

## **CHAPTER III**

### **RESEACRH METHOD**

In this chapter the researcher presents and discusses the research method which consists of research design, population and sample, research variable, research instrument, validity and reliability testing, normality testing, data collecting method, data analysis, and hypotheses testing.

#### **A. Research Design**

The research design is a plan on how to collect and process data that can be implemented to achieve research objectives. Therefore, the researcher need to determine the research design. In fact, there are two kinds of research approaches namely quantitative and qualitative approach. This research used quantitative approach with experimental design. According to Ary et al., (2010:22) quantitative research uses objective measurements to collect numerical data that is used to answer questions or test predetermined hypotheses. While experimental research design is a research about the effect of the systematic manipulation of one variable on another, Ary et al (2010).

This research used pre experimental research design that involves only one group of individuals. This design did not have a control group to compare with the experimental group. The reason why using a pre-experimental study was that the school only allowed the reseacher to take one of the available classes. So, the researcher only takes one class to do pre-test, treatment, and post-test. Pre-test is conducted before giving a treatment, while after giving treatment is called post-test. Those tests are given to take the score of the students' achievement before and after being taught by using Think-Talk-Write strategy. The design of this research can be seen in the table below:

**Table 3.1. The Illustration of Pre-Experimental Research Design**

Y1	X	Y2
Pre-test	Treatment (Independent Variable)	Post-test (Dependent Variable)

X : Treatment (Teaching narrative text using Think-Talk-Write Strategy).

Y1 : Student's achievement on writing narrative text before treatment .

Y2 : Student's achievement on writing narrative text after treatment.

The procedure of pre-experimental research that use one-group pre test-post test design:

- a. Administering a pre-test (Y1) before applying strategy a purpose measuring the students writing achievement of eighth grade students at SMPN 2 Kandangan.
- b. Applying the experimental treatment (X) teaching writing by Think Talk Write (TTW) in narrative text as strategy to the subject of eighth grade students at SMPN 2 Kandangan.
- c. Administering a post test (Y2) after applying strategy with a purpose of measuring the students' writing achievement of eighth grade students at SMPN 2 Kandangan.

## **B. Population, Sample and Sampling**

### **1. Population**

According to Ary et al., (2010:148) population is defined as all members of any well-defined class of people, events, or objects. Population is the all elements that become the areas of the research. The population of this research were the eighth grade students at SMPN 2 Kandangan in the academic years 2021/2022 which consisted of five classes (VIII A – VIII E) and each class was consist

with different number of students. The total population was 147 students.

## 2. Sample

Since the population is too large, so the researcher needs a sample. Selected of the sample is very important step in conducting a research study. According to Ary et al., (2010:148) sample is a portion of a population. This study the researcher takes one class of eighth classes of SMPN 2 Kandangan that is VIII B, in this class there are 30 students.

## 3. Sampling

Sampling is a technique to take sample from group of population. Sampling is an important characteristic of inferential, and statistics is the process of going from part to whole, Ary et al (2010:148). In this research, the researcher was used purposive sampling technique. Purposive sampling is selecting sample by using a certain criterion. For the study is intended to measure the effect of a certain variable on another variable dealing with cognitive aspect, the criterion is also concerning with cognitive (competency). That is why the selected sample is group of students who had similar and average competency. The sample with average competency is believed to be a normal sample meaning that their cognitive tent to grow when they are given a certain stimulation (being taught by using TTW strategy).

### **C. Research Variable**

A variable is a characteristic or attribute of an individual or an organization that (a) researchers can measure or observe and (b) varies among individuals or organizations studied, Creswell, (2012:112). Measurement means the researcher records information from individuals by asking them to answer questions. In addition, when the variable varies, it means the score will assume different values depending on the type of

variable being measured. In this research, there are two types of variables, which are:

1. Independent Variable (X) is variable which the researcher investigates the side effect. Independent variable is the variable that cannot exist by itself without dependent variable. The independent variable in this research is Think-Talk-Write strategy.
2. Dependent Variable (Y) is the effect of the implementing independent variable. The dependent variable in this research is student's writing narrative text ability.

#### **D. Treatment**

The treatment was given before administration post-test. During the treatment, the researcher applied the Think-Talk-Write strategy to teaching narrative text. The treatment was carried out by researcher for 3 meetings in class VIII B as an experimental group. The first treatment was carried out on November 17<sup>th</sup>, 2021, the second treatment on November 22<sup>nd</sup>, 2021, and the third treatment as the last treatment on November 24<sup>th</sup>, 2021.

##### **1. The first treatment was carried out on Wednesday 17<sup>th</sup>, 2021.**

In the first treatment, the researcher treated using the Think-Talk-Write strategy in narrative text learning. The first step the researcher taken before starting the Think-Talk-Write strategy was to divide the students into several groups. Class VIII B is divided into two classes, they are class VIII B-1 and VIII B-2, in each class there are 15 students so that each group consists of 3 students. Next, the researcher explained the steps of the Think-Talk-Write strategy in teaching writing narrative text and how to use the Think-Talk-Write strategy in the classroom. Then, the researcher explains the definition, social function, generic structure, linguistic features, and examples of narrative text.

Each group is given one sheet of paper containing the story "Cinderella". Students are asked to read the story and then identify

the social function, generic structure and language feature of text (Think). After identifying the story, students are asked to discuss with their friends in a group to determine the generic structure and language feature of text (Talk). Next, the researcher asked the students to rewrite the analyzed story in their own language (Write).

**2. The second treatment was carried out on Monday, November 22<sup>nd</sup>, 2021.**

In the second treatment, the researcher divided the students into several groups, each group consisted of 3 students. Each group is given one sheet of paper containing the story “The Ant and The Dove”. Students are asked to read the story and then identify the generic structure and language feature of text (Think). After identifying the story, students are asked to discuss with their group friends to determine the generic structure and language feature of text (Talk). Next, students were asked the students to rewrite the analyzed story in their own language (Write).

**3. The third treatment was carried out on Wednesday, November 24<sup>th</sup>, 2021.**

In the third treatment, the researcher divided the students into several groups, each group consisted of 3 students. Each group is given one sheet of paper containing the story “Snow White”. Students are asked to read the story and then identify the generic structure and language feature of text (Think). After identifying the story, students are asked to discuss with their group mates to determine the generic structure and language feature of text (Talk). Furthermore, the researcher asked the students to rewrite the analyzed story in their own language (Write).

## **E. Research Instrument**

Instrument is one of the significant steps to conducting the research. By using instrument, the researcher can get the data. According to Sugiyono (2015: 148), the instrument is a tool used to measured natural or social phenomena to be observed. Identified before the researcher collects data, the instruments can be in the form of tests, questionnaires, tally sheets, logs, observation checklists, inventory, or assessment instruments. Instrument is a tool or facilities that are used by researcher. In this research the researcher will use achievement test.

Achievement test is test that is used to measure the process that students making after learn something. This test used to measure the students' achievement in writing narrative text before and after they taught by Think-Talk-Write strategy. In this research, there are two kind of test that should be done by the researcher, there are pretest and posttest.

1. Pre-test

Pre-test is administering before the students is taught by Think Talk Write (TTW) strategy or before treatment process. Pre-test is given to know how far the students' ability in writing before being taught by Think Talk Write (TTW) strategy. This test is writing about narrative text.

2. Post-test

Post-test is administering after the students is taught by Think Talk Write (TTW) strategy or after treatment process. Post-test is given to know the basic competence for students and to know theory earlier knowledge after they get treatment. It is done to know the final score and to know the difference achievement before and after they get treatment. The test of post-test is writing about narrative text by applying Think Talk Write (TTW) strategy.

## **F. Validity and Reliability Testing**

Researcher is always dependent upon measurement. There are two important characteristics that every measuring instrument should go through a process of validity and reliability check.

### 1. Validity

According to Ary et al., (2010:225), validity is the most important consideration in developing and evaluating measuring instruments. Historically, validity is defined as the extent to which an instrument measured what it claimed to measure. The focus of recent views of validity is not on the instrument itself but on the interpretation and meaning of the scores derived from the instrument. These are four types of validity: 1) Content validity, 2) Criterion related validity, 3) Construct validity, 4) Face validity. In this research, to measure whether the test has a good validity, the researcher analyzed the test from content validity, face validity and construct validity.

#### a) Content validity

This research, the test has content validity because the researcher asked the students to write about narrative text based on the topic which is given by the researcher. The content validity in this research as follow:

**Table 3.2. Content Validity**

Main Competence	Basic Competence	Indicators
8. Understanding meaning in transactional conversations and simple short interpersonal to interact with surrounding environment.	8.2 Responding to the meaning contained in the short monologue simple accurately, fluently, and grateful for interact with the surrounding environment in the text in the form of narrative.	- Students' are able to identify the social function of narrative text. - Students' are able to identify the generic structure of

		narrative text. - Students' are able to identify the language feature of narrative.
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b) Face Validity

According Ary et al., (2010:228), face validity refers to the extent to which examinees believe the instrument is measuring what it is supposed to measure. The test in this research is designed to measure students writing skill, thus, to achieve face validity, the researcher provided the instructions to ask students to write. In this study, the researcher used face validity by consulting with the advisor, lecturer, and teacher to validate whether the draft of the test looks like to measure.

c) Construct Validity

Construct validity is capable of measuring certain specific characteristics in accordance with a theory of language behavior and learning. Brown (2004:25), mentioned that a construct is any theory, hypothesis, or model that attempts to explain observed phenomena in our universe of perception. In this research, the researcher asked the students to write about narrative text to measure the students' skill in writing. The researcher classified the score using by Hughes (2003:104). The technique of scoring is based on five aspects, they are content, organization, vocabulary, grammar, and mechanic.

**Table 3.3. Narrative Text Scoring Rubric**

Content		
Score	Level	Criteria



27-30	Excellent to Very Good	Knowledgeable, substantive, thorough development of thesis, relevant to assigned topic.
22-26	Good to Average	Some knowledge of subject, adequate range, limited development of thesis, mostly relevant to topic, but lacks detail.
17-21	Fair to Poor	Limited knowledge of subject, little substance, inadequate development of topic.
13-16	Very Poor	Does not show knowledge of subject, non substantive, not pertinent, or not enough to evaluate.
<b>Organization</b>		
<b>Score</b>	<b>Level</b>	<b>Criteria</b>
18-20	Excellent to Very Good	Fluent expression, ideas clearly stated, succinct, well organized, logical sequencing, cohesive.
14-17	Good to Average	Somewhat choppy, loosely organized but main ideas stand out, limited support, logical but incomplete sequencing.
10-13	Fair to Poor	Non-fluent, ideas confused or disconnected, lack logical sequencing and development.
7-9	Very Poor	Does not communicate, no organization, or not enough to evaluate.
<b>Vocabulary</b>		
<b>Score</b>	<b>Level</b>	<b>Criteria</b>

18-20	Excellent to Very Good	Knowledgeable, substantive, thorough development of thesis, relevant to assigned topic.
14-17	Good to Average	Some knowledge of subject, adequate range, limited development of thesis, mostly relevant to topic, but lacks detail.
10-13	Fair to Poor	Limited knowledge of subject, little substance, inadequate development of topic.
7-9	Very Poor	Does not show knowledge of subject, non substantive, not pertinent, or not enough to evaluate.
<b>Language Use</b>		
<b>Score</b>	<b>Level</b>	<b>Criteria</b>
18-20	Excellent to Very Good	Effective complex construction, few errors of agreement, tense, word order, articles, pronoun, and prepositions.
14-17	Good to Average	Effective but simple construction, minor problems in complex construction, several errors of agreement, tense, number, word order, but meaning seldom obscured.
10-13	Fair to Poor	Major problems in simple and complex, construction, frequent errors of negation agreement, tenses, number, word order, articles, pronoun, preposition, meaning confused or obscured.

7-9	Very Poor	Virtually no mastery of sentence construction rules, dominated by errors, does not communicate, or not enough to evaluate.
<b>Mechanics</b>		
<b>Score</b>	<b>Level</b>	<b>Criteria</b>
8-10	Excellent to Very Good	Demonstrates mastery of conventions, few errors of spelling, punctuation, capitalization, paragraphing.
5-7	Good to Average	Occasional errors of spelling, punctuation, capitalization, paragraphing but the meaning obscured.
2-4	Fair to Poor	Frequent errors of spelling, punctuation, capitalization, paragraphing, poor handwriting, meaning confused or obscured.
0-1	Very Poor	No mastery of conventions, dominated by errors of spelling, punctuation, capitalization, paragraphing, handwriting illegible, or not enough to evaluate.

## 2. Reliability

According to Ary et al., (2010:236), reliability is the extent to which the test measures accurately and consistently. Thus, reliability is a measure of accuracy, consistence, dependability, or fairness of scores resulting from administration of particular examination. In addition Creswell (2012:627) says that reliability means that individual scores of an instrument must be almost equal or steady in the giving of repeated instruments and that they should be free from a source of

mismeasurement and consistency. It means that reliability is a test that can be used to know that those tests are consistent and dependable.

An instrument can be called reliable if it has a consistency in the result of measurement. The reliability of an instrument is required to support the validity of an instrument. Before giving pre-test in VIII - B class, the researcher did try out in other class. It was tried out on students of VIII-C class on Wednesday, November 10<sup>th</sup>, 2021 consisted 29 students. To make sure instrument (test) is reliable, the researcher analyzed the result of try out used intra-rater reliability. It meant that the researcher did the scoring twice.

In this study, the researcher also used SPSS 16.0 for window to discern the reliability of the test instrument. Then, the researcher calculated two sets of score were gotten by using Pearson Product-Moment for getting correlation coefficient. The criteria of reliability instrument can be divided into 5 classes as follows (Zarkasyi, 2015:206), those are:

- a. If the Pearson Product Moment score 0.00 – 0.20: less reliable
- b. If the Pearson Product Moment score 0.21 – 0.40: rather reliable
- c. If the Pearson Product Moment score 0.41 – 0.70: enough reliable
- d. If the Pearson Product Moment score 0.71 - 0.90: reliable
- e. If the Pearson Product Moment score 0.91 – 1.00: very reliable

To know the items is reliable or not it can be seen from Pearson Product Moment column. If the from Pearson Product Moment under 0,41 means is not reliable. If the from Pearson Product Moment upper 0,41 means that it is reliable.

**Table 3.4. The Result of Reliability Testing**

		Correlations	
		Rater 1	Rater 2
Rater 1	Pearson Correlation	1	.877**
	Sig. (2-tailed)		.000
	N	29	29
Rater 2	Pearson Correlation	.877**	1
	Sig. (2-tailed)	.000	
	N	29	29

\*\* . Correlation is significant at the 0.01 level (2-

From tailed). t in SPSS

Statistics in the table above, the reliability value was 0,877 so, it can be concluded that the test instrument of this research was reliable.

## G. Normality Testing

### 1. Normality

Normality testing is used to measure whether the distribution of test is in normal distribution or not. In this research to measure the normality testing, the researcher using SPSS16.0 by the value of significance ( $\alpha$ ) = 0.05 rules as follow:

- a.  $H_0$ : If the value of significance  $> 0.05$ , means data is normal distribution.
- b.  $H_a$ : If the value of significance  $< 0.05$ , means the distribution data is not normal distribution.

## H. Data Collecting Method

Data collecting method is the way the researcher collect data. To get data the researcher will use method of data collecting as follows:

a. Pretest

Pre-test is given to students to know on the students' narrative text writing ability. It was conducted to know how far the students' score in narrativetext writing ability before being taught by using Think-Talk-Write strategy as the treatment in this study. The researcher administered pre-test to the students on Monday, November 15<sup>th</sup>, 2021. The researcher came to the class, and explained the material also told the students what they had to do. The researcher asked the students to create a narrative text using their own technique of writing a narrative text based on the topic given by the researcher.

b. Posttest

Post-test was given in the last meeting after the students get all treatment. The researcher gave post-test to investigate and measure their achievements in writing narrative text ability after being taught by using Think-Talk-Write strategy. The test type instruction was similar to the pretest. This section, the students were asked the students to create a narrative text based on the topic given by the researcher. Then the researcher compared the result of both pre-test and post-test. If there any difference score, it showed that treatment was successful and if there was no differences score, it showed that treatment was not successful. The post-test was administered on Wednesday, November 24<sup>th</sup>, 2021.

**Table 3.5. The Schedule of The Test and Treatment**

No.	Activity	Date
1.	Pre-test	November 15 <sup>th</sup> , 2021.
2.	Treatment	November 17 <sup>th</sup> , 2021
		November 22 <sup>nd</sup> , 2021
		November 24 <sup>th</sup> , 2021
3.	Post-Test	November 24 <sup>th</sup> , 2021

## I. Data Analysis

The two variables investigated in this research are Think-Talk-Write strategy and students' scores. In this research, quantitative data analysis techniques were used to determine student achievement before and after being taught the Think-Talk-Write strategy. Quantitative data were analyzed using statistical method. Here the researcher tested the students before and after being taught by applying the Think-Talk-Write strategy. Pre-test data were compared with post-test data to determine whether there is a significant influence on students' writing scores. Therefore, the researcher used paired sample T-test on SPSS 16.0 to find out whether the technique had an influence or not.

#### **J. Hypothesis Testing**

The study was intended to identify if there was a significant difference in the use of the Think-Talk-Write (TTW) strategy on students' narrative text abilities. After computing the data using t-test with SPSS 16.0 for window and determining that the significant level ( $\alpha$ ) is 0.05 or 5% (it has been programmed on the application) the next step was to determining whether or not the Null hypothesis was rejected. The basis for rejecting or not rejecting the null hypothesis was:

- 1) When the significant value  $<$  significant level, the alternative ( $H_a$ ) is accepted and the null hypothesis ( $H_o$ ) is rejected. It means that there is significant influence on the students' writing narrative text achievement before and after being taught by Think-Talk-Write (TTW) strategy. The influence is significant.
- 2) When the significant value  $>$  significant level, the null hypothesis ( $H_o$ ) is accepted and the alternative ( $H_a$ ) is rejected. It means that there is not significant influence on the students' writing narrative text achievement before and after being taught by Think-Talk-Write (TTW) strategy. The influence is not significant.