

CHAPTER III
RESEARCH METHOD

3.1 Research Design

This research entitled “*The Use of LINCS (List, Identify, Note, Create and Self-test) Strategy to Improve Students’ Writing Ability on Eighth Grade at SMPN 2 Cerme*” used experimental research. The method of this study was quasi-experimental, because the data was taken from experiment and observe the condition of classroom. The purpose of this design was to quantity data and population result into the number such as the percentage of students’ ability in writing. Dinarto (2008) said that if quasi-experimental used to predict the cause or effect between the independent and dependent variable. Quasi experiment design with non-randomized pre-test and post-test was applied to selected controlled groups. Pre-test was conducted first to see which one of those groups included in control group and experimental group.

Group	Pretest	Treatment	Posttest
Experiment	+	+	+
Control	+	-	+

Non randomized subject, pre-test post-test Quasi experimental design where:

+ : with treatment

- : without treatment

Pre-test was conducted in order to know the students’ ability, in this case is writing ability before using LINCS (List, Identify, Note, Create and Self-test)

strategy. The class that got lower score will be as experimental group while in control group was class that got higher score. Based on the pre-test score, the class that included in experimental class was VIII E because of the lower score, while VIII G was included in control class because they got higher score which would not give a treatment.

After experimental group and control group were examined by the pre-test, the researcher only conducted experimental class in VIII E. After that, the post-test conducted for both experimental group and control group. This test conducted in order to evaluate student's writing ability after using List, Identify, Create and Self-test (LINCS) strategy that had been given. The last, the researcher tried to find the differences of pre-test and post-test score. The researcher analyzed the data using t-test formula in order to prove the hypothesis.

3.2 Variable

There were two variables in this research which consisted of independent variable and dependent variable. Independent variable in this research was LINCS (List, Identify, Note, Create and Self-test) strategy as a strategy for teaching writing. While the dependent variable in was student's writing ability.

3.3 Population and sample

The population of this research was the students of second semester in eighth grade at SMPN 2 Cerme, academic year 2015/2016. The researcher decided only two classes which consist of VIII E and VIII G. As sample of this research, VIII E

belonged as experimental group and VIII G belonged as control group which had 27 students in each class. So, the total number of the sample was 54 students.

3.4 Data collection

3.4.1. Research instrument

In this research there was instrument for collecting the data. The instrument of this research was test that included pre-test and post-test. Before student got treatment from the researcher, the student had gotten pre-test in form written test which aimed to know the student comprehension for descriptive text. After making a descriptive text, the student gave their work to the teacher, and teacher gave assessment for students' worksheet based on the criteria that had given. Pre-test was used to measure the differences of students' ability between experimental group and control group in English lesson. The post-test had similar procedure as like pre-test. It was conducted on the last program of this research for both control group and experimental group after the researcher giving treatment. Post-test was used to measure the influence of the treatment given.

The type of this test was subjective (making essay, especially writing ability). There were five aspects in the instrument of English test which used in scoring writing ability; content, organization, vocabulary, language use and mechanic. The Standard Criterion Scoring of Writing Composition (Heaton 1975) was used in scoring student's writing in pre-test and post-test can be seen in the following table:

Table 2.

The Standard Criterion Scoring of Writing Composition (Heaton 1975)

No	Aspect	Score	Criterion
1	Content	30 – 27	Excellent to very good; knowledgeable substantive.
		26 – 22	Good to average; some knowledgeable-little substance
		21 – 17	Fair to poor; limited knowledgeable of subject substantive.
		16 – 13	Very poor; knowledgeable non substantive.
2	Organization	20 – 18	Excellent to very good; fluent expression ideas clearly stated.
		17 – 14	Good to average; somewhat choppy loosely organized but main ideas stand out.
		13 – 10	Fair to poor; non fluent ideas confused or disconnected
		9 – 7	Very poor; doesn't communicate no organization.
3	Vocabulary	20 – 18	Excellent to very good; sophisticated range effective word/idiom choice and usage.
		17 - 14	Good to average; adequate range occasional errors of word/idiom, choice, usage but meaning not obscured.
		13 – 10	Fair to poor; limited range frequent errors

		9 – 7	of word/idiom form, choice, usage. Very poor; essential translation little knowledge of English vocabulary.
4	Language use	25 – 22	Excellent to very good; effective complex construction.
		21 – 19	Good to average; affective but simple construction
		17 – 11	Fair to poor; major problem in simple construction.
		10 – 5	Very poor; virtually no mastery of sentence construction rules.
5	Mechanic	5	Excellent to very good; demonstrate mastery of conventions.
		4	Good to average; occasional errors of spelling punctuation.
		3	Fair to poor; frequent errors of spelling, punctuation, capitalization.
		2	Very poor; no mastery of conventions dominated by errors of spelling, punctuation, capitalization.

3.4.2 General Schedule of Research Implementation

In this study, the researcher implemented this strategy based on this schedule:

The researcher sent an approval letter to the school and asked for approval from the headmaster in order to conduct observation and data collection on July 27th 2015. The researcher gave a pre-test to both the control and experimental groups on July 10th 2015. The researcher gave the first treatment on August 11th 2015, the second treatment on August 13th 2015, the third treatment on August 15th 2015, and the fourth treatment on August 18th 2015. For the fifth and sixth treatments, the dates were August 20th 2015 and August 22nd 2015. After the treatments were given, the researcher conducted a post-test for the control and experimental groups on August 22nd 2015.

3.4.3 Validity

Before the researcher conducted pre-test and post-test, the test instrument must be valid. Validity was aimed to measure and know the level of validity of the instrument. The instrument will be valid if it has validity, in order to check the validity of the test, the researcher checked its content validity. To determine content validity, the researcher checked it in the English curriculum and syllabus and also asked the English teacher to help check the instrument's validity. Content validity was needed to show the text selected for the test, which should be a result in responses to the text. In this study, the content of the text should be matched with the course objective and syllabus design. Besides that, the book for students was matched with the pre-test given. Then the book is about descriptive text. There were some examples of

descriptive text in the book which are describing about people, thing, place, and other.

After the researcher had looked the book, syllabus, the researcher made a pre-test that was match based on syllabus and book. When the item for pre-test was valid, the pre-test will be given to the student. Whether it is valid or not the item can be looked in content of item. The content of item must be matched with syllabus, book and lesson plan.

3.4.4 Procedure of collecting data

In collecting the data, the researcher conducted some steps: first, after the proposal accepted, the researcher made English test for pre-test and post-test where the test consist of making a descriptive. Second, the researcher divided subject into two groups which consist of experimental group and control group. Third, the researcher gave pre-test and post-test for both of groups as first data. Then, the researcher gave treatment for experimental group using LINCS (List, Identify, Note, Create and Self-test) strategy and without treatment for control group. The researcher conducted the treatment until six times for experimental group. Fourth, the researcher gave post-test for experimental group and control group in order to determined the outcomes from LINCS (List, Identify, Note, Create and Self-test) strategy whether it is success or not. Finally, from the result of statistical calculations, interpretation and conclusions that had been made, the data of pre-test and post-test will be analyzed by using SPSS 14.0 program.

3.5 Data Analysis

Data analysis is very important in research. Data analysis will answer the problem from pre-test and post-test. The researcher explained the student's test in written form and take score from the test result. The researcher analyzed it using independent sample t-test, because the subjects were small and the groups were independent. The independent sample t-test was conducted in order to determine the significance influence of LINCS (List, Identify, Note, Create and Self-test) strategy for student's writing ability. The researcher used SPSS version 14.0 to compute descriptive statistic.

Assumptions for the independent t-test are (1) independent: observations within each sample must be independent (they don't influence each other), (2) Normal distributions: the scores in each population must be normally distributed (normal) and (3) Homogeneity of variance; the two populations must be equal variance (the degree to which the distributions are spread out is approximately equal). The steps of analyzing the result are:

3.5.1 Homogeneity Test

The analysis variance was aimed to find out the variance of homogenous of experimental group and control group are homogenous because the reseacher cannot random the students. So, the homogeneity test is necessary to know the students writing ability in both groups are same or not.

The homogeneity test will be checked of *Levene's Test* with following procedure. First, open the SPSS program, klik variable view in SPSS editor. After

that in column name type “class” in the first row and type “score” in the second row. Then, in column decimal, change numeral become 0 for all variables. Then the column label “class” in the first row and “score” in the second row. So, the column values, for the first row click small box. In value type “1”, in values label type “control group” then click add. The next step in value type ‘2’, in value type “experimental group” then click ok. After that open the data view. There are column variable “class” and “score”. So, type data of pre-test according to variable. In variable “class” type with numeral 1 and 2 (1 refer to “control group” and 2 refer to “experimental group”). After that click analyze – compare means – independent sample t-test. After that take “score” in the test variable column and “class” in in grouping variable. Click define group and write “1” in the group 1 column and “2” in the group column. Click option and write “95%” in the confidence interval and click continue. The last is click ok. The result of the homogeneity test can be read. Then analyze the result and conclude the result by seeing on sig on the right column of Levene’s of error variances table with criteria null hypothesis below:

H₀: sample data from homogenous population

H₁: sample data not from homogenous population

Criteria: how can be rejected if sig < α (0,05)

3.5.3 Hypothesis Testing

Independent t-test was used to find out whether there is a significant different between control group and experimental group. The reseacher also uses SPSS

program. The hypothesis will be checked uses independent sample t-test. Independent sample t-test used to compare the difference of experimental group and control group.

The steps of t-test calculation are: First, open the SPSS program, click variable view in SPSS editor. After that in column name type “class” in the first row and type “score” in the second row. Then, in column decimal, change numeral become 0 for all variables. Then the column labels “class” the first row and “score” the second row. So, the column values, for the first row click small box. In value type “1”, in values label type “control group” then click add. The next step in value type “2”, in value type “experimental group” then click ok. After that open the data view. There are column variable “class” and “score”. So, type data of post-test according to variable. In variable “class” type with numeral 1 and 2 (1 refer to “control group” and 2 refer to “experimental group”). After that click analyze - compare means - independent sample t-test. Then put the variable “score” in test variable and grouping variable “class”. After that, click define group for group 1 type “1” and group 2 “2”, next click continue. The last is click ok. Then analyze the data and conclude the result by seeing on sig (2-tailed) on equality of means if the result less than significance level (0,05) the data was accepted but if the result more than significance level the data was rejected. Based on the null hypothesis is on below:

H_0 : there is no significant influence on students writing descriptive text who were taught by using LINC'S (List, Identify, Note, Create and Self-test) strategy and who were taught without LINC'S (List, Identify, Note, Create and Self-test) strategy.

H_1 : there is significant influence on student writing descriptive text who were taught by using LINC'S (List, Identify, Note, Create and Self-test) strategy and who were taught without LINC'S (List, Identify, Note, Create and Self-test) strategy.