CHAPTER III

RESEARCH METHOD

3.1 Research Design

The method used in this research is quantitative research. Quantitative research is research collecting data using statistical data calculations. The design in this quantitative method is a research with experimental design. This study analyzes the effect of the independent variable and the dependent variable. The dependent variable is the experimental research class that gets treatment from the research.

Table 3.1 Research Design

Pre-Test	Treatment	Post-Test
Experimental Group	By using Somatic, Auditory, Visualization, and Intellectually (SAVI) Learning Model	Experimental Group
Control Group	Without using Somatic, Auditory,Visualization, and Intellectually (SAVI) Leraning Model	Control Group

3.2 Population and Sample

3.2.1 Population

Population is a group of elements or cases, whether individuals,objects, or events, that fit certain criteria and we mean to generalize research results. Population in this research involved the whole is two class that the research apply SAVI learning model in grade five students of SD Agung Persada Bandar Khalipah. They possessed several homogenous characteristics such as the same age, level, burden of learning,ability and etc.

Table 3.2 The Number of Population

No	Class	Population
1	V-A	31
2	V-B	28
	Total	59

Source : SD Agung Persada Bandar Khalipah

3.2.2 Sample

The sample of this study is V-A of SD Agung Persada that consisted of 31 students. In selecting the sample, the research uses purposive sampling as a technique to determine the sample. Purposive sampling is a technique to determine the sample with a certain aims in accordance to needs of the research with a certain characteristics.

Table 3.3 The Sample of Research

No.	Group	Students	Classes
1	Experimental	31	V-A
2	Control	28	V-B

3.3 Treatment

In this research, there are differences in treatment between the experimental class and the control class. There are 4 meetings for each group and each group are consisting of 31 students. The control group was teached in the conventional way. Steps in applying the Somatic, Auditory, Visualization, and Intellectualy (SAVI).

Table 3.4 The Treatment In The Experimental Class

First Meeting
• **Opening** The teacher gives greeting to the students in the classroom.
• **Main Activity** Stimulation • The teacher ask students to introduce themselves. • The students introduced themselves one by one.

Problem Statement

- Students have difficulty speaking in English.

Data Collection

- Students are asked to ask questions about the material being taught.

- **Closing**

The teacher ask students if they have difficulty learning English.

The teacher ends the first meeting.

Second Meeting

- **Opening**

The teacher gives greeting to the students.

- **Main Activity**

Data Processing

- The teacher explanation material to students.
- Students are asked to read the material provided.

Verification

- The teacher gives directions about speaking, that is understanding of speaking, characteristics, and activities that can practice speaking.

Generalization

- The teacher asks students to ask questions about the material being taught.
• **Closing** The teacher ends the second meeting.

Third Meeting
• **Opening** The teacher gives greeting to the students.
• **Main Activity** Explanation - The teacher gives an explanation of how teaching using the SAVI learning model. - The teacher applies the SAVI learning model
• **Closing** The teacher ends the third meeting.

Fourth Meeting
• **Opening** The teacher gives greeting to the students.
• **Main Activity** Creating

- Students are asked to answer the question sheets given by the teacher. Share - Students write their answers related to speaking ability.
• **Closing** - The teacher ends the fourth meeting.

3.5 The Treatment In The Control Class

Meeting	Teacher's Activity	Student's Activity
I	Opening • The teacher greets students. • The teacher asks students to introduce themselves. Main Activity • The teacher ask what is difficulty speaking in English. • The teacher displays pictures that have not	• Students answer greetings. • Students introduce themselves. • Students introduce in English. • Students pay attention to the teacher's explanation. • Students write what the teacher explains.

	been sequential. • The teacher explains the in English. • The teacher tells students to come forward to arrange a chronological picture of a natural event related to speaking that will be made by students (somatic) Closing •The teacher ends the lesson and tells the next meeting activity.	
II	Opening • The teacher greets students. • The teacher asks students to understand the previous material.	• Students answer greetings. • Students understand the previous material. • Students introduce

	Main Activity • The teacher displays the finished picture and tells the events that are happening in the picture Closing The teacher ends the lesson and tells the next meeting activity.	themselves
III	Opening • The teacher greets students. • The teacher ask about the previous lesson. Main Activity • The teacher plays music that is related to the theme of speaking and invites students to imagine (auditory) Closing	• Students answer greetings • Students tell what difficulties were learned before. • Students tell what difficulties were learned before. • Students pay attention to the teacher's explanation and students write down the meaning

	The teacher ends the lesson and tells the next meeting activity.	of the speaking given.
IV	• The teacher greets students. • The teacher asks and students to describe the situation they see and feel from the picture displayed (visual). Main Activity • The teacher tells students to write what they see and feel on the paper in accordance with what has been given. With due regard to the provisions to be assessed (intellectual). • Teachers and students alike conclude learning.	• Students answer greetings. • Students pay attention to the teacher's explanation and students write down the meaning of the speaking given. • Students understand the question sheet given. • Students begin to answer.

	Closing The teacher ends the lesson.	

3.4 Research Instrument

Research instrument is a tool for measuring, observing, and documenting the quantitative data (Creswell, 2014). In this study, the data collection instrument used two tests, namely pre-test and post-test. These results are also used to see whether the learning model used is going well or not.

3.5 Reliability and Validity of Instruments

3.5.1 Realibility

Reliability according to Azwar (2011) is the extent to which the results of measurements have trustworthiness, reliability, consistency, consistency, and reliability. The measurement results can be trusted if several measurements are taken in the same group of subjects, with relatively the same results. To find out which test is reliable and valid, the reliability test is analyzed using the Kuder Richardson 20 formula proposed by Sugiyono (2018: 186) as follows:

$$ri = \frac{k}{(k-1)}\left\{\frac{st2 - \sum piqi}{st2}\right\}$$

Where:

k : the number of item in the instrument

pi : proportion of the number of subject who answer item 1

qi : 1-pi

St^2: the number of variant

The value of realibility coefficient (Guilford, 1956) as he following:

0,80 – 1,00 : the realibility is very good

0,60 – 0,80 : the realibility is good

0,40 – 0,60 : the realibility is significant

0,20 – 0,40 : the realibility is low

-1,00 – 0,20 : the realibility is very low (Not reliable)

3.5.2 Validity

Validity which means the accuracy and accuracy of a measuring instrument in performing its measuring function (Azwar 1986). Validity is a measure that shows the level of validity or validity of an instrument. The principle of validity is a measurement or observation which means the principle of the reliability of the instrument in collecting data.

$$r_{xy} = \frac{n\Sigma xy - (\Sigma x)(\Sigma y)}{\sqrt{[n\Sigma x^2 - (\Sigma x)^2][n\Sigma y^2 - (\Sigma y)^2]}}$$

Pearson Moment Products formula:

r_{xy} = Is the product of the total amount of variable x and the total amount of variable y

N = Is the number of data pairs X and Y

ΣX = Is total of the variable X

ΣY = Is total of the variable Y

ΣX2 = Is squared total amount of variable X

ΣY2 = Is squared total amount of variable Y

3.6 Technique of Data Collection

Data collection is an important part of conducting research. To collect data, this study used a pre-test and post-test given to the experimental group and the control group.

3.6.1 Pre-test

The experimental and control groups was given a pre-test before treatment.This was used to analyze the ability of students speaking ability interm of pronunciation, grammar, vocabulary and fluency.

3.6.2 Post-test

The post-test was given to students after conducting treatment using SAVI learning model. It aims to find out the difference in their average score.

3.7 Technique of Data Analysis

Meanwhile, analysis of the results from the questionnaire used the percentage formula suggest by Sugiono (2007, p. 43) as follows:

$$P = \frac{F \text{ x } 100\%}{N}$$

In whitch:

P = Result expressed as a percentage

F = The frequency

N = Number of cases

For detail explanation of the interpretation guide as follow:

Table 3.6 Interval Scoring for Students

Score Interval	**Qualification**
80 – 100	Exellent
70 – 79	Good
60 – 69	Average
50 – 59	Poor
<49	Very poor