CHAPTER IV

RESEARCH FINDING

A. The Students' Ability To Write Logical Argument in Argumentative Essay Based on The Result of Indicators From The Rubric of Critical Essay By Amy Glenn

The students wrote argumentative essay with some topics as the middle test product of argumentative writing course. The students who wrote argumentative essay were 31 students from A and B class of argumentative writing. The researcher focused to analyze the logical argument in the thesis, explanation of topic, argument, evidence, structure, transition and conclusion. The researcher analyzed the students' essay by using indicator of scoring rubric from Amy S. Glenn and numeracy that related much to measure students' ability to write logical argument in argumentative essay.

The researcher collected the data from the lecturer after the students submitted their essays to the lecturer. This data collection was conducted on Wednesday, 15 May, 2015. There were 31 students as the subject. So, there are 31 data. The students had to find an article about someone's claim. Then the students had to write an argumentative essay to response someone's claim either the students agree or disagree.

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The ability of students in writing logical argument in argumentative essay can be concluded low and high based on the result of two analyses in the following tables and paragraphs:

Table 4.1

The score of the students' logical argument in argumentative essay

No	Name	Introduction		Body		Organization		Conclusion	Total
		A	B	C	D	E	F	G	
1	Respondent 1	2	3	3	4	3	2	2	19
2	Respondent 2	2	2	2	1	2	2	2	13
3	Respondent 3	2	3	2	2	2	2	1	14
4	Respondent 4	3	1	2	2	2	1	3	14
5	Respondent 5	2	3	2	2	2	2	2	15
6	Respondent 6	2	3	3	4	3	2	2	19
7	Respondent 7	3	3	2	4	3	2	3	20
8	Respondent 8	2	3	3	4	3	3	3	21
9	Respondent 9	2	2	2	3	2	3	2	16
10	Respondent 10	2	2	2	2	2	2	2	14
11	Respondent 11	2	2	2	2	2	1	2	13
12	Respondent 12	2	2	2	1	3	2	3	15
13	Respondent 13	2	2	2	2	2	2	2	14
14	Respondent 14	2	2	3	1	2	2	2	14
15	Respondent 15	2	3	3	3	2	2	2	17
16	Respondent 16	3	3	2	4	3	3	3	21
17	Respondent 17	3	2	2	4	2	2	2	17
18	Respondent 18	3	3	3	2	2	3	3	19
19	Respondent 19	2	2	3	1	2	2	2	14
20	Respondent 20	2	3	3	3	3	2	3	19
21	Respondent 21	2	2	2	1	2	2	2	14
22	Respondent 22	3	3	3	4	3	3	3	22
23	Respondent 23	3	2	2	4	2	3	2	18
24	Respondent 24	3	3	2	2	3	2	3	18
25	Respondent 25	2	2	3	1	2	2	2	14
26	Respondent 26	2	2	2	1	3	2	3	15
27	Respondent 27	2	2	2	1	3	2	2	14
28	Respondent 28	3	3	3	2	2	2	3	18
29	Respondent 29	2	2	2	2	3	2	1	14
30	Respondent 30	2	2	3	2	3	2	2	16
31	Respondent 31	2	2	2	2	2	2	2	14
	$\sum FX$	71	74	75	73	75	66	71	505
	Mean	2.29	2.38	2.41	2.35	2.41	2.12	2.29	16.29

Note:

    A   : Thesis

    B   : Explanation of topic

    C   : Argument

    D   : Evidence

    E   : Structure

    F   : Transition

    G   : Restatement

From the table above, these two kinds of analyses for the student's ability in writing logical argument in argumentative essay:

1. **Looked by the percentage of total score gotten by all of the samples**

   The highest score from the total score from all of the samples is 868. In this research, the total score gotten by all of the samples is 505. The percentage is gotten from this calculation:

   $$\frac{\text{Total score gotten by all of the students}}{\text{maximum score}} \times 100\%$$

   $$= \frac{505}{868} \times 100\% = 58\%$$

   As like the criteria mentioned in previous chapter, for low ability is 1 – 50 % and for high ability is 51 – 100%. From the result of formula above, it shows that 58% of students of argumentative essay have high ability to write logical argument in argumentative essay. While, 42% students have low ability. So, it can be said that students' ability to write logical argument in argumentative essay is high because the percentage showed that the high ability is more than 51%.

2. **Looked by the percentage of total samples who get low and high score**

   From the result of the students' essays on the table above, it can be seen that there are 17 students who got 15 until 28 score that can be categorized as students' with high ability in writing logical argument in argumentative essay.

While, there were 14 students got scores 1 until 14 that can be categorized as students' with low ability in writing logical argument in argumentative essay.

The researcher compares the percentage students who have high and low ability by using this formula:

The percentage gotten from = $\dfrac{\sum R}{N}$ x 100%

Note: $\sum R$ = total of samples who get low and high score
             N   = Total of sample

For the result of percentage of students with low and high ability is showed in the table below:

Table 4.2
The result of percentage students' ability on logical argument

Criteria	Score	N	$\sum R$	%
Low	1-14	31	14	45%
High	15-28	31	17	55%

As like the criteria mentioned in previous chapter, for low ability is 1–50 % and for high ability is 51 – 100%. From the result of the percentage in the table above, it can be seen that the students who have high ability in writing logical argument is 55%. While, the students who have low ability is 45%. So, the comparison of percentage of students who have high ability is greater than the students who have low ability. So, it can be said that students' ability to

write logical argument in argumentative essay is high because the percentage showed that the high ability is more than 51%.

3. **Looked by the percentage of total score of each criterion gotten by all of the samples**

For the detail explanation of each criterion which was gotten from the total score of each criterion from the entire students essay as follow:

a. In terms of the thesis in the introduction of the essay, the total score is 71 score from the maximum score (124).

b. In terms of the explanation of the topic in the introduction of the essay, the total score is 74 from the maximum score (124).

c. In terms of the argument in the body of the essay the total score is 75 from the maximum score (124).

d. In terms of the evidence in the body of the essay, the total score is 73 score from the maximum score (124).

e. In terms of the structure of the organization, the total score is 75 score from the maximum score (124).

f. In terms of the transition of the organization, the total score is 66 score from the maximum score (124).

g. In terms of conclusion, the total score is 71 score from the maximum score (124).

From the total score of each criterion, the researcher calculated the percentage of the total each criterion as follow:

The percentage of each criterion:
$$\frac{S}{\sum S} \text{ x } 100\%$$

Note: S   = Total score gotten by all of the students
$\sum$ S = Highest score for each criterion

Table 4.3
The result of percentage of each criterion on students' ability to write logical argument

No	Criterion	Score gotten by all of the students	The highest score	Percentage
1	The thesis	71	124	57%
2	The explanation of the topic	74	124	59%
3	The argument	75	124	60%
4	The evidence	73	124	58%
5	The structure	75	124	60%
6	The transition	66	124	53%
7	The conclusion	71	124	56%

From the result of the table above, it can be seen that the entire criterion is more than 51% which is mean that the ability of students is high. For the students' ability in writing thesis is 57%. It is because 57% students of argumentative writing are able to make debatable thesis that make the reader interest in. For the explanation of topic the students' ability is 59%. It is because 59% students of argumentative writing are able to write a clear explanation of topic. For the argument in the body of essay is 60%. It is because 60% students of argumentative writing are able to write logical

argument followed by empirical evidences. For the evidence is 58%. It is because 58% students of argumentative writing are able to support their argument with empirical evidences. For structure is 60%. It is because some of the students are able to write well-structured sentences that enhance their essay. For the transition is 53%. There were some students are able to make a logical progression of the essay. And for the conclusion is 56%. It is because 56% students of argumentative writing are able to conclude the whole of the essay.

B. The Students' Ability To Write Logical Argument in Argumentative Essay Based on The Result The Calculation of T-test

After analyzing the students' essays and knowing the students' score and percentage, the researcher calculated the meaning of the score of the essays. Then, calculating was done to know standard deviation and analyzed the result by using statistical of t-test formula. The result of the calculation was presented as below:

Table 4.4

One Sample Statistic

	N	Mean	Std. Deviation	Std. Error Mean
Students' ability to write logical argument in argumentative essay	31	16.2903	2.67324	.48013

From the result of the one sample statistic above, it can be seen that the sample of this research is (N) 31 students. The total of students' mean score is 16.29. Standard deviation is 2.67 and std. error mean is 0.480.

Table 4.5

One-Sample Test

	Test Value = 28					
					95% Confidence Interval of the Difference	
	T	Df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Students' ability to write logical argument in argumentative essay	-24.389	30	.000	-11.70968	-12.6902	-10.7291

From the result of One Sample Test above, it can be seen that the mean difference is -11.70968. That is from mean $16.2903 - 28 = -11.70968$. The difference of - 11.70968 has range between lower -12.6902 and upper -10.7291.

Furthermore, it showed that t-value is -24.389. According to Abdul Muhid in his book "Analisis Statistik", he said that if the sign of t-value is negative, it can be absolute become positive[1]. Thus, the score of t_{value} is 24.389. The degree of freedom is 30 (N-1). So, t_{value} is 24.389 and t_{table} is 1.697. As like the creation of the hypothesis in chapter III that If $t_{value} > t_{table}$ means that H_o is rejected and H_a is accepted. Conversely, If $t_{value} < t_{table}$ means that H_o is accepted and Ha is

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[1] Muhid, Abdul. Analisis Statistik (Surabaya: Duta Aksara. 2010). P.13

rejected. In this study, the score of t-$_{value}$ is 24.389 and t-$_{table}$ is 1.697. It showed that t-$_{value}$ is higher than t-$_{table}$. It means that H$_a$ is accepted and H$_o$ is rejected.

Also, for the second creation of the hypothesis is if sig. score > 0.05 means that H$_o$ is accepted and H$_a$ is rejected. While, if sig. score < 0.05, H$_o$ is rejected and H$_a$ accepted. The score of significance of this study is 0.00, means that 0.00 < 0.05. So, it can be concluded that H$_o$ is rejected and H$_a$ accepted.

C. The Relation of the Result of Score of Indicator Analysis and T-test Result

From the result of the score of indicator analysis and t-test result of this study, both of these analysis proved that the students' ability to write argument in argumentative essay is high. For the result of indicator analysis which includes three analyses, those three analyses showed that the percentage of students with high ability is more than 51% and for low ability is less than 50%. While, the result of t-test, it showed that the score of t-$_{value}$ is higher than t-$_{table}$. That is 24.389 > 1.697 Moreover, the score of significance is less than 0.05 that is 0.000 which means that H$_o$ is rejected and H$_a$ is accepted. Through these two analyses, the researcher can decide that the students' ability to write logical argument in argumentative is high.

D. The Discussion Of The Result Of The Students' Ability To Write Logical Argument In Argumentative Essay

The objective of this research is to know the students' ability to write logical argument in argumentative essay whether the level of ability is high or low by referring to the criteria of logical argument in argumentative essay rubric. Based on the first analysis based on the criteria of indicator of scoring rubric consists of three analysis in the previous chapter, it can be said the students have high ability if the percentage of each analysis is more than 51%. And the result of those three analysis showed that the students' ability is more than 51%. Firstly, the result of percentage of total score gotten by all of the samples analysis, it showed that the students' ability is 58%. Secondly, the result of percentage of total samples who get low and high score analysis, it showed that the students' ability is 55%. Thirdly, the result of the percentage of total score of each criterion gotten by all of the samples analysis, it showed that the students' ability is more than 51%. For the detail explanation of each criterion could be seen below:

1. In terms of the thesis in introduction, most of students are able to write argumentative thesis by stating debatable issues to grab readers' interest though there are little students who are not able. The students' topic is about giving cell phone for children, smoking, consuming the coffee, etc. In their thesis, most of students write a disagreement argument to someone's claims based on the article they have found. In the result of "the percentage of each criterion of students' ability in writing logical argument in argumentative

essay table", it showed that there were 57% students with high ability in stating the thesis in their argumentative essay. While, 43% of students have low ability. They are able to write debatable thesis because there have practiced how to write it during learning process with their lecture. And also, in the article they have found, there is been the writer's argument. So, the students are only accepting and rejecting the writer's argument in their thesis statement.

2. In terms of the explanation of the topic in the introduction, most of students are able to explain the topic clearly though there are little students who are not able. The students explain more the topic they are choosing in order to make the reader understand to the topic they are choosing. Such as by giving the definitions, examples and past event. In the result of "the percentage of each criterion of students' ability in writing logical argument in argumentative essay table", it showed that there were 59% students who have high ability in explaining the topic in the introduction of argumentative essay, while 41% of students have low ability. This student's ability is because they choose the topic they interest by themselves. So, they are able to explain more about the topic they have chosen. If the students did not give clear definition of the topic in the introduction, it will make the reader not understand about the topic that influences their belief to the students' essays.

3. In term of the argument in the body of the essay. Most of the students are able to give strong argument that related to the thesis though there are little

students who are not able. Most of students begin the essay with the writer' arguments in the article and argue by their own arguments whether they are agree or disagree to the writer's argument. The students prove their argument with some empirical evidences. In the result of "the percentage of each criterion of students' ability in writing logical argument in argumentative essay table", it showed that there were 60% students who have high ability writing strong argument in the body of argumentative essay, while 40% of students have low ability. The students are aware if they are not able to write strong argument; their argument will be not categorized as a strong argument and cannot influence the readers' belief to have same thought with the students' argument in the essays.

4. In term of the evidence in the body of the essay, most of the students are able to give the empirical evidence to strengthen their argument in order to make the reader more believe with the students' argument. The evidences are in form of facts, data, statistics, examples, and so on. In the result of "the percentage of each criterion of students' ability in writing logical argument in argumentative essay table", it showed that there were 58% students who have high ability in supporting the argument by empirical evidence, while 41% of students have low ability. The students are able to give empirical evidence is because they know that to make logical argument, it should be followed by strong argument. If there are no strong evidences, it will make the reader unbelief to the students' argument.

5. In term of the structure of the organization, most of students are able to write structured-sentences though there are little students who are not able. Most of them are able to place the part of speech correctly. In the result of "the percentage of each criterion of students' ability in writing logical argument in argumentative essay table", it showed that there were 60% students who low high ability in writing structured-sentences, while 40% of students have low ability. The students are aware, besides having good ability to write logical argument, the way the students to write a good essay is also important. It is because the product if this course is in form of writing. So, it will be better if the students have these two skills in order to make a good a piece of argumentative essay,

6. In terms of the transition of the organization, most of the students were able to make some paragraph in the essay become chronological to make the reader easy to follow the content of the essay. In the result of "the percentage of each criterion of students' ability in writing logical argument in argumentative essay table", it showed that there were 53% students who have high ability in organizing the paragraphs in chronological, while 47% of students have low ability. This ability is important to make each paragraph is chronological each other in order the essay is easy to be understood.

7. In terms of the conclusion, most of the students are able to conclude the whole of the essay. They are able to restate their thesis statement and argument. In the result of "the percentage of each criterion of students' ability in writing

logical argument in argumentative essay table", it showed that there were 56% students who high ability in concluding the whole of the essay, while 44% of students have low ability. The ability to conclude the whole of the essay is also important because if the readers do not understand the content of the essay, the reader can read the conclusion to understand the essay easily.

In addition, the result of t-test analysis also showed that the students' ability to write logical argument in argumentative essay is high. Because the scored of t-$_{value}$ is higher than t-$_{table}$ and the score of significance is less than 0.05. Through these criteria, H$_a$ is accepted and H$_o$ is rejected which means that that the students' ability to write logical argument in argumentative essay is high. This result cannot be denied for its truth because the calculation is by using SPSS. So, the truth of this result can be guarantee. Furthermore, the most of some readers' respond after reading the students' essays is agree with the students' argument. The students' arguments are able convincing the reader.

From all of the finding of this research, it can be concluded that more than 51% students' of argumentative writing class of English Teacher Education Department of Faculty of Education and Teacher Training of State Islamic University Sunan Ampel Surabaya in academic year 2014-2015 have high ability to write logical argument in argumentative essay. This students' ability is high because they have learned and practiced the way to make logical argument in argumentative essay during learning process by the lecturer. The high ability of each criterion to make a logical argument in argumentative essay has been

fulfilled by the sample of this study. It is not easy work. But, the students show that they are able to make a logical argument in argumentative essay. Their ability need to be increased to make better ability in it so that the students have a good skill in critical thinking and writing.