

CHAPTER III

RESEARCH METHOD

A. RESEARCH DESIGN

The researcher uses Pre-Experimental design. The design of this study is experimental design because the researcher wants to measure the effect of comics media in the teaching story telling process. According to Arikunto, Experimental study is a study which aimed to know there is or not the effect of the variable studied.¹¹ In line with this Ary says that experimental design refers to the conceptual framework within which the experiment is conducted. The most important criteria that is the design be appropriate for testing the particular hypothesis of the study.¹²

This research study uses quantitative approach. A quantitative approach is one in which the investigatory primarily uses postpositive claim for developing knowledge (i.e., cause and effect thinking, reduction to specific variables and hypotheses and question, use of measurement and observation, and the test of theories) employs strategies of inquiry such as experiment and survey and collect data on predetermined instrument that yield statistics data.¹³

According to Ary, “quantitative research is inquiry employing operational definitions to generate numeric data to answer predetermined

¹¹ Suharsimi Arikanto, *Manajemen Penelitian*, p.272

¹² Donald Ary,dkk, *Introduction to Research in Education Third Edition*, New York : 1985, p.260

¹³ John W. Creswell, *Research Design Qualitative,Quantitative,and Mixed Second Edition*, p.21

hypotheses or questions”.¹⁴ It is using quantitative approach because quantitative is the data that of all number using statistic data.

The researcher uses the one-group pretest-posttest design usually involves three steps : (1) administering a pretest measuring the dependent variable; (2) applying the experimental treatment *X* to the subjects; (3) administering a posttest, again measuring the dependent variable. Differences attributed to application of the experimental treatment are then evaluated by comparing the pretest and posttest score.¹⁵

Table 3.1

Design of Pre-test and Post-test

Pre-test	Treatment	Post-test
Y I	X	Y 2

here :

X : Treatment

Y1 : Pre – test

Y2 : Post - test

B. POPULATION AND SAMPLE

1. Population

A population is all the organisms that both belong to the same group or species and live in the same geographical area. In ecology the population

¹⁴ Donald Ary, *Introduction to Research in Education Eight*, United State : Wadsworth (Engange Learning, 2010) p.648.

¹⁵ *Ibid*, p. 303

of a certain species in a certain area is estimated using the Lincoln Index. The area that is used to define a sexual population is such that inter-breeding is possible between any pair within the area and more probable than cross-breeding with individuals from other areas. Normally breeding is substantially more common within the area than across the border.

According to Arikunto, population is the whole of research subject, if someone wants to research all of the elements in research area his research is called population research on census study.¹⁶

In this research, population is eleventh-year students of SMAN 1 Sampit. The Population of the research is language class grade eleventh students of SMAN 1 Sampit. Since there is only one group of language class of eleventh grade, so obviously it will be taken as the population research.

2. Sample

Sample is a part of population. According to Ary, “ Sample is a group selected from population for observation in a study.”¹⁷ For the sample, the researcher takes a class to be the sample. The researcher used purposive sampling for it. In this research, become sample are all the Students of language class grade eleven.

¹⁶ Suharsimi Arikunto, *procedure penelitian: suatu pendekatan praktek*. Jakarta: PT. Rineka Cipta, 2000, P. 108

¹⁷ Donald Ary, *introduction to research in education eight*, united state : Wadsworth (engage Learning, 2010) p.649.

The researcher chooses this class as the object of his research because the duration of English Learning in this class is longer than others class. The researcher hope this research is going to be finished earlier.

C. SETTING OF THE STUDY

This study will be taken from the eleventh grade of the students at SMAN 1 Sampit which is located on Jalan A.Yani.

The researcher chooses this school as the object of his research for some reasons. First, this school has become a favorite school of other senior high schools in East Kotawaringin regency. The favorite school means that the school becomes an example to be followed by other Senior High Schools at the same level in the aspects of teaching and learning process, teachers' profile, teaching facilities, school's achievements and school management and administration as well as its quality. Second, this school is located near the highway so it easy to reach. Third, considering that the English teacher of this school had implemented the group work before. So, it makes the researcher easy to conduct his classroom observation. Fourth, this school has many good students in English Learning.

D. RESEARCH INSTRUMENT

The data needed for this study will be gathered by test and research instrument try out.

1. Test

There are some meaning of Test:

- a. A procedure for critical evaluation; a means of determining the presence, quality, or truth of something; a trial: a test of one's eyesight; subjecting a hypothesis to a test; a test of an athlete's endurance.
- b. A series of questions, problems, or physical responses designed to determine knowledge, intelligence, or ability.

The researcher use the achivement test. Achivement test are widely use in educational research, as well as in school system. It used to measure what individual have learned. Achievement test measure mastery and proficiency in different area of knowledge.¹⁸ The researcher construct the question by itself. The advantage of a researcher-made test is that it can be tailored to be content specific.

2. Scoring Method

In assessment methods, researchers used inter-rater. researchers as rater 1 and rater 2 as a teacher. For the assessment of student test results,

¹⁸ Donald Ary, *introduction to research in education eight*, united state : Wadsworth (engage Learning, 2010) p.201

researchers used a scoring rubric that has been predetermined. The following is the scoring rubric:

No	Criteria	Score
1	Content:	
	The content is relevant to the topic and easy to understand.	3
	The content is almost complete, relevant to the topic.	2
	The content is relevant to the topic but is not quite to understand.	1
2	Organization:	
	Ideas clearly stated, well organized.	3
	Ideas clearly stated, but it is not quite well organized	2
	Ideas are almost clearly stated, no logical sequencing	1
3	Language Use:	
	A few grammatical inaccuracies.	4
	Some grammatical inaccuracies.	3
	Numerous grammatical inaccuracies.	2
	Frequent grammatical inaccuracies.	1
	Total	10

E. TIME

The research will conduct in two months. The experiment will do to the sample in eight times of meeting, two meetings for the pre-test and post-test. There are six meetings for the treatment and quiz. The reseacher takes six meetings in order to take the data briefly. In addition, the school has their own system in learning as implement in curriculum or syllabus. The reseacher avoid the miscommunication between researcher and it institution. Next, many experts recommend for treatment in experimental research at leats done on six meetings.

Table 3.2 Research Schedule

No.	Meeting	Explanation
1.	First	Pre-Test
2.	Second	Treatment and Quiz
3.	Third	Treatment and Quiz
4.	Fourth	Treatment and Quiz
5.	Fifth	Treatment and Quiz
6.	Sixth	Treatment and Quiz
7.	Seventh	Treatment and Quiz
8.	Eight	Post-test

F. DATA COLLECTION PROCEDURES

To get the data that is need in the research, there are few of ways to do it, they are :

1. Preparation

- a) The researcher chooses the place of the study.
- b) The researcher gives information for the instance that related to show this study.
- c) The researcher makes instrument try out.
- d) The researcher shows the try out the class that has been determine.
- e) The researcher analyses try out

2. Implementation

- a) The researcher give the treatment and quiz about comics until six meeting.

3. Conclusion

- a) The researcher gives the test to the students.
- b) The researcher calculates the result of test.
- c) The researcher puts the data to the table had been prepare.

G. DATA ANALYSIS PROCEDURE

The researcher analysis the data with a few of way, they are :

1. The researcher collects the result of test.
2. The researcher gives score for the students that suitable with the criteria.
3. The researcher arranges into the table.¹⁹
4. The researcher determines the mean score with the formula:

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

Where :

M_x = Mean value

$\sum fx$ = Sum of each midpoint times by it frequency

N = Number of case²⁰

5. The writer calculated the deviation score and standard deviation using the formula:

- a. Deviation Score

$$x = X - \bar{X}$$

x = deviation score

X = raw score

\bar{X} = mean

¹⁹ Suniati, *Teaching Vocabulary through total physical Respond (TPR) Method to the first Grade of MtsN-1 Model Palangka Raya Academic year 2005/2006*, Thesis, palangka Raya: UNPAR, 2006. p.31.

²⁰ Anas Sudijono, *Pengantar Statistik Pendidikan*, Jakarta: PT. Raja Grafindo Persada, 2008, P. 85.

b. Standard Deviation

$$s^2 = \frac{\sum x^2}{N-1}$$

$$s = \sqrt{\frac{\sum x^2}{N-1}}$$

$$s = \sqrt{\frac{\sum X^2 - \frac{(\sum X)^2}{N}}{N-1}}$$

$\sum X^2$ = sum of the squares of each score (i.e., each score is first squared, and then these squares are summed)

$(\sum X)^2$ = sum of the scores squared (the scores are first summed, and then this total is squared)

N = number of cases

6. The writer calculated the variance homogeneity²¹:

$$F = \frac{\text{The biggest variance}}{\text{The smallest variance}}$$

7. The writer calculated the data by using t-test to test the hypothesis of the study.
8. The writer used the level of significance at 5%. If the result of test is higher than t table, it means H_a is accepted but if the result of test is lower than t table, it means H_o is accepted.
9. The writer used t test to conclude the answer of the problem of the study.
- a. If the t_{observed} is equal or higher than t value in the table (with t table sign), so the null hypothesis stating that there is no Mean

²¹ Sugiyono, *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif, Dan R&D)*, Bandung: Alfabeta, 2007, p. 273.

difference from the both sample is rejected. It means the difference is significant.

- b. If the t_{observed} is lower than t_{table} , it means the null hypothesis stating that there is no Mean difference from the both sample is accepted²². It means the difference is not significant.

10. The writer calculated the degree of freedom with the formula²³:

$$Df = (N_1 + N_2 - 2)$$

Where :

Df = degree of freedom

N = Number of cases

11. The writer determined the significant level of t observed by comparing the t_{observed} with the t_{table} .
12. The writer interpreted the analysis result.
13. The writer gave conclusion.

²² Anas Sudijono, *Pengantar Statistik Pendidikan* , p. 284-285.

²³ *Ibid.*,