CHAPTER III

RESEARCH METHOD

In this part, the writer described about research method that used in conducting the research. The purpose of this chapter is to answer the problem of the study. This chapter consisted of place and time of the study, research design, population and sample, instruments of the study, instrument try out, validity, reliability, data collection procedures, and data analysis.

A. Place and Time of the Study

The study will conduct at SMPN 3 Palangka Raya which located on Kutilang Street. The writer will start the research on Agustus, 2015 until find the complete data from the English teacher and students at SMPN 3 Palangka Raya.

B. Research Design

In this study, it is used the quantitative approach. According to Dornyei, "Quantitative research involves data collection procedures that result primarily in numerical data which is then analyzed primarily by statistical method." [1]The purpose of this study is to know the effect of cartoon movie towards students' writing ability on simple present tense.

In the study, the writer is used quasi-experimental design. Cook and

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[1]Zoltan Dornyei, *Research Method in Applied Linguistics Quantitative, Qualitative A Mixed*

Methodologies, p. 24.

Campbell in Dornyei state quasi-experiments are similar to true experiments in every respect except that they do not use random assignment to create the comparisons from which treatment-caused change is inferred.[2]

Quasi-experimental designs are similar to randomized experimental designs in that they involve manipulation of an independent variable but differ in that subjects are not randomly assigned to treatment groups. Because the quasi- experimental design does not provide full control, it is extremely important that researchers be aware of the threats to both internal and external validity and considers these factors in their interpretation. Although true experiments are preferred, quasi-experimental designs are considered worthwhile because they permit researchers to reach reasonable conclusions even though full control is not possible. The use of this design, basically, because of the problem of the study in which, the writer wants to find the answer might be answered by using quasi-experimental design.[3]

The nonrandomized control group, pretest–posttest design is one of the most widely used quasi-experimental designs in educational research.[4]

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[2] *Ibid.,* p. 117..
[3] Donald Ary, Lucy Cheser Jacobs, and Chris Sorensen, *Introduction to Research in Education,*p.316
[4] *Ibid.*p. 316.

Table 1.1

Nonrandomized Control Group, Pretest–Posttest Design

Group	Pretest	Independent Variable	Posttest
E C	Y1	X	Y2
	Y1	-	Y2

In this study, the writer t o o k the eighth grade students of SMP N 3 Palangka Raya in the 2015/2016 academic year as the population of the study. The population was divided into two groups; the first group became experiment group that taught by cartoon movie as media and the second group became control group that taught without cartoon movie.

C. Population and Sample

1. Population

The larger group about which the generalization is made is called a *population*. A population is defined as all members of any well-defined class of people, events, or objects.[5]

The population of this study is all of the eight grade students of SMP N 3 Palangka Raya in the 2015/2016 academic year. The number of population is 317 students. It is classified into 9 classes. It can be seen in the table.

Table 1.2

The number of the eight grade students of SMPN 3 Palangka Raya

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[5] Donald Ary, Lucy Cheser Jacobs, and Chris Sorensen, *Introduction to Research in Education,*p.148

No	Classes	Male	Female	Total
1	VIII 1	23	13	36
2	VIII 2	17	20	37
3	VIII 3	20	16	36
4	VIII 4	15	21	36
5	VIII 5	14	22	36
6	VIII 6	17	19	36
7	VIII 7	12	20	32
8	VIII 8	9	23	32
9	VIII 9	16	20	36
	TOTAL	143	174	317

2.Sample

The small group that is observed is called a *sample*. A sample is a portion of a population.[6] To take the sample, the writer will use cluster sampling because it is unit chosen and not an individual but, rather, a group of individuals. In this study, the writer took VIII 6 and VIII 9 classes.

The writer was determined the two classes into two groups. They were VIII 6 as experimental group and VIII 9 as control group. Experimental group consisted of 36 students and control group consisted of 36 students as the sample. It can be seen in the table as follows:

Table 1.3
The number of sample

No	Class	Male	Female	Total
1	VIII 6	17	19	36
2	VIII 9	16	20	36
	TOTAL	33	39	72

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[6] Donald Ary, Lucy Cheser Jacobs, and Chris Sorensen, *Introduction to Research in Education,*p.148

D. Instrument of the Study

The purpose of the instrument is to elicit the data of the study. In language research, an instrument can be a test. The type of instrument and data collection procedure that we use will depend heavily on our choices in the four parameters discussed earlier.[7]

The data were very important in the study. They helped the writer in order to find the aims of the study. They were to measure the effect of cartoon movie toward students' writing ability on simple present tense of the eighth grade students at SMPN 3 Palangka Raya. The instrument to get them is:

1. Test

A test is a set of stimuli presented to an individual in order to elicit responses on the basis of which a numerical score can be assigned. This score, based on a representative sample of the individual's behavior, is an indicator of the extent to which the subject has the characteristic being measured.[8] Brown states a test, in plain word, is a method of measuring a person's ability or knowledge in a given domain.[9]

The writer in this research used completion items and jumble sentence as instrument of the study. The completion items consist 10 items and jumble sentence also consist 10 items of simple present tense in verbal

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[7] http://linguistics.byu.edu/faculty/henrichsenl/ResearchMethods/RM_2_17.html
[8] Donald Ary, Lucy Cheser Jacobs, and Chris Sorensen, *Introduction to Research in Education,* p.201
[9] H. Douglas Brown, *Teaching by Principles an Interactive Approach to Language Pedagogy (Second Edition),* p.384

sentence which given to the control and experiment classes. The completion items requires the student to answer a question or to finish an incomplete statement by filling in a blank with the correct word or phrase [10]

These are the examples of completion items about tenses:[11]

1. Robert. . . . . (arrive) in Kenya a few weeks ago.

2. Don't talk so loudly: your father. . . .(sleep)

3. Where did Mr. Smith go while we . . .? (talk)

4. I wish I . . . (know) the answer to that question.

The scoring guide that used as follow: [12]

1.4
Scoring rubric for writing grammar

Grammar	Grammar very appropriate	5
	Grammar appropriate	4
	Grammar appropriate enough	3
	Grammar less appropriate	2
	Grammar not appropriate	1

E. Instrument Try Out of the Study

In order to find a good construction of instrument, the instrument was necessary to be tryout. The result of the tryout will be an evaluation to set the instrument whether it will suitably give to the sample of this study or not. The writer tried out the instrument to VIII 7 students of SMPN 3 Palangka Raya.

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[10] Nuhad Yazbik Dumit, *Writing Effective Questions: True & False, Matching, & Completion Test Items,*p.29 pdf

[11]*Ibid.*p.30

[12] Kementerian Pendidikan Dan Kebudayaan. 2014. Bahasa Inggris When English Rings a Bell SMP/MTs Kelas VIII. Jakarta:Kementerian Pendidikan dan Kebudayaan,p.14-15.

To establish whether or not the instrument can be used to measure the student's progress in writing ability on simple present tense in verbal sentence, the writer conducted the following procedures:

1. The writer prepared the instrument of simple present tense in verbal sentence.

2. The writer contacted the students and determined time allocation

3. The writer conducted the tryout

4. The writer gave the test which consisted of 25 items of completion and 25 items of jumble sentences.

5. The writer checked the students' correct answer.

6. The writer analyzed the result of the test to know the validity, the reliability and level of difficulty of the instrument using ANA-TEST.

F. Validity

Validity is an important key to effective research. If a piece of research is invalid then it is worthless. Validity is thus a requirement for both quantitative and qualitative/naturalistic research[13]

a. Content Validity

Content validity addresses the match between test questions and the content or subject area they are intended to assess. This concept of match is sometimes referred to as alignment, while the content or subject area of the test may be referred to as a performance domain. Experts in a given performance domain generally judge content validity. For example,

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[13] Louise Cohen, Lawrence Manion and Keith Morrison, *Research Method in Education,*2007,p.133

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20 items completion items and jumble sentence of. The topic based on syllabus of SMPN 3 Palangka Raya for the eighth graders.

b. Face Validity

Face validity is almost always perceived in terms of content: if the test samples the actual content of what the learner has achieved or expects to achieve, then face validity will be perceived.

Ary et al. state face validity is a term sometimes used in connection with a test's content. Face validity refers to the extent to which examinees believe the instrument is measuring what it is supposed to measure.[14]

The test used by the writer is suitable to others and the same level that is secondary school. The face validity of the test items as follow:

a) The kinds of test are writing test which is focus on simple present tense.

b) The form of test items is completion items and jumble sentence.

c) The language of item used English.

d) The test items are suitable to the secondary school.

G. Reliability

Reliability in quantitative research is essentially a synonym for dependability, consistency and reliability over time, over instruments and over groups of respondents. It is concerned with precision and accuracy; some features, e.g. height, can be measured precisely, while others, e.g. musical ability, cannot.

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[14]Donal Ary, Lucy Cheser Jacobs, Chris Sorensen, and Asghar Razavieh, *Introduction to Research in Education Eight edition,* p. 228.

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For research to be reliable it must demonstrate that if it were to be carried out on a similar group of respondents in a similar context (however defined), then similar results would be found. There are three principal types of reliability: stability, equivalence and internal consistency[15]. For calculate coefficient of reliability the writer used ANA-TEST program.

The steps in determining the reliability of the test were:[16]

a. Open ANATEST inc. click ANATEST

b. Enter data, click New File, enter the data as follows:

   Numbers of subjects, number of items, and the number of answers, click OK.

c. Enter the answer key to the first line

d. Enter the students name on the column name or subject

e. Enter the students' answers on the cell / column is white, if the student not answering fill in the asterisks (*)

f. Click reliability, the output of result reliability is processed.

   The result showed that the instrument was reliable. The reliability score was 0.81 while the standard of reliable is 0.60. Hence, it can be concluded that is reliable. At last, the writer limited the test items into 20 from 50 test items that were tested, 30 test items were eliminated.

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[15] Ibid p.146

[16] Yudha Andana Prawira, *Analisis Butir Soal Dengan Menggunakan Software Anatesv4,* Bandung: Universitas Pendidikan Indonesia, 2008, p. 1

H. Data Collection Procedures

In this study, the writer used some procedures to collect the data. The procedures consisted of some steps as follows:

1. The writer observed the school by principle's permission.

2. The writer gave try out test to the eight graders especially VIII 7 of SMPN 3 Palangka Raya.

3. The writer validated the instrument try out that has been given to the students.

4. The writer determined the class into experiment group and control group

5. The writer gave pre-test to the experiment and control group.

6. The writer calculated the result of the pre-test

7. The writer taught the experiment group using cartoon movie for 4 meetings.

8. The writer taught the control group without using cartoon movie but only use the English book as the teacher usually teaches.

9. The writer gave post-test to the experiment group and control group.

10. The writer gave score to the post test result from experiment group and the control group.

11. The writer analyzed the obtain result of the pre-test and post-test using t-test.

12. The writer interpreted the analysis result.

13. The writer concluded the activity of the study whether the cartoon

movie g i v e s effect to the students' writing ability on simple present tense or no.

I. Data Analysis Procedures

Data analysis is the process of arranging data sequence; organize into a system, category and set of the breakdown of base. In this research, the writer analyzes the data quantitatively. The data from test is analyzed by using calculating the mean.

The writer will do some procedures in the data analysis. They are:

1. The writer collected the obtained score.

2. The writer arranged the obtained score into the distribution of frequency of score table.

3. The writer calculated the mean, median, modus, standard deviation, and standard error of variable X_1 from the experiment group. The writer calculated the mean with this formula[17]:

$$M_\chi = \frac{\Sigma x}{N}$$

Where:

M_χ : mean of variable X_1

Σx: Number of score.

N: Number of cases

4. The writer calculated the mean, median, modus, standard deviation, and

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[17] Triwid Syafaratun Najah,*Statistik Pendidikan,*STAIN Palangka Raya, Unpublished, 2012. p.41

standard error of variable X_2 from the control group. The writer calculated the mean with this formula:[18]

$$M_\chi = \frac{\Sigma x}{N}$$

Where:

M_χ : mean of variable X_1

Σx: Number of score.

N: Number of cases

5. The writer calculated the standard error for the difference mean between variable X1 and X2.

6. The writer used SPSS 21 and for normality test the researcher will use One Sample Kolmogorov. With the significance level (α) 0,05.

Interpretation:

If the result of normality test >α, then the data can be said to be normally distributed.

If the result of normality test <α, then the data can be said not normally distributed.

7. The writer used SPSS 21.0 and for homogeneity test the researcher use Test of Homogeneity of variance. With the significance level (α) 0,05.

Interpretation:

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[18] *Ibid.*p.41

If the result of homogeneity test>α then the data can be said to be homogeneity distributed.

If the result of homogeneity test>α then the data can be said not homogeneity distributed.

8. The writer used t-test to answer the problem of the study, whether there is difference on students' writing ability on simple present tense between using cartoon movie and without using cartoon movie,

With the formula:[19]

$$t_0 = \frac{mx_1 - mx_2}{SEmx_1 - mx_2}$$

Where:

$Mx_1 - Mx_2$: Differentiation of Two Means.

$SEmx_1 - mx_2$: The Standard Error of the Difference between two means.

With the criteria:

If $t_{test} > t_{table}$ = Ha is accepted and Ho is rejected.

If $t_{test} < t_{table}$ = Ha is rejected and Ho is accepted.

The writer used the level of significance at 1% and 5%. If the result of t_{test} is higher than t_{table}, Ha is accepted but if the result of t_{test} is lower than t_{table}, Ho is accepted.

9. The writer used SPSS 21 after using t-test to answer the problem of the

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[19] Anas Sudijono, *Pengantar Statistik Pendidikan*, p. 307

study, whether there is difference on students' writing ability on simple present tense using cartoon movie and without using cartoon movie.

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

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

Where :

df   : Degree of Freedom

N_1 and N_2 : Number of Cases[20]

11. The writer determined the significant level of t observed by comparing the t observed with the t table.

12. The writer interpreted the result of the data analysis.

13. The writer discussed to clarify the research findings. The results of the analysis data showed in Chapter IV.

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[20] *Ibid*, p. 330