## CHAPTER III

## RESEARCH METHODS

## A. Research Design

In conducting research, the researcher uses a quantitative approach. The quantitative approach method aims to test the hypothesis by distributing questionnaires and conducting several tests to the object of research. The reason why the researcher used this method is because the researcher wants to find a cause and effect relationship between two variables. From those variables, then the researcher tries to look for how much influence between the independent variable and the dependent variable.

This study was conducted by using correlational study. Correlational study is part of quantitative approach in which the researcher tries to find out the relationship among one or more quantitative independent variables and one or more quantitative dependent variable (Johnson \& Christensen, 2014). This research studies about the correlation between two variables. They are self-regulation and reading comprehension. The researcher used correlational research design because the researcher try to find the relationship between self-regulation and students' reading comprehension.

In this research, the Students' self-regulation acts as independent variables which are symbolized by " $X$ ", while the students' reading comprehension acts as dependent variable which are symbolized by "Y".

## B. Population, sample and sampling

The population is an object or subject that is in the area and fulfills classification related to research problems (Riduwan, 2013). It is all individuals that the researcher has to do the research in.

In some cases, the researcher finds out that it is impossible to study the entire population. They could study a part of the population, we call it
as a sample. Riduwan (2013) states that the sample is part of a population that has certain criteria which will be researched. By taking a sample, the study will be more efficient and effective.

To determine the amount of sample, the researcher must consider the total of population, the characteristics of population, and the risk level. Gay \& Diehl (1992) classify sample size depends on research types below:

1. The sample size for descriptive research is minimally $10 \%$ of the population. For smaller populations, 20\% may be required.
2. The minimal sample size for correlational research is 30 subjects.
3. For causal-comparative and many experimental studies, the minimal sample size is 30 subjects per group.
4. In experimental research with tight experimental controls, the minimal sample size is 15 subjects per group.

The target population in this research is all student at $11^{\text {th }}$ Grade in Senior High School. The researcher chooses students at $11^{\text {th }}$ grade in senior high school because they are in the beginner level in senior high school.

The researcher takes 100 participants as a sample from the total of population about 300 students. Is is greater than minimal sample size for correlation study that is 30 subjects. They are from four different classes. In this research, the researcher used a simple random sampling technique to take a sample. The researcher used simple random sampling to make every students have a chance to be a sample.

## C. Research Instrument

In collecting the data, the researcher used two instruments. They are questionnaires and reading tasks.

1. Questionnaire

Questionnaire is a research instrument consisting of a series of questions to be answered by the respondents. For the questionnaire of
self-regulation, the researcher using SSRQ (Short Self-Regulation Questionnaire) adapted by Carey et al (2004), which is an improved version of SRQ by Brown, Miller, and Lawendowski, (1999). It used to study behavioral addiction, a process of self-regulation which is intended as a general principle of behavioral self-control. The questionnaire consist 31 items that constitued 7 scales. The scale included informational input, self evaluation, instigation to change, search for alternatives, planning for change, implementation of strategies for change and goal attainment evaluation plan. Based on the results of the correlation test by Carey et al (2004) on the items of the SRQ and SSRQ measuring instruments, a correlation coefficient of 0.9 to 1.0 is obtained, which indicates a strong relationship between the two measuring instruments. So that, the researcher choose SSRQ as an instrument.

Before distributing questionnaires to students, researchers need assistance from their supervisors to correct the translation of the questionnaire, then the questionnaire is ready to be distributed. The researcher test the validity and reliability of the instrument to ascertain whether the questionnaire is valid or not for participants. To check the vaidity, the researcher tries out the questionnaire to 20 students which are not the participant of the study. Then, the result of try out computed and analyzed using SPSS 24.0. To test the validity, the researcher analyses Pearson Product Moment correlation coefficient of the data. Next, to test reliability of the test, the researcher analyzed it used Cronbach Alpha. The instrument designed based on a 5-point Likert scale ranging from 1 to 5 including Strongly Disagree, Disagree, Uncertain or Unsure, Agree and Strongly Agree. To avoid ambiguity the questionnaire will be translated into indonesian..
2. Reading Task

A test is a measurement method to measure the ability of person, knowledge, or performance in a certain area. Data obtained
from a test includes ability, proficiency, understanding or performance. To collect data on the dependent variable (students' reading comprehension ability), the test was used. Because there are so many types of text available in class XI, the researcher chose recount text to be tested. To investigate students' reading comprehension, this study used a multiple choice test. Nuttal (as quoted in Winanti, 2016) stated reading understanding has five aspects:
a. Students are able to establish main ideas.
b. Students are able to recognize supporting ideas.
c. Students are able to conclude text
d. Students can recognize references
e. Students are able to digest vocabulary.

The researcher took the test from the TOEFL Junior Standard Test to test student reading comprehension level. The research was conducted by Lin Gu, John Lockwood and Donald E. Powers (2015) find that TOEFL Junior Standard Test can measure young learners' progress in learning English especially in reading. The test contains 42 items with five aspects above. Before distributing the test to the student, the researchers need to test the validity and reliability of the reading task. To check the validity, the researcher tries out the questionnaire to 28 students which are not the participant of the study. Then, the result of try out computed and analyzed using SPSS 24.0. The researcher analyze Pearson Product Moment and correlation coefficient of the data to test the validity. Next, Cronbach Alpha will be used to test the reliability of the test.

## D. Method of Data analysis

Analyzing the data can be done right after collecting data from the field. Because this research is a quantitative study, it requires statistical methods to analyze the data. To assess the student's self-regulation reading questionnaire the researcher used SPSS. Then, the statistical product
moment will used to calculated the score to determine the average, maximum and minimum.

## E. Validity and Reliability

1. Validity and Reliability of the Questionnaire

## a. Validity

Fraenkel and Wallen (2005: 113) assert that a valid instrument is an instrument that can measure what should be measured. To examine when preparing or choosing an instrument to use, the validity is the most important idea. Validity consists of four types, such as, content validity, criterion-related validity, construct validity, and face validity. To measure whether the test has good validity or not, the researcher will analyzed the instrument based on content validity and construct validity and face validity.
(1) Construct validity

Gay (2012, p.163) construct validity is the validity that used to establish the instrument concept to be measured. To analyze the validity of variable X self-regulation, researchers used Microsoft Excel. The item is valid if the r- item > r- table.

After try out the validity of 31 items instruments, it present that all of the items were valid. So that, the researcher could be used 31 items in this research. The result of the instrument validity is shown in the following table.

Table 3.1
The Analysis of Self-regulation Test Validity

| Item <br> Number | r- <br> item | r- <br> table | Result |
| :--- | :--- | :--- | :--- |
| $\mathbf{1}$ | 0.643 | 0.444 | Valid |
| $\mathbf{2}$ | 0.653 | 0.444 | Valid |
| $\mathbf{3}$ | 0.712 | 0.444 | Valid |
| $\mathbf{4}$ | 0.814 | 0.444 | Valid |
| $\mathbf{5}$ | 0.753 | 0.444 | Valid |
| $\mathbf{6}$ | 0.769 | 0.444 | Valid |
| $\mathbf{7}$ | 0.685 | 0.444 | Valid |
| $\mathbf{8}$ | 0.818 | 0.444 | Valid |
| $\mathbf{9}$ | 0.703 | 0.444 | Valid |
| $\mathbf{1 0}$ | 0.740 | 0.444 | Valid |
| $\mathbf{1 1}$ | 0.696 | 0.444 | Valid |
| $\mathbf{1 2}$ | 0.751 | 0.444 | Valid |
| $\mathbf{1 3}$ | 0.653 | 0.444 | Valid |
| $\mathbf{1 4}$ | 0.564 | 0.444 | Valid |
| $\mathbf{1 5}$ | 0.730 | 0.444 | Valid |
| $\mathbf{1 6}$ | 0.583 | 0.444 | Valid |


| Item <br> Number <br> r | $\mathrm{r}-$ <br> item | r- <br> table | Result |
| :--- | :--- | :--- | :--- |
| $\mathbf{1 7}$ | 0.785 | 0.444 | Valid |
| $\mathbf{1 8}$ | 0.803 | 0.444 | Valid |
| $\mathbf{1 9}$ | 0.604 | 0.444 | Valid |
| $\mathbf{2 0}$ | 0.717 | 0.444 | Valid |
| $\mathbf{2 1}$ | 0.916 | 0.444 | Valid |
| $\mathbf{2 2}$ | 0.798 | 0.444 | Valid |
| $\mathbf{2 3}$ | 0.672 | 0.444 | Valid |
| $\mathbf{2 4}$ | 0.853 | 0.444 | Valid |
| $\mathbf{2 5}$ | 0.864 | 0.444 | Valid |
| $\mathbf{2 6}$ | 0.754 | 0.444 | Valid |
| $\mathbf{2 7}$ | 0.804 | 0.444 | Valid |
| $\mathbf{2 8}$ | 0.687 | 0.444 | Valid |
| $\mathbf{2 9}$ | 0.803 | 0.444 | Valid |
| $\mathbf{3 0}$ | 0.686 | 0.444 | Valid |
| $\mathbf{3 1}$ | 0.833 | 0.444 | Valid |

From the table above, the questionnaire items were valid. Then the researcher used the questionnaire as a sample of the research due to the items were valid,.

## (2) Content validity

What is actually contained in the test is the meaning of content validity. The content of the test should be represent the field of study covered to have a content validity. For example, in achievement test, the test itself must represent the course content (Johnson, 2001: 301). In case that the content is a represent the example of the language skills, structure, and being tested, therefore the test have content validity. Based on the competency standards, it is stated that the eleventh graders of high school are able to understand texts, especially recount texts.

## (3) Face Validity

To calculates what it is expected to measure, a test must have a facial validity. In scientific concept, facial validity is not
a very crucial. However, test-takers, teachers, education, authorities, or employers will not accept the test if the the tests do not have facial validity. To make a good instrument depend on the validity, there are several aspect to be investigated.

- Instructions must be fully understood by students
- These tests should be following the syllabus and be suitable for their level.
- Time allocation must be clear. The teacher gives a time limit of about 60 minutes to solve the test.
b. Reliability of the Questionnaire

Reliability is used to show that the instrument is trustworthy and can give the precision of measurement. To know whether the test is reliable or not, Cronbach's Alpha is used to test it. Nunnaly in Sunjoyo et al. (2013) states that to indicate the instrument is reliably, it should have Cronbach Alpha > 0.60. If the result show that the Cronbach Alpha value is greater than 0.60 , so the questionnaire is reliable.

Table 3.2
Reliability Statistics of Self-regulation Questionnaire

| Cronbach's Alpha | N of Items |
| :---: | :---: |
| .970 | 31 |

3. Validity and Reliability of the Test
a. Validity of the Test

Fraenkel and Wallen (2005: 113) assert that a valid instrument is an instrument that can measure what should be measured. To examine when preparing or choosing an instrument to use, the validity is the most important idea. Validity consists of four types, such as, content validity, criterion-related validity, construct validity, and face validity. To measure whether the test has good validity or not, the researcher will analyzed the test based on content validity and construct validity.
(1) Construct validity

Gay (2012, p.163) says that construct validity is the validity that used to establish the instrument concept to be measured. The validity of variable Y reading comprehension skill will be analyzed by Microsoft Excel. If the result is the r- item > rtable, so the item is valid.

After try out the instrument validity of 37 items, it showed that 25 items were valid while 12 items that were not valid. It means that the researcher will used 25 items in this research. The result of the instrument validity is shown in the following table.

Table 3.3
Validity of Reading Comprehension Test

| Item <br> number r | r-item | r-table | Result |
| :--- | :--- | :--- | :--- |
| 1 | 0.573 | 0.444 | Valid |
| 2 | 0.508 | 0.444 | Valid |
| 3 | 0.332 | 0.444 | Not valid |
| 4 | 0.471 | 0.444 | Valid |
| 5 | 0.659 | 0.444 | Valid |
| 6 | 0.389 | 0.444 | Not valid |
| 7 | 0.702 | 0.444 | Valid |
| 8 | 0.645 | 0.444 | Valid |
| 9 | 0.801 | 0.444 | Valid |
| 10 | 0.275 | 0.444 | Not valid |
| 11 | 0.267 | 0.444 | Not valid |
| 12 | 0.618 | 0.444 | Valid |
| 13 | 0.735 | 0.444 | Valid |
| 14 | 0.618 | 0.444 | Valid |
| 15 | 0.314 | 0.444 | Not valid |
| 16 | 0.149 | 0.444 | Not valid |
| 17 | 0.643 | 0.444 | Valid |
| 18 | 0.652 | 0.444 | Valid |
| 19 | 0.521 | 0.444 | Valid |


| Item <br> number r | r-item | r-table | Result |
| :--- | :--- | :--- | :--- |
| 20 | 0.847 | 0.444 | Valid |
| 21 | 0.618 | 0.444 | Valid |
| 22 | 0.661 | 0.444 | Valid |
| 23 | 0.583 | 0.444 | Valid |
| 24 | 0.538 | 0.444 | Valid |
| 25 | 0.758 | 0.444 | Valid |
| 26 | 0.673 | 0.444 | Valid |
| 27 | 0.217 | 0.444 | Not valid |
| 28 | 0.566 | 0.444 | Valid |
| 29 | 0.618 | 0.444 | Valid |
| 30 | 0.569 | 0.444 | Valid |
| 31 | 0.547 | 0.444 | Valid |
| 32 | 0.271 | 0.444 | Not valid |
| 33 | -0.294 | 0.444 | Not valid |
| 34 | 0.400 | 0.444 | Not valid |
| 35 | 0.573 | 0.444 | Valid |
| 36 | 0.324 | 0.444 | Not valid |
| 37 | 0.420 | 0.444 | Not valid |

From the table above, there are 25 items were valid. Then, the researcher used the test to be inspected to the sample because of the items were valid.
(2) Content validity

Content validity is about what the content of the test. In this test, it consist 5 indicator, such as students capable to recognize
the main point of the passage, point out the purpose of the passage, notice the detailed information, find the reference, and use the linking words to explain the relation between elements in a text.
b. Reliability of the Test

Reliability is the outcome of test which must produce consistent score. In this research, the researcher will use intereter way to find true score. So that, the researcher will helped by other corrector in scoring student' reading test. Then, to test the computation, the researcher using SPPS. If the result of value is six lower than or equal to 0.05 , it means that the instrument of this test is reliable.

Table 3.4
Reliability Statistics of Reading Test

| Cronbach's Alpha | N of Items |
| :---: | :---: |
| .938 | 25 |

## F. Normality Testing and Linearity Test

1. Normality test

The normality test is used to discover wether the data is normally distributed or not. The researcher used the IBM SPSS Statistic 24 program through the Kolmogrov-Smirnov test with a significance value $(\alpha)=0.05$ to test it. Here is the basis for decision making in normality testing are as below:
a. If the significance value was greater than 0,05 , so the data is normal.
b. If the significance value was lower than 0,05 , so the data is not normal.
2. Linearity test

The linearity test is used to analyze two variables statistically to reveal there is a linear relationship or not. Two variables are examined
linear if the F- obtained is smaller than the F-table or if the significance of the F-obtained is greater than 0.05 .

The regression analysis cannot be used if the data is not linear, . To computed the linearity test, the researcher uses the ANOVA Table through the IBM SPSS Statistic 24 program. The basis for making decisions in linearity testing is as below:
a. If the significance value was greater than 0.050 , so the data is linear b. If the significance value was lower than 0.050 , so the data is not linear

## G. Data Analysis

Following the collection of data self-regulation and students' reading comprehension, the writer examine the significance of correlation among two variables using Pearson Product Moment Correlation Coefficient in SPSS program version 24 to compute and correlate the data from those two variables. Here is the interpretation of index score from the correlation product moment:

Table 3.5
Interpretation of Correlation

| $0.00-0.199$ | Very Low Correlation |
| :--- | :--- |
| $0.20-0.399$ | Low Correlation |
| $0.40-0.599$ | Medium Correlation |
| $0.60-0.799$ | High Correlation |
| $0.80-1.000$ | Very High Correlation |

From the table above, it can be inferred that the coefficient correlation in the interval $0,00-0,199$ among two variables was very low correlation. Then, the next coefficient correlation with $0,20-0,399$ involve that the level of correlation was low. Afterwards, the interval of the coefficient correlation in $0,40-0,599$ involve that the level of correlation was enough. Next, the level of correlation was high if the coefficient correlation in the interval $0,60-0,799$. Then, the coefficient
correlation interval in $0,80-1,00$ involve that the level of correlation was very high.

## CHAPTER IV

## FINDINGS AND DISCUSSION

The findings and discussion of this research will me explain in this chapter. It includes the outcome from the correlation of two variables such as selfregulation and reading comprehension. The two correlations are described in this section.

## A. Findings

To measure the level of self-regulation and reading comprehension level of the students in MAN 1 Kota Kediri will be explained in this finding. There are two kinds of data that the researcher needs to conduct in this study. Those are student's self-regulation level and student's reading comprehension level. The data of student's self-regulation is from SSRQ (Short Self-Regulation Questionnaire), adapted by Carey et al (2004), which is an improved version of SRQ by Brown, Miller, and Lawendowski, (1999). Then , the researcher will used reading test to measuring student's reading comprehension skill. The test is taken from TOEFL junior book. After gathering all the data, the researcher computes and analyze the data by using SPSS 24.0 version.

## 1. Data Presentation

 After collecting the data, the data were tabulated and calculated. Below was the result of calculating data process.i) Self-regulation

The source of students' self-regulation data was from SSRQ (Short Self-Regulation Questionnaire), adapted by Carey et al (2004), which is an improved version of SRQ by Brown, Miller, and Lawendowski, (1999). The classification score of questionnaire were presented below.

Table 4.1
The Result of Questionnaire Score

| NO | Respondent | Regulation Score | The Rank of Classification |
| :---: | :---: | :---: | :---: |
| 1 | RP 1 | 105 | 4 |
| 2 | RP 2 | 114 | 4 |
| 3 | RP 3 | 112 | 4 |
| 4 | RP 4 | 105 | 4 |
| 5 | RP 5 | 126 | 5 |
| 6 | RP 6 | 109 | 4 |
| 7 | RP 7 | 108 | 4 |
| 8 | RP 8 | 115 | 4 |
| 9 | RP9 | 120 | 4 |
| 10 | RP 10 | 120 | 4 |
| 11 | RP 11 | 125 | 5 |
| 12 | RP 12 | 93 | 3 |
| 13 | RP 13 | 122 | 4 |
| 14 | RP 14 | 117 | 4 |
| 15 | RP 15 | 101 | 4 |
| 16 | RP 16 | 74 | 3 |
| 17 | RP 17 | 108 | 4 |
| 18 | RP 18 | 131 | 5 |
| 19 | RP 19 | 111 | 4 |
| 20 | RP 20 | 104 | 4 |
| 21 | RP 21 | 101 | 4 |
| 22 | RP 22 | 96 | 4 |
| 23 | RP 23 | 109 | 4 |
| 24 | RP 24 | 89 | 3 |
| 25 | RP 25 | 102 | 4 |
| 26 | RP 26 | 103 | 4 |
| 27 | RP 27 | 100 | 4 |
| 28 | RP 28 | 112 | 4 |
| 29 | RP 29 | 112 | 4 |
| 30 | RP 30 | 122 | 4 |
| 31 | RP 31 | 116 | 4 |
| 32 | RP 32 | 103 | 4 |
| 33 | RP 33 | 103 | 4 |
| 34 | RP 34 | 117 | 4 |
| 35 | RP 35 | 108 | 4 |
| 36 | RP 36 | 82 | 3 |
| 37 | RP 37 | 113 | 4 |
| 38 | RP 38 | 99 | 4 |
| 39 | RP 39 | 102 | 4 |
| 40 | RP 40 | 114 | 4 |
| 41 | RP 41 | 122 | 4 |
| 42 | RP 42 | 118 | 4 |
| 43 | RP 43 | 121 | 4 |
| 44 | RP 44 | 117 | 4 |
| 45 | RP 45 | 114 | 4 |
| 46 | RP 46 | 104 | 4 |
| 47 | RP 47 | 101 | 4 |
| 48 | RP 48 | 135 | 5 |


| NO | Respon- <br> dent | Regulation <br> Score | The Rank of <br> Classification |
| :--- | :--- | :--- | :---: |
| 52 | RP 52 | 92 | 3 |
| 53 | RP 53 | 114 | 4 |
| 54 | RP 54 | 108 | 4 |
| 55 | RP 55 | 102 | 4 |
| 56 | RP 56 | 111 | 4 |
| 57 | RP 57 | 127 | 5 |
| 58 | RP 58 | 119 | 4 |
| 59 | RP 59 | 96 | 4 |
| 60 | RP 60 | 90 | 3 |
| 61 | RP 61 | 112 | 4 |
| 62 | RP 62 | 105 | 4 |
| 63 | RP 63 | 116 | 4 |
| 64 | RP 64 | 101 | 4 |
| 65 | RP 65 | 90 | 3 |
| 66 | RP 66 | 106 | 4 |
| 67 | RP 67 | 86 | 3 |
| 68 | RP 68 | 122 | 4 |
| 69 | RP 69 | 96 | 4 |
| 70 | RP 70 | 123 | 4 |
| 71 | RP 71 | 110 | 4 |
| 72 | RP 72 | 95 | 4 |
| 73 | RP 73 | 104 | 4 |
| 74 | RP 74 | 126 | 4 |
| 75 | RP 75 | 111 | 4 |
| 76 | RP 76 | 101 | 4 |
| 77 | RP 77 | 105 | 4 |
| 78 | RP 78 | 108 | 4 |
| 79 | RP 79 | 119 | 4 |
| 80 | RP 80 | 110 | 4 |
| 81 | RP 81 | 103 | 4 |
| 82 | RP 82 | 112 | 4 |
| 83 | RP 83 | 128 | 4 |
| 84 | RP 84 | 98 | 4 |
| 85 | RP 85 | 106 | 5 |
| 86 | RP 86 | 132 | 4 |
| 87 | RP 87 | 92 | 4 |
| 88 | RP 88 | 125 | 5 |
| 89 | RP 89 | 118 | 4 |
| 90 | RP 90 | 123 | 4 |
| 91 | RP 91 | 107 | 4 |
| 92 | RP 92 | 114 | 4 |
| 93 | RP 93 | 110 | 4 |
| 94 | RP 94 | 95 | 4 |
| 95 | RP 95 | 82 | 115 |
| 96 | RP 96 | 4 |  |
| 97 | RP 97 | 83 | 4 |
| 98 | RP 98 | 138 | 4 |
| 99 | RP 99 | 109 | 4 |
|  |  |  | 4 |
|  |  | 4 |  |


| 49 | RP 49 | 118 | 4 | 100 | RP 100 | 104 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 50 | RP 50 | 104 | 4 | Total |  | 10913 | 199 |
| 51 | RP 51 | 137 | 5 | Mean |  | 109.13 | 1.99 |

Range : H-L = $155-5=150$
Width : R/5 = 150/5 = 30
Table 4.2
Formula the Level of Self-regulation

| No | Kategori | Interval | Rank |
| :--- | :--- | :--- | :--- |
| 1. | Very low | $5-34$ | 1 |
| 2. | Low | $35-64$ | 2 |
| 3. | Medium | $65-94$ | 3 |
| 4. | High | $95-124$ | 4 |
| 5. | Very high | $125-154$ | 5 |

Based on the formula above, the level of students' selfregulation can be categorized as follows:

Table 4.3

## Level of Students' Self-regulation

| No | Level | Classificat <br> ion | The Rank of <br> Classification | Frequence | Percentage |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | $5-34$ | Very low <br> level of <br> self- <br> regulation | Level 1 | 0 | $0 \%$ |
| 2. | $35-64$ | Low level <br> of self- <br> regulation | Level 2 | 0 | $0 \%$ |
| 3. | $65-94$ | Medium <br> level of <br> self- <br> regulation | Level 3 | 11 | $11 \%$ |
| 4. | $95-124$ | High level <br> of self- <br> regulation | Level 4 | 78 | $78 \%$ |
| 5. | 125 | -Very high <br> level of <br> self- <br> regulation | Level 5 | 11 | $11 \%$ |

The table above showed the presentation of students' reading comprehension data. There were 5 categories. The dominant was high level categories with the amount of $78 \%$ $(\mathrm{n}=78)$. There was $11 \%$ students with medium categories $(\mathrm{n}=11)$. Then, there was $11 \%$ students $(\mathrm{n}=11)$ who were in very high categories.
ii) Reading Comprehension Test

The source of students' reading test was from TOEFL book Practice Test for the TOEFL Junior Standard. This test is good for the learner in beginner level. The data divided into five classification, consist very low, low, medium, high and very high. The classification score of reading test were presented below.

Table 4.4
The Presentation of Reading Comprehension Test

| NO | Respon <br> dent | Regulati <br> on Score | The Rank of <br> Classification |
| :--- | :--- | :--- | :--- |
| 1 | RP 1 | 60 | 4 |
| 2 | RP 2 | 72 | 4 |
| 3 | RP 3 | 88 | 5 |
| 4 | RP 4 | 56 | 3 |
| 5 | RP 5 | 88 | 5 |
| 6 | RP 6 | 36 | 2 |
| 7 | RP 7 | 48 | 3 |
| 8 | RP 8 | 84 | 5 |
| 9 | RP 9 | 76 | 4 |
| 10 | RP 10 | 76 | 4 |
| 11 | RP 11 | 76 | 4 |
| 12 | RP 12 | 48 | 3 |
| 13 | RP 13 | 64 | 4 |
| 14 | RP 14 | 64 | 4 |
| 15 | RP 15 | 52 | 3 |
| 16 | RP 16 | 52 | 3 |
| 17 | RP 17 | 52 | 3 |
| 18 | RP 18 | 64 | 4 |
| 19 | RP 19 | 56 | 3 |
| 20 | RP 20 | 56 | 3 |
| 21 | RP 21 | 52 | 3 |
| 22 | RP 22 | 44 | 3 |
| 23 | RP 23 | 56 | 3 |
| 24 | RP 24 | 60 | 4 |
| 25 | RP 25 | 56 | 4 |
|  |  |  |  |


| NO | Respon <br> dent | Regulation <br> Score | The Rank of <br> Classification |
| :--- | :--- | :--- | :--- |
| 52 | RP 52 | 32 | 2 |
| 53 | RP 53 | 48 | 3 |
| 54 | RP 54 | 36 | 2 |
| 55 | RP 55 | 36 | 2 |
| 56 | RP 56 | 48 | 3 |
| 57 | RP 57 | 32 | 2 |
| 58 | RP 58 | 92 | 5 |
| 59 | RP 59 | 60 | 4 |
| 60 | RP 60 | 60 | 4 |
| 61 | RP 61 | 72 | 4 |
| 62 | RP 62 | 40 | 3 |
| 63 | RP 63 | 72 | 4 |
| 64 | RP 64 | 36 | 2 |
| 65 | RP 65 | 32 | 2 |
| 66 | RP 66 | 64 | 4 |
| 67 | RP 67 | 56 | 3 |
| 68 | RP 68 | 84 | 5 |
| 69 | RP 69 | 72 | 4 |
| 70 | RP 70 | 92 | 5 |
| 71 | RP 71 | 72 | 4 |
| 72 | RP 72 | 72 | 4 |
| 73 | RP 73 | 56 | 3 |
| 74 | RP 74 | 88 | 5 |
| 75 | RP 75 | 72 | 4 |
| 76 | RP 76 | 40 | 3 |
|  |  |  |  |


| 26 | RP 26 | 36 | 2 | 77 | RP 77 | 60 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 27 | RP 27 | 48 | 3 | 78 | RP 78 | 60 | 4 |
| 28 | RP 28 | 60 | 4 | 79 | RP 79 | 92 | 5 |
| 29 | RP 29 | 60 | 4 | 80 | RP 80 | 40 | 3 |
| 30 | RP 30 | 64 | 4 | 81 | RP 81 | 48 | 3 |
| 31 | RP 31 | 64 | 4 | 82 | RP 82 | 76 | 4 |
| 32 | RP 32 | 60 | 4 | 83 | RP 83 | 84 | 5 |
| 33 | RP 33 | 48 | 3 | 84 | RP 84 | 32 | 2 |
| 34 | RP 34 | 72 | 4 | 85 | RP 85 | 84 | 5 |
| 35 | RP 35 | 60 | 4 | 86 | RP 86 | 80 | 5 |
| 36 | RP 36 | 56 | 3 | 87 | RP 87 | 40 | 3 |
| 37 | RP 37 | 64 | 4 | 88 | RP 88 | 80 | 5 |
| 38 | RP 38 | 36 | 3 | 89 | RP 89 | 76 | 4 |
| 39 | RP 39 | 60 | 4 | 90 | RP 90 | 80 | 5 |
| 40 | RP 40 | 68 | 4 | 91 | RP 91 | 44 | 3 |
| 41 | RP 41 | 68 | 4 | 92 | RP 92 | 68 | 4 |
| 42 | RP 42 | 64 | 4 | 93 | RP 93 | 48 | 3 |
| 43 | RP 43 | 64 | 4 | 94 | RP 94 | 40 | 3 |
| 44 | RP 44 | 68 | 4 | 95 | RP 95 | 56 | 3 |
| 45 | RP 45 | 76 | 4 | 96 | RP 96 | 80 | 5 |
| 46 | RP 46 | 56 | 3 | 97 | RP 97 | 56 | 3 |
| 47 | RP 47 | 48 | 3 | 98 | RP 98 | 80 | 5 |
| 48 | RP 48 | 68 | 4 | 99 | RP 99 | 44 | 3 |
| 49 | RP 49 | 60 | 4 | 100 | RP 100 | 60 | 4 |
| 50 | RP 50 | 56 | 3 | Total |  | 6060 | 196 |
| 51 | RP 51 | 68 | 4 | Mean |  | 60.6 | 1.96 |

Range : H-L = $100-0=100$
Width : R/C $=100 / 5=20$
Tabel 4.5
Level of Student' Reading Comprehension

| No | Level | Classificati <br> on | The Rank of <br> Classification | Frequence | Percentage |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | $0-19$ | Very low <br> level of <br> reading <br> comprehens <br> ion | Level 1 | 0 | $0 \%$ |
| 2. | $20-39$ | low level of <br> reading <br> comprehens <br> ion | Level 2 | 9 | $9 \%$ |


| 3. | $40-59$ | medium of <br> reading <br> comprehens <br> ion | Level 3 | 33 | $33 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 4. | $60-79$ | High level <br> of reading <br> comprehens <br> ion | Level 4 | 43 | $43 \%$ |
| 5. | $80-99$ | Very high <br> level of <br> reading <br> comprehens <br> ion | Level 5 | 15 | $15 \%$ |

The table above showed the presentation of reading comprehension data. There were 5 categories. The dominant was high categories with the amount of $43 \% ~(n=43)$. There was $9 \%$ students with low categories $(\mathrm{n}=9)$. In the medium category, there was $33 \%$ students $(\mathrm{n}=33)$. Then, there was $15 \%$ students ( $\mathrm{n}=15$ ) in very high categories.
2. Descriptive Statistic

1) Students' self-regulation score

Self-regulation score is the result of students' selfregulation level that collected from the questionnaire had been distributed. After compute the data, then the researcher analyses the data by using SPSS 24.0 statistic computational program.

Table 4.6
Descriptive Statistic of Self-regulation

| Self -regulation |  |
| :--- | :--- |
| Mean | 109.13 |
| Standard Error | 1.248000826 |
| Median | 109 |
| Mode | 114 |
| Standard Deviation | 12.48000826 |
| Sample Variance | 155.7506061 |
| Kurtosis | 0.149534807 |
| Skewness | -0.161088308 |
| Range | 64 |
| Minimum | 74 |
| Maximum | 138 |
| Sum | 10913 |
| Count | 100 |
| Mean | 109.13 |

The table 4.6 presents the descriptive statistic of selfregulation. It can be noticed that from 100 participants, the mean score of self-regulation is 109.13 . Next, the lowest score is 74 and the highest score is 138 . It means that the range between the minimum to the maximum is far enough.
2) Reading Comprehension score

The reading comprehension score is the result of students' reading comprehension test that collected from the Junior TOEFL test had been distributed. After compute the data, then the researcher analyses the data by using SPSS 24.0 statistic computational program.

Table 4.7

## Descriptive Statistics of Reading Comprehension

| Reading Comprehension |  |
| :--- | :--- |
| Mean | 60.6 |
| Standard Error | 1.557387089 |
| Median | 60 |
| Mode | 60 |
| Standard Deviation | 15.57387089 |
| Sample Variance | 242.5454545 |
| Kurtosis | -0.673602163 |
| Skewness | 0.045985518 |
| Range | 60 |
| Minimum | 32 |
| Maximum | 92 |
| Sum | 6060 |
| Count | 100 |

Table 4.7, it can be seen that the mean of students' reading comprehension achievement score is 60.6 , the median score is 60.00 , and the mode score is 80 with standard deviation score is 15.57. Then, the minimum score of reading comprehension achievement is 32 and the maximum score of reading comprehension achievement which students can achieve, the score is 92 . The range between the minimum score to the maximum score is far enough.
3. Test of Normality and Linearity Test

The self-regulation and reading comprehension level of the students were collected from the questionnaire and reading test. And it was analysed in SPSS 24.0 statistics program.

Table 4.8
Normality Test of Self-regulation

| One-Sample Kolmogorov-Smirnov Test |  |  |
| :--- | :--- | :--- |
| Self regulation |  | 100 |
| N | Mean | 109.13 |
| Normal Parameters |  |  |
|  | Std. <br> Deviation | 12.480 |
|  | Absolute | .067 |
|  | Positive | .030 |
|  | Negative | -.067 |
| Test Statistic | .067 |  |
| Asymp. Sig. (2-tailed) | $.200^{\mathrm{c}, \mathrm{d}}$ |  |
| a. Test distribution is Normal. |  |  |
| b. Calculated from data. |  |  |

In testing the data of normality, in this case the researcher used One Sample Kolmogorov-Smirnov Test. The distribution of the data can be called normal if the significance (sig) number is larger than 0.05 . Then, if the significance number is lower or almost equal with 0.05 , the data can be called as abnormal data. Based on the table above, by using One Sample KolmogorovSmirnov Test, the significance number of the self-efficacy normality test is 0.200 which is larger than the obtained number (0.05).

Table 4.9
Normality Test of Reading Comprehension

| One-Sample Kolmogorov-Smirnov Test |  |  |
| :--- | :--- | :--- |
|  |  | Reading <br> comprehension |
| N | Mean | 100 |
| Normal Parameters ${ }^{\text {a,b }}$ | 60.6000 |  |
|  | Std. <br> Deviatio <br> n | 15.57387 |
|  | Absolute | .075 |
|  | Positive | .075 |
|  | Negative | -.074 |
| Test Statistic | .075 |  |
| Asymp. Sig. (2-tailed) |  |  |
| a. Test distribution is Normal. | $.177^{\text {c }}$ |  |
| b. Calculated from data. |  |  |

This table 4.9 presents the normality test of the reading comprehension. in this case the researcher used One Sample KolmogorovSmirnov Test. The distribution of the data can be called normal if the significance (sig) number is larger than 0.05 . Then, if the significance number is lower or almost equal with 0.05 , the data can be called as abnormal data. Based on the table above, by using One Sample Kolmogorov-Smirnov Test, the significance number of the reading test and normality test is 0.052 which is larger than the obtained number ( 0.05 ).

Following the test of normality, the researcher also used SPSS version 24 to specify in case the regression of correlation between variable

X and Y is linear or not. The result of the linearity testing are shown in table 4.10:

Table 4.10
The Linearity Test Result of Data

| ANOVA Table |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Sum of Squares | Df | Mean Square | F | Sig. |
| reading <br> comprehension <br> self regulation | Between <br> Groups | (Combined) | 2100.833 | 9 | 233.426 | 2.332 | . 102 |
|  |  | Linearity | 997.803 | 1 | 997.803 | 9.966 | . 010 |
|  |  | Deviation <br> from <br> Linearity | 1103.030 | 8 | 137.879 | 1.377 | . 312 |
|  | Within Groups |  | 1001.167 | 10 | 100.117 |  |  |
|  | Total |  | 3102.000 | 19 |  |  |  |

4. The Correlation between Students' Self-regulation and Reading Comprehension

In analysing the correlation of the two variables, the researcher used Pearson Product Moment Correlation because the data distribution is normal. In this part, the researcher analyses the correlation of student's self-regulation and reading comprehension of eleventh grade students in MAN 1 Kota Kediri. The result presents below:

Table 4.11
The Coefficient Correlation Result

| Correlations |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  | self regulation | reading <br> comprehen <br> sion |
| self regulation | Pearson Correlation | 1 | 0.554 |
|  | Sig. (2-tailed) |  | 0.000 |
|  | N | 100 | 100 |
| reading comprehension | Pearson Correlation | 0.554 | 1 |
|  | Sig. (2-tailed) | 0.000 |  |
|  | N | 100 | 100 |
| **. Correlation is significant at the 0.01 level (2-tailed). |  |  |  |

From the table above, the result showed that there is a correlation between students' self-regulation and reading comprehension, and the correlation is significant. It is because the significance value is smaller than 0.05 . the significance value of the test shown 0.00 . So, it means that alternative hypothesis (Ha) is accepted.

From the table 4.11, the coefficient correlation is 0.554 ( $\mathrm{r}=0.554$ ). It can be inferred that the strength of the correlation between students' self-regulation and reading comprehension skill is medium. Eventhough the correlation from self-regulation and reading comprehension is medium, it does not mean that there is no significant effect. Furthermore, the researcher assumes that if the students have higher self-regulation, so do higher the reading comprehension achievement.

## B. Discussion

The outcome of correlation between self-regulation and reading comprehension shows that the significance value of them is 0.000 which is smaller than 0.05 . It implied that Ha cannot be declined. The conclusion is there is correlation between self-regulation and reading comprehension.

The correlation coefficient of self-regulation and reading comprehension shows 0.554 . Following to interpretation of coefficient correlation index, it means that correlation between them is enough correlation.

The outcome of this study is same with the preceding study that was conducted by Reza Fahlepi (2019). He found that there is a significant relationship between self-regulation and reading comprehension at the secondary school of SMA Negeri 1 Kampar. The coefficient correlation on those research was 0.510 . It means that there was medium correlation between those variables.

The distinction in the result of this study with the other study that conducted by Shahih Sheikh and Fereidoun Vahdany (2015). They found that that there was strong relationship between self regulation and reading comprehension of Iranian Intermediate EFL Learners. But in this study, the researcher found that the correlation between them is medium correlation.

Another previous study with distinction result in how strong the correlation between self-regulation and reading comprehension was conducted by Narges Kamgar and Esmaeil Jadidi (2016). They found that there is no significant relationship between self-regulation and reading comprehension ability among beginners and intermediete levels. But, there is significant relationship between self-regulation and reading comprehension among advanced levels.

The possibility reason why the outcome is different with the previous research is the participant of the study. The participant of the
previous study that has different result with this study is intermediate and advanced level. While in this research the researcher conduct the study in eleventh grade which are in beginner level.

