

AN UNDERGRADUATE THESIS

**THE EFFECT OF STUDENTS' CRITICAL THINKING ABILITY
ON THEIR ARGUMENTATIVE WRITING PERFORMANCE
AT THE ENGLISH EDUCATION STUDY PROGRAM
OF STAIN JURAI SIWO METRO**

Written By:

SARTIKA

STUDENT ID. 1177157

**Tarbiyah Departement
Englis Education Study Program**



**STATE ISLAMIC COLLEGE
(STAIN) OF JURAI SIWO METRO
1436H/2015M**

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**Presented as a Partial Fulfillment of the Requirements
For the Degree of Sarjana Pendidikan (S.Pd)
In English Education Study Program**

**Written By:
SARTIKA
STUDENT. ID. 1177157**

**Tarbiyah Department
English Education Study Program**

**Sponsor : Dra. Umi Yawisah, M.Hum
Co-Sponsor : Syahreni Siregar, M.Hum**

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ABSTRACT

**By:
SARTIKA**

Writing is the skill to express ideas, opinion, and feelings to other people in written symbols to make other people or readers understand the ideas conveyed. Writing seems effectively to share information, opinion, arguments and ideas. Meanwhile, critical thinking is about way to presenting a set of reasons. It also related to share some opinion or argument. When someone gives arguments, actually he/she is thinking process to tend critically. Besides, other people could identify how well our knowledge about argument or not by writing performance. Nevertheless, the result of the students' argumentative writing performance at the English education program was still low. So, this research focused on the effect of students' critical thinking ability on their argumentative writing performance. Then, wish their argumentative writing performance improves as their critical thinking grew.

This research was conducted at the English education study program of STAIN Jurai Siwo Metro. Then, the subject of this research was the students in class D and it consists of 34 students. This research was quantitative research design. The writer used test, documentation, and observation as data collection method. Moreover, the writer used test to measure argumentative writing performance and critical thinking ability. Furthermore, this research used treatment to enhancing argumentative writing performance.

The results of data analysis using t-test, it were $t_{observed} = 10,443$, t_{table} for the 5% level = 0,344 and for the 1% level = 0,442. The result showed that the coefficient analysis of $t_{observed} = 10,443$ was greater than $r_{table} = 0.344$. It means that $r_{observed} = 10,443$ were significant. It can be inferred that H_a is accepted and H_o is rejected. It means that there is a positive and significant effect between the students' critical thinking and argumentative writing performance in English education study program in academic year of 2014/2015.

**PENGARUH KEMAMPUAN BERPIKIR KRITIS MAHASISWA
TERHADAP KEMAMPUAN MENULIS ARGUMENTATIF
DI PROGRAM STUDI BAHASA INGGRIS
STAIN JURAI SIWO METRO**

ABSTRAK

**Oleh:
SARTIKA**

Menulis merupakan keahlian untuk mengekspresikan ide, pikiran, dan perasaan kepada orang lain dalam simbol-simbol tertulis untuk membuat orang lain atau pembaca memahami ide-ide yang disampaikan. menulis tampaknya sangat efektif untuk menuangkan informasi, opini, argumentasi dan ide-ide. Sementara, berpikir kritis adalah cara untuk menyampaikan alasan. Ini berkaitan dengan menuangkan beberapa pendapat atau argumentasi. ketika seseorang memberikan argumentasi, sebenarnya dia sedang mengalami proses berpikir secara kritis. Disamping itu, orang lain dapat mengetahui seberapa baik pengetahuan kita tentang argumentasi atau tidak melalui kemampuan menulis. Namun, hasil dari menulis argumentatif Mahasiswa di Program Studi Bahasa Inggris masih rendah. Sehingga, penelitian ini difokuskan pada pengaruh berpikir kritis terhadap kemampuan menulis argumentasi mahasiswa. Kemudian, diharapkan kemampuan menulis mereka meningkat karena berpikir kritis mereka juga berkembang.

Penelitian ini diadakan di Program Studi Bahasa Inggris STAIN Jurai Siwo Metro. Subjek dari penelitian ini adalah mahasiswa kelas D dan terdiri dari 34 mahasiswa. Penelitian ini adalah penelitian kuantitatif. Penulis menggunakan tes, dokumentasi, dan observasi sebagai metode pengumpulan data. Penulis menggunakan tes untuk mengukur variable *argumentative writing performance* dan juga variable *critical thinking*. Selanjutnya, penelitian ini menggunakan perlakuan untuk meningkatkan *argumentative writing performance*.

Hasil dari analisis data menggunakan t-test, $t_{hit} = 10,443$ dan t_{tab} untuk 5% = 0,344, and untuk 1% = 0,442. hasil analisis koefisien menunjukan $t_{hit} = 10,443$ bahwa t_{hit} lebih tinggi nilainya dari pada $t_{tab} = 0,344$. Itu berarti, $t_{hit} = 10,443$ adalah signifikan. Sehingga dapat disimpulkan bahwa H_a diterima dan H_o ditolak. Ini mempunyai makna bahwa ada pengaruh positif dan signifikan antara kemampuan berpikir kritis siswa dan kemampuan menulis argumentatif di pendidikan bahasa inggris STAIN Jurai Siwo Metro Tahun Akademik 2014/2015.



**KEMENTERIAN AGAMA
SEKOLAH TINGGI AGAMA ISLAM NEGERI
(STAIN) JURAI SIWO METRO**

Jln.Ki.Hajar Dewantara Kampus 15 A Iringmulyo Kota Metro Lampung 34111
Telp.(0725) 41507 (0725) 47296 Email : stainmetro@yahoo.com Website : www.stain.metro.ac.id

APPROVAL PAGE

The Title : THE EFFECT OF STUDENTS' CRITICAL THINKING
ABILITY ON THEIR ARGUMENTATIVE WRITING
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STUDY PROGRAM OF STAIN JURAI SIWO METRO

Name : SARTIKA

Student Number : 1177157

Study Program : English Education Study Program (PBI)

Department : Tarbiyah

APPROVED BY:

**To be examined in *munaqosah* in Tarbiyah Department of State Islamic
College (STAIN) of Jurai Siwo Metro.**

Metro, 28 May 2015

First Sponsor

Dra. Umi Yawisah, M.Hum
NIP. 19620424 199903 2 001

Second Sponsor

Syahreni Siregar, M.Hum
NIP. 19760814 200912 2 004



Drs. M. Haniplish, M.A
NIP. 19661009 199703 1 002



**KEMENTERIAN AGAMA
SEKOLAH TINGGI AGAMA ISLAM NEGERI
(STAIN) JURAI SIWO METRO**

Jln.Ki.Hajar Dewantara Kampus 15 A Iringmulyo Kota Metro Lampung 34111
Telp.(0725) 41507 (0725) 47296 Email : stainmetro@yahoo.com Website : www.stain.metro.ac.id

NOTA DINAS

Number :
Appendix :
Latter : In Order to Hold the Munaqosah

To : The Honorable,
The Head of Tarbiyah Departement
State Islamic College (STAIN)
Jurai Siwo Metro

Assalamu'alaikum Wr. Wb.

We have given guidance and enough improvement, the undergraduate thesis which is written by:

Name : Sartika
Student Number : 1177157
Program Study : English Education Study Program
Title : THE EFFECT OF STUDENTS' CRITICAL THINKING
ABILITY ON THEIR ARGUMENTATIVE WRITING
PERFORMANCE AT THE ENGLISH EDUCATION
STUDY PROGRAM OF STAIN JURAI SIWO METRO

It has been agreed so it can be continued to the Tarbiyah Departement in order to be discussed on the Munaqosah. Thank you very much.

Wassalamu'alaikum Wr. Wb.

Pembimbing I

Dra. Umi Yawisah, M.Hum

NIP. 19620424 199903 2 001

Metro, 28 May 2015

Pembimbing II

Syahreni Siregar, M.Hum

NIP. 19760814 200912 2 004



**KEMENTERIAN AGAMA
SEKOLAH TINGGI AGAMA ISLAM NEGERI
(STAIN) JURAI SIWO METRO**

Jln.Ki.Hajar Dewantara Kampus 15 A Iringmulyo Kota Metro Lampung 34111
Telp.(0725) 41507 (0725) 47296 Email : stainmetro@yahoo.com Website : www.stain.metro.ac.id

RATIFICATION PAGE

No: Stl.13/S/297/2015

The undergraduate thesis entitled: THE EFFECT OF STUDENTS' CRITICAL THINKING ABILITY ON THEIR ARGUMENTATIVE WRITING PERFORMANCE AT THE ENGLISH EDUCATION STUDY PROGRAM OF STAIN JURAI SIWO METRO.

Written by Sartika, Student Number 1177157, English Education Study Program, had been examined (Munaqosah) in Tarbiyah Department on Tuesday, August 18th, 2015.at 08.00-10.a.m.

BOARD OF EXAMINERS:

Chairperson : Dra. Umi Yawisah, M.Hum
Secretary : Aisyah Sunarwan, M.Pd
Examiner I : Ahmad Subhan Roza, M.Pd
Examiner II : Syahreni Siregar, M.Hum



Principal,



Prof. Dr. Hj. Enizar, M.Ag
NIP. 19600918 198703 2 003

STATEMENT OF RESEARCH ORIGINALITY

The undersigned:

Name : SARTIKA
NPM : 1177157
Study Program : English Education Study Program (PBI)
Department : Tarbiyah

States that this undergraduate thesis is originally the result of the writer's research, unless of certain parts are the paraphrases which refer to the bibliography mentioned.

Metro, May 28th 2015

The writer



SARTIKA

St. ID. 1177157

ORISINILITAS PENELITIAN

Yang bertandatangan dibawah ini:

Nama : SARTIKA
NPM : 1177157
Program studi : Pendidikan Bahasa Inggris (PBI)
Departemen : Tarbiyah

Menyatakan bahwa skripsi ini secara keseluruhan adalah asli hasil penelitian saya, kecuali bagian-bagian yang dirujuk dari sumbernya dan disebutkan dalam daftar pustaka.

Metro, 28 Mei 2015

Penulis,



SARTIKA
St. ID. 1177157

MOTTO

وَلَا تَقْفُ مَا لَيْسَ لَكَ بِهِ عِلْمٌ إِنَّ السَّمْعَ وَالْبَصَرَ وَالْفُؤَادَ كُلُّ

أُولَئِكَ كَانَ عَنْهُ مَسْئُولًا ﴿٣٦﴾

“And do not pursue that of which you have no knowledge. Indeed, the hearing, the sight and the heart - about those [one] will be questioned”. (Al-Israa’: 36)

Don't Do more but do better.

(Mario Teguh)

DEDICATION PAGE

"I highly dedicate this
undergraduate thesis to my
beloved family and all whom I
love"

ACKNOWLEDGEMENT

To start with, I would like to extend my gratitude to Allah SWT for blessing and mercy; I can finally accomplish this undergraduate thesis. Shalawat and salam is also sent to our Prophet Muhammad SAW who had delivered the truth to human beings in general and Muslim in particular.

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Last but not least, my greatest gratitude also goes to my classmate and my friends in JSEC, all people in STAIN Jurai Siwo Metro who involved directly and indirectly in making this writing. Finally, I realize that this undergraduate thesis is still imperfect. Therefore, critique and suggestion are needed to build up this undergraduate thesis to be better. I hope that the result of the research can be beneficial to all of us properly.

Metro, May 28th 2015

The Writer,



Sartika
St. ID. 1177157

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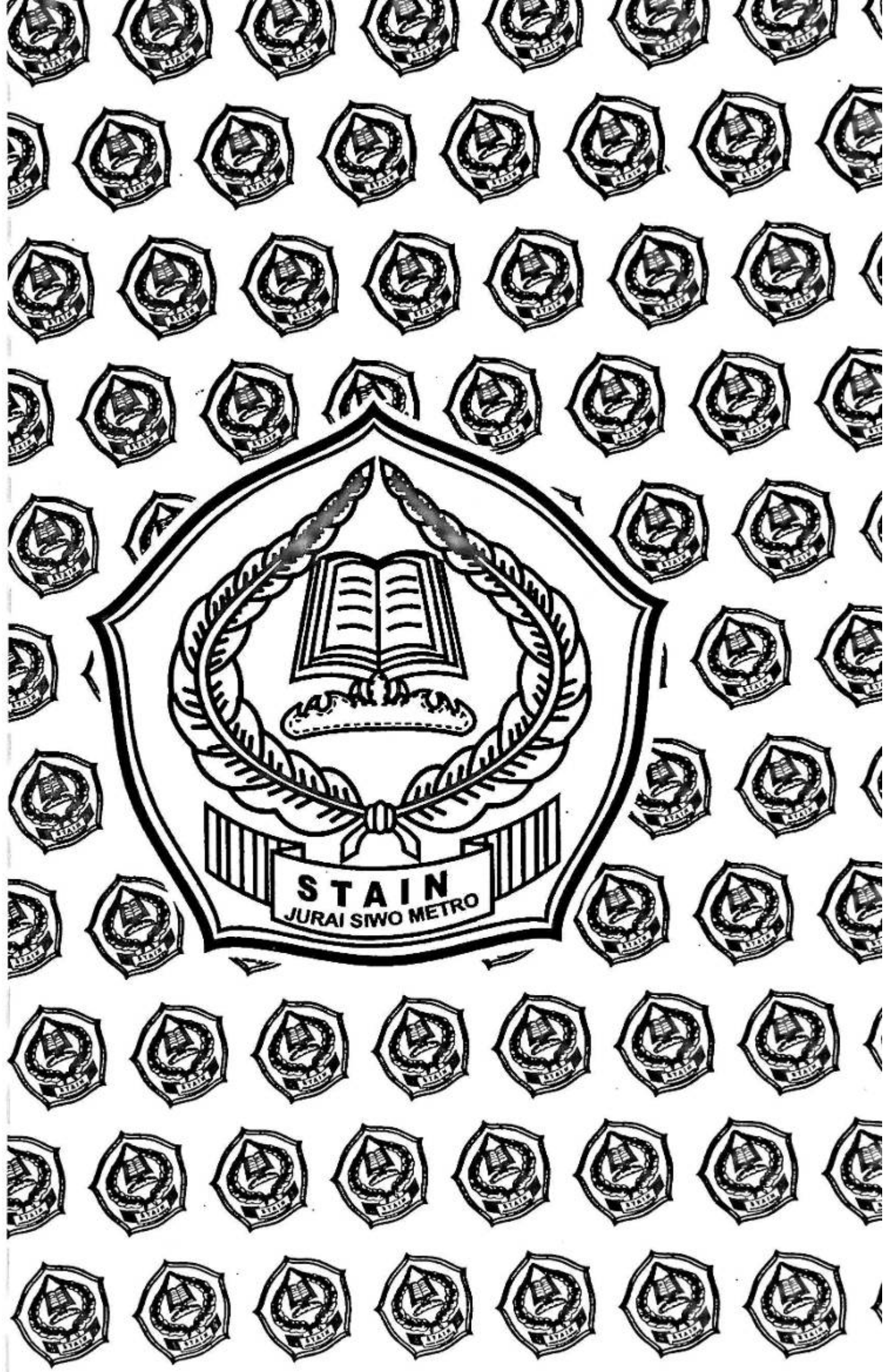
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CHAPTER I

INTRODUCTION

A. Background of the Study

Without a doubt, one of important aspects in language learning is writing. Writing allows us to share information, opinions, beliefs, feeling, arguments, explanations, and ideas in the written text. Writing is at the very heart of academic life. One of the factors to be a good student is good writing. Writing performance can help them to think critically and to clarify their thoughts. By writing, the students often express what they think and feel about people, ideas, issues and events only in the actual process of writing. It is also as a learning tool, helping them to understand and to remember something.

It is widely accepted that writing is a crucial framework in academic studies for communicating. There are four basic skills that should have to be mastered, they are listening, speaking, reading and also in writing. So, writing becomes a main subject in English lecturing. In order to make good represent their thoughts or ideas logically and acceptable academically, the students should have to be mastered writing skill is as a main target of the writing course.

However, the students still feel difficulties in mastering a good writing skill. It needs some effective efforts for achieving it. Writing is often becomes a nerve-racking activity although for native speaker. From this point of view, writing skill is a challanging subject for students. Moreover, to be good writer

the students must be practiced regularly especially to make good argument writing.

A good argument is a point of view that is presented in a clear and logical way, so that each stage of reasoning is transparent and convincing; it will include evidence and possible arguments. It provides a good reason for accepting the proposition as true. Argument Using reasons to support a point of view, so that known or unknown audiences may be persuaded to agree. However, in critical thinking, an argument is a way of presenting a set of reasons to support a conclusion and to persuade others to a point of view. Certainly, argument has relation with writing, usually a critical thinker will write or speech about something issues or idea.

Thinking is undeniable part of human's life. Critical thinking is an everyday activity; whenever we want to make a decision, we go through a thinking process. Critical thinking is about asking questions. Critical thinking issue has been growing rapidly for some years. It is often manifested in settings and domains that is divorced from the school or college classrooms. It also related to share some opinion or argument. Usually people prefer to write than speech when he/she has argument about something issues although many people prefer to speech. But writing seems effectively to share information, opinion, arguments and ideas. When someone gives arguments, actually he/she is still thinking process to tend critical thinking.

A pre survey was conducted in STAIN Jurai Siwo Metro on October, 21th 2014 at the third semester of English education study program showed that

many problems that faced of the students. The problems were identified by giving test that related to argumentative writing. This test only given to the students who got good score like "A" or "B" in writing 2 especially in making argumentative paragraphs. The data showed as follows:

Table 1

The Students' Argumentative Writing Performance Result
At The third Semester of English Education Study Program
At STAIN Jurai Siwo Metro in the Academic Year of 2014/2015

No	Score	Category	The Number of Students	Percentage
1	>60	Passed	10	29%
2	<60	Failed	25	71%
Total			34	100%

Table 2

Passing Grade Criteria

Grade	Category
80 – 100	High
60 – 79	Fair
0 – 59	Low

From the explanation above, it can be inferred that the students' argumentative writing performance is categorized into low category. The ability to write argumentative writing performance is still low, it caused by the number students whose the score <60 more than who gets >60. The problems have caused by difficulty to write a good argumentative writing. The student's lack writing skill is caused by some factors, one which unimproved mastering of writing method. Above all, the students write some paragraphs on their paper in uninstructional procedure. So, writing

just a word collection into unorganized paragraph, even far from the scientific writing standard.

In line with the problems stated above this research hopes to figure out the difficulty in writing by know the effect critical thinking and writing performance. It is helped the students to write argumentative writing. This skill is recognized to reflect the writer's ability to present the ideas, to develop the ideas and to persuade the reader to pursue the writer's ideas. Thus, students could write in open-minded thinking to pour idea and to demonstrate their ability in critical thinking.

B. Problem Identification

Based on background of the study above, the researcher identified the problems as follows:

1. The students still lack of vocabulary mastery.
2. The students find difficulty to construct the argument and reason in making argumentative writing.
3. The students still lack to organize and to convince in the text.
4. The students still lack of confident in grammar.

C. Problem Limitation

Based on the problems mentioned above, this research was focused on the students difficult to construct the argument and reason in making argumentative writing. In this case the researcher wants to know the effect of students' critical thinking ability on their argumentative writing performance.

Besides, the object of this research was fourth semester students of English study program of STAIN Metro in academic year of 2014/2015.

D. Problem Formulation

Due to the background of study and the problem limitation the writer formulates the problem in this research is as follows “is there any effect of students’ critical thinking ability on their argumentative writing performance of the English Education Study Program at State Islamic College of Jurai Siwo Metro?”.

E. Objectives and Benefits of the Study

1. Objective of the research

The research is aimed at:

“To know if there is an effect of students’ critical thinking ability on their argumentative writing performance of English Education Study Program of State Islamic College of Jurai Siwo Metro”.

2. The benefits of the research are:

a. For the students:

- 1) This research hopefully could give the useful paradigm of the importance of critical thinking mastery and argumentative writing for the students of English Education Study Program of State Islamic College of Jurai Siwo Metro.

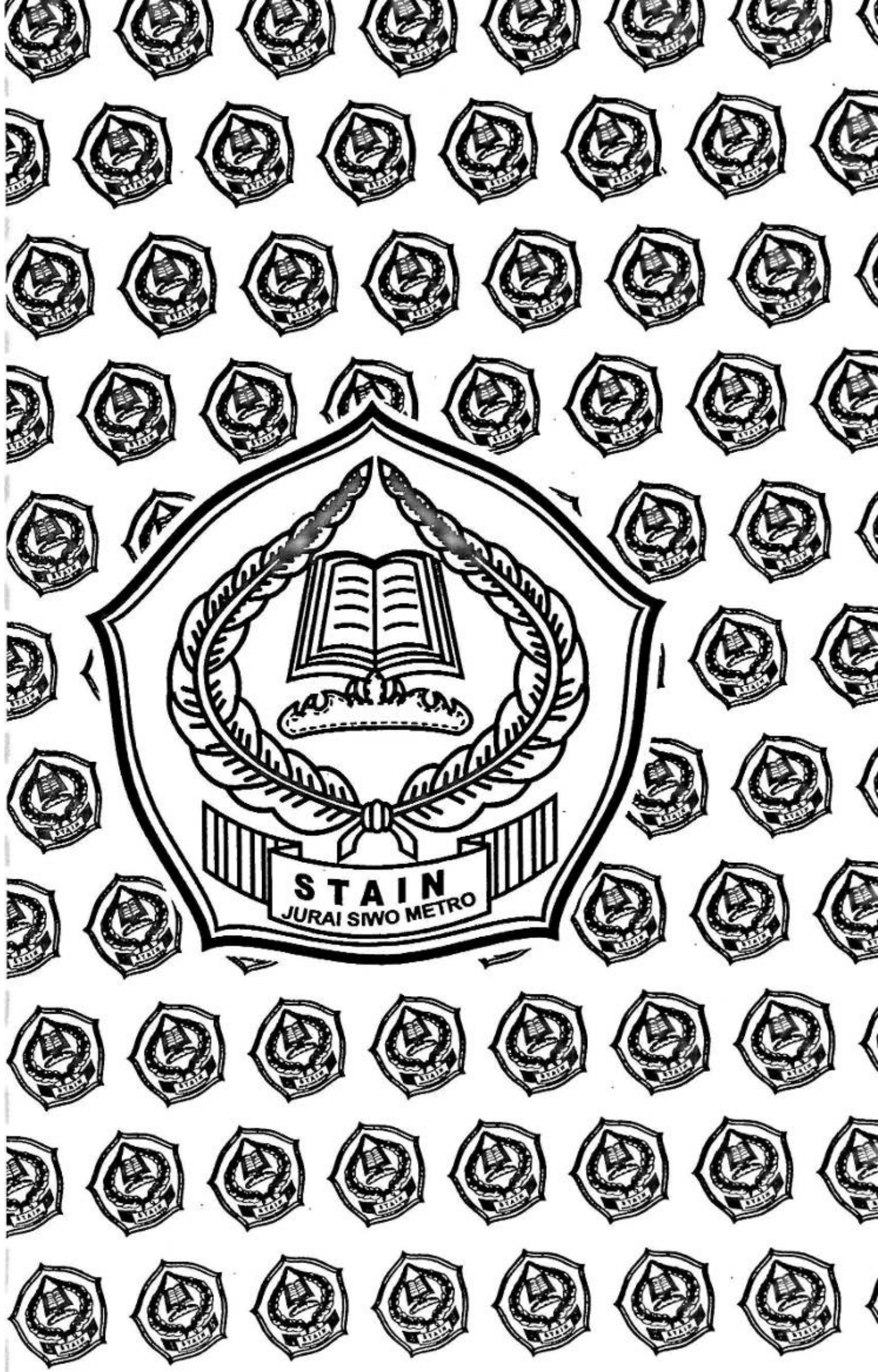
b. For the lecturers:

- 1) This research is highly expected to support the lecturers of English

Education Study Program of State Islamic College of Jurai Siwo
Metro in understanding the importance to compose a good
argumentative writing.

c. For the college

- 1) The headmaster can convey to the lecturers that they should
know as many as their students' critical thinking ability on their
argumentative writing performance.



CHAPTER II

REVIEW OF THE RELATED THEORIES

A. Theoretical Review

1. Concept of Writing

a. Writing

Writing is a way to end up thinking something you couldn't have started out thinking. Writing is in a fact, a transaction with words whereby you free yourself from what you presently think, feel, and perceive.¹ While Sanggam Siahaan states writing is the skill of a writer to communicate information to a reader or group of readers.² It is a process to transfer information by applying some rules of the language. The writer should put the idea effectively to make final product in written text. By writing, the writer may transfer information by some rules of the language and put the idea effectively in order to easier to understand and to accept the readers.

In addition, Brown states that writing is sometimes used as a production mode for learning, reinforcing, or testing grammatical concepts.³ To make readers understand, the writer should serve the coherent, consistent and accurate writing using an appropriate grammar and shifting the ideas into the final product of writing. To help the writer produce the idea, s/he

¹ Peter Elbow, *Writing Without Teachers*, (New York: Oxford University Press, 1973), p. 14-16

² Sanggam Siahaan, *The English paragraph*, (Yogyakarta: Graha Ilmu, 2008), p.2

³ Douglas, brown, *Teaching by Principle* (San Francisco State University, 2001), p.344

should read some resource books. By reading, s/he can be easy to explore their thought.

Based on the definitions above, it can be inferred that writing is to transfer the information in the written text. It should be serving in good structure, accurate diction, coherent and consistent ideas, the information transferring is easier to understand and to accept the readers. It can be used to remember something and to think critically.

b. Types of Writing

According to *Wishon and Burks*, there are some types of writing such as, description, argumentation, narration, and exposition⁴.

1) Description

Description reproduces the way things look, smell, taste, feel, or sound. It may also evoke moods, such as happiness, loneliness, or fear. It is used to create a visual image of people, places; even of units of time-days, times of day, or seasons. It may be used also to describe more than the outward appearance of people. It may tell about their traits of character or personality. It means that description helps the reader through their imagination to visualize a scene or a person to understand emotion or feeling.

⁴ George E. Wishon and Julia M. Burks, *Let's Write English*, (Canada: Van Nostrand Reinhold Ltd, 1980), p.378

It has several characteristics. They are: firstly, general instruction, it divides into two parts such as *identification* (part of sentence which introduces something) and *description* (part of explanation of something about). Secondly, grammatical features, it is generally uses simple present tense. Finally, content, it focuses on explaining about something mentioned above. Moreover, the writer clearly describes something so that the reader can form a mental image of it.

2) Argumentation

Argumentation is used in persuading and convincing. It is used to make a case or to prove or disprove a statement or preposition. The writer states their opinion and the example to make assure the other people that they are right with the reason and example. Commonly, argumentation divided into three parts.⁵ They are: *firstly, contention* is main idea in the written paragraph. *Secondly, supporting argument* is arguments that support main idea of itself argument. *Finally, conclusion* is closing from argumentation paragraph.

3) Narration

Narration is the form of writing used to relate the story of acts or events. Narration places occurrences in time and tells what happened based on the natural time sequence. In addition narrative writing is

⁵ Ayu Rini, *Mahir Menulis Paragraph Bahasa Inggris*, (Jakarta: Pustaka Mina, 2008), p. 45.

usually the story which happens in the past. In the other words, when the author writes down narrative writing, similarly that author tells about the story. Types of narration include stories; short stories, novels, biographies, autobiographies, or historical event. Usually, the stories divided into these parts; *introduction* (start of the story like introduce subject or character person), *complication* (a beginning problem), *crisis/climax* (peak of the problem), and *resolution* (problem solving and ending of the story).

4) Exposition

Exposition is used in giving information, making explanation and interpreting meaning. It used in combination with narrative, exposition supports and illustrate, used apart from narrative, it stands alone as an essay. Used alone or with narrative, exposition may be developing in a number of ways. This type of writing not only presents information, but also provides an explanation or rationale for it. At least, it should have to help the reader understand data better.

Based on the above explanations, the types of writing is divided into some types namely description, argumentation, narration, and exposition. Every types have the characteristic it self and also different one anothers.

c. Process of Writing

Writing process is the stages a writer to produce something in its final written form. When writing, writers work through the stages of writing process to result a composition. There are four main elements, as follows:⁶

1) Planning

The first stage in writing is prewriting. It is the planning to obtain idea. It means that the writer thinks in her/his mind what they are going to write. The writers focus on what the writer will write down on the paper after getting idea in the planning stage. Then, the writer generates ideas for writing.

2) Drafting

Drafting is the second stage to compose a draft. It does to get raw writing on paper. The raw editing will be revised neatly in the next process. As in the next stage in writing is editing till getting the final version.

3) Editing (reflecting and revising)

In this case, reflecting and revising also help in the process of improving the draft as the writer rereads the work and shares it with the readers. Thus, to make good progress in writing, the writer needs

⁶ Jeremy Harmer, *How to Teach Writing*, (England: Pearson Education, 2004), p.4-5

reader's reaction by suggesting or giving critique to make better revision.

4) Final version

After writers have edited the draft, then making the change they consider to be necessary, they produce their final version. It is different from the original planning and the first draft, because things have changed in the editing process. Hence, the writer is now ready to convey the written text to the readers.

Based on the explanation above, the process of writing is divided into some processes namely planning, drafting, editing (reflecting and revising) and final version.

d. Evaluation of Writing

Brown explains that there are six underlying categories to evaluate the students' writing:⁷

1. Content

Content refers to the topic and its explanation or elaboration, discussion, evaluation, and conclusion. Writing is significant; it should be clear, specific, and relevant.

⁷ Brown, H. Douglas, *Teaching by.*, p.357

1. Organization

Organization refers to the interested introduction and the explanation about, the introduction is a clear thesis statement, the body is organized and the conclusion synthesizes and clarifies information and reinforces the thesis statement.⁸

2. Discourse

Discourse involves of some parts namely, topic sentence, paragraph unity, transition, discourse makers, cohesion, rhetorical convention, reference, fluency, economy, and variation. Discourse transition words are used appropriately and accurately in connecting sentences and paragraphs.

3. Syntax

Syntax concerns the ways in which words combine to form sentences and the rules which govern the formation of sentences. It takes of grammatical forms and syntactical pattern. Grammar choices such as subject-verb agreement, use of article, modals, preposition, pronoun, and conjunctions are appropriate and accurate.

4. Vocabulary

Vocabulary is the section of words that suitable with the content. The writer should learn to enlarge of English vocabulary. The

⁸ *Ibid*;

sentence should be clear; it is not allowed that the reader will be misunderstood with the meaning.

5. Mechanics

Mechanics involves spelling, punctuation, citation of references (if applicable), neatness and appearances.⁹ It based on the use graphic conventions of language. Convention such as punctuation, capitalization, spelling, parentheses, and paragraph indentation are used appropriately and accurately.

Accordingly, six general categories mentioned above they must be covered on good writing. In the other words, the writer must pay attention on the six categories of writing evaluation.

e. Writing Performance

According to Oxford Advanced Learner's Dictionary writing is a group pieces of writing especially by a particular person or on a particular subject.¹⁰ Performance is the act of performing a play, concert or some other form of entertainment.¹¹ It means that feeling or information real action by doing someone that can be realized in concrete situation.

From the explanation above, it can be concluded that writing performance is the result of the writing process. It is also of the product

⁹ Brown, H. Douglas, *Teaching by*, p. 357

¹⁰ *Ibid.*;

¹¹ *Ibid.*, p.1089

skills in English. It can be a text contained the writer's thought, feeling, opinion and also information that deliver to the readers.

2. Concept of Argumentative Writing

a. Argumentative Writing

According to Oxford Advanced Learner's Dictionary, argumentative is a person who is argumentative likes arguing or often starts arguing.¹² The form of writing used to persuade or argue is argumentative.¹³ Argument is not the same as disagreement. We can disagree with someone else's position without pointing out why we disagree or persuading them to think differently. The argument is using reasons to support a point a view, so that known or unknown audiences may be persuaded to agree.¹⁴ In argumentation, the writer gives own opinion then tries to convince other people with some reasons and also asserts the examples. To make argumentative writing, the writer should put some assertions to substantiate the topic/issue. So, the reader can agree with writer's view.

In 2009, the National Governor's Association Center for Best Practices and the Council of chief state school officers put a document on the International entitled *College and Career Ready: Standards for Reading*,

¹² *Ibid.*, p.64

¹³ George E. Wishon and Julia M. Burks, *Let's write English*, (Canada: Van Nostrand Reinhold Ltd, 1980). 377

¹⁴ Stella Cottrell, *"Critical Thinking Skills, Developing Effective Analysis and Argument"* (Palgrave Macmillan, 2005), p. 52

Writing, and Communication. It says this of writing argument: "The ability to frame and defend an argument is particularly important to students' readiness for college and careers. The goal of making an argument is to convince an audience of the rightness of the claim being made using logical and relevant evidence".¹⁵ However, argument is at the heart of critical thinking and academic discourse, it is also teach in academic education to the students.

In conclusion, argumentative writing is used to persuade and to convince the reader by giving strong opinion and evidence to support the writer's view is not by logic.

b. Generic Structure of Argumentative Writing

The generic structures of argument paragraph are:¹⁶

- 1) Introduce the main idea in the first topic sentence.
- 2) Support the main idea in the following sentences (2-5 sentences possibly).
- 3) Draw your conclusion while restating the main idea in the last sentence.

The main idea is the point of view that you are arguing or against. State this clearly so that the audience can easily to know what your point of view is right from the start of the paragraph.

¹⁵ George Hillocks, *Teaching Argument for Critical Thinking and Writing: An Introduction*, (The university of Chicago, 2010), p.25

¹⁶ <http://www.excellent-proofreading-and-writing.com/argumentative-paragraph.html#ixzz3I9kG3b00>, 05 november 2014

To convince the audience that it needs to provide supporting points, information and referenced sources, if possible, in the main body of the paragraph. Give really convince to the readers, and make sure they don't has any doubt that the point of view is correct; give them the evidence to prove it. End the paragraph by restating the main point and highlighting why your point of view is the best and correct one.

c. Lexical Grammatical Features of Argumentative Writing

a) Cohesion

Cohesion is the formal links that mark various types of inter-clause and inter-sentence relationship within discourse.¹⁷ Cohesion occurs where the interpretation of some element in the discourse is dependent on that of another.

In conclusion, cohesion is cohesion is grammatical relationship between parts of a sentence for its interpretation (grammatically). It is realized linguistically by devices and ties that are elements or units of language used to form a large text.

b) Coherence

Coherence is the extent to which discourse is perceived to hang together rather than being a set unrelated or utterances.¹⁸ The concept of coherence can therefore be described from the reader/hearer's point of

¹⁷ David Nunan, *Discourse Analysis*, (England, penguins books, 1993), p. 116

¹⁸ *Ibid*,

view as the unfolding perception of purpose within a delimited area of meaning. In conclusion, Coherence is the orders of statements relates one another by sense or continue (semantically). It can't be separated one by others sentence.

d. Stage in Argumentative Writing

To write an argumentative writing, the writer should be paid attention to the following steps:¹⁸

- 1) Firstly, it begins by introducing the debate topic in own word.
- 2) Secondly, it writes if agree or disagree with the argument.
- 3) Thirdly, it tells the reader why grasps (agree or disagree) the opinion, then gives some reasons or examples to back up the argument. It is better if put important ideas first, then supporting ideas to ensure the reader.
- 4) Fourthly, it completes with the people who have a different opinion (objections) then the writer shows their view (they are true or untrue with their view).
- 5) Finally, the writer takes the conclusion with a precise and brief summary to make a strong opinion to ensure the reader agree the writer's view.

In conclusion, there are five stages in argumentative text which is related one another in order to get good written and we should apply those stages to support our skill in written text. So that written text will regard a level of quality that is normal or expected.

¹⁸ <http://www.frac.org/html/stage-in-the-us/argumentative-indext.html>. 15 October 2014

3. Concept of Critical Thinking

a. Definition of Critical Thinking

Based on oxford advanced learner's dictionary, critical is expressing disapproval of something and saying what you think is bad about them; a critical comment/report.²⁰ Thinking is ideas or opinions about something, intelligent and able to think seriously about things.

According to fisher critical thinking describes how something is being thought. He adds that learning to think critically means: a) learning how to question, when to question and what question to ask, and b) learning how to reason, when to use reasoning and what reasoning methods to use.²¹ In addition, that being a critical thinker one should develop certain attitudes, such as a desire to reason, willingness to challenge and a passion for truth.

Wright assumes definition of critical thinking consist of the following:²²

- 1) Critical thinking is synonymous with problem solving.
- 2) Critical thinking is skill.
- 3) Critical thinking involves asking questions at higher levels of Bloom's taxonomy-i.e. analysis, synthesis and evaluation.
- 4) Critical thinking means helping students criticize the arguments and conclusions of others; it is always negative. ("Critical" in the sense and meaning with which it is used in the term *critical thinking* is not simply negative).
- 5) Critical thinking is applied only to factual matters; it is not applicable to values.
- 6) Critical thinking is not related to creative thinking.

²⁰ *Ibid.*, p.348

²¹ Fisher, R, "Teaching children to think" (London: Nelson Thorns Ltd. 1990), p.65

²² Wright, J, "is that right? : Critical Thinking and the Social World of Young Learner" (Ontario, Canada: Pippin Publishing Corporation, 2002), p. 43

The best way to develop critical thinking is to write. Writing forces you to organize your thoughts, contemplate your topic, evaluate your data in a logical and present your conclusions in a persuasive manner. Good writing is the sample of good critical thinking. Writing promotes critical thinking by requiring you to acquire, synthesize and logically analyze information, and then present this information and your conclusions in written form.

In conclusion, critical thinking is skill to asking question (analysis, synthesis and evaluation) to support students to criticize the arguments with convince or fact examples which applied only to factual matters; it is not applicable to values. It is synonymous with problem solving but is not related to creative thinking. To get good develop critical thinking skill we might always write. By writing, we should organize our idea, or information. Meanwhile, Good writing is the sample of good critical thinking.

b. Indicator of Critical Thinking

According to Ennis, reasonable and reflectively going about deciding what to believe or do, a person characteristically needs to do most of indicators (abridgements) of the critical thinking are:²³

- 1) Judge the credibility of resources.
- 2) Identify conclusions, reasons and assumptions.

²³ Robert H. Ennis, "Critical Thinking Assesment Theory into Practice", (*The Oshio State University*, Summer 1993), p. 180.

- 3) Judge the quality of argument, including the acceptability of its reasons, assumptions and evidences.
- 4) Develop and defend a position on an issue.
- 5) Ask appropriate clarifying questions.
- 6) Plan experiments and judge experimental designs.
- 7) Define terms in a way appropriate for the context.
- 8) Be open-minded.
- 9) Try to be well informed.
- 10) Draw conclusion when warranted, but with caution

Without doubt, open minded is important things because many even fail for judging the credibility of sources. Without some defensible conception of critical thinking, judgments about text are likely to be erratic or worse. Likewise, critical thinking is tool to deliver argument with reasons and evidence. It covered with resource, assumptions, and evidence. She/he can defend and develop an issue to persuade the reader. So, the opinion's someone can be acceptability of its reasons.

Example of critical thinking: ²³

Theme: Genetic engineering really worries us.

Agreement 1: I don't know much about genetic engineering but I agree with you.

Agreement 2: I know a lot about this subject and I agree with you.

Disagreement: That doesn't convince me. I think genetic engineering is really exciting.

Argument 1: Genetic engineering should be curtailed because there hasn't been sufficient research into what happens when new varieties are created without natural predators to hold them in check.

²³ Stella Cottrell, *"Critical Thinking Skills, Developing Effective Analysis and Argument"* (Palgrave Macmillan, 2005), P. 52

Argument 2: The possibilities for improving health and longevity through genetic engineering offer hope or sufferers of many conditions that currently don't have an effective cure. We should be pushing ahead to help these people as quickly as we can.

There are other words and phrases that introduce sentences stating a premise.

A speaker or writer might state their conclusion and then begin the next proposition with such phrases as:

• My reason is . . . • My evidence for this is . . . • This is so because . . .

For example:

"I put it to you that Ms White killed Colonel Mustard in the ballroom with the candlestick. *The reason* I make this claim is that on the night of Colonel Mustard's death Lady Scarlet saw Ms White in the ballroom beating Colonel Mustard over the head with the very candlestick that was later found to have Ms White's fingerprints and Colonel Mustard's blood on it. Other premise indicators may occur at the beginning of a sentence containing both the premise and the conclusion".

c. Purposes of Critical Thinking Assessment

Here some major possible purposes of critical thinking;²⁴

- 1) Diagnosing the levels of students' critical thinking. Test can be helpful diagnose this levels by showing specific areas of strength or weakness. For example, ability to identify assumptions.
- 2) Giving students feedback about their critical thinking prowess. It means that if their students know specific strength or weaknesses, their attempt to improve can be better focused.

²⁴ *Ibid.*,p.180-181

- 3) Motivating students to be better at critical thinking.
- 4) Informing teachers about the success of their efforts to teach students to think critically.
- 5) Doing research about critical thinking instructional questions and issues.
- 6) Providing help in deciding whether a student's enter an educational program. It means that, People in some fields already used assessed critical thinking prowess to help make admissions decisions. Examples are medicine, nursing, law and graduate school in general.
- 7) Providing information for holdings school accountable for critical thinking prowess of their students. A currently popular purpose for testing, including critical thinking testing is to pressure schools and teachers to "measure up" by holding them accountable for the test result of their students.

In conclusion, there are seven purpose of critical thinking. Among them are useful to develop critical thinking. In fact, test of critical thinking is very needed in some factors educational program. Knowing the result of test can help to measure our strength or weaknesses in critical thinking. So, we can make decision to encourage develop thinking critically.

d. Level of critical thinking

Crebert states that Bloom's Cognitive Taxonomy has six types of questions which can encourage critical thinking, as follows:²⁵

Table 2

Bloom's Cognitive Taxonomy category

Level 1: Knowledge	Exhibits previously learned material by recalling facts, terms, basic concepts and answers.	
Keyword	What, when, where, which, why, who, how, omit, choose, find, define, label, show, spell, list, match, relate, tell, name, select,	
Questions	What is...? How is...? Where is...? When did.....happen?	How did.....happen? How would you explain ...? How would you describe?
Level 2: Comprehension	Demonstrating understanding of facts and ideas by organising, comparing, translating, interpreting, giving descriptions and stating main ideas.	
Keyword	Compare, classify, contrast, demonstrate, extend, explain illustration, infer, interpret, outline, relate, rephrase, translate, summarize, and show.	
Questions	How would you classify the type of ...? How would you compare ...? contrast ...?	Which statements support...? Can you explain what is happening ... what is meant...?
Level 3: Application	Solving problems by applying acquired knowledge, facts, techniques and rules in a different way.	
Key words	Apply, build, choose, construct, develop, interview, make use of, organize, experiment with, plan, select, solve, utilize, model, identify.	

²⁵Crebert, G., et al, "Critical Evaluation Skills Toolkit 2nd Edition, No Place" (Griffith University, 2004), p. 14- 16.

Questions	What examples can you find to ...? How would you solve using what you have learned ...?	What other way would you plan to ...? What approach would you use to ...? How would you apply what you learned, to develop ...?
Level 4: Analysis	Examining and breaking information into parts by identifying motives or causes; making inferences and finding evidence to support generalisations.	
Key words	Analyse, categorise, classify, compare, contrast, conclusion, discover, dissect, divide, examine, inspect, simplify, survey, take part in, test for, distinguish, list, distinction, theme, relationships, function, motive, inference, assumption.	
Questions	What are the parts or features of ...? Why do you think ...? Can you list the parts ...? How is related to ...?	How would you classify ...? Can you identify the difference parts ...? How would you categorise ...?
Level 5: Synthesis	Compiling information together in a different way by combining elements in a new pattern or proposing alternative solutions.	
Key words	Adapt, Build, change, choose, combine, compile, compose, construct, create, design, develop, delete, formulate, happen, imagine, invent, make up, originate, plan, predict, propose, solve, solution, suppose, discuss, modify, original, improve, minimise, maximise, theorise, elaborate, test, improve.	
Questions	What would happen if ...? Can you elaborate on the reason ...? What changes would you make to solve ...? How would you improve ...?	What could be combined to improve (change) ...? Suppose you could what would you do ...? How would you test ...?
Level 6: Evaluation	Presenting and defending opinions by making judgements about information, validity of ideas or quality of work based on a set of criteria.	
Key words	Award, choose, conclude, criticise, decide, defend, determine, dispute, evaluate, judge, justify, measure, compare, mark, rate, recommend, rule on, select, agree, interpret, explain, appraise,	

	prioritise, opinion, support, importance, criteria, prove, disprove, assess, influence, perceive, value, estimate, influence, deduct.	
Questions	Do you agree with the actions ...? with the outcomes ...? What is your opinion of ...? How would you prove ...? disprove ...?	the facts ...? How would you compare the ideas ...? People ...? Can you assess the value or importance of ...? What would you cite to defend the actions of...? How would you evaluate ...? How could you determine ...?

From the level of critical thinking above, the researcher limits on the sixth level of *Evaluation*, because not all of the level of critical thinking can be used in this research.

4. Critical Thinking and Argumentative Writing Performance

Critical thinking is about asking question, problem solving, and making decision, it is an everyday activity; whenever we want to make a decision, we go through a thinking process. It is usually involves considering other people's reasoning. Skill in critical thinking brings precision to the way to think and work. We will find that practice in critical thinking help us to be more accurate and specific in noting what is relevant and what is not. Meanwhile, an argument is a way to presenting a set reasons to support a conclusions and to persuade others to a point of view.

The focus of critical thinking is often referred to as the argument. Good critical thinkers can often detect a poor argument without a good knowledge of the subject. People who are outstanding at critical thinking tend to be particularly self-aware. Some people assume that "criticism" means making negative comment. As a result, they refer to negative aspects when making an analysis. This is misunderstanding of the term. Whereas, critical evaluation means identifying positive as well as negative aspects, what works as well as what does not.

B. Theoretical Framework and Paradigm

a. Theoretical Framework

There are two variables in this research. They are independent variable (X) and dependent variable (Y), the independent variable (X) is critical thinking ability and the dependent variable (Y) is argumentative writing performance.

Critical thinking is a strategy thinking that emphasizes stating opinion which is complete by supporting them with reasons. It is used expressively then students make interpretations and support them verbally or in writing. Also it is used when students critique other people's arguments.

Meanwhile, argumentative writing is a way to presenting a set reasons to support a conclusions and to persuade others to a point of view by giving

strong opinion and evidence. Moreover, the written text cannot be constructed well without using critical thinking strategy. Shortly, the critical thinking using will determine the argumentative writing result.

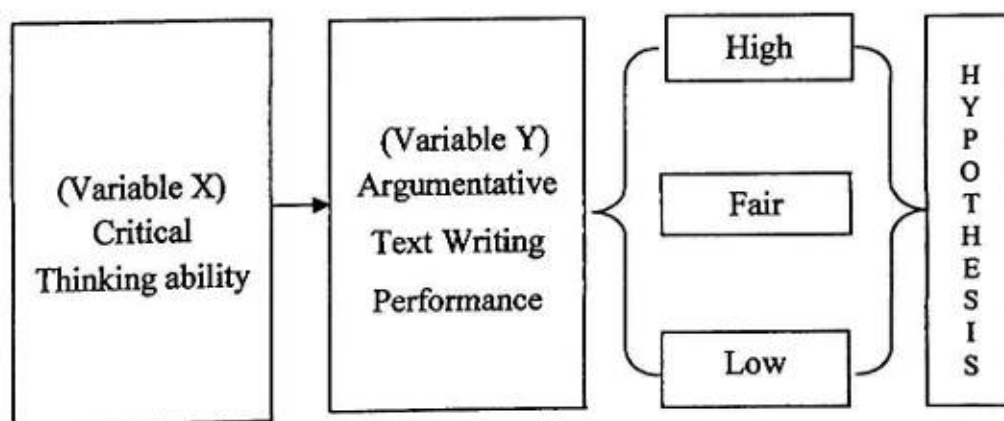
Theoretical framework in this research is if the grades of critical thinking are high, the grades of writing performance are also high. However, if the grades of critical thinking are low, the grades of writing performance are also low.

b. Paradigm

Based on the theoretical framework above the researcher describes the paradigm as following:

Table 3

The Paradigm of students' Critical Thinking ability and Argumentative Text Writing Performance at the third Semester of English Education Study Program at STAIN Jurai Siwo Metro



Based on the paradigm above, if critical thinking ability is good and argumentative text writing performance is high, so there is positive and

significant effect of students' critical thinking ability on their writing performance. While, if critical thinking ability is low, and argumentative text writing performance is low, so there is no positive and significant effect of students' critical thinking ability on their argumentative writing performance.

C. Hypotheses Formulation

Based on the theoretical framework and paradigm above the researcher formulates the hypothesis as follows:

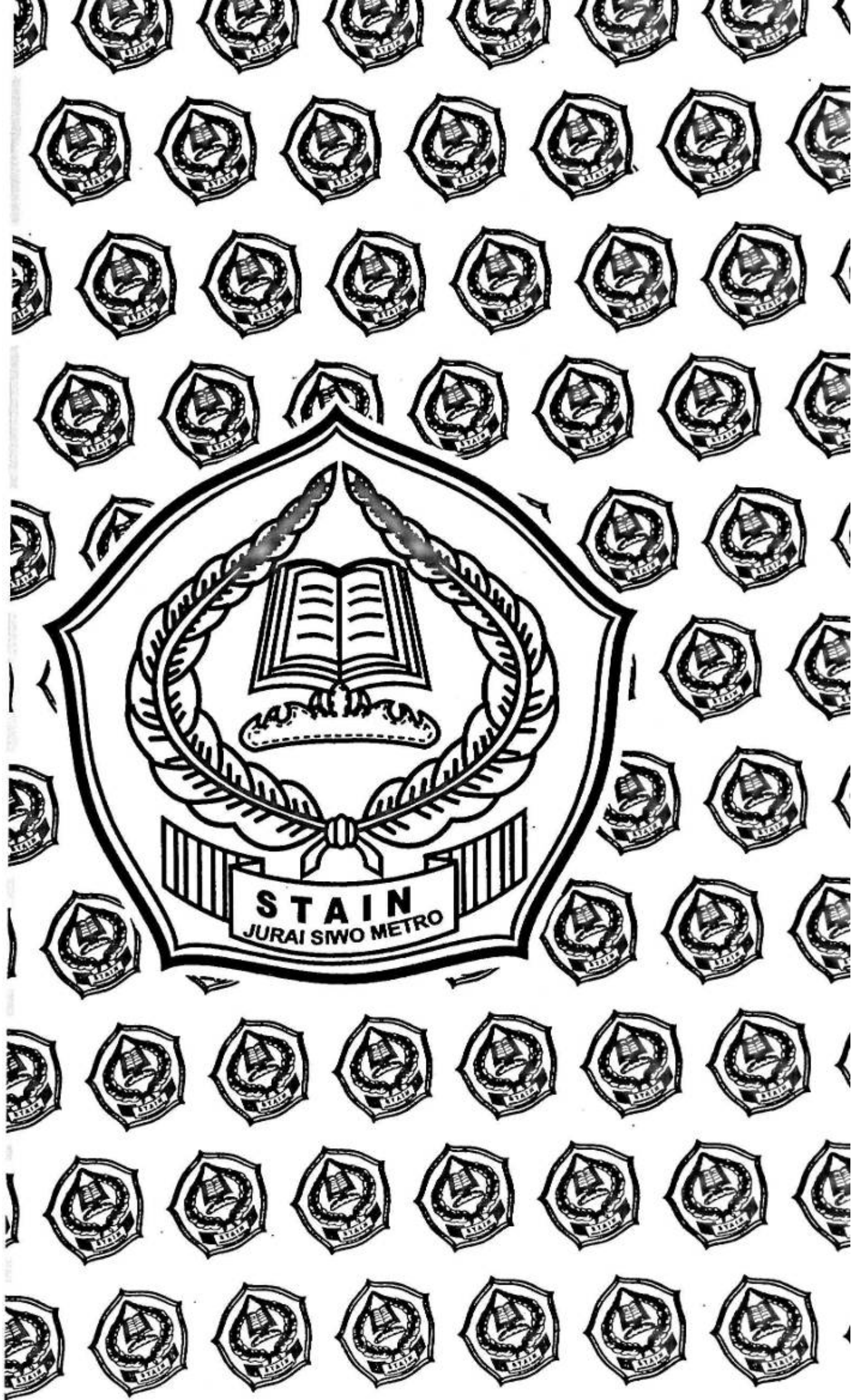
1. Alternative hypothesis (H_a)

There is a positive and significant effect of students' critical thinking ability on their argumentative writing performance in English study program of STAIN Jurai Siwo Metro in the Academic year of 2014/2015.

2. Null Hypothesis (H₀)

There is not a positive and significant effect of students' critical thinking ability on their argumentative writing performance in English study program of Stain Jurai Siwo Metro in the Academic year of 2014/2015.

Meanwhile, the research hypothesis is there is a positive and significant effect of students' critical thinking ability on their argumentative writing performance in English study program of Stain Jurai Siwo Metro in academic year of 2014/2015.



CHAPTER III

RESEACRH METHODOLOGY

A. Research Design

In this research, the writer used the quantitative research. It will be conduct in State Islamic College (STAIN) of Jurai Siwo Metro. State Islamic College (STAIN) of Jurai Siwo Metro has some study programs which also includes English Education Study Program in the academic year of 2014/2015.

In this research, the writer investigated into the fourth semester students of English Education Study Program STAIN Jurai Siwo Metro in the academic of year of 2014/2015. This research is intended to investigate whether there is any positive and significant effect of students' critical thinking ability on their argumentative writing performance. The data obtained through conducting the argumentative writing test. The variables analyzed by using t-test to find out the effect between them.

B. Population and Sampling Technique

1. Population

In this research the writer determined the fourth semester students of English Education Study Program of STAIN Jurai Siwo Metro in academic year of 2014/2015 as the population in this research. The total of population in this research was 223 students which were divided into seven classes.

2. Sample

The sample of the research is the students at the fourth semester of class D which consists of 34 students of English Education Study Program of STAIN Jurai Siwo Metro in the Academic Year 2014/2015.

3. Sampling Technique

It has been stated that sample is number of individual which is represented population to research. Moreover, to technique sampling in this research the writer used the Cluster Sampling. It used two steps; firstly, the researcher determined sampling area. Secondly, the researcher determined the people in that area randomly.

C. The Operational Definition of Variables

The operational definitions of variables in this research are:

1. Independent variable

The independent variable in this research is critical thinking ability. It influences the dependent variable that is argumentative writing performance. Based on the explanation in chapter 2 about the indicators to measure the students' critical thinking skill, the researcher just only limits these points:

- a) Identify conclusions, reasons and assumptions.
- b) Judge the quality of argument, including the acceptability of it reasons, assumptions and evidences.

- c) Be open-minded.
- d) Try to be well informed.

2. Dependent Variable

The dependent variable of this research is argumentative writing performance. The goal of argumentative writing is to persuade the students to give opinion people's reasoning or arguments with evidence. For, the reader can agree with the writer's view. Additionally, the writer determines some indicators in mastering argumentative writing performance.

To measure the students' argumentative writing performance, the writer used the test of writing composition. The writer gave topics to the students. Then the students were ordered to develop those topics. Here, the writer used free writing composition.

D. Data Collection Method

In collecting data, the writer has the following steps:

1. Test

a. Pre-Test

The writer gave pretest in order to know their basic knowledge. In this case the students' argumentative writing that they have achieved.

b. Post-test

The posttest was held in order to know the students' argumentative writing performance after being treatment of argumentative writing

through critical thinking. The posttest has been done after the treatments, in order to know whether this method is effective or not to influence the students' argumentative writing performance.

2. Documentation

The writer used the documentation method to get detail information about students' English result in argumentative writing performance at the fourth semester of English education study program. The data are paper of the result test and more data that support this research.

3. Observation

The writer used this method to get detail information and the process of the events whiles the research at State Islamic college of Jurai Siwo in academic year of 2014/2015.

E. Research Instrument

1. Instrument Blueprint

The test is written test. The writer used the same type pretest and posttest instruments in this research. The pretest instrument is different with the posttest instrument, but has the same difficulty level. The pretest and posttest is giving argument from some issues or topic which question was prepared by the writer. In this research the writer used writing essay test. This test is chosen as the instrument because it is required the students to express

their own idea and to decide the scale of instrument. It would be measure certain writing performance more be effective than the objective test. Moreover the students write in their own idea and creativity, it can motivate the students to improve their writing performance.

Table 5
Indicator of Argumentative Writing Performance

Predicate	Writing	Score	Indicators
A	Content	80-100	It is well organized. The message is completely comprehensible. Arguments are relevant and related to the writer's view. Main ideas and affective supporting ideas are clearly stated. The language is clear, smooth and interesting, and consistently accurate, showing, a full command of complex structure. There is no major errors vocabulary, spelling, punctuation, or grammar.
B	Organization	67-79	It is well organized and highly comprehensible. Arguments are quite relevant in relation to writer's view. Main ideas and effective supporting ideas are almost clearly stated. There is a clear message with only minor loss of detail and little need for corrections of vocabulary, spelling, punctuation, or grammar. The language is clear and interesting.
C	Vocabulary	55-66	It is rather well organized. Arguments are rather relevant in relation to writer's view. Main ideas rather than clear. The message is almost clear but with some loss of detail. Many corrections of vocabulary, spelling, punctuation, or grammar are needed.
	Grammar	41-54	Its organization and message are rather difficult

D			to be followed. Arguments are only slightly relevant or not related to the writer's view. Main ideas and supporting ideas rather than trouble readers. The language is rather than unclear and has frequent errors of vocabulary, spelling, punctuation, or grammar.
E	Mechanics	40-or less	Its organization and message are difficult to be followed. Arguments are not relevant or not related to the writer's view. Main ideas and supporting ideas are not clearly stated. The language is not clear and has frequent, serious errors of vocabulary, spelling, punctuation, or grammar.

2. Data Analysis Technique

The writer will use simple statistical formula to comparing the result of the pre-test and post-test. The data will be analyzed by using T-test formula to know the significant and treatment effect.

$$t = \frac{\sum D}{\frac{\sqrt{(N \cdot \sum D^2) - (\sum D)^2}}{N - 1}}$$

Where,

$\sum D$ = Total of difference between pre test and post test

$\sum D^2$ = Total of the difference between pre test and post test (quadratic⁽²⁾)

N = Total of the participants



CHAPTER IV

RESULT OF THE RESEARCH

A. Description of Data

1. Research Setting

a. Brief History of STAIN Jurai Siwo Metro

State Islamic College (STAIN) Jurai Siwo Metro is one of the high educations in Metro, Bandar Lampung. STAIN Jurai Siwo is one of state Islamic universities in Metro. Automatically, all of the students are Muslim. It is located in Jl. K.H. Dewantara Street 15A Iring Mulyo, East Metro, Metro City, 34111, Telp (0725) 41507 Fax. (0725) 47296, website: <http://www.stainmetro.ac.id>, email: stainjusi@yahoo.ac.id.

STAIN Jurai Siwo Metro was established on April 23 to 25, 1997 based on presidential degree No.11 dated March 21, 1997. The first existence of State Islamic College (STAIN) Jurai Siwo Metro is inseparable with the first existence of IAIN Raden Intan Bandar Lampung. But, in 1997 was not under shelter and responsibility of IAIN Raden Intan Bandar Lampung.

STAIN Jurai Siwo Metro has two faculties, Tarbiyah and Syari'ah faculty. Tarbiyah Faculty has four program study, they are; Islamic Education Study Program (PAI), Arabic Education Study Program (PBA), English Education Study Program (PBI), and Islamic Elementary School Education Study Program (PGMI). Furthermore, Syari'ah faculty has 4 program studies, they are; Islamic Economy (EI), Ahwalusy

Syakhsiyyah (AHS), Perbankan banking (PBS), Islamic Announcement Communication Study Program (KPI).

At the central of Islamic studies, STAIN Jurai Siwo is founded to graduate students who have quality in improving Islamic religious science and general science. It is illustration in its motto "always preaching truth".

b. The Profile of English Education Study Program

English Education study program (PBI) strata 1 (S1) in STAIN Jurai Siwo Metro was established in 2007. It included Tarbiyah Department in STAIN Jurai Siwo Metro. Historically, Strata 1 (S1) of English Education Study Program came from Diploma 3 (D3) English Education that was opened in 2002 based on the Decree No:DJ.1/220.C/2007 on May 28, 2007.

In implementing education, English Education Study Program stands on its vision, as follows: the establishment of professional students in the English education who can integrate the Islamic values and academic dimensions. So the students have a high bargaining.

Furthermore, the vision than is enlarged in some missions, as follows:

- 1) Developing the students' privacy through knowledge, reinforcement, and actualization toward religious, national and civil life in the Islamic culture values.

- 2) Building and developing an atmosphere of the academic which is humanist, democratic and modern.
- 3) Growing the professionalism ethic through theoretical knowledge basic.
- 4) Providing qualified education service to produce the candidate of educator which is smart and skillful who have good attitude;
- 5) And applying integrated educational system which is able to give a significant input to development of education.

Those are the vision and missions which include all of the students in English education study program in Stain Jurai Siwo Metro. Furthermore, based on the vision and missions above, it is formulated be three purposes of English education study program, as follows:

- 1) To prepare the students not only to be English teacher who can actualize the society benefits values, science, technology, and art but also be able to be agents of change in the society.
- 2) To prepare the students be professional English teachers which can imply, develop and enlarge English education with spirit of English-Islamic.

In line with the above statement, English study program always tries to develop the quality in the teaching and learning process. Indeed, it will be a dynamic, open, and polite relationship among the stakeholders in PBI STAIN Jurai Siwo Metro.

2. Research Data

a. Pre-Test Result

To know the students' argumentative writing before giving the treatment without critical thinking strategy on their argumentative writing, the students were giving a pre test that must be done individually. Teacher asked them to write an argument from one of the topic that prepared by the researcher, the time given 30 minutes.

To measure the students' argumentative writing, the writer tested the students by giving three topic and gave an argument from the topic has chosen them.

The result of pre test the student's argumentative writing performance can be identified as follows:

Table 6
The Pre-Test Results of Students' Argumentative Writing Performance

No	Students' Initial	Score Pre-Test
1	AS	47
2	AO	47
3	AM	55
4	AR	65
5	BI	60
6	CK	55
7	CA	50
8	DS	47
9	ER	47
10	ED	47
11	EV	65
12	EW	60
13	FE	50

14	HA	55
15	IP	47
16	IW	47
17	ID	47
18	KS	47
19	LK	50
20	LU	65
21	MM	65
22	MI	65
23	NY	55
24	PO	60
25	RA	60
26	RN	50
27	SN	50
28	SB	60
29	SM	55
30	TS	55
31	VA	47
32	VL	60
33	VZ	65
34	WY	55
	Total	1855
	Mean	54,55

Source: The Pre-Test Results of Students' Argumentative Writing Performance Test on April 17th 2015.

Based on the above table, the writer then measured the class interval using the formula according to Yogesh Kumar Singh, as follows:¹

$$P = \frac{\text{The Highest Score} - \text{The Lowest Score}}{\text{Total of Categories}}$$

$$P = \frac{65-47}{3} \quad P = 6$$

¹ Yogesh Kumar Singh, "Fundamental of Research Methodology and Statistics". (New Age International (P) Ltd., Publishers, 2006), p. 273

The total of class interval (p) for this research is 6. After knowing the class interval, the data that was taken from interval class above. Then it was put on the table of frequency distribution, as follows:

Table 7

The Frequency of Distribution of the Students' Score in Pre-Test of Argumentative Writing Performance

No	Class Interval	Frequency	Category	Percentage
1.	59 – 65	12 Person	High	35,30 %
2.	53– 58	7 Person	Fair	20,58 %
3.	47 – 52	15 Person	Low	44,12 %
Total		34 Person	-	100%

Source: Data Analysis Pre-Test Results of Students' Argumentative Writing Performance Test on April 17th 2015.

Based on the table of frequency distribution above, it can be inferred that from 34 students as the research samples, there are 12 students who were included in the high category for the score of 59 - 65 or 35, 30 %. Furthermore, in the fair category, there are 7 students who got the score of 53 - 58 or 20, 58 %. And for low category, there are 15 students who were include in the low category for the score of 47 - 52 or 44, 12 %.

Therefore, it can be inferred that the pre-test is categorized into low category from the result of pre-test; the writer found the students' problem was in lack of idea to write an argument.

b. Post-Test Result

After knowing the pre test result in argumentative writing, the students got low score and then the writer gave treatments by using Grammar critical thinking strategy. The writer gave explanation about teaching-learning process by critical thinking strategy, where reading text and example about some topic showed the materials. The students felt interesting and not boring in teaching learning process happened. In the end the writer gave the post-test to know students' argumentative writing after giving treatments.

To measure the student's argumentative writing after giving treatment by critical thinking strategy, the writer tested the students by giving them writing essay and gave argument from one of the topics chosen.

The result of post-test the materials can be identified as follows:

Table 8

The Post-Test Results of Students' Argumentative Writing Performance

No	Students' Initial	Score Post-Test
1	AS	50
2	AO	50
3	AM	80
4	AR	82
5	BI	80
6	CK	75
7	CA	80
8	DS	50
9	ER	50
10	ED	55
11	EV	82
12	EW	80
13	FE	50

14	HA	75
15	IP	75
16	IW	75
17	ID	55
18	KS	55
19	LK	80
20	LU	82
21	MM	82
22	MI	82
23	NY	75
24	PO	82
25	RA	80
26	RN	55
27	SN	80
28	SB	65
29	SM	75
30	TS	65
31	VA	65
32	VL	70
33	VZ	82
34	WY	80
	Total	2399
	Mean	70,55

Source: The Post-Test Results of Students' Argumentative Writing Performance Test on April 29th 2015

Based on the above table, the writer then measured the class interval using the formula according to Yogesh Kumar Singh, as follows:²

$$P = \frac{\text{The Highest Score} - \text{The Lowest Score}}{\text{Total of Categories}}$$

$$P = \frac{82-50}{3} \quad P = 10,67$$

² Yogesh Kumar Singh, "Fundamental of Research Methodology and Statistics". (New Age International (P) Ltd., Publishers, 2006), p. 273

The total of class interval (IR) for this research is 10, 67 Or 11. After knowing the class interval, the data that was taken from interval class above. Then it was put on the table of frequency distribution, as follows:

Table 9

The Frequency of Distribution of the Students' Score in Post-Test of Argumentative Writing Performance

No	Class Interval	Frequency	Category	Percentage
1.	72 – 82	21 Person	High	61,76%
2.	61 – 71	4 Person	Fair	11,76%
3.	50 – 60	9 Person	Low	26,48%
Total		34 Person	-	100%

Source: Data Analysis Post-Test Results of Students' Argumentative Writing Performance Test on April 29th 2015

Based on the table of frequency distribution above, it can be inferred that from 34 students as the research samples, there are 21 students who were included in the high category for the score of 72 – 82 or 61, 76 %. Furthermore, in the fair category, there are 4 students who got the score of 61 – 71 or 11, 76 %. And for low category, there are 9 students who were include in the low category for the score of 50 – 60 or 26, 48 %.

Therefore, it can be inferred that the post-test is categorized into high category from the result of post-test; the writer found the students' argumentative writing performance has increase to write an argument.

B. Hypothesis Testing

After getting the data of student's critical thinking ability (X) and argumentative writing performance (Y), moreover the data are analyzed using the statistical formula. The results of analyzing of the data are as follows:

1. The frequency distribution of students' critical thinking (X) and argumentative writing performance (Y) of the fourth semester of English Education Study Program of STAIN Jurai Siwo Metro in the academic year 2014/2015. The researcher found the data analysis of students' critical thinking (X) and argumentative writing performance (Y). The result of the data are represented in the table below:

Table 10

The Pre-Test and Post-Test Result of the fourth semester of Students Critical Thinking and Argumentative Writing

No	Name	Pre-Test(X_1)	Post-Test(X_2)	D ($X_1 - X_2$)	D ² ($X_1 - X_2$) ²
1	AS	47	50	-3	9
2	AO	47	50	-3	9
3	AM	55	80	-25	625
4	AR	65	82	-17	289
5	BI	60	80	-20	400
6	CK	55	75	-20	400
7	CA	50	80	-30	900
8	DS	47	50	-3	9
9	ER	47	50	-3	9
10	ED	47	55	-8	64
11	EV	65	82	-17	289
12	EW	60	80	-20	400
13	FE	50	50	0	0
14	HA	55	75	-20	400
15	IP	47	75	-28	784
16	IW	47	75	-28	784
17	ID	47	55	-8	64
18	KS	47	55	-8	64
19	LK	50	80	-30	900
20	LU	65	82	-17	289
21	MM	65	82	-17	289
22	MI	65	82	-17	289
23	NY	55	75	-20	400
24	PO	60	82	-22	484
25	RA	60	80	-20	400
26	RN	50	55	-5	25

27	SN	50	80	-30	900
28	SB	60	65	-5	25
29	SM	55	75	-20	400
30	TS	55	65	-10	100
31	VA	47	65	-18	324
32	VL	60	70	-10	100
33	VZ	65	82	-17	289
34	WY	55	80	-25	625
Total		$\sum X_1 = 1855$	$\sum X_2 = 2399$	$\sum D = -544$	$\sum D^2 = 11338$

Source: Data Analysis Pre-Test and Post-Test Results of Students' Argumentative Writing Performance Test

To find and to prove whether there is effect of students' critical thinking on their argumentative writing performance, the researcher used the T-Test formula:³

Where:

$$t = \frac{\sum D}{\sqrt{\frac{(N \cdot \sum D^2) - (\sum D)^2}{N - 1}}}$$

$$t = \frac{-544}{\sqrt{\frac{(34 \cdot 11338) - (-544)^2}{34 - 1}}}$$

$$t = \frac{-544}{\sqrt{\frac{(385492) - (295936)}{33}}}$$

$$t = \frac{-544}{\sqrt{\frac{(89556)}{33}}}$$

$$t = \frac{-544}{\sqrt{2713}} = 10,443$$

Therefore, $t_{\text{observation}}$ are 10,443 as the result of the counting by using t-test formula above.

To know critical value of T-test (t_{table}), the writer firstly counted df (degree of freedom). The formulation of $df = (N - 1)$. N is the number of research population:

³ Sudjana, "Metode Statistika", (Bandung: Tarsito, 2005), p. 134

$$d.f. = (N - 1)$$

$$= (34 - 1) = 33$$

Furthermore, the writer demonstrated the data that had analyzed by using t-test in SPSS in the table below.

Table 11

Descriptive statistics

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Pre-Test	54.559	34	6.7608	1.1595
Post-Test	70.559	34	12.2132	2.0946

The table above demonstrated that mean of pre-test result was 54, 559, standard deviation was 6, 760 with total sample of 34, and its standard error mean was 1,159. Meanwhile, the mean of post-test result was 70, 559, standard deviation was 12, 213 with total sample of 34, and its standard error mean was 2, 094. Moreover, the table below illustrated the result of calculation of t-test in SPSS.

Table 12

Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Pre-Test - Post-Test	-16.0000	8.9341	1.5322	-19.1173	-12.8827	-10.443	33	.000

The table above illustrated that mean of pre-test and post-test in fourth semester result was 16.000 and it's the standard deviation was 8.9341 with

standard error mean was 1.5322, t_{observed} was -10.443 with degree of freedom was 33 to confidence interval of the difference 95%.

After considering the t -test table by using df 33. Therefore, it can be found that; the critical value of t -test (t_{table}) for the 5 % level is 0,344 and the critical value of t -test (t_{table}) for the 1 % level is 0,442.

From all the explanation of data analysis above, it can be known that:

- 1) $t_{\text{observed}} = 10.443$
- 2) $t_{\text{table}} = 5 \% (0,344) \text{ and } 1 \% (0,442)$

Finally, the data confirmed that $t_{\text{observation}}$ is higher than t_{table} . Therefore, it can be inferred that H_0 is rejected. It means that there is a positive effect and significant effect between critical thinking ability and argumentative writing performance in English study program of STAIN Jurai Siwo Metro in the Academic year of 2014/2015.

C. Interpretations

The writer has formulated the alternative hypothesis (H_a) and Null hypothesis (H_0) as follows:

1. Alternative hypothesis (H_a)

There is a positive and significant effect between critical thinking ability and argumentative writing performance in English study program of STAIN Jurai Siwo Metro in the Academic year of 2014/2015.

2. Null hypothesis (H_0)

There is not a positive and significant effect between the critical thinking ability and argumentative writing performance in English study program of Stain Jurai Siwo Metro in the Academic year of 2014/2015.

After H_a and H_o above were formulated the writer consulted T-observation to T-table as follows:

1. If t-observation is higher than T-table, H_a is accepted and H_o is rejected.
2. If t-observation is lower than T-table, H_a is rejected and H_o is accepted.

Finally the data confirmed that t-observation is bigger than t-table $10.443 > 0,344$. Therefore it can be inferred that H_a is accepted and H_o is rejected. It means that there is a significant effect of students' critical thinking ability and argumentative writing performance in English study program of Stain Jurai Siwo Metro in the Academic year of 2014/2015.

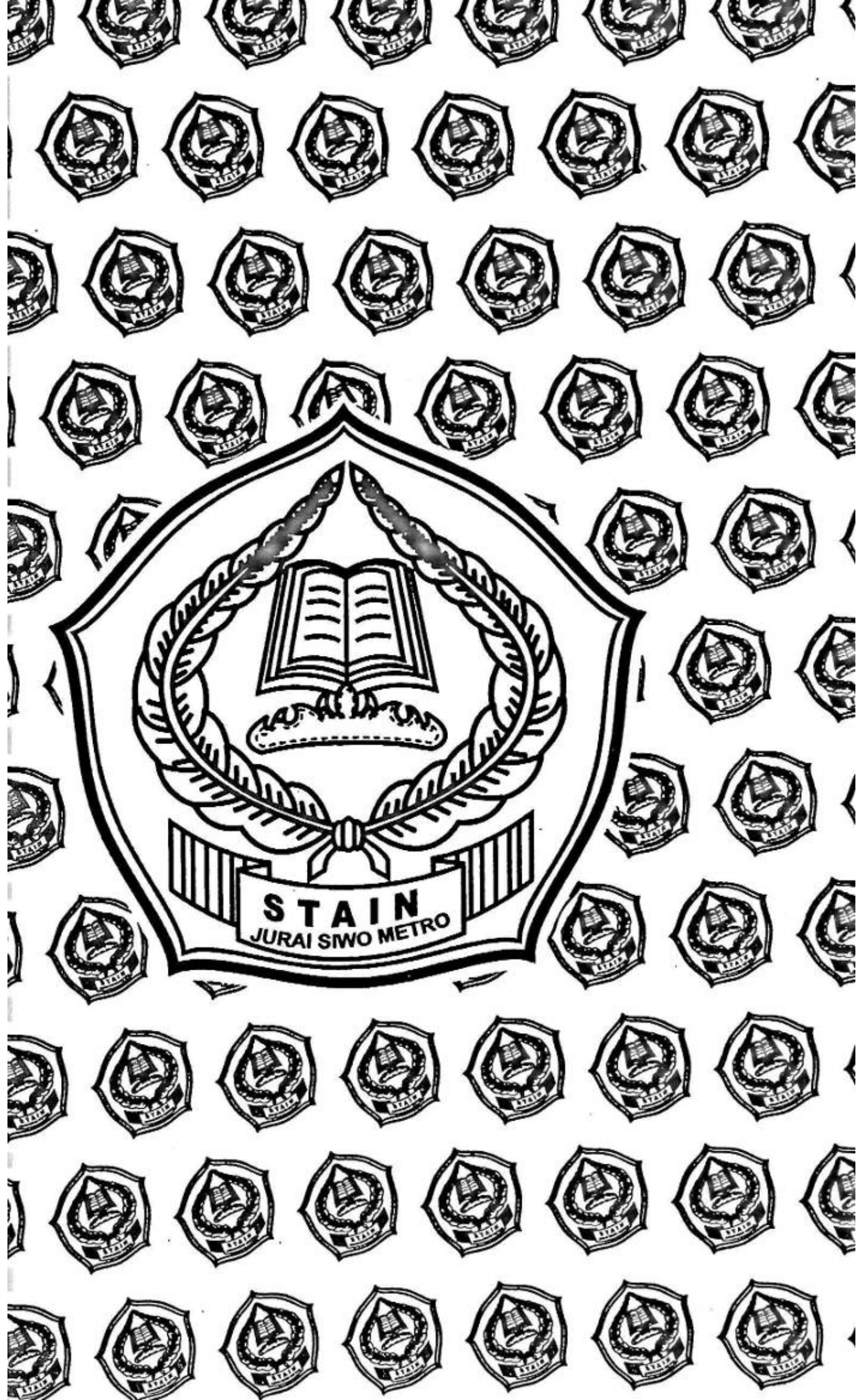
During the research, the writer observed that the students were interested in learning argumentative through critical thinking. They were enthusiastic during the learning process. All students always attended the class from the first treatment until the last treatment. They were also active in the class during the treatment in the class.

Through critical thinking, the students learn new experience in study English. In brief, there is a significant effect of students' critical thinking ability and argumentative writing after treatments. In fact, it shows that there changes at amount of students that get the low category and the high category. There are 15 students or 44, 12 % (Pre-test) were included in the low category become 9 students or 26, 48 % (Post-test). Then, there are 12 students or 35, 30 % (Pre-test) into the high category become 21 students or 61, 76 % (Post-test).

D. Limitations

Actually, the researcher did not face difficulty problems in doing this research because, the research setting was achievable, the research instruments were easy to be done by the researcher, the research methods were easy to done by the researcher, and the students in the campus enable the researcher to do the research.

However, after conducting the research and gaining the data from test, the writer found some problems faced by the students, the writer found the problem that faced by the students were problems in interpreting of critical thinking test and writing performance test. Some students were not able to answer the test and write several paragraphs that the topics were served by the writer.



CHAPTER V

CONCLUSION AND SUGGESTION

A. Conclusion

Based on the data analysis and the result of the research , the writer would like to conclude that there is an effect of students' critical thinking ability on their argumentative writing performance in English Education Study Program of STAIN Jurai Siwo Metro in the Academic Year of 2014/2015. It can be seen from the result of pre-test and post-test. In the pre-test, the average score of the students was 54,55 while in the post-test was 70,55. The mean of the post-test is higher than the pre-test. The result of the post-test is 61,76 % of students (21 students) who get high score. The average score of post-test is 70,55, it means that the students argumentative writing after treatments by critical thinking is increase. The students were interested and activated during the treatments, although they faced difficulties in write an argument from the topic.

In order to know whether the $t_{observed}$ was significant or not, it was needed to be tested using SPSS version 16 (product moment). The result of the critical value of 5% and $df = 33$ was found $t_{table} = 0.344$. The result showed that the coefficient analysis of $t_{observed} = 10,443$ was greater than $t_{table} = 0.344$. It meant that $t_{observed} = 10,443$ were significant. It means that the scores which were gained by analyzing of the research that consist of 34 subjects where those scores were represented to all the whole population of the

research. Therefore, it could be inferred that the alternative hypothesis of this research was accepted.

After analyzing the data, the researcher could infer that there was positive and significant effect between critical thinking and argumentative writing performance in English education study program in academic year of 2014/2015.

B. Suggestion

This research is pointed out to give suggestion for:

1. The lecturers have to motivate the students in order to increase their critical thinking.
2. The lecturers have to improve students' writing ability especially in argumentative writing performance.
3. The students should improve their critical thinking toward their argumentative writing performance.
4. The university should provide representative books in the library to encourage the students' critical thinking.

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CURRICULUM VITAE

The name of writer is Sartika. She was born in Sukadana, on March 29 1993. She is the last child of happy couple, Sakim (Alm) and Karni.

She was enrolled at Mi. Miftahul Huda Banding in 1999 and graduated in 2005. She continued her study at Mts. Miftahul Huda Banding, and graduated in 2008. She studied in SMAN1 Way Jepara and graduated in 2011. She was continued her study in STAIN Jurai Siwo Metro and graduated of S-1 program in 2015.

