

CHAPTER III

RESEARCH METHOD

Quantitative research can be defined as a methodology rooted in positivism, focusing on the analysis of specific populations and samples (Sugiyono, 2013). This method typically involves random sampling, the use of research instruments for data collection, and statistical analysis to test predetermined hypotheses. In this study, a quantitative approach with a descriptive design is applied to investigate the research objectives.

A. Research Design

In researching The effect of social strategy utilization in Cartoon Movies on vocabulary Development in Children (A quasi experiment at the seventh grade students of MTSN 5 Kaur Academic Year 2024/2025) utilized quantitative research methods. The quantitative approach used by research was a quasi-experimental method, to determine the impact of using social strategy utilization in Cartoon Movies on vocabulary Development in Children. A quantitative approach was research that began with a cause and effect hypothesis, the next step was conducting tests followed by giving treatment to the experimental group and the final measurement was providing a post-test (Suwartono, 2014: 159).

Research design is a strategy to arrange the setting of the research in order to get valid data. In doing this research, the researcher used quasy experiment. This research is one of the most powerful research methodologies that the researchers can use. According to Creswell (2009) states that the basic intent of an experimental design is to test the impact of a treatment (or an intervention) on an outcome controlling for all other factors that might influence that outcome.

This design of research often used in classrooms when experimental and control groups were such naturally assembled group as intact classes, which may be similar (John and James,2006). Intact classes meat that the seven grade students in the experimental group and the control group haad the same competence, and the same English teacher .

This research attempted to find out developing students's vocabulary through social strategy utilization in cartoon movie. All of them were given pre-test and post-test. The pre-test was given before treatment. After the treatment, the two classes were given post-test. The result of the post-test compared with pre-test score of each class. It will be done in order to see Improving Student's Vocabulary through social strategy and cartoon movie.

According to Sugiyono (2011: p.116) the scheme of

nonequivalent control group design can be described as Table 3.1.

Table 3.1

Scheme Non equivalent control group design

Class	Pretest	Treatment	Posttest
Experiment	O_1	X	O_2
Control	O_3	—	O_4

Note :

Experiment = Group of students who get teach with social strategy and cartoon movie

Control = Group of students who get conventional teaching or no given treatment

O_1 = Experimental group pretest result before given treatment

O_2 = Experimental group pretest result after given treatment

O_3 = Experimental group post test result before given treatment

O_4 = Experimental group post test result after given treatment

B. Population And Sample Research

The researcher held this research at the eighth grade of SMP Negeri 18 Bengkulu City. The location of this research is in Jl. KS. Tubun No.17, Jl. Gedang, Kec. Gading Cempaka,

Bengkulu Province. This research was held in academic year 2023/2024.

The sample and population were selected based on the research focus on vocabulary acquisition among seventh-grade students at MTSN 5 Kaur. The total population consisted of 62 students from three classes, and the sample was chosen using purposive sampling to ensure the groups had similar characteristics, such as age, capability, and the same English teacher.

Class VIIA was designated as the control group, while Class VIIB was selected as the experimental group. This decision was made to maintain comparability between the two groups while applying the intervention—cartoon movies and social strategies—to the experimental group. The control group followed conventional teaching methods to provide a baseline for comparison. This design ensures that any observed differences in vocabulary acquisition can be attributed to the use of cartoon movies and social strategies rather than external factors.

1. Population.

According to Creswell (2012:39) the population is the group of individuals having one characteristic that distinguishes them from other groups. According Sugiyono in Supardi, the population is generalization region consisting of the objects or subjects that are of a certain

quantity and characteristics defined by the researchers to learn and then drawn his conclusions.

From some of the opinion above can be concluded that the population was the object or subject that was located in a region and met certain requirements related to the problem or object of research. The researcher took the population in the seventh grade students of MTSN 5 Kaur in the academic year of 2023/2024.

The population of this research was the 7th Grade of MTSN 5 Kaur are 62 students in total. In taking the sample, the researcher chose class VIIA as a controlled class which has 20 students, and class VIIB as experimental class which has 20 students.

Table 3.2 Popuation of the Research

No	Class	Students
1	VII A	20
2	VII B	20
3	VII C	22
	Total	62

2. Sample

Sample is a subset of a population. The samples are part of the population is taken as a source of data and can represent the whole population. According to Creswell (2012: 142), a sample was a subgroup of the target

population that researchers studied to generalize about the target population. In determining the sample, the researcher used a purposive sampling technique. Sampling was the technique of taking sample out of population. There were some criteria to select the sample. They were the member of the selected groups had similar characteristics such as the number of the students, were capability, age, mean score and the same of English teacher. The samples taken by the researcher of this research were two classes from the eighth grade of SMP Negeri 18 Bengkulu City.

In this research, the researcher used purposive sampling. Purposive sampling is a technique for determining sample with particular consideration (Sugiyono 2014). In purposive sampling, the two groups of classes must have same or almost same capability. In other words, purposive sampling did not simply study which ever available but rather used their judgment of selector sample that they believe, based on prior information, provided the data then needed. The researcher took two classes that were divided into two groups. The first class was the experimental class (VII.A) which consisted of 20 students and the second was control class (VII.B) which consisted of 20 students. The experimental class was given the treatment by using social strategy and cartoon movie and control class was given the treatment convention teaching tools, book. The same things

given to both classes were the same materials, the same of the amount of time, and the same teachers. From these opinions can be concluded that, the sample was a part of the population that had the characteristics or circumstances to be studied.

Table 3.3 The sample of the Research

Class	Number of students	Subject of study
VII.A	20	The experimental group
VII.B	20	The control group

C. Technique Of The Collecting Data

The research did the pre-test and post-test for all of the samples. Pretest was giving for the control and experimental class. The data were be collected by giving the test to the students. One of the most important steps in doing research was collecting data to find out the results of the research. The procedures of data collection followed some steps.

1. Pre-Test (Assessing Initial Vocabulary Skills)

- Administer a **pre-test** to measure students' initial vocabulary knowledge.
- Use a multiple-choice test, fill-in-the-blanks, or word-matching exercises to evaluate their current level.
- Record and analyze the scores to establish a baseline for comparison.

2. Treatment (Using Cartoon Movies for Vocabulary Instruction)

- **First Session (Introduction to Cartoon-Based Learning)**
 - Explain the use of **cartoon movies** as a learning tool.
 - Introduce the selected cartoon and its relevance to vocabulary learning.
- **Second to Fourth Sessions (Watching and Interactive Learning)**
 - Play the cartoon movie with **English subtitles** to enhance word recognition.
 - Pause at key moments to discuss new words, meanings, and their use in context.
 - Engage students in group discussions using **social strategies** (asking questions, collaborating, and role-playing).
 - Assign activities such as word-matching games, short writing tasks, or reenactment of scenes using new vocabulary.
- **Fifth Session (Vocabulary Review and Reinforcement)**
 - Use interactive activities like quizzes, flashcards, or storytelling to reinforce learned words.
 - Have students work in groups to create short dialogues using the vocabulary from the cartoons.

3. Post-Test (Measuring Vocabulary Improvement)

- Conduct a **post-test** with similar question types as the pre-test.
- Compare the results with the pre-test to assess vocabulary

development.

- Analyze whether students in the experimental group (cartoon-based learning) performed better than the control group (traditional method).

4. Reflection and Feedback

- Discuss with students how the cartoon-based approach helped their learning.
- Collect feedback on their interest, engagement, and confidence in using new words.
- Use findings to refine the teaching method for future lessons.

D. Research Instrument

The instrument in this research used vocabulary test. The test in this research was used to find out the mastery of students' vocabulary after learning by social strategy and cartoon movies. In this test, the research gave in multiple choice forms. The researcher used the same items test for both classes (subject of the research). Furthermore, Vocabularies which were tested based on the mastery of vocabulary target in curriculum and materials that were going to be teach, Vocabulary test that consists of 20 items of multiple choice form. Those items took from question and task book which was used by the school.

E. Instrument Validaty And Reability

1. The Validity

To determine the validity of the test items, the researcher assessed their accuracy. Creswell (2012, p. 159) defines validity as the process of developing reliable evidence to show that the interpretation of test scores, based on the concept or construct being measured, aligns with its intended purpose. In essence, validity refers to the extent to which the conclusions drawn from assessment results are relevant, meaningful, and appropriate for the assessment's objectives.

To evaluate the validity of the vocabulary mastery test, a preliminary test involving 50 items was conducted on 30 students who were not part of the main research sample. The analysis was performed using the SPSS 20.0 software.

The validity of each question was determined by comparing the r-value of the item with the critical r-value (r_t) at a 5% significance level, which was 0.329 ($df = N-2 = 34$). A question was considered valid if its r-value exceeded the r_t value. Items with r-values lower than the r_t value were deemed invalid and either removed or revised.

The analysis results indicated that 22 items were valid and could be included in the questionnaire, while

the remaining items were considered invalid and excluded. Consequently, the final version of the test contained 22 valid items and the researcher take 20 items that will be used to assess students' vocabulary development.

The following are the validation results of the questionnaire that will be tested in this research :

statement	Significance value	Conclusion
1	0,003	Valid
2	0,003	Valid
3	0,003	Valid
4	0,030	Valid
5	0,010	Valid
6	0,504	Invalid
7	0,000	Valid
8	0,022	Valid
9	0,356	Invalid
10	0,006	Valid
11	0,031	Valid
12	0,360	Invalid
13	0,012	Valid
14	0,948	Invalid
15	0,013	Valid
16	0,043	Valid

17	0,811	Invalid
18	0,211	Invalid
19	0,452	Invalid
20	0,035	Valid
21	0,025	Valid
22	0,017	Valid
23	0,672	Invalid
24	0,917	Invalid
25	0,501	Invalid
26	0,009	Valid
27	0,903	Invalid
28	0,238	Invalid
29	0,100	Invalid
30	0,008	Valid
31	0,351	Invalid
32	0,008	Valid
33	0,853	Invalid
34	0,713	Invalid
35	0,858	Invalid
36	0,491	Invalid
37	0,408	Invalid
38	0,800	Invalid
39	0,343	Invalid
40	0,842	Invalid

41	0,003	Valid
42	0,001	Valid
43	0,404	Invalid
44	0,889	Invalid
45	0,364	Invalid
46	0,987	Invalid
47	0,267	Invalid
48	0,035	Valid
49	0,306	Invalid
50	0,021	Valid

2. The Reliability.

Reliability measures the consistency and predictability of an instrument. Creswell (2012, p. 159) describes reliability as the degree to which an instrument yields stable results when administered under similar conditions. Internal consistency reliability was assessed using two different versions of the same items, confirming the instrument's reliability for this study. The categories of reliability tests from Split Half and Kuder Richardson that were used to assess the test's degree of reliability are shown in the table below.

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded ^a	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.835	20

Based on the results of the reliability test above, it can be concluded that each statement item used in this research is reliable.

F. The Technique Of Data Analysis

In this study, descriptive statistical analysis was used to interpreting the data. The researcher analyzed students' responses to the multiple choices questionnaire to identify difficulties in vocabulary skill. The analysis included calculating percentages from the frequency of responses and categorizing the data into different performance levels. Data were processed using SPSS 20.0 and Microsoft Excel for detailed statistical evaluation.

1. Normality Test

The normality test determines whether the data follow a normal distribution. The hypotheses for this test are:

- **H₀**: Data are normally distributed.

- **H_a**: Data are not normally distributed.

A significance level of 0.05 was used, with the hypothesis accepted if the significance value is greater than 0.05.

2. Homogeneity Test

This test assesses whether the variance across groups is consistent. The hypotheses for this test are:

- **H₀**: Data are not homogeneous.
- **H_a**: Data are homogeneous

The hypothesis is accepted if the significance value is greater than 0.05.

3. Hypothesis Test

A t-test was employed to test the hypotheses, specifically the Independent Sample T-Test, which compares the means of two independent groups. This test requires data to meet the following criteria:

- a. Data must be measured at the interval or ratio level.
- b. The sample data must be drawn from a population with a normal distribution.
- c. Variances between the two groups should be

homogeneous.

d. Data must be collected from two separate samples

