CHAPTER III

METHOD OF THE RESEARCH

A. Research Design

The method of this research was a causal comparative research. According to Gay, et all (2012, p.228) causal–comparative research is sometimes treated as a type of descriptive research because it describes conditions that already exist. Causal–comparative research, however, also attempts to determine reasons, or causes, for the existing condition. The writer has compared students' understanding on context clues in descriptive text as a dependent variable (Y) between male and female students as independent variables (X).

B. Location and Time of the Research

This research was conducted at Senior High School LKMD Sukaramai. It was located in Sukaramai at Pendidikan street No.6, District of Tapung Hulu, Kampar Regency. This research was conducted on April 2018.

C. Subject and Object of the Research

The male and female students of the tenth grade at Senior High School LKMD Sukaramai was the subject of this research, while the object was the students' understanding on context clues in descriptive text.

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D. Population and Sample of the Research

1. Population

The population of this research was the tenth grade students of Senior High School LKMD Sukaramai. The students are divided into 3 classes. The number of the tenth grade students of Senior High School LKMD Sukaramai was 108 students.

Table III.1
The Populationof the Tenth-Grade Students of
Senior High School LKMD Sukaramai

No	Class	The Number of the Students		Total Population
		Male	**Female**	
1	IPA	12	18	30
2	IPS 1	23	16	39
3	IPS 2	19	20	39
Total		**54**	**54**	**108**

2. Sample

Considering the population of this research was homogenous, thus, the writer was used simple random sampling because every class has an equal chance of being selected to be the sample. According to Gay (2012, p.131) Simple random sampling is the process of selecting a sample in such a way that all individuals in the defined population have an equal and independent chance of selection for the sample. Moreover, According to Arikunto (2006), if the total population is less than 100, it is better to take all of them as the sample but if the total populations are more than 100

students, the sample can be taken between 10-15 % or 20-25% or more. Regarding those ideas, the writer took 50% of the population. 54 students was being the sample of the research.

Table III.2
Sample of the Research

No	Class	Population		Number of Population	Sample		Number of Sample
		Male	Female		Male (50%)	Female (50%)	
1	IPA	12	18	30	6	9	15
2	IPS 1	23	16	39	11	8	19
3	IPS 2	19	20	39	10	10	20
Total		54	54	108	27	27	54

The procedure of took the sample, the writer used lottery by passing out small roll paper mark by the sequence number of the students.

E. Technique of Collecting the Data

In order to collect the data from sample on this research, the writer used reading test Houghes (1989, p.120). The writer gave some questions related with a descriptive text and context clues, because it relates to the syllabus and the students have learnt descriptive text.

Table III.3
Blueprint of Understanding
Context clues in Descriptive Text Test

Genre	Indicators	Item Number	Total
Understanding Context clues	Defenition or direct explanation	1, 7, 8, 9, 17.	5
	Example	2, 4, 6, 19, 20.	5
	Contrast	15, 16, 18, 24, 25.	5
	Cause and effect	12, 13, 14, 22, 23.	5
	Restatement	3, 5, 10, 11, 21.	5
Total			25

1. Validity and Reliability

a) Validity

Every test, whether it is short, informal classroom test or a public examination should be as valid as the test constructor can make it. The test must aim at providing a true measure of the particular skill intended to measure. In the test, the writer used content validity, in which it was used to measure the ability which should be measured (Hughes:1989, p. 26). In this case, the test should be only based on the material that students have learned. Regarding Creswell (2008) says that validity is the individual's scores from an instrument that makes sense, meaningful, enable you, as the writer, to draw good conclusions from the sample you are studying to the population. It means that validity is the extent to which inferences made from assessment results are appropriate, meaningful, and useful in terms of the purpose of the assessment.

The test given to the students should be balance. It means that the test was not too easy and was not too difficult. Item difficulty was determined as the proportion of correct responses. This was held pertinent to the index difficulty, in which it was generally expressed as the percentage of the students who answer the questions correctly.

Finally, the writer determined the validity by referring to the material that was given to the students based on the students' text book. In other words, the test given to the students was based on the material that they had learned. To find out the validity of test, writer calculated it by using SPSS 20 version. The writer examined and noted the differences between r_{item} and r_{table}. Siregar (2014) stated that the item is valid if the value of r_{item} is higher than r_{table} at significance level of 5%. The data was consulted with r_{table} at significance level of 5% (α = alpha = 0.05). The test was try out to 26 students, meaning that N= 26 with df= N – 2 = 24. The researcher took df24, so r_{table} acquired was 0,3882.

The result of try out indicated that not all items were valid. It can be seen as follow:

Table III. 4
The Item Validity of
Students' Understanding of Context Clues Try Out

Item Number	r-item	r-table	Result
1.	0.506	0.3882	Valid
2.	0.587	0.3882	Valid
3.	0.506	0.3882	Valid
4.	0.429	0.3882	Valid
5.	0.493	0.3882	Valid
6.	0.628	0.3882	Valid
7.	0.440	0.3882	Valid
8.	0.613	0.3882	Valid
9.	0.416	0.3882	Valid
10.	0.454	0.3882	Valid
11.	0.451	0.3882	Valid
12.	0.521	0.3882	Valid
13.	0.721	0.3882	Valid
14.	0.842	0.3882	Valid
15.	0.506	0.3882	Valid
16.	0.478	0.3882	Valid
17.	0.480	0.3882	Valid
18.	0.641	0.3882	Valid
19.	0.585	0.3882	Valid
20.	0.619	0.3882	Valid
21.	0.631	0.3882	Valid
22.	0.683	0.3882	Valid
23.	0.527	0.3882	Valid
24.	0.338	0.3882	Unvalid
25.	0.762	0.3882	Valid
26.	0.429	0.3882	Valid
27.	0.022	0.3882	Unvalid
28.	0.089	0.3882	Unvalid
29.	0.052	0.3882	Unvalid
30.	0.076	0.3882	Unvalid

The table III.4 shows the validity of students' understanding of context clues try out. Based on the table, there are 25 items are valid because $r_{item} > r_{table}$ and 5 items unvalid because $r_{item} < r_{table}$. So the writer used 25 items to be tested to the sample.

b) Reliability

Reliability has to do with accuracy of measurement. This kind of accuracy was reflected in obtaining the similar results when measurement was repeated on different occasion or with different instruments or by different person. The characteristic of reliability is sometimes termed consistency (Brown, 2003). And this research is internal consistency reliability. According to Creswell (2008), internal consistency reliability is the instrument administered once; using one version of the instrument and each participant in the study completes the instrument.

According to Cohen et.al, (2007) the guidelines for reliability are as follows:

Table III.5
The Category of Reliability

No	Reliability	Category
1	>0.90	Very highly reliable
2	0.80-0.90	Highly reliable
3	0.70-0.79	Reliable
4	0.60-0.69	Minimally reliable
5	<0.60	Unacceptably low reliability

In this research, the writer used software SPSS 20 version to calculate the reliability of test. The following table is the reliability test of understanding context clues test try out:

Table III.6

Reliability Statistics

Cronbach's Alpha	N of Items
.911	25

The reliability of test was 0.911. It was categorized into very highly reliable level.

c) Test of Normality

Kadir (2015, p.143) said that when the writer want to do an inferential statistical analysis, they should do the normality test for the data. The normality test is used to know whether the data in this study normally distributed or not. In order to know whether the data were normally distributed, the writer did the test by using SPSS 20.0 versions. The result of normality test shown below:

Table III.7

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
MALE STUDENTS	.145	27	.151	.933	27	.080
FEMALE STUDENTS	.162	27	.068	.934	27	.085

a. Lilliefors Significance Correction

From the result above, it can be seen that the data are categorized normally distributed because the value of significant is higher than 0.05. The significant value of male students' understanding of context clues

score was 0.151, Sig. 0.151> 0.05. The significant value of female students' understanding of context clues score was 0.068, Sig. = 0.068> 0.05, hence it can be concluded that all the data normal distributed.

d) Test of Homogeneity

After tested the normality, the homogeneity test was also analysed. The test was conducted for recognizing that the variances of data are homogenous or not. Homogenous means the data have the same characteristics. To analyse the homogeneity test, this study used Levene statistics technique. It also calculated by using SPSS 20.0 The result of homogeneity test can be seen as follow:

Table III.8

Test of Homogeneity of Variances

Undersatnding Context Clues

Levene Statistic	df1	df2	Sig.
.028	1	52	.868

Consequently, from the result of homogeneity presented in table III.8, we can reveal that the variance of the data is homogenous. It can be stated that the variance of data are homogenous with the sig. 0.868 which clearly seen that it higher than 0.05.

F. Technique of Analyzing Data

To find out whether there is a significance difference between male and female's on understanding context clues in descriptive text, the writer used t-test as the main technique to analyze the data. To know comparison between the male and female students at the tenth grade of Senior High School LKMD Sukaramai in understanding "context clues in descriptive text". According to Julie Pallant, (2011, p.105) stated that t- tests are used when you have two groups (e.g males and females) or two sets of data (before and after), and you wish to compare the mean score on some continuous variable.

The writer used independent sample t-test to see the results. Pallant (2011, p.239) pointed that independent sample t-test used when you want to compare the mean scores of two different group of people (e.g. male/female) or conditions. So, the writer used Independent Sample T-test to compare male and female students understanding on context clues in descriptive text.

SPSS 20.0 version for Windows program was used to analyse the data.

Moreover, the hypothesis was formulated as below:

1. H_0 (Null Hypothesis)

   H_0 = There is no significant difference between male and female students understanding on context clues in descriptive text at the tenth grade of Senior High School LKMD Sukaramai.

2. H_a (Alternative Hypothesis)

H_a = There is a significant difference difference between male and female's on understanding context clues in descriptive text at the tenth grade of Senior High School LKMD Sukaramai.

The criteria of the hypothesis are:

H_0 is rejected if the score of *Sig.* (in SPSS table) $>\alpha/5\%$ (0.05)

H_a is accepted if the score of *Sig.* (in SPSS table) $<\alpha/5\%$ (0.05)