

Chapter Three

Methodology

This chapter presents the research method implied in this research. It consists of research design, research setting, population and sample, instrument of the study and data collection method.

Research Design

The main purpose of this study was to find out the significant differences between control and experimental groups in students' narrative writing skill. In knowing students difference in writing, the researcher used picture series in teaching an experimental group and teaching narrative without using picture series in control group. This research applied quantitative research.

“Quantitative research is research problem based on trends in the field or on the need to explain why something occurs” (Creswell, 2012). In quantitative research, the researchers used numerical data and were analyzed by using SPSS. Furthermore, the benefit of using quantitative research was to explain a phenomenon and also measured behaviour (Sukamalson, 2007).

Regarding of quantitative research, the researcher focused on using experimental research. In experimental research, there were three types of experimental research such as pre-experimental, true-experimental, and quasi-experimental (Williams, 2007). Therefore, in this research, the researcher focused on quasi-experimental research. Quasi-experimental research is a research that involves non-random in participants selection (Williams, 2007). In addition, quasi-experimental is still related to a control and also experimental group. A

control group means the group without get any treatment in students' writing process. An experimental group is a group that get a treatment in students' writing process. The treatment tool in this research is picture series. Based on those explanations, the researcher used quasi-experimental and picture series as a tool in doing a treatment. Beside, the types of quasi – experiment that researcher used was a quasi-experimental design of the pre-test and post-test non-equivalent group design.

Here was illustration the research design of quasi – experimental of the pre-test and post-test non-equivalent group design:

Figure 2

Illustration of the research design of quasi – experimental formula

Experimental group	$O_1 X O_2$
Control group	$O_3 O_4$

O_1 : Pre-test (Experimental group)
 O_3 : Pre-test (Control group)
 X : Treatment
 O_2 : Post- test (Experimental group)
 O_4 : Post-test (Control group)

The design illustrated above, in pre-test, researcher will give a test about *Malin Kundang* story for both experimental group (O_1) and control group (O_3). After that, the researcher would do a treatment (X) in experimental group. The treatment in this researcher was picture series. Beside, in control group, the researcher taught the students without using any treatment. The last was doing a

post-test (O2) experimental group and (O4) control group. Both of the groups are doing a test of Cinderella story.

Research Setting

In this research, the data were collected at one SMP Muhammadiyah at Yogyakarta. The researcher decided to do the research in the school since the school had cooperated as a partner school to conduct an internship program also provided an extracurricular as students' media for learning English well. The researcher was conducted the data in January 2018. In teaching the students, the researcher used the curriculum for the guideline in teaching and making lesson plan.

Research population

The population of the research were all of the students of eighth grade and it was decided based on the syllabus of the school. In syllabus, eighth grade had a subject teaching them about narrative text and each batch was divided into: Class A – H, and each class consisted of 30 students. Thus, the total of this population was 240 students.

Research sample

In research sample, the researcher used purposive sampling. Purposive sampling helped the researcher in choosing the participant who had a low score in English. Purposive sampling was chosen as a sample based on the criteria. The criteria's for control and experimental group was chosen based on the class that had a low score in English. Therefore, the class was finally recommended by the English teacher. The English teacher said that the class of experimental group

wasthe students of VIII D (n=30) that and the control group was the class of VIII F (n=30). The total of all participants were 60 students.

In conclusion, the researcher had two classes in doing a research. First, the experimental group was the students from class VIII D (n=30). Second, the control group was the students from VIII F (n=30).

Instrument of the Study

This research title was the impact of using picture series to improve students' narrative writing skill. This title was divided into dependent and independent variables. Independent variable is the antecedent while the dependent variable is the subsequent (Kaur, 2013). Thus, the independent is picture series. Dependent Variable is the variable that is affected by the independent variable (Kaur, 2013). The dependent variable of this title is narrative writing skill. The instrument was used for measuring the impact of students' writing skill in narrative text. In measuring students' narrative writing, the researcher applied pre-test and post-test. Those types test used writing text. The writing test is about story of *Malin Kundang* (pre-test) and *Cinderella* (post-test).

In doing pre-test, control and experimental used the text of *Malin Kundang*. This group was writing the story without using any instrument (picture series). The students wrote at least 100 words and told the story based on students' understanding of the story itself. Furthermore, in doing post-test, the researcher used the text of *Cinderella*. The researcher used the text and put the instrument (picture series) for experimental group. The researcher also gave a text of *Cinderella* without using any instrument. Hence, the students wrote the story

based on their understanding, and both of the groups must write at least 100 words for each story.

Data Collection Method

The title of this research was the impact of picture series to improve students' narrative writing skill. To gather the data related to the title, the researcher used test items. There were some categories in collecting the data such as considering the forms (organization), mechanics and grammar. In collecting the data, the researcher used a pre and post-test. The pre and post-test form used English and Indonesian languages. Indonesian language was to help students in understanding and ordering the meaning. In evaluating of students writing, the researcher used an analytical scoring as a guide to give a score.

Analytical scoring is a detailed scale of categories and description of five different levels for each category namely organization, vocabulary, mechanics, grammar, and content (Brown, 2010). Furthermore, the researcher focused to use organization, grammar and mechanics used in scoring students' writing.

Table of analytic scoring for rating composition tasks:

Table 1		
<i>The Scoring of the Students' Narrative Text Writing (Hughes, 1996)</i>		
No	Score	Criteria
Grammar		
	5	Some errors of grammar or word order which do not interfere with comprehension.

	4	Errors of grammar or word order fairly frequent; occasional re-reading necessary for full comprehension.
	3	Errors of grammar or word order frequently; effort of interpretation sometimes required on readers' part.
	2	Errors of grammar or word order very frequent; reader often has to rely on own interpretation.
	1	Errors of grammar or word order severe as to make comprehension virtually impossible.
Mechanics		
	5	Occasional lapses in punctuation or spelling which do not interfere with comprehension.
	4	Errors in punctuation or spelling fairly frequent; occasionally re-reading necessary for full comprehension.
	3	Frequently errors in spelling or punctuation; lead sometimes to obscurity.
	2	Errors in spelling and punctuation are so frequent that reader must often rely on own interpretation.
	1	Errors in spelling and punctuation are severe as to make comprehension virtually impossible.

Form (organization)		
	5	Material well organized; links could occasionally be clearer but communication not impaired
	4	Some lack of organization; re-reading required for clarification of ideas.
	3	Little or no attempt at connectivity, though reader can deduce some organization.
	2	Individual ideas may be clear, but very difficult to deduce communication between them.
	1	Lack of organization so severe that communication is seriously impaired.
Score: Grammar + Form + Mechanics / 15 X 100 =		

In doing a research, deciding an appropriate instrument is important because instrument can influence the research result later. This research used a picture series as the instrument in improving students writing. Picture series is a sequencing picture about event or story. Indirectly, students would develop and organize the idea based on the picture that they used.

In doing the data collection, there were some of the techniques that researcher did during collecting the data.

Pre – test.Pre-test is a test that conducted before doing a treatment. The researcher conducted a pre-test before doing any teaching and learning. This pre-test conducted for both of group (experimental and control group). In doing a pre – test, the researcher distributed a text about narrative text and the title was about “*Malin Kundang*”. In doing a pre - test, the students wrote the story, at least 100 words. In addition, the title of control group and experimental group was the same.

Treatment.In collecting the data, the researcher used quasi-experimental. In this research, the researcher divided participants into two groups (experimental and control group). In experimental group consisted of 30 students from VIII D, they got the treatment (picture series) as a tool in teaching process. Meanwhile, the control group consisted of 30 students from VIII F was taught with the writing process without any treatment. The researcher acted as a teacher who taught narrative text for both groups. In teaching students of control group, the researcher taught about the generic structure, language features, and past tense and gave examples of the story of narrative text. The students also did exercises in writing a narrative but without using an instrument. Furthermore, in experimental group, the researcher taught the same topic. The difference was only in students’ exercises. In students’ exercises, the researcher used instrument of this research and guide them wrote based on the picture of the text. The treatment was conducted in one month. Teaching and learning process was based on English teacher schedule. This treatment had four meetings for each class. It meant that

the experimental group had four meetings even for control group itself. Each meeting had 4 x 20 minutes.

Experimental group conditions. Experimental group was the students VIII D. The student got a pre-test in advance then continued in giving a treatment and the last was giving a post-test. The pre-test was conducted on Thursday, 4th January 2018. The time allocation to teach was 2 x 40 minutes. In doing a pre-test, there was no student who was best in the class.

In doing a pre-test, the researcher only distributed the test to the students and gave specific explanation in answering the question. The students could write the story of *Malin Kundang* at least 100 words. Thus, after doing a pre-test, the researcher was doing a first teaching process on January 8nd 2018. The teaching process was conducted 2 times (pre-test and post-test) and 4 times for each group (treatment). Below was the schedule of conducting the research (experimental group):

Table 4		
<i>Teaching schedule of experimental group in VIII D</i>		
Pre- Test	Objective	Official Statement
Thursday, 4 th January 2018 07.00 – 08.30		Students did pre-test and used the story of <i>Malin Kundang</i> . Time allocation is 2 x 40 minutes.

Monday		
<p>8th January 2018</p> <p>09.00 – 09.40</p> <p>Took a rest</p> <p>10.00 – 10.40</p>	<p>Students can write the story based on the generic structure and language feature of narrative text.</p>	<ol style="list-style-type: none"> 1. Students' learned about generic structure, and language feature of narrative text. 2. Students did exercises and divided the paragraph story became a part of each generic structure.
<p>15th January 2018</p> <p>09.00 – 09.40</p> <p>Took a rest</p> <p>10.00 – 10.40</p>	<p>Students can write a narrative story using past tense.</p>	<ol style="list-style-type: none"> 1. Students learned about past tense that usually used in narrative text. 2. Students wrote the story of textbook based on the researcher guiding.
<p>22nd January 2018</p> <p>09.00 – 09.40</p>	<p>Students can write a narrative story in</p>	<ol style="list-style-type: none"> 1. Students did the exercises and make

<p>Took a rest</p> <p>10.00 – 10.40</p>	<p>a good form such as grammar, organization and mechanics (punctuation used).</p>	<p>a story based on picture series in their textbook.</p>
<p>29th January 2018</p> <p>09.00 – 09.40</p> <p>Took a rest</p> <p>10.00 – 10.40</p>	<p>Students can write a narrative story in a good form such as grammar, organization and mechanics (punctuation used).</p>	<p>1. Students wrote the story based on the picture series in their textbook with minimum error writing.</p>
<p>Post-test</p> <p>Thursday, 1 February 2018</p> <p>07.00 – 08.30</p>		<p>Students did post-test and used the story of Cinderella. Time allocation is 2 x 40 minutes.</p>

In teaching process, the researcher used many kinds of picture series from stories of fable and legend. Before doing an exercise, the researcher explained about narrative text (meaning, generic structure and language features used). In every exercise, the researcher always put some picture series based on the story that researcher discussed. On the other hand, students also tried to find out the verb

(past tense) based on the story that students read. Then, the researcher explained it in more details.

At the end of meeting, the researcher distributed the post test in the class. The purpose of doing a post-test was to find out the students' writing condition after doing a treatment in teaching processes. The post-test was conducted on Thursday, 1st February 2018. All of the VIII D students attended the class. The rules of students' writing applied same as pre-test, which were at least 100 words on paper.

Control group conditions. Control group students were VIII F students. The control group consisted of 30 students. The control group did a pre-test first then continued to get a treatment (without picture series) and the last was doing the post-test. Pre-test was conducted on January 5th 2018 and post-test on January 2nd 2018, all of the students attended the class. In pre-test the students wrote a *Malin Kundang* story at least 100 words.

On the other day, the researcher continued teaching process. The teaching process was conducted 4 times in 2 weeks. The time allocation was 2 x 40 minutes. In teaching process, the researcher only used a story without using any picture used. In warming up, the researcher asked the students to brain storming the narrative text before explaining more details about it. The first teaching process was conducted on January 8th 2018. Below was schedule of conducting the research:

Table 5		
<i>Teaching schedule of control group in VIII F</i>		
Pre- Test	Objective	Official Statement
Friday, 5 th January 2018 10.15 – 11.35		Students did pre-test and used the story of <i>Malin Kundang</i> . Time allocation is 2 x 40 minutes.
Monday		
8th January 2018 11.20 – 12.00 Took a rest 13.00 – 13.40	Students can write the story based on the generic structure and language feature of narrative text.	<ol style="list-style-type: none"> 1. Students' learned about generic structure, and language feature of narrative text. 2. Students did exercises and divided the paragraph story became a part of each generic structure.

<p>15th January 2018</p> <p>11.20 – 12.00</p> <p>Took a rest</p> <p>13.00 – 13.40</p>	<p>Students can write a narrative story using past tense.</p>	<ol style="list-style-type: none"> 1. Students learned about past tense that usually used in narrative text. 2. Students wrote the story of textbook based on the researcher guiding.
<p>22nd January 2018</p> <p>11.20 – 12.00</p> <p>Took a rest</p> <p>13.00 – 13.40</p>	<p>Students can write a narrative story in a good form such as grammar, organization and mechanics (punctuation used).</p>	<ol style="list-style-type: none"> 1. Students did the exercises and make a story in their textbook.
<p>29th January 2018</p> <p>11.20 – 12.00</p> <p>Took a rest</p> <p>13.00 – 13.40</p>	<p>Students can write a narrative story in a good form such as grammar, organization and mechanics (punctuation used).</p>	<ol style="list-style-type: none"> 1. Students wrote the story based on the picture series in their textbook with minimum error writing.
<p>Post-test</p> <p>Friday, 2nd February 2018</p>		<p>Students did post-test and used the story of</p>

10.15 – 11.35		Cinderella. Time allocation is 2 x 40 minutes.
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Post – test. The researcher did a post-test after doing a treatment or doing in the end meeting of class. The post-test was writing test and the title was about “Cinderella”. In this test, the students wrote the story at least 100 words. Both of the class (experiment and control group) had a same title of the test.

Validity and Reliability

The researcher used validity and reliability. Validity refers to accurately of specific context that researcher attempt to measure. There are three types of validity such as face validity, content validity, construct validity and criterion created validity. In this research, the researcher used content validity. Content validity is achieved by making professional judgments about relevant content (Cohen, et al, 2011).

In checking the validity the researcher had a consultation with expert judgment. The expert judgment functions was to check the validity of the treatment that researcher used. In choosing the expert judgment based on the background of their study and teaching. The total of the expert judgment were two namely Andi Wirantaka M.Humand Ika Wahyuni M.Hum. The research did consultation about the instrument, pre and post test questions and also about the text book for guiding the teaching and learning. The result was choosing the story that was suitable for the students, using the difference story for the text book and

pre and post test question, focusing on grammar, organization and punctuation scoring, and using English and Indonesia language which were better than using one of them.

Furthermore, the researcher measured the reliability. The reliability is measuring a stability of the instrument. It is line with Cohen, et al: s opinion (2011) stating that reliability is about the stability over the instrument and over groups of respondents. In reliability when the result of reliability score was high, it meant that the instrument was reliable to use.

Cronbach's Alpha	N of Items
.713	3

In measuring the reliability, it was based on students' pre-test score. The types of reliability that researcher used was Cronbach's Alpha.

Table 2 <i>The Cronbach's Alpha guidelines (Cohen, Manion and Morrison, 2011)</i>	
>0.90	Very highly reliable
0.80 – 0.90	Highly reliable
0.70 – 0.79	Reliable
0.60 – 0.69	Marginally/minimally reliable
<0.60	Unacceptable low reliable

According to the result of reliability was 0.713. It meant that the result was reliable. On the other word, the instrument was reliable to use.

Normality and Homogeneity

Before the researcher analyzed the data, the researcher should have tested the normality and homogeneity first. Normality meant the distribution of data was considered normal or not (Cohen, et al,2011). Homogeneity means knowing the level variance of two or more distribution the data (Cohen, et al,2011). The expert also said that the normality test of result will be normal if the significant level of Kolmogorov – Smirnov is higher than 0.05. Then, the result of homogeneity is homogenous if the level is higher than 0.05.

Analysis of data

The data analysis used a descriptive statistic and inferential statistic. The descriptive statistic is describing and presenting the data (Cohen, et al,2011). The descriptive statistic consisted of mode, mean, median, minimum and maximum score, the range, the variance, frequencies, and the standard deviation. The researcher used means to get the final result for answering first and second questions.

In mean, the researcher found if there was any improvement of students' narrative writing after using picture series. A mean score category was based on the English teacher of writing scoring. In analyzing the result of mean both of experimental (X Variable) and control group (Y Variable), the researcher used this formula below:

Determining Mean of Experimental Group (X Variable):

$$M_x = \frac{\sum X}{N}$$

Determining Mean of Control Group (Y Variable):

$$M_y = \frac{\sum y}{N}$$

Table 3	
<i>The categorize of mean score based on the standard of English writing from the school</i>	
> 80	Excellent
70 – 80	Very Good
60 – 70	Good
< 60	Low

In inferential statistic was inferred and predicted the result of the research. In inferential statistic, the researcher used ANOVA. ANOVA helped the researcher to find the differences between control and experimental group of using picture series in students' writing. The ANOVA result was answering the third question.

In measuring the significant difference between two group of experimental and control group the researcher should be calculated the score to get a gain score. In checking a hypothesis, the researcher used analyzing the number of significant value that should be lower than 0.05. After that, the researcher can use ANOVA for knowing that the null hypothesis (Ho) is rejected or alternative hypothesis (Ha) is accepted.