## CHAPTER III

## RESEARCH METHOD

## A. The Design of the Research

This research is a correlation research where the researcher investigates whether there is a correlation between students' understanding of sentence pattern and their ability in writing descriptive text and how strong the relationship is. Correlation analysis is used to describe the strength and direction of the linear relationship between two variables Pallant,( 2005).

According to Creswell, (2008, p. 338) correlations a statistical test to determine the tendency or pattern for two (or more) variables or two sets of data to vary consistently. In the case of only two variables, this means that two variables share common variance, or they co-vary together. The researcher looks at things that already exist and determines if and in what way those things are related to each other Subrata, (2009). This is a kind of method that serial the condition through the collection of the data.

There are two variables investigate in this study. First, independent variable is the students' understanding of sentence pattern which is symbolized by " X ". Second, the dependent variable is the students' their ability in writing descriptive text which is symbolized by " $Y$ ".

## B. Time and Location of the Research

This research was conducted in November 2017 at State Junior High School 10 Tapung Kampar.

## C. Subject and Object of the Research

The subject of this research was the second year students at State Junior High School 10 Tapung Kampar, an the object of this research was the correlation between students' understanding of sentence pattern and their ability in writing text.

## D. The Population and Sample of the Research

The population of this research was the second year students at State Junior High School 10 Tapung Kampar in academic year 2016/2017 which has 162 students and consists of 7 (Seven) classes. Arikunto (2006) points out 'if the population is more than 100 respondents, we can take $25 \%$ or more than it.' Since the number population is relatively big, the writer takes $15 \%$ from the total number. It means that the sample of this research was 23 students chosen by cluster random sampling technique.

## 1. The Population of The Research

The population of this research was the second year of SMPN 10 Tapung in academic year 2017/2018. The second year students at SMPN 10 Tapung consisted at which was distributed in 162 students The distribution of the population is as below:

Table III. 1
Population of The Research

| No | Class | Number of Students |
| :---: | :--- | :---: |
| 1 | VIII A | 23 |
| 2 | VIII B | 22 |
| 3 | VIII C | 24 |
| 4 | VIII D | 22 |
| 5 | VIII E | 22 |
| 6 | VIII F | 24 |
| 7 | VIII G | 25 |
| TOTAL |  | $\mathbf{1 6 2}$ |

## 2. The Sample of The Research

In order to have a well representing sample, the researcher used cluster random sampling technique. The clusters or classes picked as sample were chosen randomly since the researcher had the entire eight year student that have the same syllabus and learning materials as the subject of the research. There were one classes as the sample of this research included 23students’.

According to Arikunto, if the population is more than 100 persons, the sample is taken between $10-15 \%$ (2006). It means that the total number is between 23 respondents. Yet, the sample of this study was 23 respondents.

## E. The Data Collection Techniques

There were two kinds of data collecting of this research, they are:

1. Test

The instrument of this research was a test. According to Hughes (2003), a test is a tool to measure language proficiency of students. Furthermore, Brown (2004) stated that a test is a method of measuring a person's ability, knowledge, or performance in a given domain. To find out how the students' understanding of sentence pattern, then to examine the students' ability in understanding descriptive text, the researcher measured the students' understanding of sentence pattern. The test consisted of 25 questions.

Table III. 2
Blue Print of Students' Understanding Of Sentence Pattern

| No | Indicators <br> Stundents' Understanding of Sentence <br> Pattern | Item Number |
| :---: | :---: | :---: |
| 1 | $\mathrm{~S}-\mathrm{V}$ | $1,4,11,21,24$ |
| 2 | $\mathrm{~S}-\mathrm{Tobe}-\mathrm{Noun}$ | $2,7,18,25$ |
| 3 | $\mathrm{~S}-\mathrm{Tobe}-\mathrm{adj}$ | $3,10,14,23$ |
| 4 | $\mathrm{~S}-\mathrm{V}-\mathrm{adv}$ | $5,8,12,16,17$ |
| 5 | $\mathrm{~S}-\mathrm{V}-$ Direct Object | $6,15,19,20$ |
| 6 | $\mathrm{~S}-\mathrm{V}-$ Direct Object - Indirect Object | $8,9,13,22$ |

After the students did the test, the researcher then takes total score from the result of sentence pattern test. The classification of the students' score is as follows (Arikunto, 2011, p. 245) :

Table III. 3
The Classification of Students' Score

| Score | Category |
| :---: | :---: |
| $80-100$ | Very Good |
| $66-79$ | Good |
| $56-65$ | Enough |
| $40-55$ | Less |
| $30-39$ | Fail |

## 2. Writing Test

Written test was used to know students' ability in writing descriptive text. In order to give scoring, the researcher was helped by two raters , they were Riski Amelia M.Pd., and Kurnia Budianti M.Pd.

The test was assessed by using the rubric of writing which adopted from the teacher's assessment. The assessment can be described as follows:

Table III. 4
Assesment aspect of Writing Descriptive Text

| No | Assesment Aspect | Score |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 |
| 1. | Content |  |  |  |  |
| 2. | Organization: <br> a. Identification <br> b. Description |  |  |  |  |
| 3. | Vocabulary |  |  |  |  |
| 4. | Grammatical: <br> a. Action verb <br> b. Transitional word <br> c. Present tense |  |  |  |  |
| 5. | Spelling and punctuation |  |  |  |  |
|  | Maximum score |  |  |  |  |

Source from the rubric of the School

$$
\text { final score }=\frac{\text { total score }}{\text { maximum score }} \times 100
$$

Explanation of score:
1 = incompetent
2 = competent enough
3 = competent
$4=$ very competent
Next, the students' score of writing ability were classified based on the classification of English teacher at State Junior High School 10 Tapung.

Table III. 5
Classification of students' score Writing Descriptive Text

| No | The score level | Category |
| :---: | :---: | :---: |
| 1 | $80-100$ | Very good |
| 2 | $66-79$ | Good |
| 3 | $56-65$ | Enough |
| 4 | $40-55$ | Less |
| 5 | $\square 39$ | Fail |

Source from the rubric of the School

## F. Validity and Reliability

1. Validity

Arikunto (2011, p. 58-59) stated that validity is the individual's score from an instrument that makes sense, meaningful, enables you, as the researcher, to draw good conclusions from the sample you are studying to the population.
a. Validity of the Test

Based on the try out that was conducted to see the validity of the test, the item difficulty show how easy or difficult a particular item is. The items that were to difficult (<0.30) and too easy (>0.70) were revised or deleted. The formula of item difficulty is as follows:
$\mathrm{P}=\frac{B}{J S}$
Where:

P : Index of difficulty or facility value
B : the number of correct answers
JS : the number of examinees or students
If the index of facility value is between 0.30 and .070 , the test item can be accepted. On the other hand, if the index of the facility value is small than 0.30 or bigger than 0.70 , the test item is rejected because the test item either too easy or difficult for the students. So, it should be changed to the new items that are more appropriate. The proportion of correct is presented by " B ", whereas the proportion of incorrect is presented by "Q". The calculation of item difficulty can be seen in the following table:

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Table III. 6
Students are able to identity $S-V$

| Variable | S-V |  |  |  |  | $\mathbf{N}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Item No. | 1 | 4 | 11 | 21 | 24 |  |
| $\mathbf{B}$ | 8 | 8 | 9 | 10 | 4 | $\mathbf{1 5}$ |
| $\mathbf{P}$ | 0.53 | 0.53 | 0.60 | 0.67 | 0.27 |  |
| $\mathbf{Q}$ | 0.47 | 0.47 | 0.40 | 0.33 | 0.73 |  |

Table III. 6 shows that item numbers of question to identify the Subject and Verb are $1,4,11,21$, and 24. It shows that the proportion of correct answer for finding identify of test item number 1 is 0.53 , the correct answer for test item number 4 is 0.53 , the correct answer for test item number 11 is 0.60 , the correct answer for test item number 21 is 0.67 , the correct answer for test item number 24 is 0.27 . Then, based on the standard level of difficulty, item number 24 was rejected, while the other item for identify subject and verb or "P" are $>0.30$ and $<0.70$. So, four items of finding identify subject and verb were accepted.

Tabel III. 7
Students are able to identify $S$ - Tobe - Noun

| Variable | S-V-Tobe-Noun |  |  |  | $\mathbf{N}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item No. | 2 | 7 | 18 | 25 |  |
| $\mathbf{B}$ | 8 | 11 | 7 | 7 | $\mathbf{1 5}$ |
| $\mathbf{P}$ | 0.53 | 0.73 | 0.47 | 0.47 |  |
| $\mathbf{Q}$ | 0.47 | 0.27 | 0.53 | 0.53 |  |

Table III.7, shows that item numbers of question for student identify S - Tobe - Noun are 2, 7, 18, and 25. It shows that the proportion of correct answer for finding main idea of test item number 2 is 0.53 , the correct answer for test item number 7 is 0.73 , the correct answer for test item number 18 is 0.47 , the correct answer for test item number 25 is 0.47 , Then, based on the standard level of difficulty, item number 7 was rejected, while the others item for identify Subject - Tobe - Noun or "P" are $>0.30$ and $<0.70$. So, three items of identify the Subject - Tobe Noun were accepted.

Tabel III. 8
Students are able to identify S-Tobe -Adj

| Variable | S-Tobe-Adj |  |  |  | $\mathbf{N}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item No. | 3 | 10 | 14 | 23 |  |
| $\mathbf{B}$ | 7 | 12 | 4 | 9 | $\mathbf{1} 5$ |
| P | 0.47 | 0.80 | 0.27 | 0.60 |  |
| $\mathbf{Q}$ | 0.53 | 0.20 | 0.73 | 0.40 |  |

Table III. 8 the item numbers of question for finding main idea are $3,10,14,23$. It shows that the proportion of correct answer for finding main idea of test item number 3 is 0.47 , the correct answer for test item number 10 is 0.80 , the correct answer for test item number 14 is 0.27 , the correct answer for test item number 23 is 0.60 . Then, based on the standard level of difficulty, item number 10 and 14 is rejected, while the others item for identify $\mathrm{S}-$ Tobe - Adjective or " P " are $>0.30$ and $<0.70$. So, two items of finding main idea were accepted.

Tabel III. 9
Students are able to identify S-V-Adv

| Variable | S-V-Adv |  |  |  | $\mathbf{N}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item No. | 5 | 12 | 16 | 17 |  |
| B | 8 | 8 | 7 | 9 | $\mathbf{1 5}$ |
| $\mathbf{P}$ | 0.53 | 0.53 | 0.47 | 0.60 |  |
| Q | 0.47 | 0.47 | 0.53 | 0.40 |  |

Table III. 9 shows that item numbers of question to finding main idea are $5,12,16,17$. It shows that the proportion of correct answer for identify S - Verb Adverb of test item number 5 is 0.53 , the correct answer for test item number 12 is 0.53 , the correct answer for test item number 16 is 0.47 , the correct answer for test item number 17 is 0.60 . Then, based on the standard level of difficulty, all item for identify S - Verb - Adverb or " P " are $>0.30$ and $<0.70$. So, four items of finding main idea were accepted.

Tabel III. 10
Students are able to identify S-V-Direct Object

| Variable | S-V-Direct Object |  |  |  | $\mathbf{N}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item No. | 6 | 15 | 19 | 20 |  |
| $\mathbf{B}$ | 9 | 7 | 8 | 7 | 15 |
| $\mathbf{P}$ | 0.60 | 0.47 | 0.53 | 0.47 |  |
| $\mathbf{Q}$ | 0.40 | 0.53 | 0.47 | 0.53 |  |

Table III. 10 the item numbers of question to finding main idea are $6,15,19,20$. It shows that the proportion of correct answer for identify SVerb - Direct Obejct of test item number 6 is 0.060 , the correct answer for test item number 15 is 0.47 , the correct answer for test item number 19 is 0.53 , the correct answer for test item number 20 is 0.47 . Then, based on the standard level of difficulty, all item for identify S - Verb - Direct Object or "P" are $>0.30$ and $<0.70$. So, four items of finding main idea were accepted.

Tabel III. 11
Students are able tto identify

| Variable | S-V-Direct Object- Indirrect Object |  |  |  | $\mathbf{N}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Item No. | 8 | 9 | 13 | 22 |  |
| $\mathbf{B}$ | 6 | 11 | 7 | 4 | $\mathbf{1 5}$ |
| $\mathbf{P}$ | 0.40 | 0.73 | 0.47 | 0.27 |  |
| $\mathbf{Q}$ | 0.60 | 0.27 | 0.53 | 0.73 |  |

Table III. 11 shows that item numbers of question to finding main idea are $8,9,13,22$. It shows that the proportion of correct answer for identify S - Verb - Direct Object - indirect Object of test item number 3 is 0.47 , the correct answer for test item number 10 is 0.80 , the correct answer for test item number 14 is 0.27 , the correct answer for test item number 23 is 0.60 . Then, based on the standard level of difficulty, item number 22 was rejected, while the others item for identify S - Tobe - Adjective or "P" are $>0.30$ and $<0.70$. So, three items of finding main idea were accepted.

## 2. Reliability

Reliability is the degree to which a test consistently measures whatever it is measuring (Gay, 2000). In addition, it is referred to consistency as meaning obtaining the same score for an individual over repeated testing. In conclusion, reliability has to do with consistency and accuracy of measurement. Even the test was repeated in different time, situation or different person, perhaps, the result of the test is still the same.

The following table is the level of internal consistency of Cronbach Alpha (Cohen, Manion, \& Marrison, 2007, p. 506) :

Table III. 12
Internal Consistency by Using Cronbach Alpha

| Cronbach Alpha | Internal Consistency |
| :---: | :---: |
| $>0.90$ | Very high reliable |
| $0.80-0.90$ | High reliable |
| $0.70-0.79$ | Reliable |
| $0.60-0.69$ | Minimally reliable |
| $<0.60$ | Unaccaptably low reliable |

## 3. Reliability of the Sentence Pattern

Reliability is a necessary characteristic of good test. According to Brown (2003), reliability has to do with accuracy of measurement. It is
clear that reliability is used to measure the quality of the test scores and the consictency of the test.

Table III. 13
Cronbach Alpha
Reliability Statistics

| Cronbach's Alpha | N of Items |
| ---: | ---: |
| .916 |  |

From the table III.13, it can be seen that the value of cronbach's alpha is 0.916 . Then, the writer compared $r_{11}$ to $r_{t}$. The $r_{11}=0.916$ is higher than $r_{t}$ at significance level of $5 \%$, is 0.532 and at $1 \%$ level of significance is 0.661 where $\mathrm{r}_{\mathrm{t}}(\mathrm{dk}=\mathrm{N}-1=14)$. It means that the items are reliable, where the value of internal consistency is $0.532>0.916 \geq 0.661$, so the reliability of questionnaire is very high reliable.

## 4. Writing Test Descriptive Text

Referring to rubric of writing assessment, inter rater reliability formula was used for two rater in asseesing the writing of the students. According to Creswell (2012), the researcher compared scores from the two raters (rater 1 and rater 2) in order to find out if the scores were similar or not.

In order to find out the correlation between the scores given by rater 1 and 2, the researcher used the analysis by SPSS 16.0 version. below is the result.

Table III. 14
Reliability Statistics of the Writing Test

| Cronbach's Alpha | N of Items |
| ---: | ---: |
| .844 | 2 |

The result shows the value of Cronbach's alpha for the writing scores assed by the two raters is 0.844 . It can be concluded that the writing rubric is high reliable.

## G. Technique of Data Analysis

For the technique of data analysis, the researcher applied a quantitative analysis. According to David Nunan (2002), quantitative research describes a research problem through a description of trends or a need for an explanation of the relationship among variables by collecting numeric data from a large number of people using instruments with preset questions and responses.

In order to find out whether there is a significant correlation between students' understanding of sentence pattern and their ability in writing descriptive text, the data would analyzed by using statistical formula. The researcher would used the score of test of variable X and the score of test of variable Y. Then, to analyze the correlation between students' understanding of sentence pattern and their writing ability in descriptive text, the researcher would used Pearson product-moment correlation coefficient (r).

Meanwhile, in order to get easy in analyzing the data, the researcher would used SPSS 16.0 program for Windows. The product moment correlation coefficient will be obtained by considering the degree of freedom
$(\mathrm{df})=\mathrm{N}-\mathrm{nr}$; $(\mathrm{N}=$ number of sample, $\mathrm{nr}=$ number of variable) Statistically, the Hypotheses are:

$$
\begin{aligned}
& H_{a}: \text { sig. } .<0.05 \\
& H_{o}: \text { sig. } t \geq 0.05
\end{aligned}
$$

$H_{a}$ is accepted if sig.t $<0.05$ or there is a significant correlation between the students' understanding of sentence pattern and their ability in writing descriptive text.
$H_{o} \quad$ is accepted if sig. $t \geq 0.05$ or there is no significant correlation between the students' understanding of sentence pattern and their ability in writing descriptive text.

