's attempt to establish that there is no need for ordinary people to contribute to charity.
 - G. It is consistent with Keepit's claim that charities would have all the money they need if the truly wealthy would contribute one-tenth of their wealth.
 - H. It supports Givit's claim that we each have a moral obligation to contribute to charities.
 - J. It is part of Keepit's attempt to refute Givit.
5. Which of the following, if true, would most substantially weaken *Keepit's* argument for not contributing?
- A. Keepit does not really want to contribute.
 - B. If Keepit were to contribute, the contribution would go entirely to a needy family who otherwise would not have received assistance.
 - C. Rights entail responsibilities.
 - D. The wealthiest 5% own much more than 35% of the country's wealth.
6. Keepit's argument for the conclusion that there is no need for ordinary people to contribute to charity is subject to a reasonable objection on the grounds that:
- F. the wealthy must spend some of their money on their own families.
 - G. it may not be possible to induce the wealthiest 5% to contribute one-tenth of their wealth to charity.
 - H. Keepit assumes that the wealthy have not earned their wealth.
 - J. the conclusion is not relevant to Keepit's main point.
7. Which of the following best explains why Wait's reference to the season football tickets is relevant to a logical evaluation of Givit's argument?
- A. It implies that Givit is a hypocrite.
 - B. It illustrates a possible consequence of Givit's position concerning the extent of the obligation to help those in need.
 - C. It demonstrates an inconsistency in Givit's position concerning one's obligations to one's family.
 - D. It indicates that Givit overestimates the willingness of others to join with him in rendering substantial charitable aid.
8. Keepit and Wait clearly agree, while Givit clearly denies, that:
- F. Keepit should not be blamed for refusing to contribute.
 - G. contributing to charities is an ineffective way to help those in need.
 - H. the first moral obligation is to one's own family.
 - J. the present economic system is fair.

Passage II

The college at which Professor Burke teaches regularly asks students to evaluate faculty teaching performance. The announced purpose of these evaluations is to give information to faculty about their strengths and weaknesses as teachers, and to allow those who make decisions about salary increases and promotions to reward the better teachers. Professor Burke, who never does very well on those evaluations, recently wrote the following letter of objection to the college president:

“It has become common practice in many colleges and universities for students to write formal evaluations of their professors and submit these to those who make salary and promotion decisions. Of course we do that here as well. This practice is supposed to provide valuable evidence both to faculty members and to decision makers regarding how well the faculty are teaching their courses. Despite all that, I believe this practice has so many undesirable consequences that it ought to be abandoned. I grant that those who advocate the use of student opinion surveys as a way of evaluating teaching have laudable goals. However, they have overlooked the disastrous effects which inevitably flow from this practice.

In order for students to learn effectively, two requirements must be met: Students must be informed when they are in error, and they must be challenged to stretch their minds as far as possible. But this requires faculty members to be frank in criticizing student work. It also requires faculty members to set high standards so as to challenge all students to develop fully. Should a faculty member come to fear that being critical toward student work will result in loss of salary raises and denial of promotions, that faculty member is not likely to make critical comments when they are needed. Should a faculty member come to fear that maintaining high academic standards will also result in loss of raises and denial of promotions, that faculty member is not likely to set high standards. These things are exactly what happens when student evaluations are used by colleges to help make salary and promotion decisions. These things are happening here.

It doesn't take long for a faculty member to discover that many students react negatively to criticism, and that most students feel quite put upon when they are expected really to strive in a course outside of their major fields. True, some students do respond positively to a challenge, and many take criticism well, but what about those who don't? By not being critical and by having low standards, a faculty member can keep every student happy. By being critical and setting high standards, a faculty member runs the risk of making only a few students happy. There is no payoff for the faculty member in alienating a significant number of those who will be filling out the course evaluation form at the end of the term, when the results of those forms will be considered in future decisions about the faculty member's career advancement. Several of my colleagues have deliberately lowered their standards in order to curry student favor on these evaluations, and I note they have done far better than I in getting raises in recent years.

Because of these factors, student evaluation of college faculty represents an important pressure to lower academic standards. Such erosion in standards of achievement tends, of course, to promote a general climate of mediocrity in which no one expects of any student anything more than average performance. Students who have the ability to do better than average lose out from this process by not being encouraged to become all they can be. And society simply cannot afford to continue to allow this weakening of our educational system when the crying need is for ever larger numbers of well-trained, well-educated citizens.

Thus, for the benefit of students and society alike, we must stop using student opinion surveys to evaluate college faculty performance for salary and promotion decisions. It would be far better to ask certain selected faculty members to write evaluations of the teaching performance of other faculty members, based on classroom visits. This would avoid the difficulties described above and give us expert, objective opinions about teaching performance, which could be used as evidence for making salary and promotion decisions.

I urge you to take whatever action is necessary to bring about these changes on our campus.”

9. Which of the following is a conclusion which Professor Burke *argues for* in this passage?
- A. There is a crying need for large numbers of well-trained, well-educated citizens in our society.
 - B. Some of Burke's fellow faculty members lowered their standards in order to get better student evaluations of their teaching.
 - C. The practice of using student evaluations of teaching performance as evidence for faculty salary decisions has very undesirable consequences.
 - D. If a faculty member fears that maintaining high standards will result in loss of salary raises, that faculty member will not be likely to maintain high standards.
10. From what is said in this passage, we can see Professor Burke explicitly assumes without argument that:
- F. students today are less academically ambitious and more critical of their instructors than students used to be.
 - G. effective student learning requires that students be told of their mistakes.
 - H. administrators believe all the negative comments made by students about faculty teaching.
 - J. students lack the background necessary for making accurate judgments regarding faculty knowledge of course subject matter.

11. Burke claims that a faculty member can keep every student happy by not being critical and by having low standards, while that faculty member can make only a few good students happy by being critical and having high standards. What's the *immediate* point of these remarks?
- A. When a faculty member is critical and has high standards, that benefits only a few good students.
 - B. Unfortunately, there are more weak than good students attending the college where Burke teaches.
 - C. Using student evaluations for making salary and promotion decisions leads to desirable results.
 - D. There is no reward for the critical faculty member with high standards in a school that uses student evaluations in salary and promotion decisions.
12. Burke mentions some colleagues who lowered their standards and subsequently received higher raises than Burke. In order to make the overall argument as logical as possible, what does Burke need to establish with respect to these cases?
- F. That these teachers are not as good at teaching as Burke
 - G. That the higher raises were due in part to the lowering of academic standards mentioned
 - H. That the higher raises were not merely some sort of accidental quirk in the salary system
 - J. That the standards maintained by these faculty before they lowered their standards were unreasonably high
13. Although the passage does not explicitly say so, Burke is apparently assuming that:
- A. students generally feel that faculty criticism of their work is unfairly harsh.
 - B. students who react negatively to criticism and challenge will not give a favorable rating to the teaching of demanding instructors.
 - C. most faculty members at Burke's college have lowered their standards in response to pressures created by student evaluation of instruction.
 - D. being willing to criticize student work when needed and maintaining high academic standards are the two most important aspects of good teaching.
14. Given what Burke says in the passage, which of the following statements would Burke most likely agree with?
- F. Student evaluations of faculty performance provide useful information for decision making about faculty salaries and promotions.
 - G. All students desire their college courses to be less demanding than reasonable faculty members do.
 - H. There are disadvantages associated with the use of student evaluations as evidence in salary and promotion decisions.
 - J. There is a real danger that students will deliberately use evaluations of faculty performance to lower academic standards.
15. Which one of the following, if known to be true, would do the most to undermine Burke's argument in favor of having faculty, rather than students, evaluate teaching performance?
- A. Faculty are generally reluctant to have other faculty members visit their classrooms.
 - B. Most faculty members who would do the evaluating believe in upholding reasonably high academic standards.
 - C. Most faculty members who would do the evaluating believe that it is possible to be too highly critical of student work.
 - D. Because of personal relationships between faculty members, those who would do the evaluating could not be good judges of teaching performance.
16. In a school that uses student evaluation of instruction as evidence in salary and promotion decisions, according to Burke, the following three items are related to one another:
- I. Faculty members fear that being critical of student work will have bad career consequences for the faculty member.
 - II. Faculty members experience negative student reaction to criticism of student work.
 - III. Undesirable educational practices are promoted at the institution.
- Which of the following represents the most satisfactory summary of the logical relations between I, II, and III as Burke sees them?
- F. I and II cause III.
 - G. I promotes II, and II causes III.
 - H. II causes I which then results in III.
 - J. III causes II which in turn results in I.

Passage III

Silver is an attorney specializing in criminal defense. In a conversation with her friends Brown, Green, and Gray, she mentioned that she has recently become utterly convinced of the guilt of one of her clients, a client who has not yet gone to trial but insists on pleading not guilty. Brown, Green, and Gray are discussing Silver's moral obligations in such a case.

Brown: If I were Silver, I would withdraw from the case. If she continued to serve as the client's attorney, she would have a moral obligation to her client, based on the implicit promise involved in the attorney/client relationship, to do her best to win an acquittal. But that obligation would conflict with an absolute moral obligation she has to her fellow citizens, and shares with them: the obligation not to hinder the conviction of persons one strongly believes to be guilty. She cannot cancel that obligation to her fellow citizens, but she can cancel the obligation to her client—by withdrawing from the case. Moreover, to defend her client, she would have to argue contrary to her beliefs, which is dishonest. But dishonesty is always wrong. So it is her duty to withdraw.

Green: And what good will that do? Any defendant can always easily get another attorney who will keep the case and fight for an acquittal. Suppose the new attorney wins an acquittal, and Silver's client then goes on to commit more crimes. Part of the responsibility for those crimes would rest with Silver, since she can prevent them by keeping the case and seeing to it that her client is convicted and punished, as all criminals should be. For example, she could subtly highlight inconsistencies in her client's story, and refrain from introducing misleading evidence of innocence. She could intentionally be less aggressive than usual in cross-examination, and give less than her best effort in her closing arguments to the jury. After all, no one can ever have an obligation to protect criminals from the just consequences of their actions. Her highest obligation is to the public good, the general welfare of people. It is not enough for Silver to wash her hands of the case and thereby make it someone else's problem. In order to fully protect the general welfare, she must see to it that her client is convicted.

Brown: But that would be dishonest—perhaps even more dishonest than defending a client whom she knows to be guilty. If Silver did what you suggest, she would have to mislead both her client and the judge about her true aims in the case. For if she admitted to her client what she was trying to do, the client would fire her for self-interest; and if she admitted to the judge what she was trying to do, the judge would be legally bound to remove her from the case.

Green: Don't you sometimes pay compliments that are insincere? Wouldn't you lie to an enemy in order to protect the lives of your friends? But I am not even advising Silver to tell a lie—just to keep the truth about her intentions to herself.

Gray: I agree with Green that Silver should not withdraw. After all, the vast majority of criminal defendants in this country *are* guilty—if they weren't, there would have to be something very wrong with our police or prosecutors. If defense attorneys withdrew every time they became convinced of their clients' guilt, the legal system would become a shambles. And many defendants wouldn't even be able to find attorneys willing to keep their cases. But I also agree with Brown that Silver has a duty to give her client her best effort to win acquittal if she remains. That is because human history shows by direct examination that, of the various systems tried, the best criminal justice system is one that works as a true adversary system, where each side strives skillfully to present a persuasive and successful case. Such a system tends ultimately to produce correct decisions more consistently than any other, and hence, best serves the general welfare; that is why we adopted an adversary system in the first place. When one side does less than its very best, the criminal justice system does not work as effectively; and so, in the long run, justice is not served as often. The guilt or innocence of the accused is for the jury to decide—it is not even for the judge to decide, let alone for the competing attorneys. An attorney's job is to formulate the strongest case available for whichever side the attorney is given to represent. If the attorney does that, then his or her whole duty in the case has been fulfilled, and he or she is blameless. Silver should keep her client and do her best to win an acquittal.

17. Gray disagrees with Brown's claim that:
- A. short-term benefits usually outweigh long-term benefits.
 - B. Silver's decisive moral obligation is to the public welfare.
 - C. it is Silver's duty to withdraw from the case.
 - D. Silver should allow her own judgment of her client's guilt or innocence to guide her actions.
18. If human history shows by direct examination, as Gray claims, that of the various systems tried, a true adversary system makes more consistently correct decisions than any other kind of criminal justice system, which of the following must be true?
- I. The present criminal justice system was never intended to be a true adversary system.
 - II. Human history contains examples of criminal justice systems that are not true adversary systems.
 - III. There is a way of evaluating how consistently a criminal justice system makes correct decisions.
- F. II only
 - G. III only
 - H. II and III only
 - J. I, II, and III

19. By using a parallel argument adapted to the case of judges, Green could argue equally well from his stated principles that judges should:
- I. not disqualify themselves from cases in which they have a financial interest.
 - II. not disqualify themselves from cases in which they have a personal relationship with the victim.
 - III. try to influence juries to convict defendants whom the judges know to be guilty.
- A. II only
B. III only
C. I and II only
D. I, II, and III
20. Brown and Green evidently disagree about which of the following principles?
- F. If attorneys accept cases, then they should do their best to win them.
 - G. Attorneys should always act ethically.
 - H. Our legal system, as presently constituted, is a true adversary system.
 - J. People generally act from self-interest.
21. Gray's remark (lines 59–60) that “the vast majority of criminal defendants in this country *are* guilty” is relevant to his argument because it:
- I. expresses a lack of confidence in police and prosecutors.
 - II. suggests that defense attorneys will frequently become convinced of their clients' guilt.
 - III. supports the claim that our present legal system was intentionally adopted as a true adversary system.
- A. I only
B. II only
C. III only
D. I, II, and III
22. Which of the following, if true, would do the most to strengthen Gray's overall argument and weaken Green's argument?
- F. Some innocent clients have an attorney who believes that the client is guilty.
 - G. Attorneys very often judge a client to be innocent when in fact the client is guilty.
 - H. Police and prosecutors do their jobs effectively on the whole.
 - J. Most attorneys would concur with Gray's advice.
23. Which of the following claims does Brown make *without* offering supporting argumentation?
- A. Silver has a duty to withdraw from the case.
 - B. Silver would have to act dishonestly if she were to follow Green's advice.
 - C. Silver wants to behave honestly.
 - D. A judge would be legally bound to remove Silver from the case if she admitted to the judge that she was not trying her best to acquit her client.
24. Green's two questions, about insincere compliments and lying to one's enemies (lines 53–55), are relevant to establishing the correctness of Green's conclusions to the extent that the questions:
- F. suggest that Brown is a hypocrite.
 - G. indicate that lying is only one kind of dishonesty.
 - H. show that Brown's argument contradicts itself.
 - J. imply that dishonesty may sometimes be morally permissible when its consequences are beneficial.

Passage IV

Senator Support proposed a bill in the Senate that would forbid TV stations from broadcasting commercials directed at children under thirteen years of age. In support of the bill, Support argued:

5 I feel that advertising aimed at young children takes unfair advantage of their undeveloped reasoning abilities and encourages bad thinking. Commercials aimed at young children should be banned. My bill would do that.

10 Research has shown that young children are often unable to discriminate good arguments from subtly bad ones. The arguments in TV commercials are, of course, predominantly bad, the main argument being, in essence, “Look at this image. If you like the image, buy this product.” Children like my young son aren’t sophisticated enough to know that this is a bad argument. Advertisers are taking advantage of children’s ignorance, and that is utterly despicable.

20 Furthermore, TV ads encourage bad thinking habits. As you know, young children are impressionable, but we are showing them bad arguments like those in TV commercials. So they are bound to start thinking badly. A cereal commercial, for instance, will direct children to look at the characters and images associated with the cereal rather than at the ingredients. More generally, commercials encourage children to evaluate a product on the basis of images associated with the product rather than on the basis of the product’s ingredients and utility.

I am sure that Senator Oppose will object to this bill, but I hope you will find her arguments unconvincing.

35 After Senator Support’s speech, Senator Oppose stood to defend an opposing position:

I can’t approve of Senator Support’s attempt to shield young children from advertising. His bill is vague, poorly supported, and unrealistic.

40 It is vague because it provides no clear and explicit criteria for distinguishing ads aimed at young children from ads aimed at teenagers. Without any specific criteria, regulators won’t be able to decide what to forbid. Consequently, the bill would be unenforceable.

45 As if this were not enough, the bill is also poorly supported by evidence and argument. On the one hand, there is no scientific evidence to support the contention that ads encourage bad thinking. Indeed there are no studies which show that commercials have *any* harmful effects on children. On the other hand, none of Senator Support’s arguments are satisfactory. First, commercials don’t take unfair advantage of children since children can, to a large extent, distinguish good arguments from poor

60 ones. Second, commercials don’t encourage bad thinking because they rarely involve bad arguments. There’s nothing wrong, for example, with, “Here’s an image. If you like the image, buy this product.” I suspect that many senators have acted on the basis of such arguments. So Senator Support’s arguments are not just inconclusive, they’re wrong.

65 To conclude, I would like to point out some of the implications of the bill that make it politically unrealistic. First, of course, child advertising would stop. But then so would child programming, since commercial stations would have no child-based income. Children would then not know what to do with their time, so parents would become angry with us. For economic reasons, manufacturers and retailers would also be upset with us. Considering that the bill is also vague and poorly supported by evidence or argument, I don’t think it’s worth enduring the anger of so many interests.

25. In his speech, Senator Support’s main conclusion is that:

- A. commercials aimed at young children should be banned.
- B. it is unfair to aim commercials at people who can’t reason well.
- C. commercials with bad arguments encourage children to think badly.
- D. the bill is politically, socially, and economically unrealistic.

26. When Senator Support says (lines 17–19) that taking advantage of ignorance “is utterly despicable,” he is probably:

- F. condemning ignorance.
- G. concluding that his son is ignorant.
- H. concluding that all children are ignorant.
- J. appealing to the emotions of the audience.

27. Suppose Senator Support’s reasons for his belief that advertising has a detrimental effect on children are wrong. Would that show that advertising has *no* detrimental effects on children?

- A. Yes, because bad reasons often yield incorrect conclusions.
- B. Yes, because advertising has not been proven to have a detrimental effect on children.
- C. No, because good reasons may support contrasting conclusions.
- D. No, because reasons can be wrong when the conclusion is correct.

28. What would Senator Support probably need to assume in order to apply his arguments to the proposal that *all* commercials should be banned?
- F. If all commercials are banned, then bad arguments will not appear on TV.
 - G. Commercials often encourage people to buy luxuries rather than necessities.
 - H. Commercials are irritating interruptions in viewing, and they irritate everyone, not just children.
 - J. People of all age groups are impressionable and unable to discriminate good arguments from subtly bad ones.
29. According to the passage, which of the following is the main reason why Senator Oppose thinks that the bill would be unenforceable?
- A. The bill is too vague.
 - B. Powerful interest groups would be upset.
 - C. The bill would, in effect, ban child advertising.
 - D. Commercials contain relatively few bad arguments.
30. Senator Oppose says that without child programming, children would not know what to do with their time. Which of the arguments below would probably be the most effective reply to this statement?
- F. At any point in time, every child is doing something, be it eating, sleeping, thinking, or something else. So children would always be doing something with their time, even without TV.
 - G. If Senator Oppose is considering teenagers as children, she is wrong. If Oppose is excluding teenagers, she is contradicting herself.
 - H. You are assuming that children do not value their time. Based on my experience with children, I know that assumption is false.
 - J. In many parts of the world, children still have no television but find things to do with their time. So children can find things to do with their time.
31. In mentioning that no studies show that commercials damage children (lines 49–51), Senator Oppose seems to assume, but does not say, that:
- A. commercials are valuable for purposes of entertainment.
 - B. if commercials have known harmful effects, they should be banned.
 - C. if commercials have no known harmful effects, they should not be banned.
 - D. if commercials are not banned, then they have no known harmful effects.
32. What conclusion follows necessarily from these two premises?
- I. If the bill passes, child advertising will stop.
 - II. Once child advertising stops, commercial stations won't be able to make a profit from child programming.
- F. If the bill passes, commercial stations will not show child programming.
 - G. If child advertising stops, it will be because the bill passed.
 - H. Passing the bill would be a disaster for child programming.
 - J. If the bill passes, then child programming would be unprofitable for commercial stations.

END OF TEST

IF YOU FINISH BEFORE TIME IS CALLED, YOU MAY GO BACK AND CHECK YOUR WORK.

**Correct Answers for
Sample Critical Thinking Test Questions**

**Sample Passage 1
Charitable Donations Debate**

Question #	Correct Answer	Content Category
1	B	Extending an Argument
2	F	Analyzing an Argument
3	D	Analyzing an Argument
4	H	Analyzing an Argument
5	B	Extending an Argument
6	G	Evaluating an Argument
7	B	Analyzing an Argument
8	F	Analyzing an Argument

**Sample Passage 2
Faculty Evaluations**

Question #	Correct Answer	Content Category
9	C	Analyzing an Argument
10	G	Analyzing an Argument
11	D	Analyzing an Argument
12	G	Evaluating an Argument
13	B	Analyzing an Argument
14	H	Analyzing an Argument
15	D	Extending an Argument
16	H	Evaluating an Argument

Sample Passage 3
Moral Obligations

Question #	Correct Answer	Content Category
17	C	Analyzing an Argument
18	H	Evaluating an Argument
19	B	Analyzing an Argument
20	F	Analyzing an Argument
21	B	Analyzing an Argument
22	F	Extending an Argument
23	D	Evaluating an Argument
24	J	Evaluating an Argument

Sample Passage 4
Commercials and Children

Question #	Correct Answer	Content Category
25	A	Analyzing an Argument
26	J	Analyzing an Argument
27	D	Evaluating an Argument
28	J	Evaluating an Argument
29	A	Analyzing an Argument
30	J	Extending an Argument
31	C	Analyzing an Argument
32	J	Evaluating an Argument

APPENDIX C

ESSAY WRITING TEST

Time: 30 Minutes

Direction:

1. Read the essay questions/topics^{*)} carefully;
2. There are four topics given, and you are free to choose only **ONE** of them;
3. You have **30 minutes** to plan, write, edit and revise your response;
4. The length of the essay you write should be approximately **250-300 words**;
5. Questions/topics:
 - a. *It is better for children to grow up in the countryside than in a big city.*
Do you agree or disagree? Use specific reasons and details to develop your essay.
 - b. *In some countries, teenagers have jobs while they are still students.* Do you think this is a good idea? Support your opinion by using specific reasons and details.
 - c. Do you agree or disagree with the following statement? *Watching television is bad for children.* Use specific reasons and details to support your answer.
 - d. Do you agree with the following statement? *Face-to-face communication is better than other types of communication, such as letters, email, or telephone calls.* Use specific reasons and details to support your answer.

APPENDIX D

Rubric for Essay Writing Assessment

Possible Points Criteria	6 A level 6 essay will be characterized by most of the following features	5 A level 5 essay will be characterized by most of the following features	4 A level 4 essay will be characterized by most of the following features	3 A level 3 essay will be characterized by most of the following features	2 A level 2 essay will be characterized by most of the following features	1 A level 1 essay will be characterized by most of the following features
Ideas	Displays originality and depth of thought. Expresses ideas fluently and gracefully.	Displays clear thinking. Expresses ideas clearly.	Conveys basically intelligible ideas. Style is bland, pedantic or formulaic	Conveys simplistic ideas. Lack of vocabulary hinders clarity of expression.	Reveals confusion or takes an extremely simplistic approach to the prompt.	Demonstrates confusion or inability to comprehend the prompt.
Organization	Shows a sophisticated sense of paragraph and essay organization and links paragraphs smoothly with effective transitions.	Shows competence in organization but lacks sophistication. Paragraphs are well developed but lack appropriate transitions	Shows attempt to organize an essay with a thesis. Demonstrates ability to organize individual paragraphs although organization unevenly developed or formulaic and transitions generally lacking.	Shows attempt to organize an essay and limited ability to organize individual paragraphs but paragraphs are formulaic, underdeveloped and repetitive. Transitions generally lacking.	Shows inability to organize an essay. Paragraphs are not carefully and logically developed. Transitions are missing or inappropriate so that relationships between ideas are illogical.	Shows inability to organize thoughts into paragraphs. Essay may be one rambling paragraph or a series of insubstantial paragraphs.
Sentences	Shows ability to structure sentences to advantage, exhibiting a sophisticated command of sentence variety. (Errors, if any, appear to be proofreading lapses.)	Uses some varied sentence patterns with only occasional errors in structure. (Errors appear due to carelessness or to mishandling of such features as colons or semicolons.)	Uses basically the same sentence patterns throughout the essay with some errors in structure. (Errors appear due to confusion with compound or complex sentences.)	Lacks sentence variety and contains errors in structure. (Errors appear due to inability to write compound or complex sentences.)	Uses simple sentences excessively. Contains frequent errors in structure. (Errors appear due to confusion with boundaries.)	Contains frequent fundamental sentence errors. May contain many run-ons and fragments. (Errors appear due to inability to write simple sentences.)
Mechanics	Virtually free of punctuation, capitalization, spelling, usage and ESL errors	Contains only occasional punctuation, capitalization spelling, usage and ESL errors.	Contains some common punctuation, capitalization spelling, usage and ESL errors.	Contains many common punctuation, capitalization spelling, usage and ESL errors, though the errors are not frequent enough to be distracting.	Contains serious punctuation, capitalization spelling, usage, and ESL errors which interfere with meaning.	Contains frequent intrusive punctuation, capitalization spelling, usage and ESL errors which hinder communication.
Vocabulary	Displays sophisticated vocabulary range and exceptional facility with the language.	Shows a good vocabulary range and good command of the language.	Exhibits generally competent language use with some awkwardness in syntax.	Exhibits some problems in diction and syntax but they do not interfere with readability.	Lacks control over diction and syntax which interferes with meaning.	Diction and syntax are so garbled as to render the writing nearly incomprehensible.

APPENDIX E

Validity of Writing Test

The scale of response is categorized as follows:

Scale	Categorization
1	Absolutely Inappropriate
2	Inappropriate
3	Moderate
4	Appropriate
5	absolutely Appropriate

The Result of expert judgment

No	Test Item	Level of Appropriateness of Writing Test Items					Categorization
		1	2	3	4	5	
1	Instruction				2	1	Appropriate
2	Topic				2	1	Appropriate
3	Time Allocation				3		Appropriate
4	Content				2	1	Appropriate
5	Rubric				1	2	Absolutely Appropriate
Comment :							

APPENDIX F. TABULATION OF CAAP CRITICAL THINKING TEST

No	Name	Number of Items CAAP Critical Thinking Test																																Total	Scaled Score				
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32						
1	Student 1	1	0	1	1	1	1	1	1	0	0	1	0	1	0	0	1	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	1	0	1	15	58.75	
2	Student 2	1	1	0	0	1	0	0	1	0	1	0	0	1	0	0	1	0	1	1	1	0	0	1	0	1	0	1	0	1	1	1	0	1	1	0	1	16	60
3	Student 3	1	1	1	1	1	1	0	1	1	1	1	1	1	0	1	1	0	1	0	1	1	0	0	1	0	1	1	0	1	1	1	1	1	1	1	24	70	
4	Student 4	1	1	1	0	1	0	0	1	0	1	1	0	0	1	1	0	1	0	1	0	0	1	1	0	1	0	1	0	0	1					1	17	61.25	
5	Student 5	1	0	0	1	0	1	0	1	0	1	0	0	0	1	0	1	0	1	0	1	1	0	1	0	1	0	0	1	0	1	0	1	0	1	15	58.75		
6	Student 6	1	1	0	1	1	0	1	0	1	0	1	1	0	1	1	1	1	1	1	0	1	1	0	1	0	0	0	0	0	1	1	1	1	0	20	65		
7	Student 7	0	1	1	1	0	1	1	0	1	1	0	1	0	1	0	1	1	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	1	0	16	60		
8	Student 8	1	0	1	0	1	1	1	1	1	0	1	1	1	0	1	1	1	1	1	0	1	1	1	0	0	1	1	0	1	1	0	1	1	0	1	23	68.75	
9	Student 9	1	1	1	0	1	1	0	0	1	1	1	1	1	1	1	0	0	0	1	1	1	1	1	0	0	0	1	0	1	0	0	1	0	0	1	20	65	
10	Student 10	1	1	1	0	1	1	1	1	1	1	0	1	1	1	0	1	1	0	1	1	1	0	1	0	1	0	1	1	0	1	1	1	1	1	1	24	70	
11	Student 11	1	1	0	1	0	0	1	1	1	1	0	1	0	1	1	1	1	0	0	1	1	1	1	0	1	1	0	1	1	0	1	1	0	1	1	22	67.5	
12	Student 12	1	1	1	1	0	1	1	0	1	0	1	1	0	1	0	1	1	0	1	1	1	0	0	0	0	0	1	0	0	1	1	0	0	1	1	0	18	62.5
13	Student 13	1	1	1	1	1	1	0	1	0	1	0	1	1	1	1	0	0	1	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	1	17	61.25		
14	Student 14	1	1	0	1	0	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	26	72.5	
15	Student 15	1	0	1	1	0	1	1	0	1	0	1	1	1	1	1	1	1	0	1	0	0	0	1	0	1	1	0	1	1	0	0	1	1	0	0	1	20	65
16	Student 16	1	1	1	1	0	1	1	1	0	1	1	1	1	0	1	1	0	0	1	0	1	1	0	1	1	0	1	1	0	0	1	1	0	0	1	0	21	66.25
17	Student 17	1	0	1	1	0	1	1	0	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	0	1	1	1	0	1	1	1	0	1	0	20	65
18	Student 18	1	1	1	0	1	0	1	1	1	1	1	0	1	1	1	1	0	1	1	1	1	0	1	1	1	1	1	1	0	1	1	1	1	1	1	26	72.5	
19	Student 19	1	1	1	1	0	1	1	1	1	1	1	1	1	0	1	0	1	0	1	1	1	0	1	1	0	1	1	1	0	1	1	0	1	0	1	24	70	
20	Student 20	1	0	1	1	1	0	1	1	1	1	0	1	1	0	1	1	1	1	1	1	1	1	0	1	1	0	1	1	1	0	1	1	1	0	1	25	71.25	
21	Student 21	1	1	0	1	0	1	1	0	1	0	0	0	1	0	1	1	0	1	0	1	1	1	0	1	1	1	1	0	0	1	0	0	1	0	0	18	62.5	
22	Student 22	1	0	1	0	1	1	0	1	1	1	0	1	0	1	1	0	0	0	1	0	1	0	1	0	1	0	1	0	1	0	1	1	0	0	17	61.25		
23	Student 23	1	1	1	0	1	0	0	1	0	1	1	1	0	1	0	0	1	0	1	1	0	1	0	1	1	1	0	1	0	0	1	0	0	1	0	18	62.5	
24	Student 24	1	1	1	1	0	1	0	1	1	0	1	0	1	1	0	0	1	0	0	1	0	0	1	1	0	1	1	1	1	1	1	1	0	0	1	21	66.25	
25	Student 25	1	1	1	1	0	1	0	0	1	0	1	0	1	0	0	0	0	1	0	0	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	15	58.75	
26	Student 26	1	0	1	1	1	1	1	1	1	0	1	1	1	0	0	0	1	1	1	1	0	1	0	1	0	0	1	0	1	1	0	1	1	0	1	21	66.25	
27	Student 27	1	1	1	0	1	1	1	0	0	0	1	0	1	1	1	1	0	1	1	1	1	0	1	1	1	1	0	1	0	0	1	1	1	1	22	67.5		
28	Student 28	1	0	1	1	1	1	0	1	1	1	0	1	0	1	0	0	1	0	1	0	1	0	1	0	1	0	1	0	0	1	0	0	1	0	0	17	61.25	

63	Student 63	1	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	1	1	1	0	1	1	0	1	1	1	0	1	1	25	71.25
64	Student 64	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	0	1	1	1	1	1	1	1	1	0	1	23	68.75
65	Student 65	0	1	1	0	1	1	1	0	1	0	0	0	0	1	1	0	1	0	1	0	1	0	1	0	1	0	0	0	0	14	57.5
66	Student 66	0	1	1	0	1	1	0	1	0	0	1	1	0	1	1	1	1	0	1	1	0	0	0	1	1	0	0	0	16	60	
67	Student 67	1	0	1	1	0	1	1	0	1	1	1	0	1	1	1	1	1	1	0	0	0	1	1	0	0	0	0	0	17	61.25	
68	Student 68	1	0	1	0	1	0	1	1	0	0	1	1	1	1	0	0	1	1	0	1	1	1	0	1	1	1	0	1	21	66.25	
69	Student 69	1	1	1	1	1	0	1	1	0	1	1	1	0	1	0	1	0	1	0	1	1	1	0	1	1	0	1	0	22	67.5	
70	Student 70	0	0	0	1	0	1	1	0	1	1	0	1	1	1	0	0	1	0	1	1	1	1	0	0	1	0	0	0	14	57.5	
71	Student 71	0	0	0	0	1	0	1	1	0	1	1	0	1	0	0	0	1	0	1	0	1	0	1	1	0	0	1	0	13	56.25	
72	Student 72	1	1	1	0	1	1	1	0	1	1	1	0	1	1	1	1	1	0	1	1	1	0	1	1	0	0	1	1	24	70	
73	Student 73	1	1	1	0	1	1	0	1	1	0	1	1	0	1	1	0	0	0	0	1	1	1	1	0	1	1	0	1	22	67.5	
74	Student 74	1		1	1	1	0	0	0	0	1	1	0	1	1	0	1	1	1	0	1	1	0	1	1	0	0	0	1	19	63.75	
75	Student 75	1	1	1	0	0	1	1	0	1	0	0	1	0	1	1	1	0	1	0	1	1	1	0	1	1	1	0	1	20	65	
76	Student 76	0	0	0	1	1	0	0	0	0	1	1	1	0	1	1	0	1	1	0	0	0	0	1	1	1	0	0	0	14	57.5	
77	Student 77	1	1	0	1	0	1	1	0	1	1	0	1	1	0	0	1	0	1	1	0	1	0	1	0	1	0	1	1	19	63.75	
78	Student 78	0	0	0	1	0	1	0	1	1	1	1	0	1	1	0	1	1	0	1	1	0	0	1	1	1	1	0	1	20	65	
79	Student 79	0	1	1	1	0	0	1	1	1	0	1	1	0	1	1	1	0	1	1	1	1	0	1	1	1	0	1	1	21	66.25	
80	Student 80	1	1	1	0	1	1	0	0	1	0	1	1	0	1	1	0	1	0	1	0	1	0	1	1	0	1	1	0	18	62.5	
81	Student 81	0	1	1	0	1	1	0	0	0	0	0	0	1	0	1	1	0	1	1	0	0	0	0	1	1	1	0	1	14	57.5	
82	Student 82	1	1	0	0	0	0	0	1	1	1	1	1	1	0	0	0	1	1	0	1	0	1	1	1	0	0	0	1	19	63.75	
83	Student 83	1	1	1	1	0	1	1	1	0	1	1	1	1	1	1	0	1	1	0	1	1	0	1	1	0	1	1	1	25	71.25	
84	Student 84	1	1	1	0	1	0	1	1	0	1	1	1	0	0	0	0	1	0	1	1	1	1	1	0	1	0	0	0	18	62.5	



APPENDIX G

Critical Thinking Score Report

Class : Class A

Semester : V

Name	Total Score	Scaled Score	Category
Student 1	15	58.75	Low
Student 2	16	60	Low
Student 3	24	70	High
Student 4	17	61.25	Average
Student 5	15	58.75	Low
Student 6	20	65	Above Average
Student 7	16	60	Low
Student 8	23	68.75	High
Student 9	20	65	Above Average
Student 10	24	70	High
Student 11	22	67.5	Above Average
Student 12	18	62.5	Average
Student 13	17	61.25	Average
Student 14	26	72.5	High
Student 15	20	65	Above Average
Student 16	21	66.25	Above Average
Student 17	20	65	Above Average
Student 18	26	72.5	High
Student 19	24	70	High
Student 20	25	71.25	High
Student 21	18	62.5	Average
Student 22	17	61.25	Average

Critical Thinking Category Result	
Category	Frequency
High	7
Above Average	6
Average	5
Low	4
Total	22

Critical Thinking Score Report

Class : Class B

Semester : V

Name	Total Score	Scaled Score	Category
Student 1	18	62.5	Average
Student 2	21	66.25	Above Average
Student 3	15	58.75	Low
Student 4	21	66.25	Above Average
Student 5	22	67.5	Above Average
Student 6	17	61.25	Average
Student 7	25	71.25	High
Student 8	15	58.75	Low
Student 9	22	67.5	Above Average
Student 10	17	61.25	Average
Student 11	23	68.75	High
Student 12	26	72.5	High
Student 13	23	68.75	High
Student 14	22	67.5	Above Average
Student 15	24	70	High
Student 16	15	58.75	Low
Student 17	16	60	Low
Student 18	22	67.5	Above Average
Student 19	12	55	Low
Student 20	24	70	High
Student 21	14	57.5	Low
Student 22	23	68.75	High
Student 23	12	55	Low

Critical Thinking Category Result	
Category	Frequency
High	7
Above Average	6
Average	3
Low	7
Total	23

Critical Thinking Score Report

Class : Class C

Semester : V

Name	Total Score	Scaled Score	Category
Student 1	26	72.5	High
Student 2	22	67.5	Above Average
Student 3	17	61.25	Average
Student 4	23	68.75	High
Student 5	14	57.5	Low
Student 6	21	66.25	Above Average
Student 7	25	71.25	High
Student 8	21	66.25	Above Average
Student 9	23	68.75	High
Student 10	21	66.25	Above Average
Student 11	16	60	Low
Student 12	18	62.5	Average
Student 13	25	71.25	High
Student 14	26	72.5	High
Student 15	20	65	Above Average
Student 16	24	70	High
Student 17	23	68.75	High
Student 18	25	71.25	High

Critical Thinking Category Result	
Category	Frequency
High	9
Above Average	5
Average	2
Low	2
Total	18

Critical Thinking Score Report

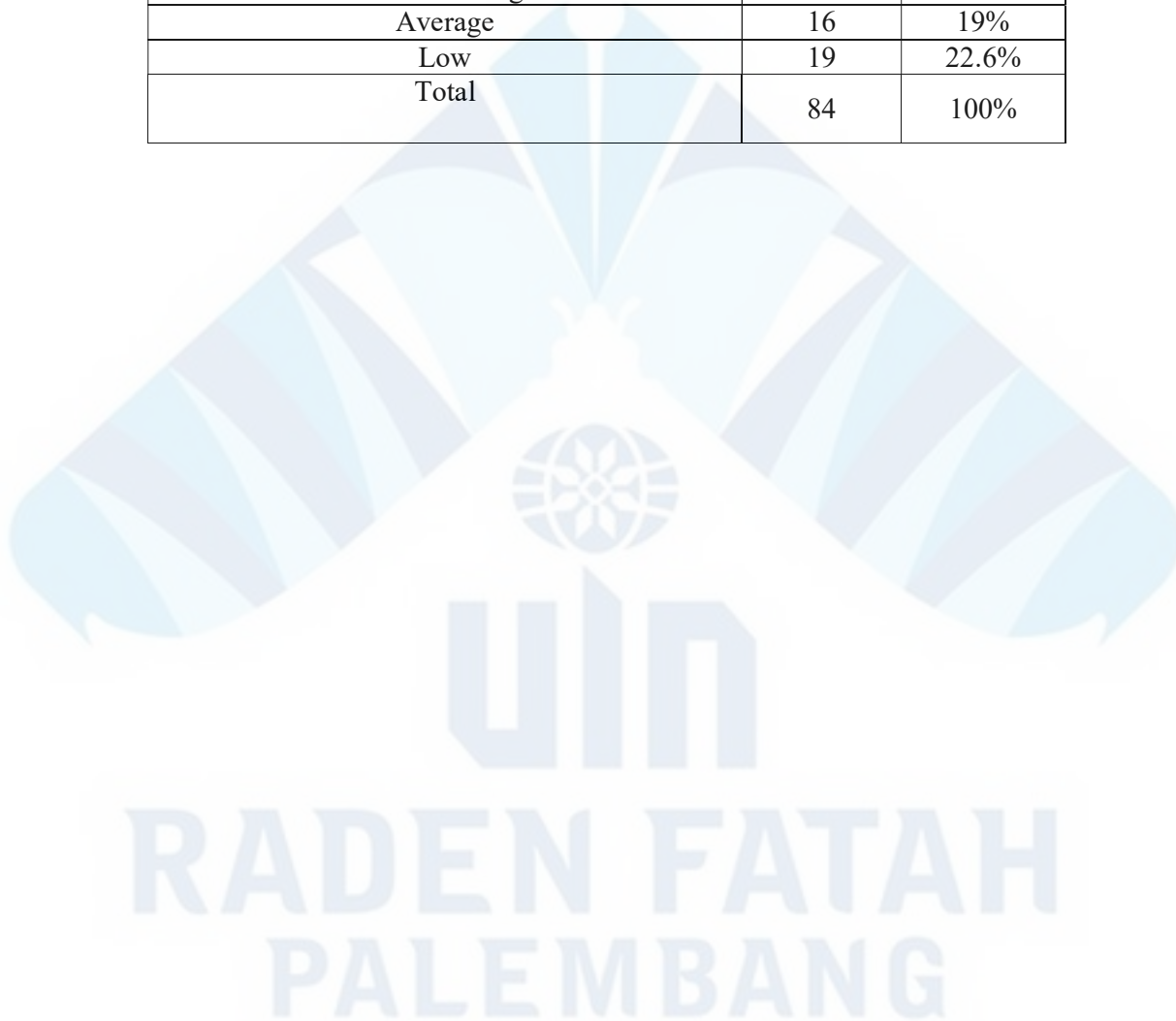
Class : Class D

Semester : V

Name	Total Score	Scaled Score	Category
Student 1	23	68.75	High
Student 2	14	57.5	Low
Student 3	16	60	Low
Student 4	17	61.25	Average
Student 5	21	66.25	Above Average
Student 6	22	67.5	Above Average
Student 7	14	57.5	Low
Student 8	13	56.25	Low
Student 9	24	70	High
Student 10	22	67.5	Above Average
Student 11	19	63.75	Average
Student 12	20	65	Above Average
Student 13	14	57.5	Low
Student 14	19	63.75	Average
Student 15	20	65	Above Average
Student 16	21	66.25	Above Average
Student 17	18	62.5	Average
Student 18	14	57.5	Low
Student 19	19	63.75	Average
Student 20	25	71.25	High
Student 21	18	62.5	Average

Critical Thinking Category Result	
Category	Frequency
High	3
Above Average	6
Average	6
Low	6
Total	21

Over all Critical Thinking Category Result		
Category	Frequency	Percentage
High	26	31%
Above Average	23	27.4%
Average	16	19%
Low	19	22.6%
Total	84	100%



APPENDIX H
WRITING SCORE

Class : PBI A

Semester : V

Name	Rater 1					Total Score	Rater 2					Total Score	Rater 3					Total Score	Mean
	I	O	S	M	V		I	O	S	M	V		I	O	S	M	V		
Student 1	5	5	4	4	4	22	3	3	3	4	4	17	5	5	4	4	4	22	20.3
Student 2	3	3	2	2	3	13	3	3	3	3	3	15	3	3	3	3	3	15	14.3
Student 3	5	5	5	5	4	24	4	4	4	4	4	20	4	4	5	4	4	21	21.7
Student 4	4	3	4	3	3	17	3	3	3	3	4	16	3	4	3	3	4	17	16.7
Student 5	5	5	4	4	4	22	3	3	4	3	4	17	5	5	4	3	4	21	20.0
Student 6	5	5	5	5	5	25	5	4	4	4	4	21	5	4	5	4	5	23	23.0
Student 7	4	5	4	4	4	21	4	5	4	3	5	21	4	4	4	4	4	20	20.7
Student 8	3	4	3	3	3	16	4	4	4	4	5	21	4	4	3	4	5	20	19.0
Student 9	5	5	4	4	5	23	5	5	5	4	5	24	5	5	5	4	4	23	23.3
Student 10	5	5	5	5	5	25	5	4	4	4	5	22	5	5	4	5	5	24	23.7
Student 11	4	4	4	4	3	19	4	4	4	4	5	21	4	4	4	4	4	20	20.0
Student 12	3	3	3	4	3	16	4	4	4	4	5	21	3	3	4	4	3	17	18.0
Student 13	4	4	3	4	3	18	4	4	4	4	4	20	4	4	3	4	4	19	19.0
Student 14	5	5	4	4	5	23	5	4	5	5	5	24	5	5	4	5	5	24	23.7
Student 15	4	4	4	4	4	20	3	3	4	4	4	18	4	4	4	5	4	21	19.7
Student 16	5	4	4	5	4	22	4	4	4	5	4	21	5	4	4	4	5	22	21.7
Student 17	4	4	3	3	4	18	5	4	4	5	5	23	4	3	3	4	4	18	19.7
Student 18	5	5	5	5	5	25	4	4	4	4	4	20	5	5	4	4	5	23	22.7
Student 19	5	5	5	5	4	24	4	4	4	4	4	20	5	4	4	5	5	23	22.3
Student 20	5	5	5	5	4	24	4	3	4	4	5	20	5	5	5	4	4	23	22.3
Student 21	5	4	4	3	4	20	5	4	5	4	4	22	4	4	4	3	3	18	20.0
Student 22	5	5	5	5	5	25	4	3	4	4	4	19	4	4	4	4	4	20	21.3

Note :

I : Ideas

O : Organization

S : Sentences

M : Mechanics

V : Vocabulary

WRITING SCORE

Class : PBI B

Semester : V

Name	Rater 1					Total Score	Rater 2					Total Score	Rater 3					Total Score	Mean
	I	O	S	M	V		I	O	S	M	V		I	O	S	M	V		
Student 1	4	4	4	4	4	20	4	3	4	4	5	20	4	4	4	4	4	20	20.0
Student 2	5	5	5	4	5	24	5	4	4	4	5	22	5	4	4	4	4	21	22.3
Student 3	4	3	3	4	4	18	4	3	4	3	4	18	4	4	4	3	4	19	18.3
Student 4	4	4	4	4	4	20	5	4	4	4	5	22	4	4	4	4	4	20	20.7
Student 5	5	5	4	3	4	21	4	3	4	3	4	18	5	4	3	4	4	20	19.7
Student 6	5	4	4	4	4	21	4	3	3	3	4	17	4	3	4	4	4	19	19.0
Student 7	5	5	4	5	4	23	5	4	4	4	5	22	4	5	5	5	4	23	22.7
Student 8	5	4	4	4	4	21	3	3	4	4	4	18	4	4	4	4	4	20	19.7
Student 9	5	5	5	5	5	25	5	5	5	5	5	25	4	4	4	4	4	20	23.3
Student 10	4	3	4	3	3	17	3	3	4	4	4	18	4	4	3	3	3	17	17.3
Student 11	5	5	5	5	5	25	5	5	5	5	5	25	5	5	5	5	5	25	25.0
Student 12	5	5	5	5	5	25	5	5	5	5	5	25	5	5	5	5	5	25	25.0
Student 13	5	5	5	5	5	25	5	5	5	4	5	24	6	5	5	5	5	26	25.0
Student 14	5	5	4	5	5	24	4	4	5	4	5	22	5	5	4	4	5	23	23.0
Student 15	5	4	5	4	4	22	5	4	5	4	5	23	5	4	5	4	5	23	22.7
Student 16	4	4	4	4	4	20	3	4	3	4	4	18	3	4	4	4	4	19	19.0
Student 17	4	4	3	3	3	17	3	3	3	4	4	17	3	3	3	3	4	16	16.7
Student 18	5	4	4	5	4	22	4	4	4	4	5	21	5	4	4	4	4	21	21.3
Student 19	3	3	3	2	3	14	4	4	5	4	5	22	4	3	3	3	3	16	17.3
Student 20	5	5	4	5	5	24	4	4	5	4	5	22	5	5	4	4	5	23	23.0
Student 21	3	3	4	3	4	17	3	3	4	3	4	17	3	4	4	3	4	18	17.3
Student 22	5	4	4	4	4	21	4	4	5	5	5	23	5	5	4	4	4	22	22.0
Student 23	3	2	2	2	2	11	3	3	3	3	4	16	4	3	3	3	3	16	14.3

Note :

I : Ideas

O : Organization

S : Sentences

M : Mechanics

V : Vocabulary

WRITING SCORE

Class : PBI C

Semester : V

Name	Rater 1					Total Score	Rater 2					Total Score	Rater 3					Total Score	Mean
	I	O	S	M	V		I	O	S	M	V		I	O	S	M	V		
Student 1	5	5	4	4	5	23	4	4	5	5	5	23	5	5	5	5	4	24	23.3
Student 2	4	4	4	4	4	20	4	3	4	4	5	20	5	4	4	4	5	22	20.7
Student 3	4	4	3	3	3	17	4	3	4	4	5	20	4	4	4	3	3	18	18.3
Student 4	6	5	5	5	5	26	4	4	4	4	4	20	4	4	5	5	5	23	23.0
Student 5	4	4	3	3	3	17	4	3	3	3	3	16	4	4	3	3	3	17	16.7
Student 6	4	4	4	4	4	20	4	3	4	4	4	19	4	4	4	4	4	20	19.7
Student 7	6	6	5	5	5	27	5	5	5	5	5	25	5	5	5	5	4	24	25.3
Student 8	5	6	5	5	5	26	5	4	3	4	5	21	5	5	4	5	5	24	23.7
Student 9	5	4	4	4	4	21	5	4	5	4	5	23	5	4	4	4	4	21	21.7
Student 10	6	6	5	5	5	27	5	5	5	4	5	24	5	5	5	5	5	25	25.3
Student 11	5	4	4	4	5	22	5	4	4	4	5	22	4	4	4	4	4	20	21.3
Student 12	5	5	5	5	5	25	4	3	4	4	5	20	4	4	4	4	5	21	22.0
Student 13	6	6	5	5	5	27	5	5	5	5	5	25	5	5	5	5	4	24	25.3
Student 14	6	6	5	5	5	27	5	5	5	4	5	24	5	5	5	4	5	24	25.0
Student 15	5	4	4	4	4	21	4	3	4	4	5	20	4	4	4	3	5	20	20.3
Student 16	5	4	4	4	4	21	5	5	5	5	5	25	5	5	5	5	5	25	23.7
Student 17	5	4	5	5	4	23	5	4	4	4	5	22	5	4	4	5	5	23	22.7
Student 18	6	6	5	5	5	27	5	4	5	5	5	24	5	5	5	5	5	25	25.3

Note :

I : Ideas

O : Organization

S : Sentences

M : Mechanics

V : Vocabulary

WRITING SCORE

Class : PBI D

Semester : V

Name	Rater 1					Total Score	Rater 2					Total Score	Rater 3					Total Score	Mean
	I	O	S	M	V		I	O	S	M	V		I	O	S	M	V		
Student 1	5	5	4	4	5	23	5	4	4	3	5	21	5	5	4	4	5	23	22.3
Student 2	4	3	3	4	4	18	4	3	4	3	4	18	4	3	3	4	4	18	18.0
Student 3	4	4	4	4	4	20	4	3	3	3	4	17	4	4	4	4	4	20	19.0
Student 4	5	5	4	4	4	22	5	4	4	3	5	21	5	4	4	4	4	21	21.3
Student 5	5	5	4	4	5	23	4	4	4	4	4	20	5	5	4	4	5	23	22.0
Student 6	5	4	4	4	4	21	5	4	4	4	5	22	5	4	4	5	4	22	21.7
Student 7	4	4	3	3	3	17	3	3	3	3	4	16	4	3	3	3	4	17	16.7
Student 8	3	3	2	2	3	13	3	2	3	3	3	14	4	3	3	3	3	16	14.3
Student 9	5	5	4	5	5	24	4	3	4	3	4	18	4	4	4	3	4	19	20.3
Student 10	6	6	5	5	6	28	4	3	4	3	4	18	4	4	4	3	4	19	21.7
Student 11	5	5	4	4	4	22	4	3	4	3	4	18	5	4	4	4	5	22	20.7
Student 12	5	5	4	4	5	23	4	3	4	3	4	18	4	4	4	4	4	20	20.3
Student 13	4	4	3	3	4	18	3	3	3	3	4	16	4	3	3	4	4	18	17.3
Student 14	5	5	4	4	4	22	4	4	5	4	5	22	5	4	4	4	5	22	22.0
Student 15	4	4	4	5	5	22	5	4	5	4	5	23	5	4	5	5	4	23	22.7
Student 16	5	4	5	5	5	24	4	3	4	4	5	20	4	4	4	4	4	20	21.3
Student 17	5	5	5	5	5	25	4	4	4	4	4	20	5	5	4	4	4	22	22.3
Student 18	4	4	3	3	3	17	4	4	4	4	4	20	4	3	4	3	3	17	18.0
Student 19	4	3	3	3	4	17	4	3	4	4	4	19	4	3	4	3	4	18	18.0
Student 20	6	6	5	5	6	28	5	4	5	4	5	23	5	4	5	5	5	24	25.0
Student 21	5	5	4	4	4	22	5	4	4	4	4	21	5	4	5	4	4	22	21.7

Note :

I : Ideas

O : Organization

S : Sentences

M : Mechanics

V : Vocabulary

APPENDIX I

Students' Writing Category

Class : PBI A

Semester : V

Name	Total Score	Category
Student 1	20.3	Good
Student 2	14.3	Average
Student 3	21.7	Good
Student 4	16.7	Average
Student 5	20.0	Good
Student 6	23.0	Good
Student 7	20.7	Good
Student 8	19.0	Good
Student 9	23.3	Good
Student 10	23.7	Good
Student 11	20.0	Good
Student 12	18.0	Average
Student 13	19.0	Good
Student 14	23.7	Good
Student 15	19.7	Good
Student 16	21.7	Good
Student 17	19.7	Good
Student 18	22.7	Good
Student 19	22.3	Good
Student 20	22.3	Good
Student 21	20.0	Good
Student 22	21.3	Good

Writing Category Result	
Category	Frequency
Very Good	-
Good	19
Average	3
Poor	-
Very Poor	-
Total	22

Students' Writing Category

Class : PBI B

Semester : V

Name	Total Score	Category
Student 1	20.0	Good
Student 2	22.3	Good
Student 3	18.3	Average
Student 4	20.7	Good
Student 5	19.7	Good
Student 6	19.0	Good
Student 7	22.7	Good
Student 8	19.7	Good
Student 9	23.3	Good
Student 10	17.3	Average
Student 11	25.0	Very Good
Student 12	25.0	Very Good
Student 13	25.0	Very Good
Student 14	23.0	Good
Student 15	22.7	Good
Student 16	19.0	Good
Student 17	16.7	Average
Student 18	21.3	Good
Student 19	17.3	Average
Student 20	23.0	Good
Student 21	17.3	Average
Student 22	22.0	Good
Student 23	14.3	Average

Writing Category Result	
Category	Frequency
Very Good	3
Good	14
Average	6
Poor	-
Very Poor	-
Total	23

Students' Writing Category

Class : PBI C

Semester :

Name	Total Score	Category
Student 1	23.3	Good
Student 2	20.7	Good
Student 3	18.3	Average
Student 4	23.0	Good
Student 5	16.7	Average
Student 6	19.7	Good
Student 7	25.3	Very Good
Student 8	23.7	Good
Student 9	21.7	Good
Student 10	25.3	Very Good
Student 11	21.3	Good
Student 12	22.0	Good
Student 13	25.3	Very Good
Student 14	25.0	Very Good
Student 15	20.3	Good
Student 16	23.7	Good
Student 17	22.7	Good
Student 18	25.3	Very Good

Writing Category Result	
Category	Frequency
Very Good	5
Good	11
Average	2
Poor	-
Very Poor	-
Total	18

Students' Writing Category

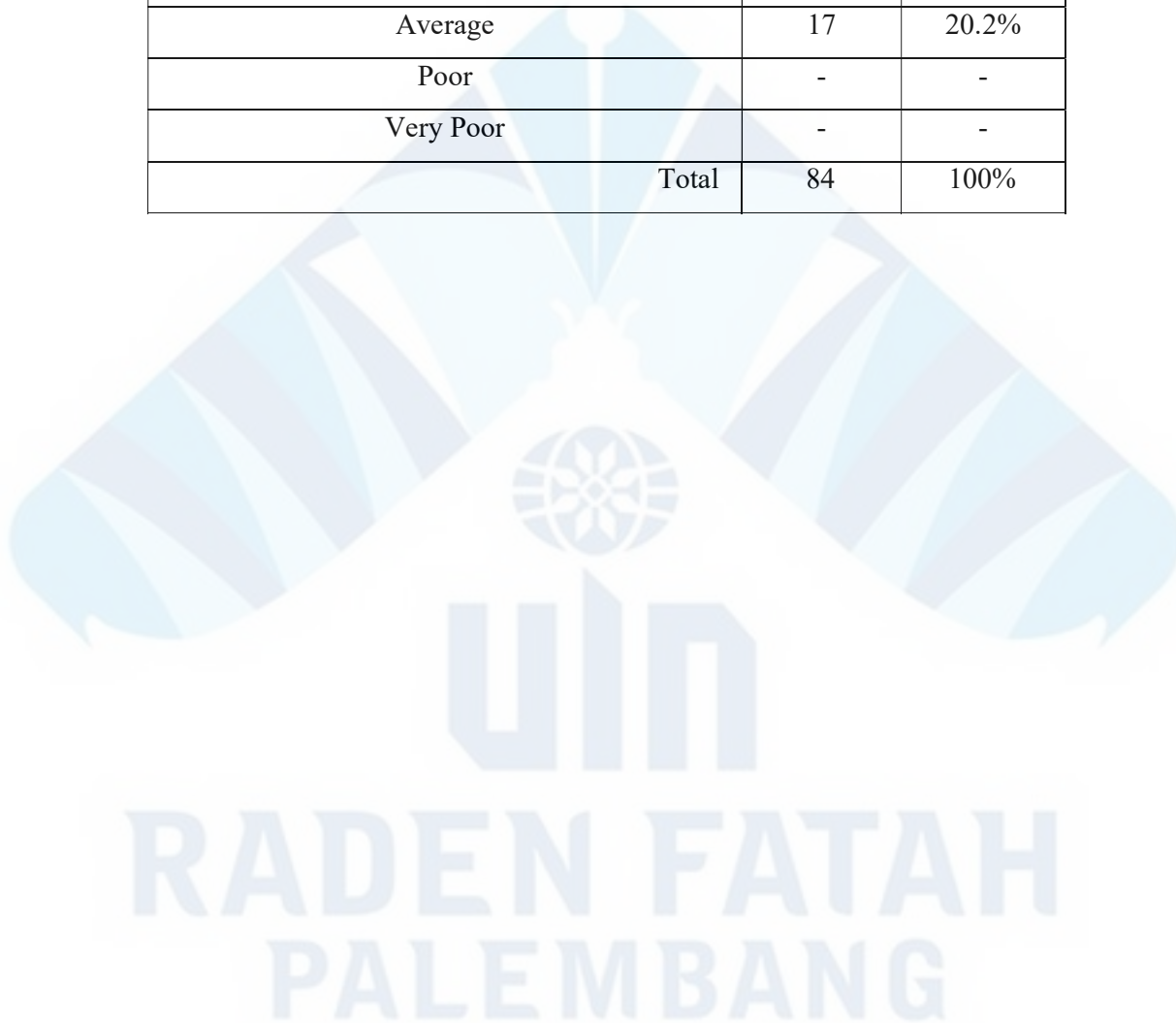
Class : PBI D

Semester :

Name	Total Score	Category
Student 1	22.3	Good
Student 2	18.0	Average
Student 3	19.0	Good
Student 4	21.3	Good
Student 5	22.0	Good
Student 6	21.7	Good
Student 7	16.7	Average
Student 8	14.3	Average
Student 9	20.3	Good
Student 10	21.7	Good
Student 11	20.7	Good
Student 12	20.3	Good
Student 13	17.3	Average
Student 14	22.0	Good
Student 15	22.7	Good
Student 16	21.3	Good
Student 17	22.3	Good
Student 18	18.0	Average
Student 19	18.0	Average
Student 20	25.0	Very Good
Student 21	21.7	Good

Writing Category Result	
Category	Frequency
Very Good	1
Good	14
Average	6
Poor	-
Very Poor	-
Total	21

Over all Writing Category Result		
Category	Frequency	Percentage
Very Good	9	10.7%
Good	58	69.1%
Average	17	20.2%
Poor	-	-
Very Poor	-	-
Total	84	100%



APPENDIX J

Raters' Writing Score Correlation

Correlations

		Rater 1	Rater 2	Rater 3
Rater 1	Pearson Correlation	1	.568**	.816**
	Sig. (2-tailed)		.000	.000
	N	84	84	84
Rater 2	Pearson Correlation	.568**	1	.710**
	Sig. (2-tailed)	.000		.000
	N	84	84	84
Rater 3	Pearson Correlation	.816**	.710**	1
	Sig. (2-tailed)	.000	.000	
	N	84	84	84

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

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APPENDIX K

Students' Critical Thinking and Writing Achievement Score

Class : PBI A

Semester : V

Name	Critical Thinking	Writing
Student 1	58.75	20.3
Student 2	60	14.3
Student 3	70	21.7
Student 4	61.25	16.7
Student 5	58.75	20.0
Student 6	65	23.0
Student 7	60	20.7
Student 8	68.75	19.0
Student 9	65	23.3
Student 10	70	23.7
Student 11	67.5	20.0
Student 12	62.5	18.0
Student 13	61.25	19.0
Student 14	72.5	23.7
Student 15	65	19.7
Student 16	66.25	21.7
Student 17	65	19.7
Student 18	72.5	22.7
Student 19	70	22.3
Student 20	71.25	22.3
Student 21	62.5	20.0
Student 22	61.25	21.3

Students' score of Critical Thinking and Writing Achievement

Class : PBI B

Semester : V

Name	Critical Thinking	Writing
Student 1	62.5	20.0
Student 2	66.25	22.3
Student 3	58.75	18.3
Student 4	66.25	20.7
Student 5	67.5	19.7
Student 6	61.25	19.0
Student 7	71.25	22.7
Student 8	58.75	19.7
Student 9	67.5	23.3
Student 10	61.25	17.3
Student 11	68.75	25.0
Student 12	72.5	25.0
Student 13	68.75	25.0
Student 14	67.5	23.0
Student 15	70	22.7
Student 16	58.75	19.0
Student 17	60	16.7
Student 18	67.5	21.3
Student 19	55	17.3
Student 20	70	23.0
Student 21	57.5	17.3
Student 22	68.75	22.0
Student 23	55	14.3

Students' score of Critical Thinking and Writing Achievement

Class : PBI C

Semester : V

Name	Critical Thinking	Writing
Student 1	72.5	23.3
Student 2	67.5	20.7
Student 3	61.25	18.3
Student 4	68.75	23.0
Student 5	57.5	16.7
Student 6	66.25	19.7
Student 7	71.25	25.3
Student 8	66.25	23.7
Student 9	68.75	21.7
Student 10	66.25	25.3
Student 11	60	21.3
Student 12	62.5	22.0
Student 13	71.25	25.3
Student 14	72.5	25.0
Student 15	65	20.3
Student 16	70	23.7
Student 17	68.75	22.7
Student 18	71.25	25.3

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Students' score of Critical Thinking and Writing Achievement

Class : PBI D

Semester : V

Name	Critical Thinking	Writing
Student 1	68.75	22.3
Student 2	57.5	18.0
Student 3	60	19.0
Student 4	61.25	21.3
Student 5	66.25	22.0
Student 6	67.5	21.7
Student 7	57.5	16.7
Student 8	56.25	14.3
Student 9	70	20.3
Student 10	67.5	21.7
Student 11	63.75	20.7
Student 12	65	20.3
Student 13	57.5	17.3
Student 14	63.75	22.0
Student 15	65	22.7
Student 16	66.25	21.3
Student 17	62.5	22.3
Student 18	57.5	18.0
Student 19	63.75	18.0
Student 20	71.25	25.0
Student 21	62.5	21.7

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APPENDIX L
Descriptive Statistics of Critical Thinking

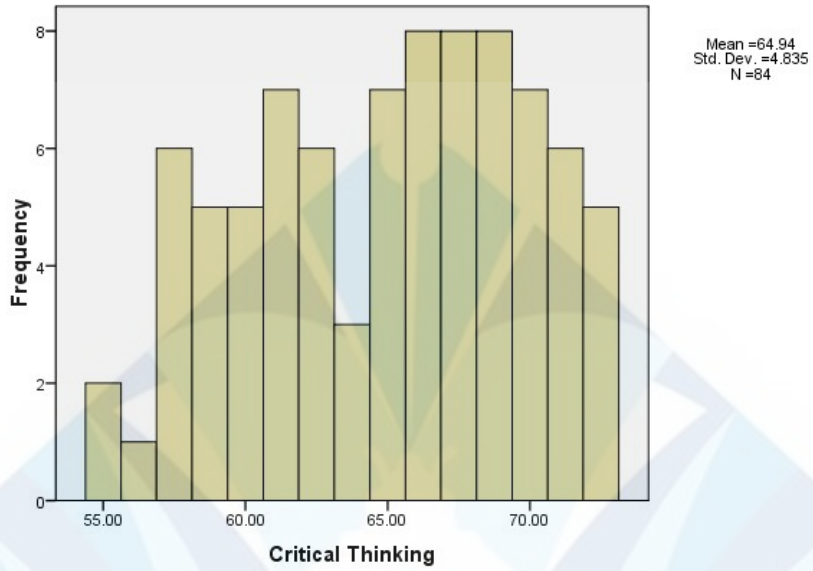
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Critical Thinking	84	55.00	72.50	64.9405	4.83502
Valid N (listwise)	84				

Critical Thinking

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 55	2	2.4	2.4	2.4
56.25	1	1.2	1.2	3.6
57.5	6	7.1	7.1	10.7
58.75	5	6.0	6.0	16.7
60	5	6.0	6.0	22.6
61.25	7	8.3	8.3	31.0
62.5	6	7.1	7.1	38.1
63.75	3	3.6	3.6	41.7
65	7	8.3	8.3	50.0
66.25	8	9.5	9.5	59.5
67.5	8	9.5	9.5	69.0
68.75	8	9.5	9.5	78.6
70	7	8.3	8.3	86.9
71.25	6	7.1	7.1	94.0
72.5	5	6.0	6.0	100.0
Total	84	100.0	100.0	

Histogram



APPENDIX M

Descriptive Statistics of Writing Achievement

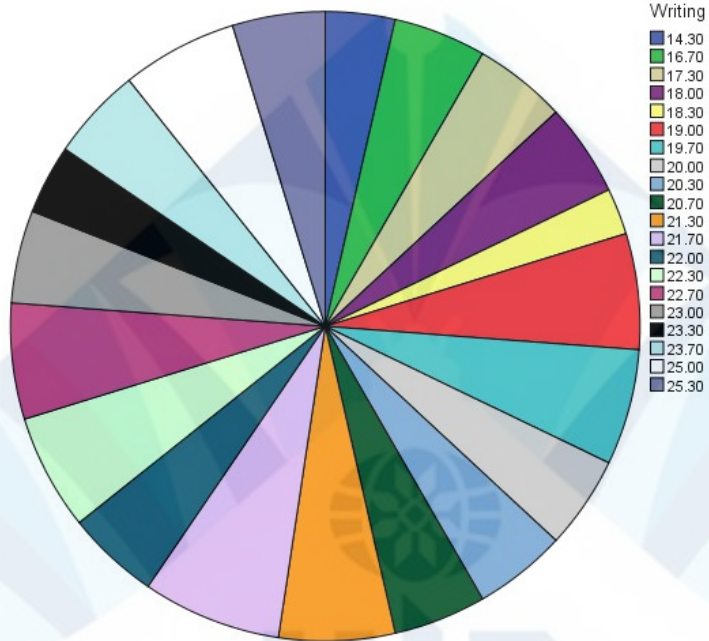
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Writing	84	14.30	25.30	20.9238	2.67413
Valid N (listwise)	84				

Writing

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 14.3	3	3.6	3.6	3.6
16.7	4	4.8	4.8	8.3
17.3	4	4.8	4.8	13.1
18	4	4.8	4.8	17.9
18.3	2	2.4	2.4	20.2
19	5	6.0	6.0	26.2
19.7	5	6.0	6.0	32.1
20	4	4.8	4.8	36.9
20.3	4	4.8	4.8	41.7
20.7	4	4.8	4.8	46.4
21.3	5	6.0	6.0	52.4
21.7	6	7.1	7.1	59.5
22	4	4.8	4.8	64.3
22.3	5	6.0	6.0	70.2
22.7	5	6.0	6.0	76.2
23	4	4.8	4.8	81.0
23.3	3	3.6	3.6	84.5
23.7	4	4.8	4.8	89.3

25	5	6.0	6.0	95.2
25.3	4	4.8	4.8	100.0
Total	84	100.0	100.0	



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APPENDIX N
NORMALITY TEST

One-Sample Kolmogorov-Smirnov Test

		Critical Thinking	Writing
N		84	84
Normal Parameters ^a	Mean	64.9405	20.9238
	Std. Deviation	4.83502	2.67413
Most Extreme Differences	Absolute	.107	.092
	Positive	.087	.051
	Negative	-.107	-.092
Kolmogorov-Smirnov Z		.978	.840
Asymp. Sig. (2-tailed)		.294	.481
a. Test distribution is Normal.			



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APPENDIX O

PPlot

Case Processing Summary

	Critical Thinking	Writing
Series or Sequence Length	84	84
Number of Missing Values in the Plot	0	0
	User-Missing	0
	System-Missing	0

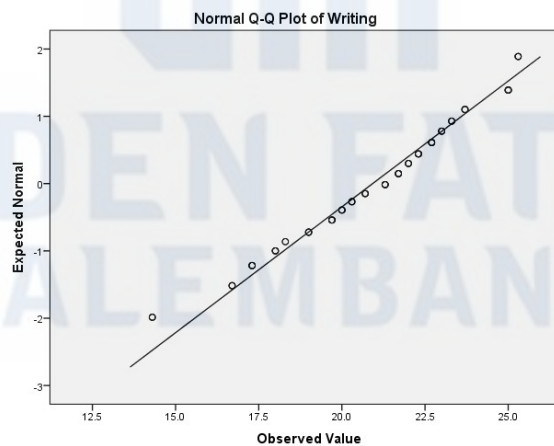
The cases are unweighted.

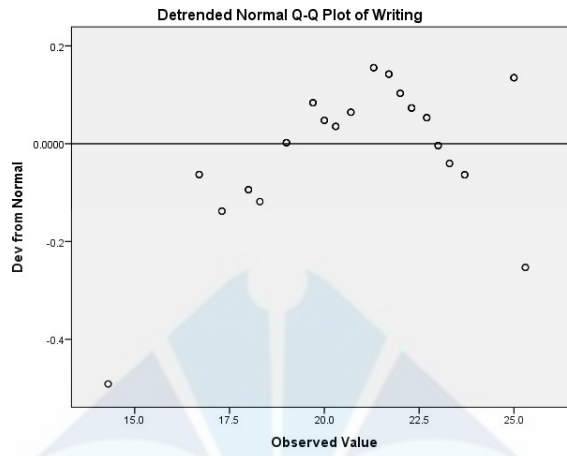
Estimated Distribution Parameters

	Critical Thinking	Writing
Normal Distribution Location	64.9405	20.9238
Scale	4.83502	2.67413

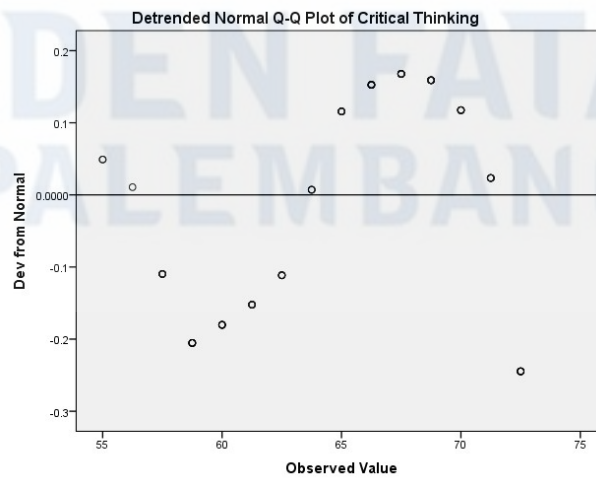
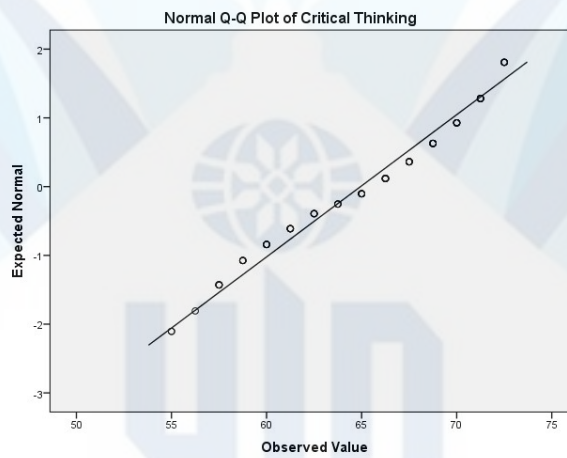
The cases are unweighted.

WRITING





CRITICAL THINKING



**APPENDIX P
LINEARITY TEST**

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Writing * Critical Thinking	84	100.0%	0	0.0%	84	100.0%

Report

Writing

Critical Thinking	Mean	N	Std. Deviation
55.00	15.8000	2	2.12132
56.25	14.3000	1	.
57.50	17.3333	6	.58195
58.75	19.4600	5	.80808
60.00	18.4000	5	2.90517
61.25	18.9857	7	1.79112
62.50	20.6667	6	1.64398
63.75	20.2333	3	2.04042
65.00	21.2857	7	1.63139
66.25	22.0875	8	1.74719
67.50	21.4250	8	1.29256
68.75	22.5875	8	1.92386
70.00	22.4857	7	1.20337
71.25	24.3167	6	1.41763
72.50	23.9400	5	1.03102
Total	20.9238	84	2.67413

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Writing * Critical Thinking	Between Groups	(Combined)	411.949	14	29.425	11.181	.000
		Linearity	376.528	1	376.528	143.077	.000
		Deviation from Linearity	35.421	13	2.725	1.035	.429
	Within Groups		181.584	69	2.632		
Total			593.532	83			

Measures of Association

	R	R Squared	Eta	Eta Squared
Writing * Critical Thinking	.796	.634	.833	.694

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APPENDIX Q
Correlations

		Critical Thinking	Writing
Critical Thinking	Pearson Correlation	1	.796**
	Sig. (2-tailed)		.000
	N	84	84
Writing	Pearson Correlation	.796**	1
	Sig. (2-tailed)	.000	
	N	84	84

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



APPENDIX R

Regression

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Critical Thinking ^b		Enter

a. Dependent Variable: Writing

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.796 ^a	.634	.630	1.62677

a. Predictors: (Constant), Critical Thinking

b. Dependent Variable: Writing

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	376.528	1	376.528	142.279	.000 ^b
	Residual	217.004	82	2.646		
	Total	593.532	83			

a. Dependent Variable: Writing

b. Predictors: (Constant), Critical Thinking

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-7.683	2.405		-3.195	.002
	Critical Thinking	.441	.037	.796	11.928	.000

a. Dependent Variable: Writing

APPENDIX S

Students' Essay Writing

The Negative Effect of Watching Television for Children

Nowadays, people can not lose their contact for the modern era especially on the way for giving information. One of media that many people have commonly is television. By television, not only for giving information or entertain but also for enjoy the film. As we know that the all of the modern media has many impact, especially negative effect for children on watching television. There are two bad effect, lazy and bad attitude.

The first is make the children become lazy. Television gives many film especially cartoon and many else. Sometimes it makes children enjoy for watching television and it can lose many time. Children will feel lazy to do anything because of the children only sit in front of television and they will feel lazy for doing their homework even for study. The second is when television gives bad effect on attitude for children. In fact that there are so many television program bad for children. The program which teach children for fighting, or give bad incident while it will copy by the children. And the characteristic of the children, they will be apply it in the real life.

In conclusion, we can not go far from the modern era. Television becomes common media for giving information. Beside giving good effect, the television gives also bad effect. Make children be lazy and give bad effect on attitude for children. Children will feel so lazy for study and the children will copy the all action that provided on television. So, television not only good for us but also bad for us. It can be our big ~~part~~ enemy if we can not control the growing of technology.

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Face to face Communication is Better than Other Types of Communication

In this era, many types than can use to communicate. Some of them usually use in daily lives, such as by using letters, email, or telephon calls. People usually use telephon calls to communicate with other people that far from him/her. And other alternative way than often use is by using letter or email. It makes easier to communicate each other. But the better one to communicate is face to face. Many reason why I think face to face better than other types of communication.

First, face to face more understandable than other types of communication. People always talk to other face to face. It is to make the communication more understandable for the listener what the speaker wants to say. For example, if ~~po~~ the speaker wants to say he/she ~~wants to get some~~ needs some cure ~~because~~ he/she is toothache but he/she cannot ~~talk~~ say it, so it can understand by using gesture. Or if the people just write it by letter it will too long to understand. ~~and~~ So, face to face is the better one.

Second, face to face communication more communicative and easy. The best reason to choose communicate by face to face that is it is easy and communicative. If people ~~are~~ want to communicate, people can use ~~ing~~ gesture, verbal, and also people can use signal without say it. So that is the reason why choose face to face communication.

In short, the easiest one to communicate that is by using face-to-face communication. Beside easier to understand, easy to do it, it is also more communicate for the speaker and the listener than using letters, email, or telephone calls.

APPENDIX T

Students' Attendance Lists

ATTENDANCE LIST PBI A

Day : _____ Date : _____

No	Name	Critical Thinking Test	Writing Test
1	Abdul Aziz	<i>[Signature]</i>	<i>[Signature]</i>
2	Abu Madian	<i>[Signature]</i>	<i>[Signature]</i>
3	Achmad Renaldi	<i>[Signature]</i>	<i>[Signature]</i>
4	Adit Fitriah Tabdillah	<i>[Signature]</i>	<i>[Signature]</i>
5	Agy Augiano	<i>[Signature]</i>	<i>[Signature]</i>
6	Ahmad Saifin Nuha	<i>[Signature]</i>	<i>[Signature]</i>
7	Aisyah Dwi Septiani	<i>[Signature]</i>	<i>[Signature]</i>
8	Almirah Meida Risfina	<i>[Signature]</i>	<i>[Signature]</i>
9	Al-Musadad	<i>[Signature]</i>	<i>[Signature]</i>
10	Andini		
11	Anggi Mada Leka	<i>[Signature]</i>	<i>[Signature]</i>
12	Aren Dwi Yolanda	<i>[Signature]</i>	<i>[Signature]</i>
13	Arnilawati		
14	Atikah Asrul M	<i>[Signature]</i>	<i>[Signature]</i>
15	Aulia Almira	<i>[Signature]</i>	<i>[Signature]</i>
16	Bayu	<i>[Signature]</i>	<i>[Signature]</i>
17	Bella Agustina	<i>[Signature]</i>	<i>[Signature]</i>
18	Dede Kurniawan		
19	Dede Irawan	<i>[Signature]</i>	<i>[Signature]</i>
20	Desi Ayuria	<i>[Signature]</i>	<i>[Signature]</i>
21	Desma Logsy	<i>[Signature]</i>	<i>[Signature]</i>
22	Dessi Angreni	<i>[Signature]</i>	<i>[Signature]</i>
23	Devi Mira Mareta	<i>[Signature]</i>	<i>[Signature]</i>
24	Dhenok Suryani		
25	Disty Putri Utami	<i>[Signature]</i>	<i>[Signature]</i>
26	Dina Witharza	<i>[Signature]</i>	<i>[Signature]</i>

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ATTENDANCE LIST PBI B

No	Name	Critical Thinking Test	Writing Test
1	Siti Qomariah	<i>[Signature]</i>	<i>[Signature]</i>
2	Dolly Zuarta	<i>[Signature]</i>	<i>[Signature]</i>
3	Eka Barahma Putri	<i>[Signature]</i>	<i>[Signature]</i>
4	Else Irma Rani	<i>[Signature]</i>	<i>[Signature]</i>
5	Emilia Permatasari	<i>[Signature]</i>	<i>[Signature]</i>
6	Erisa Eriani	<i>[Signature]</i>	<i>[Signature]</i>
7	Fasang Umey Risma S	<i>[Signature]</i>	<i>[Signature]</i>
8	Fawwaz Taqy	<i>[Signature]</i>	<i>[Signature]</i>
9	Feny Hariani	<i>[Signature]</i>	<i>[Signature]</i>
10	Fitria Rahma Dona	<i>[Signature]</i>	<i>[Signature]</i>
11	Haniah Mahani	<i>[Signature]</i>	<i>[Signature]</i>
12	Ikrar Hesa Prasetya	<i>[Signature]</i>	<i>[Signature]</i>
13	Indah Deyana Lestari	<i>[Signature]</i>	<i>[Signature]</i>
14	Indah Marwiyah	<i>[Signature]</i>	<i>[Signature]</i>
15	Indah Sari Ramadhani	<i>[Signature]</i>	<i>[Signature]</i>
16	Indra Jaya Purnama	<i>[Signature]</i>	<i>[Signature]</i>
17	Iski Vitaloka	<i>[Signature]</i>	<i>[Signature]</i>
18	Jaya Sriyana	<i>[Signature]</i>	<i>[Signature]</i>
19	Luluk Alfia syahara	<i>[Signature]</i>	<i>[Signature]</i>
20	M Maghfur Akbar	<i>[Signature]</i>	<i>[Signature]</i>
21	M Reynaldo	<i>[Signature]</i>	<i>[Signature]</i>
22	Marissa	<i>[Signature]</i>	<i>[Signature]</i>
23	Fanra Elma Zakranlla	<i>[Signature]</i>	<i>[Signature]</i>
24	Tina Wahi	<i>[Signature]</i>	<i>[Signature]</i>

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ATTENDANCE LIST PBI C

No	Name	Critical Thinking Test	Writing Test
1	Mida Marsita		
2	Mira Okta Sari	Mira	Mira
3	Miratul Qoriah	Mira	Mira
4	Morli Fitri Yani	Morli	Morli
5	Muhammad Fauzan C.A		
6	Nadiyah Armita	Nadiyah	Nadiyah
7	Ni'matul Ajriyah	Ni'ma	Ni'ma
8	Nisa' Nurjana	Nisa	Nisa
9	Novarida		
10	Nur Habibah	Nur	Nur
11	Nurjannati		
12	Nurul Atifah	Nurul	Nurul
13	Pebriadi		
14	Pegi Melati	Pegi	Pegi
15	Puji Lestari		
16	Putri Erwani	Putri	Putri
17	Rana Taneta Putri	Rana	Rana
18	Rani Septi Sapriyati	Rani	Rani
19	Rendo Alesta Pratama	Rendo	Rendo
20	Restu Amaliah	Restu	Restu
21	Riana Amalia	Riana	Riana
22	Ricky Meldi Riansyah	Ricky	Ricky
23	Rika Damayanti	Rika	Rika
24	Rinda Isma Della	Rinda	Rinda
25	Rizki apriani	Rizki	Rizki
26	Rizki indriyani	Rizki	Rizki

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ATTENDANCE LIST PBI D

No	Name	Critical Thinking Test	Writing / Test
1	Resi Cilia Riana	UR	UR
2	Rizki Minar Rahmati	Rizki	Rizki
3	Rizkie Mauliy Audina	MA	MA
4	Roy Mardiansyah	Roy	Roy
5	Santi	Santi	Santi
6	Sari Dian Tini	Sari	Sari
7	Sausan Shaqina	Sausan	Sausan
8	Selvi Yanti	Selvi	Selvi
9	Septa Rosalina	Septa	Septa
10	Shella Merliani	Shella	Shella
11	Silvi Yani	Silvi	Silvi
12	Silvizah	Silvi	Silvi
13	Siti Fatimah		
14	Suci Ulin	Suci	Suci
15	Syafiq Muntashir Irawan	Syafiq	Syafiq
16	Syarifatul Aini	Aini	Aini
17	Tatiana	Tatiana	Tatiana
18	Tive Kharisma Putra	Tive	Tive
19	Tria Septi Damayanti	Tria	Tria
20	Uci Fitriani	Uci	Uci
21	Utami Cahyani	Utami	Utami
22	Wahyuni Hardiyanti		
23	Weny Anjar Asih		
24	Widiyah Nopikasari		
25	Wulan Mayang Sari	Wulan	Wulan
26	Wulandari		
27	Yeyen Andesta	Yeyen	Yeyen
28	Yuli Melantika	Yuli	Yuli

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APPENDIX U
RESEARCHS' GALLERY

