CHAPTER III

RESEARCH METHOD

This chapter presents research design, research instrument, validity and reliability testing, followed by, normality testing, data collecting method and how to analyze the obtained data into data analysis.

A. Research Design

This research used quantitative approach and the design employed is correlational research. In accordance, the researcher really wants to know whether there is a correlation between those two variables are really existed or not. Accordingly, the most appropriate research design used in order to answer whether or not students' debate mastery has correlation to their achievement in writing analytical exposition text of the students of the debate extra in SMAN 1 Trenggalek is correlational design.

B. Population, Sample, and Sampling

1. Population

Ary *et al* (2002) states that the group about which the generalization is made is called *a population*. Research needs automatically place and population supporting the research. In this research the population was all students coming from the second class (XI) students who join in Debate.

2. Sample

In this study, it was necessary for the researcher to gather the data taken from part of the population involving in this study. Because the variables here are *debate* and *writing analytical exposition,* the reseacher select the samples who are in the XI classes and also join in the debate extra. As Ary and friends (2006) "Samples must be representative if you are to be able to generalize with reasonable confidence from the sample to the population. However, this sample may not be representative if the individuals who are included have some characteristics that differ from the target population. The location of their school, their socioeconomic backgrounds, their family situations, their prior experiences, and many other characteristics of this group may make them unrepresentative. An unrepresentative sample is termed a **biased sample.** The findings on a biased sample in a research study cannot legitimately be generalized to the population from which it is taken". There are 12 students picked as the sample who join in debate and have been in XI class in SMAN 1 Trenggalek.

3. Sampling

There are various ways in taking taking sample that could be involved in a research what so called as *sampling.* There are basically two kinds of sampling being divided into *probability sampling and nonprobability sampling.* And each is still elaborated into some other kinds of sampling.

What sampling would be used in this research was *Purposive Sampling* which belongs to Non-Probability Sampling.

The main characteristic in Purposive Sampling is that there is typical characteristic that must be owned by the sample involved in the research. As this research so much concerns with debate activity and writing analytical exposition text, the sample was taken from the second class (XI) students who join in debate and get a analytical exposition text in formal subject. In addition, the debate is joined by all grades in that school (X and XI). Knowing that condition, the reseacher will take the sample only for the students having Analytical Exposition lesson in the class, they can be grades XI.

C. Research Instrument

In conducting a research, instrument plays an important role in order to measure the involved variables. Research instrument is defined as tool(s) to measure the nature or social phenomena being observed (Sugiyono, 2009:102). Because its research is the correlation study which study compares two variabels, the researcher makes two instruments which are debate instrument and writing istrument to collect data as Donald Ary, Lucy, Chris state "Correlational research produces indexes that show both the direction and the strength of relationships among variables, taking into account the entire range of these variable. Correlational research methods are used to assess relationships and patterns of relationship among variables in a single group of subjects". There were two kinds of test in which three instruments

were used to support each of debate and writing analytical exposition as follows:

1. Debate instrument

    Debate rule and debate motions had been definitely involved in the debate test as the instruments. The debate rule is adopted from a common instruction used in general debate Asia-Australian competition where is stated in Quinn's book. There is one motion which is made by the reseacher will be debated in debate exhibition. The rule and the motion will be tried out in different school but in one level to make impromt motion. Let's see table 3.1.

Table 3.1 Debate Rules (Instruction) and Debate Motions

Rules of Debating	1. Every team will have 15 minutes for case-building
	2. Every speaker of each team will have maximally 7 minutes 20 second to deliver the arguments.
	3. The replyer will have maximally 5 minutes 20 second to deliver the summary of the debate.
	4. There will be one knock at the 7th minutes on the substantive speech and on 5th minutes on the replyer speech. And a continuous knock at the last second indicating the arguments must be stopped.
	5. POI can be proposed after the first minute of the speaker's argument signalled through a one-clap.
	6. POI must be proposed for only 15 seconds long.

Debate motions	"(THBT) This House Should teach harsh reality of life to children rather than always instill hope and optimism".

During the debate, the reseacher scored each speaker's performance guided by a debate scoring guide is adopted from Simmon Quinn .This scoring debate had been specially well-designed for the use of rating debate activity which importantly assessed speaker's *matter, manner,* and *method.*

In debate activity, the first term '*matter*' was purposefully talking about a speaker's argument related to the debated issue or was simply about the content of his/her speech. What to rate were the relevancy, logic, and the consistency of the argument related to the case. The additional point was the supportive example or evidence towards the provoking argument.

The second aspect to discuss was about the *manner* of the speaker in a debate activity. It was about the style of a member of the team in persuading both adjudicators and audience. Looking at the provided scoring rubric, the elements of this aspects covered eye contact, gestures, enunciation (pronunciation), and vocal variation.

And the last was the method employed by the speaker which was mainly related to the structure and/or the organization of the debate. Method involved introduction, main body, conclusion, and time. Moreover, the points for each sub-aspects stretched from 1 up to 10. The total pointe would be obtained by summing up the points from each sub-aspect. The highest total point that might be obtained by each speaker would be 50

points while the lowest point would be 5 points. The point will be taken from individual speeches score not from the winning debate score. The writer classifies the scoring rubric by taking up from Quinn (2005).

2. Writing analytical exposition

In writing test, the students is asked to write analytical exposition text at least 3 paragraphs in the duration about 60 minutes. The topic for writing is as like as debate motion. It's caused of writing is done after debate. The issue will be raised automatically in the debate exibhition. But the rubric score is different. The researcher classify the score using writing analytical scoring rubric by Cohen (1994:328-329). The technique of scoring is based on five aspect, they are content, organization, vocabulary, grammar, and mechanic (apendix).

D. **Validity and Reliability Testing**

Validity and reability are two criterias used to judge all pre-established quantitative measures. Before using the test, the reseacher tries out in 6 students to find out the validity and reliability of the test.

1. Validity Testing

Validity simply means that the used instrument could measure what to measure in our research. There have been many ways to achieve the validity of the instrument used to gather the data. Some are *face validity, content validity and construct validity.*

a. Face Validity

Face validity becomes one of the validity types that can be established. According to this, a test is considered to fulfill the face validity when a set of the test can measure what to measure. The main aim of debate activity is to know student's ability in giving reasons or an argument for an action and decision as well as point a view; convincing others (O'Malley and Pierce, 1996: 62). Even The debate has two kinds which are Asian-Australian Parlementery and World Debate Championship or British (Quinn, 2005), the reseacher uses Asian-Australian parlementery.

Meanwhile, the writing test was administered as an attempt to know how student's ability in writing analytical exposition as well as their achievement. In accordance, to fulfill the face validity, the administered test were in the form of performance test by asking the students to have a debate activity in debate extra time to measure their ability in debate and another is in the form of written test by having students make a analytical exposition text in order to know their ability in writing.

b. Content validity

Content validity is the degree to which a test measures an intended content area (Gay, 1992:156). This research, the test has two content validities which are debate and analytical exposition. The researcher makes *writing analytical exposition* test is based on the course

objectives in teacher hand book K-13 of second graders students at SMAN 1 Trenggalek and *debate* test is based on the debating book writed by Quinn (2005). In these tests, the researcher asked the students to do debate exhibition and write about analytical exposition based on the topic which was given by the researcher. The content validities in this research as table 3.2 and 3.3.

Table 3.2 Content Validity of Writing Analytical Exposition

No	Material	Competence
1	Analytical exposition text	- Students are able to write about analytical exposition. - Students are able to write the text in the form of present tense. - Students are able to write the text with generic structure clearly.

Table 3.3 Content Validity of Debate by Quinn (2005)

No	Material	Contents
1.	Debate exhibition	- Manner describes the *way* that a particular speech is presented: 'how you say it'. - Matter describes the arguments that you present, both in their general strength and in the way that you support and explain them. - Method describes the *structure* of your speech.

c. Construct validity

In this research, the researcher ask the students to write about analytical exposition text to measure the students' skill in writing. The researcher classify the score using writing analytical scoring rubric by Cohen (1994:328-329). The technique of scoring is based on five aspect, they are content, organization, vocabulary, grammar, and mechanic. Meanwhile, in debate assessment, there were three main aspects that were commonly assessed in a debate activity which covers matter, manner, method by Quinn (2005).

2. Reliability

Testing It is important in the research that the test produces similar result or is consistent in every condition; that is what so called as *reliable.* One of the ways to achieve the reliability in a test is that a researcher may apply *rater reliability.* There are two kinds of rater reliability; the first is *inter rater reliability* in which two raters or scorers do the scoring, while the second is known as *intra-rater reliability* in which a rater or a scorer does the scoring twice. Knowing the reability of the test, the researcher us SPSS 16.0 aplication to count it.

In accordance, in this study, the researcher used inter-rater or two raters doing the scoring to achieve the reliability testing. After the score from both raters had been collected, they were processed by using SPSS 16.0 to know whether or not the instruments used is reliable. According to Donald Ary, Lucy Cheser Jacobs, Chris

Sorensen (2010: 247) , reliability can be achieved when the Alpha Cronbach value reaches more than 0,60.

Table 3.5 : Cronbach Alpha interpretation based on Triton

Cronbach values	Interpretations
0,00 – 0,20	Less reliable
0,21 – 0,40	Rather reliable
0,42 – 0,60	Quite reliable
0,61 – 0,80	Reliable
0,81 – 1,00	Very reliable

From the table above, we can see that the closer the reliability coefficient to one (1), the more reliable the instrument used in a research is. In order to know the reliability coefficient, researcher can certainly uses both *Person-Product Moment* from the SPSS 16.00 program.

However, in this study, the researcher applied SPSS 16.0 only to analyze the data. There were two analysis of reliability coefficient presented here; debate reliability coefficient and the writing reliability coefficient. Three tables below are showing you the result of the scores the process done by SPSS 16.0 in finding out the value of debate reliability coefficient.

Table 3.6 Score of inter-raters

Subject	Rater1	Rater2
A	74	74
B	72	72
C	72	72
D	76	74
E	74	72
F	60	72

Table 3.7 Test reability

Case Processing Summary

		N	%
Cases	Valid	6	100.0
	Excluded[a]	0	.0
	Total	6	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.790	2

Having known the value resulted by the reliability coefficient, the researcher surely concludes that the instrument used in this study is *reliable* based on the Cronbach Alpha's value interpretation given by Triton. The

conclusion could be simply seen in the second table showing the Cronbach Alpha's value reach 0,790 closer to 1.

E. Normality Testing

The main reason of conducting normality testing in a research is that it is necessary for the researcher to know that the population or data involved in the study is in normal distribution. One of the well-known ways to test the normality in a research is by using *Kolmogorv Smirnov test.* This can be done easily by using SPSS 16.0 program. Normality test was done towards the two scores (debate score and writing score) obtained from the students. The data which were analyzed is presented in the table showed on the table.

Table 3.8 Debate and Writing Scores

No	Students	Score	
		Debate	Writing
1.	ANN	66	64
2.	BLA	76	84
3.	BSH	62	64
4.	HEP	66	60
5.	HLN	74	76
6.	HMA	76	80
7.	LNA	76	80
8.	NRY	70	72
9.	PTR	74	76
10.	RCA	72	76
11.	RFI	68	68
12.	TBS	76	72

This score is taken from debate exhibiton which is devided into two groups A and B. we can see on the following table:

Debate Group A

Speakers	Name	Manner	Matter	Method	Score
First positive		30	32	14	76
Second positive		30	30	14	74
Third positive		28	20	14	62
Replayer		14	14	8	36
First negative		30	30	14	74
Second negative		30	30	14	74
Third negative		22	30	14	66
Replayer		12	14	8	34

Debate Group B

Speakers	Name	Manner	Matter	Method	Score
First positive		30	28	14	72
Second positive		22	30	14	68
Third positive		30	22	14	66
Replayer		14	12	8	34
First negative		30	32	14	76
Second negative		30	30	14	74
Third negative		20	28	14	62
Replayer		12	14	8	34

The hypothesis involved are:

a. H0 : The data is in normal distribution

b. H1 : The data is not in normal distribution

The analysis of which hypothesis is accepted refers to the significance value (α = 5%). Null hypothesis (H0) will be rejected when the *Asymp. Syg* value is lower than 0,05 (*Asymp. Sig* < 0,05). The result of the normality testing done by using SPSS is showed below:

One-Sample Kolmogorov-Smirnov Test

		debate	Writing	Unstandardized Residual
N		12	12	12
Normal Parameters[a]	Mean	71.17	72.67	.0000000
	Std. Deviation	4.707	7.402	1.89804489
Most Extreme Differences	Absolute	.226	.174	.152
	Positive	.152	.129	.152
	Negative	-.226	-.174	-.117
Kolmogorov-Smirnov Z		.784	.602	.527
Asymp. Sig. (2-tailed)		.570	.862	.944

a. Test distribution is Normal.

The value of *Asymp. Sig. (2-tailed)* was 0,570 in debate and was 0,862 in writing which were higher than 0,05 (0,614 > 0,05 and 0,862 > 0,05). As a result, the Null hypothesis (H0) was accepted while the Alternative hypothesis (H1) was rejected. Accordingly, all data from the scores were in a normal distribution.

F. Data Collecting Method

In conducting this research, the reseacher uses test to get scores of students' debate mastery and students' achievement in writing analytical exposition text. The debate test consist of one item which is served in motion (tittle) form. After all debate test is finished, the students countinue to do writing test. The reseacher allowed the students complete the test in sixty minutes.

By this method, the reseacher obtained the result of the data that the data will be processed to determine the relationship of the students' debate mastery with their achievement in writing analytical exposition text. This data gathering is placed in SMAN 1 Trenggalek especially for students of second grade who join in debate extra. This data is collected by:

1. Administering a test

   Administering a test or testing is one of the way in collecting data from the subjects, especially when the main purpose is to obtained the score of the subjects. Arikunto (2010:193) states that this can be defined as series of practices to measure one's skill as well as his intelligent. Because the scores taken are for debate and writing analytical exposition, this data gathering took place in SMAN 1 Trenggalek especially for the students of second grade and join in debate extra. There were two kinds of administered test covering debate exhibition (test) and writing test.

a. Debate Testing (Exhibition)

In debate test, the samples were to perform as debaters. The performance was done in the extra debate time where all formal schedule was over exactly at 01.30 pm. It was held on May 28th 2017 for group 1 and 29th for group 2 . The motion of the debate was given right at that moment the debate was practiced to make the motion becomes impromt. Even the motion was impromt, the resacher gave the chance to the students prepared. This procedure was applied in order to give the students chance to find out the information or other stuff related to the motion or the issue.

In other hand, the debate is Asian-Australian debate exhibition form. There are two sides of debate which are possitive and negative. Every team must be placed by three spekers only. The reseacher devided the debate into two groups (A and B) which is contained by two teams for each. When group A do debate exhibition, group B will be asked to have reasting out side the room to keep the motion still becomes impromt. The groups will debate the same motion (THBT this house should teach harsh reality of life to children rather than always instill hope and optimism) which will be rised to the group has debate exhibition at that time. Here are the time allocation (time procedure) for the on going debate:

1. Case building 15 minutes

2. Speaker's speech 7 minutes 20 seconds (for each)

3. Replier speech 5 minutes 20 seconds (for each team)

4. POI 15 seconds (it is not a must) At the day.

b. Writing Testing

Writing test will be administered after the debate test had completed. It will done by employing 1 writing prompt which were as like as the debate motion valided and then the products were rated by using scoring rubric to collect the score. The samples were given the topic and were required to compose writing analytical exposition text for an hour. Additinally, the test will not be like the debate exhibition which is devided into two groups but they are give in the same time at the same room. It was held on May 29th 2017 after debate exhibition group 2 was done.

G. Data Analysis

As this study employed quantitative approach, the gathered data were automatically be in the form of number. The numerical data were obtained from the subjects' debate score and their writing analytical exposition text score. After all data were gathered, first, the researcher tabulated them into tables which were expected to ease the reader understanding the data. Secondly, in order to know the correlation between the two involved variables, researcher was employing computer calculation known as SPSS 16.0 program to analyze the data.

Correlation can result in positive or negative number. If the coeficient correlation close to 1, it means the relation between two variables is strong.

But, if the correlation is closed to 0, it means the relation between two variables is weak as Ary (2010) states "When two variables are highly related in a positive way, the correlation between them approaches +1.00. When they are highly related in a negative way, the correlation approaches −1.00. When there is little relation between variables, the correlation will be near 0". This resulted the interpretation of how strong or weak the correlation (r) between the variables as the reseacher determind the table interpretation of productmoment scales; it shows on the table 3.9 bellow:

Table 3.9 : "r" interpretation based on Arikunto

Correlation value	Interpretation
0,800-1,00	High
0,600-0,800	Enough
0,400-0,600	Moderate
0,200-0,400	Low
0,00-0,200	Very low

Thirdly, the reseach will take a conclusion based on the result showed by the SPSS 16.0 program if the hypothesis is rejected or accepted.