CHAPTER III
RESEARCH METHOD

A. Research Approach

In this study, the writer uses an experimental research. According to Margono, The meaning of "experiment" is the part of the research that compare between two group of research object. One group is given a particular action and one group again is controlled at one condition that the influence is became a control.[1] The group which is given a particular action is called the experimental class and group that become a control is called the control class.

The writer uses an experimental research as an effort to develop English teaching learning process and to compare the differences between experimental class and control class in learning English writing.

1. Experimental Research

There are two groups in experimental research. They are: experimental group and control group. The writer uses an experimental research as an effort to compare the differences between experimental group and control group in learning English writing. An experimental group received a new treatment while control group received an usual treatment.

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[1]Margono, *Metodologi Penelitian Pendidikan*, (Jakarta: Rineka Cipta, 2010), 8th Ed., p. 110.

The experimental group is the VIII D class ofSMPN 28 Mangkang in the academic year of 2012/2013, and the control group is VIII C class. In this research, the researcher gives pre-test and post-test to both groups to collect data.

The design of the experiment could be described as follow:

$$\frac{E\ 01\ X\ 02}{C\ 03\ Y\ 04}$$

Adopted from Arikunto.[2]

Where:

E = experimental group

C = control group

01 = pre-test for experimental group

02 = post-test for experimental group

03 = pre-test for control group

04 = post-test for control group

X = treatment by using English songs

Y = treatment without English songs

From the design above, subjects of research are an experimental group (top line) and a control group (bottom line). The quality of subjects is first checked by pre-testing them (01 and 03). Then, the experimental treatment (teach by using English Songs) is applied to the experimental group,

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[2] Suharsimi Arikunto,*Prosedur Penelitian Suatu Pendekatan Praktik,* (Jakarta: Pt Rineka Cipta: 2006).*, p. 86.*

while the control group is taught without English songs. The test is held in the form of composition. Then the results of post-test (02 and 04) is computed statistically. Activities should be conducted in experimental and control class as follows:

2. **The Activities of Experimental Group**

a. Pre-test

Pre-test is given before the treatments. First, the writer come to the class. Then, teacher explains to the students what they had to do. Finally, He distributes the instruments and asks them to do the test.

b. Activities in Experimental Group

There are some activities in experimental group (Class VIII D) as follows:

Table 1
Activities in Experimental Group

No	Activities	Time Allotment
1	a) Teacher gives introduction about descriptive text. b) Teacher explains about descriptive text and shows the example of descriptive text to students. c) Teacher plays the songs which are correlated with descriptive text. d) Teacher gives the song lyrics	1 x 40'

		to help them in understanding the songs content. e) Teacher and students paraphrase the songs lyric into good paragraph.	
2	a) Teacher plays the songs which are correlated with descriptive text. b) Teacher gives the song lyrics to help them in understanding the songs content. c) Teacher asked students to paraphrase the song lyrics into good paragraph of descriptive text with their own words.	1x40'

c. Post-test

Post-test is held after all treatments were conducted. This test uses to measure students' achievement after they are given treatments. The result of test is analyzed statistically.

3. The Activities of Control Group

a. Pre-test

Pre-test is given before the treatment. First, the writer come to the class. Then, teacher explains to the students what they had to do. Finally, He distributes the instruments and asks them to do the test.

b. Activities for control group

There are some activities in control group (Class VIII C) as follows:

Table 2
Activities in Control Group

No	Activities	Time Allotment
1	a) Teacher explains about descriptive text and gives an example of descriptive text to the students. b) Teacher asked students to make descriptive text.	1x40'
2	a) Teacher gives the examples of descriptive text to the students. b) Teacher asks the students to make descriptive text.	1x40'

c. Post-test

Post-test is held after all treatments were conducted. This test uses to measure students' ability after they were given treatments. The result of test is analyzed statistically.

B. Variables and Indicators

The variable of this research refers to the teaching using English songs (independent variable) and the students' achievement on descriptive writing (dependent variable). The indicators of teaching and learning using english songs are as follows. There are two variables in this research.

1. Independent variable

It refers to the teaching media that is English songs. Its indicator are as follows:

a. Class presentation

The presentation of the material is very important to raise the students understanding.

b. English songs

English songs that describe about animals or place will be played by the teacher to show the example or object descriptions.

c. Paraphrase

The teacher and the students will paraphrase the song's lyrics to be good paragraph.

d. Freewriting

  The students try to write descriptive text based on their imagination about animals and particular place.

2. Dependent variable

  It refers to the achievement of the students. The indicators are as follows:

a) Student's understanding about descriptive text.

b) Student's score in composing descriptive writing.

C. Participants (Population, Sample and Technique of Sampling)

1. Population

  In an experimental class research there are populations that will be investigated. Population is all of data that be our attention in the coverage and the time that we decide.[3]In this study, the population that is used by the researcher is the eight grades students of SMPN 28 Mangkang in the academic year of 2012/2013. Total number of the eight grades students is 246 students. They is classified to eight class that is VIII A, VIII B, VIII C, VIII D, VIII E, VIII F, VIII G, and VIII H.

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[3] Margono, *Metodologi Penelitian Pendidikan*, (Bandung: Alfabeta, 2010), 10th Ed., p. 118.

2. Sample and Technique of Sampling

Sample is part or representative of population which is researched.[4] The aim of sampling is to construct a sample that can represent the entire population. The researcher took the subject of research randomly. Two classes were chosen randomly, in which the each class consist of 30 students.

D. Data Collection Technique

In gaining the data, the researcher attempt to use these following methods:

1. Documentation

Documentation method is looking for data about variable which is include notes, transcripts, books, news papers, magazines, ancient inscription, meeting notulen, agenda, etc.[5] In this research, the researcher will get the data from the school such as the syllabus, lesson plan of teaching and learning process, student's name list, and profile of SMPN 28 Mangkang in the Academic year 2012-2013

2. Test

Test is a tool or procedure which is used to know or measure something in the situation, with method and rule that had determined.[6] By using test, the student's knowledge about

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[4]Arikunto, suharsimi, *Prosedur Penelitian,* (Jakarta: Rineka Cipta, 2006), 6th Ed., p.131.

[5] Arikunto, Suharsimi, *Prosedur Penelitian,* (Jakarta: Rineka Cipta, 2006), 13th ed., p.231.

[6] Arikunto, Suharsimi, *Dasar-dasar Evaluasi Pendidikan,* (Jakarta: Bumi Aksara,1995), 11th Edition, p. 50.

the lessons can be measured. To get the pure value of the test, it's necessary to apply the

The operational definitions about meaning of test is: A test is a set of stimuli presented to individual in order to elicit responses on the basis of which a numerical score can be assigned. Whereas Kerlinger, also state that: A test is a systemic procedure in which the individuals tested are presented with a set of constructed stimuli to which they respond, the responses enabling the tester to assign the testes numerals.[7] By the test, the teacher can measure the students knowledge about the lessons. Although this method is not absolute, the student motivations and student skills can be known by this way.

E. Data Analysis Technique

1. Prerequisite test

Before the writer determines the statistical analysis technique used, the first the writer will examine the validity sample, they are the normality test, the homogeneity test and test of average.

a. Normality test

Normality test is used to know the distribution data normal or not. To find out the distribution data is used normality test with chi-square. The writer used Chi-square formula, as follows:

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[7]Sukardi, *Metodologi Penelitian Pendidikan*, (Jakarta: Bumi Aksara, 2009), P.138.

$$X^2 = \sum_{i=1}^{k} \frac{(Oi - Ei)^2}{Ei}$$

Cited from Sudjana.[8]

Where:

X^2 = Chi-kuadrat

O_i = Frequency that was obtained from data

E_i = Frequency that was hoped

k = the sum of interval class

If the obtained score is lower than t-table score by using 5% alpha of significance, Ho is accepted. It is meant that Ha is rejected.

b. Homogenity Test

It was meant to get the assumption that sample of research come from a same condition or homogenous. The writer uses the formula as follows:

$$F = \frac{Biggest\ Variance}{Smallest\ Variance}$$

Cited from Sugiono.[9]

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[8] Sudjana, *Metoda Statistika*, (Bandung: Tarsito, 2002), p. 272.
[9] Sugiyono, *Metode Penelitian Pendidikan,* (Bandung: Alfabeta, 2010), 10th Ed., p. 276.

If the calculation result of F count is lower than F table, the data is homogeneous as both of groups have the same variance.

c. Test of Average

It is used to examine average whether experimental class and the control class that has been decided having significance different average.

The formula that is used in the t-test as follow:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s\sqrt{\dfrac{1}{n_1} + \dfrac{1}{n_2}}}$$

Where:

$$s = \sqrt{\frac{(n_1-1)s_1^2 + (n_2-1)s_2^2}{n_1 + n_2 - 2}}$$

Cited from Sudjana.[10]

Where:

$\bar{x}_1$ = the mean score of the experimental group

$\bar{x}_2$ = the mean score of control group

n_1 = the number of the experimental group

n_2 = the number of the control group

s = standard deviation

[10]Sudjana, *Metoda Statistika*, (Bandung: Tarsito, 2002),, p. 239.

s^2 = variance

If the obtained score was higher than t-table score by using 5% alpha of significance, Ho was rejected. It meant that Ha was accepted: "There was a significant difference in writing achievement between the experimental and control group."

To calculate the validity of the test, the writer used the formula as follows:

$$r_{xy} = \frac{N \sum XY - \left(\sum X \right)\left(\sum Y \right)}{\sqrt{\left\{ N \sum X^2 - \left(\sum X^2 \right) \right\}\left\{ N \sum Y^2 - \left(\sum Y^2 \right) \right\}}}$$

Cited from Sugiyono.[11]

Where:

r_{xy}	= the correlation of the scores on two halves of the test
N	= the number of the students in each group
X	= the score of each component of writing scoring
Y	= the sum of all paragraph's score
$\sum X$	= the sum of total X score in each group
$\sum Y$	= the sum of total score from each student

[11]Sugiyono, *Metode Penelitian Pendidikan,* (Bandung: Alfabeta, 2010), 10th Ed., p.255

$\sum XY$ = the sum of multiple score from each student with the total score

$\sum X^2$ = the sum of the square score in each component of writing

$\sum Y^2$ = the sum of all paragraph's score square

To calculate the reliability of the test, the writer used the formula as follows:

$$r_{11} = \left(\frac{k}{k-1} \right)\left(1 - \frac{\sum \sigma_{b^2}}{\sigma_{t^2}} \right)$$

Cited from Arikunto.[12]

Where:

r11 = index reliability

k = number of items

$\sum \sigma_{b^2}$ = items variance

σ_t = total variance

To find out the variance of each item, the formula was:

$$\sigma_b^2 = \frac{\sum X^2 - \frac{(\sum X)^2}{N}}{N}$$

To find out the total variance, the formula was:

[12]Arikunto, Suharsimi, *Prosedur Penelitian,* (Jakarta: Rineka Cipta, 2006), 13th ed., p. 196.

$$\sigma_t^2 = \frac{\sum Y^2 - \frac{(Y)^2}{N}}{N}$$

2. Hypothesis Test

   To respond to the objectives of the study, the researcher examined the data in the following steps that is to prove the researcher's hypothesis about the difference of students' achievement on writing descriptive text between students taught by using English songs and other ways.

   a. Score the post test. After giving the post test to the students, the researcher scored its result.

   b. Compare the result of the test of the two groups. This step was done to prove the research hypothesis. Here, the t-test formula is used. In this case, because the group size is the same, the formula for computing the t-test value is like this.[13]

$$t = \frac{\overline{X}_1 - \overline{X}_2}{\sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}}$$

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[13]James Dean Brown and Theodore S. Rodger, *Doing Second Language Research*, (British: Oxford Press, 2002), p. 208.

In which

t : t - value

$\overline{X_1}$: Average score of experimental group

$\overline{X_2}$: Average score of control group

N_1 : Number of students of experimental group

N_2 : Number of students of control group

S_1^2 : Standard deviation for experimental group

S_2^2 : Standard deviation for control groups

The test criterion is : H_a is accepted if $t_{calculated} >$ t_{table} by degrees of freedom of $df = (n_1 + n_2 - 2)$ and by the chance of 0.05 level of significance.

F. Instruments

The instruments used here are test and documentation.

1. Test

It was used to investigate the students' achievements after being taught. The steps to arrange the test are as follows.

a. Limit the tested material. Here, the material was limited in writing descriptive text.

b. Determine the term to do the test.

c. Determine the test type.

2. Documentation

In this research, the researcher will get the data from the school such as the syllabus, lesson plan of teaching and learning process, student's name list, and profile of SMPN 28 Mangkang in the Academic year 2012-2013

G. Research Procedures

The data was collected by the researcher by doing some efforts. The steps of collecting the data includes preliminary visit, contact the headmaster, ask the data about the students as participants, give pre-test, give the treatments, give the post-test, conduct the observation and interview. The procedures of collecting the data could be seen in the following table.

Table 3.
The sequences of administration of the data collection

No.	Task	What to prepare	Date
1.	Preliminary visit (meet the administration officer)	-	16th October 2012
2.	Contact the headmaster	Research permission letter	18th October 2012 18th

3.	Contact the English teacher to ask data of data of students' as participants	-	October 2012
4.	Give pre-test	Pre-test worksheet	21th October 2012
5.	Give treatment	Lesson plan, handbook, worksheets, observation checklist.	24th October 2012
6.	Give post-test	Post-test worksheet, and camera.	28th October 2012

1. Preliminary Visit

The researcher visited the school to get information about the students and teacher as participants. To gain the information, the researcher asked the administration officer whether the school possibly become the setting of research or not by describing the researcher's intention and ask for information about setting and participants.

2. Contact the Headmaster

Having got the information about setting and participant, the researcher did the second visit to meet the headmaster of the school by giving the permission letter.

3. Contact the English Teacher

After receiving research permission from the headmaster of the school, the researcher met the English teacher and asked for the data of students.

4. Give Pre-test

In this session, the researcher gave the pre-test of writing descriptive text. Both experimental and control group were given this kind of test. This test have done to ensure that both of two groups were the same in descriptive writing skill.

5. Give the Treatment

In this session, the experimental group was given the treatment and taught by researcher as the experiment by using English songs while the control group was taught by the same teacher and material but was different in teaching media. During the treatment, the observation was also conducted.

6. Give Post-test

Having administered the treatment, the post-test was given to both groups to test their understanding on writing descriptive text.

H. Achievement Criteria

The improvement of the students' writing skill in descriptive text score can be seen in the achievement indicator as follow:

Table 4

No	Score	Criteria	Note
1	85 – 100	Excellent	The students get the excellent criteria score in every category
2	70 – 84	Good	The students get the good criteriascore in every category
3	55 – 69	Fair	The students get the fair criteriascore in every category
4	40 – 54	Poor	The students get the poor criteriascore in every category
5	0 – 39	Very Poor	The students get the score under the poor criteria in every category

I. Scoring Technique

In each test, the students did the written test. The researcher gave writing test to the students to analyze their scores on content, vocabulary, language use, mechanic and organization.

In giving scores to the students, the researcher followed scale scoring categories of writing test developed by Jacobs as follows:

Content

30-27   EXCELLENT TO VERY GOOD: Knowledge. Substantive. Through development of thesis. Relevant to assigned topic.

26-22   GOOD TO AVERAGE: some knowledge of subject.
Adequated range. Limited development of thesis. Mostly relevan to topic, but lacks detail.

21-17   FAIR TO POOR: Substance. Inadequate development of topic.

16-13   VERY POOR: does not show knowledge of subject.
Non-substantive. Non pertinent. Or not enough to evaluate.

Organization

20-18   EXCELLENT TO VERY GOOD: fluent expression. Ideas
clearly stated/supported. Succinct. Well-organized. Logical sequencing. Cohesive.

17-14   GOOD TO AVERAGE: somewhat choppy. Loosely organized but main ideas stand out. Limited support. Logical but incomplete sequencing.

13-10   FAIR TO POOR: non-fluent. Ideas confused or disconnected. Lacks logical sequencing development.

9-7   VERY POOR: does not communicate. No organization.or not enough to evaluate.

Vocabulary

20-18   EXCELLENT TO VERY GOOD: Sophisticated range. Effective word/idiom choice and usage. Word form mastery. Appropriate register

17-14   GOOD TO AVERAGE: adequate range. Occasional errors of word/idiom form, choice, usage but meaning not obscured

13-10   FAIR TO POOR: limited range. Frequent errors of word/idiom form, choice, usage. Meaning confused or obscured

9-7   VERY POOR: essentially translation. Little knowledge of english vocabulary, idioms, word form. Or not enough to evaluate

Language Use

25-22   EXCELLENT TO VERY GOOD: Efffective complex coonsstructions. Few errors of agreement, tense, number, word order/function, articles, pronouns, prepositions.

21-18   GOOD TO AVERAGE: Effective but simple constructions. Minor problems in complex constructions. Several errors of agreement, tense, number, word order/function, articles, pronouns, prepositions but meaning seldom obscured.

17-11 FAIR TO POOR: major problems in simple/complex constructions. Requent errors of negation, agreement, tense, number, word order/function, articles, pronouns, prepositions and/or fragments, run-ons, deletions. Meaning confused or obscured

10-5   VERY POOR: virtually no mastery of sentence construction rules. Dominated by errors. Does not communicate. Or not enough to evaluate.

Mechanics

5   EXCELLENT TO VERY GOOD: demonstrates mastery of conventions. Few

	errors of spelling. Punctuation. Capitalization. Paragraphing
4	GOOD TO AVERAGE: occasional errors of spelling. Punctuation. Capitalization. Paragraphing. Meaning not obscured
3	FAIR TO POOR: frequent errors of spelling. Punctuation. Capitalization. Paragraphing. Poor handwriting. Meaning confused or obscured
2	VERY POOR: no mastery of conventions. Dominated by errors of spelling. Punctuation. Capitalization. Paragraphing. Handwriting illegible. Or not enough to evaluate.[14]

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[14]Arthur Hughes, *Testing for Language Teacher*, *Second Edition* (United Kingdom: Cambridge University Press, 2005) p. 104