



Chapter III

RESEARCH METHOD

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3.1 Research Design

This research using quantitative research by doing an experimental research. According to Ary (2002:301) states that an experimental design is the general plan for carrying out a study with an active independent variable. The research design is a whole decision that involves studying the topic, informing the decision that the researcher's philosophical assumptions lead to the research (Cresswell, 2014:41).

The research design used by researcher is quasi experimental with non-equivalent control group design. Quasi experimental is research that provides treatment and measures the effects of treatment but does not use random samples to conclude changes caused by the treatment. Quasi experimental involves at least two sample groups, namely the experiment sample group that is given treatment and one sample group as a control group that is not given treatment. Non-equivalent group design, uses a pre-test for the experimental and control groups whose results would be the basis for determining change. In this research design, experimental and control groups are not randomly determined, in this design experimental and control groups are compared, even though the groups are not randomly selected. Both groups are given a pre-test, then given treatment and then given a post-test.

In this research, researcher studied two classes. The first class is the experimental group and the second class is the control group. Therefore, the researcher using

the same materials and tasks but with a different treatment for control and experimental group. In experimental group, the researcher used Tiktok application as a media in teaching listening. While in control group the researcher would not use the Tiktok application as the media.

Table 3.1 Non Equivalent Control Group Design

Group	Pre-test	Treatment	Post-test
Experimental Group	✓	By using Tiktok Application	✓
Control Group	✓	By using conventional Method	✓

Experiment : Experimental group (the group would be treated by using TikTok Application)

Control : Control group (the group would be treated by conventional way of teaching listening)

✓ : pre-test Experimental group

✓ : post-test Experimental group

✓ : pre-test Control group

✓ : post-test Control group

3.2 Population and sample

3.2.1 Population

The population is the entire subject that would research. In conducting research, of course, it requires a population, (Ismiyanto, 2003) state that the population is all subjects that can be people, objects, things that can be obtained and can provide researcher information. Based on this quote, then here, the population would be taken from all students at SMP HKBP Pardamean.

Table 3.2.1 The Population of Research

NO	CLASS	STUDENTS
1	VII-A	18
2	VII-B	20
3	VIII-A	16
4	VIII-B	17
5	IX-A	18
6	IX-B	18
	TOTAL	107

3.2.2 Sample

The sample is a portion of the population that represents the same characteristics and characteristics so that it truly represents the population (Sugiyono, 2017: 118). The sampling technique use is purposive sampling. The definition of purposive sampling according to several experts. According to Dana P. Turner (2020), purposive sampling is a sampling technique used when the researcher already has a target individual with characteristics that match the research.

According to Bernard (2002), purposive sampling is a sampling technique by judging the sample deliberately according to the required quality. Notoatmodjo (2010) explains that purposive sampling techniques are carried out on the basis of the researcher's consideration of the population. According to Sugiyono (2010), purposive sampling is a data collection technique by determining a sample that has been considered. From the explanation above, the researcher took samples from the ninth grade class due to recommendations from teachers or suggestions from English teachers who teach at the school. The researcher have do the research in IX Grade which is class IX-A as the experimental group and class IX-B as the control group. Researcher applied the treatment in experimental group, while the control group only apply the method as usual in the learning process.

Table 3.2.2 The Sample of Research

No	Class	Students
1	IX-A	18
2	IX-B	18
	Total	36

3.3 Treatment

In this research, treatment would be in the form of providing material related to the research objectives. Researcher would use different treatment in these two groups. Researcher using Tiktok application for experimental class and researcher using conventional methods in the control class.

Meeting 1

The researcher introduced herself and got acquainted with the students in the classroom. The researcher explained why the researcher wanted to do this research. The researcher explained what the definition of listening was and gave a few examples of short conversations to test how far they could understand what the speaker was saying, then the researcher gave a pre-test to test the students' abilities before being given a deeper explanation.

Meeting 2

At this stage the researcher provided a deeper understanding of listening, the meaning of listening according to experts and asks students what listening means to them.

Meeting 3

At this stage the researcher explains what the process of the listening stage is, starting from listening, understanding, remembering, and responding.

Meeting 4

At this stage the researcher explains what are the difficulties of the listening process, it is difficult to distinguish sounds or words that may sound the same in pronunciation, it is difficult to make conclusions from the text that has been heard, there are limitations in vocabulary, it is difficult to concentrate.

Meeting 5

At this stage the researcher explains what is meant social media, types of social media, positive and negative social media, and one of the social media discussed is Tiktok.

Meeting 6

At this stage the researcher provided various examples of short conversations, and conversations that are a little long and provided several examples of listening. Researcher tested how much they

can hear or can understand what the speaker says, by the way the students are asked to listen carefully to what the speaker says and ask them to say back what the speaker says and interpret what the speaker has said.

Meeting 7

At this stage the researcher provides conclusions from the first meeting to the last meeting, and recalls to the students what they have learned and what they already know and tell what instructions and how to take the pre-test that would be carried out.

Meeting 8

Researcher would provided a post-test which aims to measure the extent of students' listening levels after researcher apply the listening method using tiktok media in students' listening skills. After completing the post test that had been given, the researcher say thank you to all students.

3.4 Research Instrument

The instrument that would be used is a listening test, which is a test used to measure the extent to which students have mastered the material that has been given. The sample test is a multiple-choice test based on a short conversation or short dialogue about everyday topics such as numbers, letters and hobbies. This learning result test is in the form of an objective test or in the form of a choice of 10 questions with 3 choices. Pre-test and post-test of learning English are given before and after students study the material with conventional learning and listening test in each class. The following are the questions used in the pre-test and post-test

1. A:What's your name?

B: Its Alina Smith

A: Elena?

B: No Alina (A L I N A)

B: Oh Alina, its nice to meet you Alina

A. Alina Smith B. Elena Smith C. Alena Smith

2. A: Your name pliss

B: Matt Rosenblum

A: Rosenblum. How do you spell that Mr. Rosenblum?

B: R O S E N B L U M

A: OK thankyou

A. Matt Rosenblum B. Matt Rosenbloom C. Matt Rosanblum

3. A: may I have your phone number please?

B: sure, its 555 2398

A: oke 555 2358

B : actually its (98) 2398

A: oh 2398 thankyou

A. 555-2358 B. 555-2398 555-2359

4. A: so could I give you a call sometimes?

B: sure that will be great, my cell is 555 7216

A: 555 7216?

B: yap that's right

A: oke I will give you a call this weekend

A. 555-7125 B. 555-7126 C. 555-7216

5. A: what's your apartment like Ken?

B: It's comfortable but it's pretty small, there is only one room

A: really? don't any have a bedroom?

B: no I sleep in a living room

A: what about your cat?

B: she sleeps in a living room too, right next to me

A



B



C



6. A: I enjoy reading, I read a lot of books and I love going to the library

My dad likes outdoor things he is really interested in sports and swimming and he always tells me I should get more interested in sports, but, mom tells me that reading is the best way to learn she always gives me books that she is been reading

A



B



C



7. A: I'm very interesting in computers, I always teaching my self new computer programs and I have lot of love a great software. My brother and I spend all every time in computer store. My sister is more interesting in the arts she likes music and she loves to read she hates computers

A

B

C



8. All of my parents are taller than me. my dad is pretty tall but my brother is even taller than my dad, together they look like basketball team. My sister and I are the short one in the family

A. Her father

B. Her brother

C. Her sister

9. Hi sam wanna go to the vanished tonight? To the vanished I don't think I have a beener? you haven't? they have the best pizza in the world. They do? comen lets go right now I really hungry

A. Pizza restaurant

B. Chicken restaurant

C. Seafood restaurant

10. A: are you ready to order?

B: yes I'd like to start with a salad please

A: okey and what would you like for your main dish?

B: hhhmmm I'll have the spaghetti. Is it good?

A: I have never tried it, anything to drink?

B: tea pliss

A; and how about dessert?

B: not today thanks

A. House salad, spaghetti with meat sauce, tea

B. House salad, spaghetti with meat sauce, coffee

C. House salad, steak with fries, apple pie, tea

3.5 Reliability and Validity of Instrument

In this case, it is necessary to distinguish between valid and reliable research with valid and reliable results of the instrument. Valid instrument means that the measuring instrument used to obtain valid data. Valid means that the instrument can be used to measure what should be measured. A reliable instrument is an instrument that is used several times to measure the same object, would produce the same data. and determine whether this item is suitable for use or not. In determining whether an item is suitable or not, a valid significance test is usually used if it is significantly correlated with the total score. These requirements would be fulfilled if the testing phase is carried out on the test questions. The product moment correlation formula is used to calculate the validity of the item items in order to test the validity of the questions.

1. Validity Test

Validity is a measure that shows the levels of validity or validity of an instrument (Suharsimi Arikunto 2014: 210). An instrument is said to be valid if it is able to measure what is desired. To obtain a valid instrument, the authors tested the validity of the questions. Using questions as a measuring tool when it meets two conditions, namely validity and reliability. These requirements would be fulfilled if the testing phase is carried out on the test questions. To test the validity of the questions, the product moment correlation formula is used to calculate the validity of the items.

1. Reliability Test

Reliability basically measures the reliability of the instrument. According to Thorndike and Hagen in Purwanto (2011: 154), reliability relates to the accuracy of the instrument in measuring what is being measured, the accuracy of the measurement results and how accurate it is if it is re-measured. To determine the reliability of the test in this study used the following formula:

Reliability Formula:

$$r_{11} = \left[\frac{n}{n-1} \right] \left[1 - \frac{\sum \alpha b^2}{\alpha t^2} \right]$$

r_{11} : index reliability

n : numbers of item

$\sum \alpha b^2$: item variance

αt^2 : total variance

3.6 Technique of Data Collection

The data collection technique uses Arikunto's instrument technique (2013: 112) with a pre-test and post-test pattern in both classes, the first class using Tiktok learning media called the experimental class and the second class without using Tiktok learning media or called the control class. The pretest was given at the beginning of the meeting in the control class without Tiktok media and in the experimental class using Tiktok media. The results of this research data are student test results when conducting listening test activities. Researcher would check the extent of students' listening skills by using tiktok media or not using Tiktok media.

1. Pre-test

Before treatment, the researcher would conduct a pre-test on the experimental and control groups. After that, they are required to take an individual test to listen to the listening test. The purpose of the pretest is to find out how far students are able to listening.

2. Post-test

Post-test would gave after pre-test. The items in the post-test are the same as those in the pre-test. It's intended to know the mean scores of experimental and control groups.

3.7 Technique of Data Analysis

After the researcher gave the pre-test and post-test to the students and the results would be examine,the researcher using the formulation T-test to measure the differences of students' average scores from the experimental group and control group before and after treatment.

T-test formulation is following:

$$t = \frac{m_A - m_B}{\frac{\sqrt{s^2}}{\sqrt{n_A}} + \frac{\sqrt{s^2}}{\sqrt{n_B}}}$$

Information

- m_A = the average of the control group
- m_B = the average of the experimental group
- n_A = Number of control respondents
- n_B = Number of experimental respondents
- s^2 = Standard Deviation (Standard Deviation)