

CHAPTER III

METHOD OF THE RESEARCH

This chapter discuss about research design, subject of the research, research variable, research instrument, validity and reliability testing, normality and homogeneity testing, data collection method, procedures in teaching listening comprehension, and data analysis.

A. Research Design

The researcher uses Quasi-Experimental research. Quasi-Experimental research is one of experimental research design which suggests casual relationship in result finding. This type is one of quantitative research that is different from other type of research. The researcher controls or manipulates one or more independent variables then, measures how the treatment effect each group (Lodico et al., 2006:204).

According to Antonius (2003:27) experimental research is procedures that allow the observation of people's perceptions to a treatment under controlled circumstance. McMilan and Schumacher (2001:32) states that in an Experimental model inquiry the writer manipulates what the subject will experience. The writer makes comparison between subjects who have not had the imposed conditions or between subjects who have experienced difference conditions.

Based on Lodico et al. (2006:185) this model is probably a common type of experimental study, this one involve random assignment of whole

group to treatment. To ensure that the groups are similar, researchers often administer a pretest to both groups.

In this research, the researcher uses design 9 of experimental research design; Nonrandomized control group, pretest-posttest design (Ary et al., 2010:316). Experimental Nonrandomized control group, pretest-posttest design is conducted with two groups; experimental group and control group, which both group is given pretest and posttest. Lodico et al. (2006:183) states the control group is a separate group that receives no treatment or a different treatment, while the experimental group is the group which will receive a treatment. The design as follows:

Table 3.1 Nonrandomized Control Group, Pretest-Posttest Design

(Ary et al., 2010:316)

| Group | Pretest | Independent Variable | Posttest |
|-------|---------|----------------------|----------|
| E | Y_1 | X | Y_2 |
| C | Y_1 | - | Y_2 |

Note:

E : Experimental group

C : Control group

Y_1 : Pretest in experimental group before treatment (AK 1)

Y_1 : Pretest in control group (AK 2)

Y_2 : Posttest in experimental group after treatment (AK 1)

Y_2 : Posttest in control group (AK 2)

X : Treatment in Experimental group (AK 1)

- : The group without treatment or using conventional strategy (AK 2)

According to the table above, there are two groups. The first is E group, namely experimental group. The students in experimental group receive dictogloss strategy during listening process as the treatment of the study. The second group is C group, namely control group. In other hand, the students in control group receive a conventional strategy during listening process but without treatment. It means that the researcher want to know if there are any significant differences in teaching listening comprehension by using dictogloss and without using dictogloss. The researcher will use dictogloss strategy in experimental class but not use it in controlled class. Finally, both experimental and control group will give a test before (pretest) and after (posttest) the treatment.

B. Subject of the Study

This sub-chapter represents population, sample, and sampling that are used by the researcher, there are:

1. Population

The population is the group of people whom the study is about (Dornyei, 2007:96). The population of this study is the tenth grade students of SMK PGRI 1 Tulungagung in 2017/2018 Academic year that consists of 264 students. The tenth grade of SMK PGRI 1 Tulungagung consists of 7 classes that is divided into 3 class types based on students' interest, there are MP (Office Management), BP (Business and Marketing), and AK (Accounting).

2. Sample and Sampling

The sample is the group of participants whom the researcher actually examines in an empirical investigation (Dornyei, 2007:96). The researcher uses purposive sampling in sampling technique. According to Teddlie (2007:80), purposive sampling techniques that have also been referred to as nonprobability sampling techniques, involved selecting certain units or cases “based on a specific purpose rather than randomly.”

In this study, the researcher takes two classes from 7 classes. The sample class is class AK (AK 1 and 2) as a sample which the samples are class AK 1 (36 students) as experiment class and class AK 2 (35 students) as control class. The reason of the researcher is they have a same level of knowledge in learning English and the students of this class are difficult to follow listening section in English subject.

C. Research Variable

A variable is a characteristic or attribute of an individual or an organization that writers can measure or observe and varies among individuals or organizations studied (Creswell, 2012:112). There are two variables in this research, there are:

1. Independent Variable

According to Lodico et al. (2006:205) the independent variable refers to how participants are treated. In education, the independent variable might be curriculum materials, instructional styles, or specialized

trainings, to name a few. The researcher states that the independent variable is Dictogloss strategy

2. Dependent Variable

Based on Lodico et al. (2006:205) the outcome of the study is the dependent variable, which is measured by a test or measuring instrument that produced in quantitative data. It means that the dependent variable is students' listening comprehension.

D. Research Instrument

The researcher uses a test to collect the data. The test divide to pre-test and post-test that is tried out to another class from the same grade and same school with the student in experimental and controlled class.

According to Suharsimi (2010, as cited in Asrobi and Amni, 2017) research method is the way that is used in collecting data, while instrument is a tool that is used in collecting data. The instrument is questions or exercises or other tools which are used to measure skill, knowledge, intelligence, achievement, and attitude of someone or a group of people.

The researcher selects some kinds of listening comprehension test that conducted in pretest and posttest. The listening test focuses on listening for comprehending and understanding the passage. The researcher divides one text into three sections since the text is too long. The first section is answering comprehension questions on texts by complete the sentence. It provides help for students by paraphrasing difficult sentence (Collie and

Slater, 2011:43). Second is multiple choices. Based on Ur (2007:136) students are listen to a passage of about 300 to 500 words, which is nearly always spoken prose: an excerpt from a book or article read aloud. They then answer questions on it which may be 'straight' questions, but are nowadays usually multiple-choice. The aim is to help them concentrate and more effort to comprehend the text. Third is true and false statements. True and false statement is a question, which students mark or choose "T" for statements is true or "F" for statements is false. The aim is to help students ensure the fluent and can be writing accurate word (Collie and Slater, 2011:43). The research instrument as follows:

1. Pre-test

The test was given for both experimental and control class before the lesson to know the students' comprehension of listening.

2. Treatment

The researcher gives the same materials both experimental class and controlled class but with different strategy. The experimental class will receive dictogloss strategy during listening comprehension lesson and for the control class will receive conventional strategy during listening comprehension lesson, but without treatment.

3. Post-test

The test was given for both experimental and control class after the lesson finished.

There are different schedule (description of the activity) in teaching listening comprehension by using dictogloss strategy and conventional strategy. The schedule of conducting dictogloss and conventional strategy are as follows:

Table 3.2 Schedule of The Activity

| Activity | |
|--|--|
| Dictogloss Strategy | Conventional Strategy |
| Pre-test: the teacher gives pretest to the students before the experimental treatment is given. | Pre-test: the teacher gives pretest to the students before the experimental treatment is given. |
| Treatment; - First, greeting. Preparation - Then, teacher gives them warm up about the story. - Then, teacher gives them a several words and asked them to translate into Indonesian words. - Teacher gives them a visual cues (mind map or story map) that represents some elements of the story. - Teacher explained the strategy to students. - Teacher is divide students into seven groups. Dictation - Teacher asks them to attention and concentration, then began to read the text. - In the first dictation, students just listen without take a note. - In the second dictation, students take a note such as key words and classify the words that they heard based on the type of word. - Students also complete the story map that the teacher given Reconstruction | - First, greeting. - Then, teacher gives them warm up. - Students are divided into several groups. - Teacher read the story and asks them to listen carefully. - Teacher asks them to make prediction by create a story map when the speaker read the text. - The map include of the topic, the main characters, setting, and description of the problem. - Then, the students complete the story map in a group. - Then, the students create |

| | |
|--|---|
| <ul style="list-style-type: none"> - Teacher asked them to work on group to write their own text version. - Teacher just as a monitor, facilitator, and check the grammar error of students. - After the students are checked the error grammar by teacher, then they correct and make a good text. - The teacher will not provide any information to students. <p>Analysis and correction</p> <ul style="list-style-type: none"> - After they finished working, teacher asks one of them (the group leader) to write their work in the whiteboard or speak or read in front of the class. - The teacher give them the original text - The students analyze each sentence by sentence. - The students correct their mistake in constructing the text toward the teacher's correction. | <p>and discussion the fully story based on story map that they have in a group.</p> <ul style="list-style-type: none"> - After they finished working, teacher asks one of the leader group to discuss the group work in front of the class. - Finally, the teacher analyze and correction their work. |
| <p>Post-test: the teacher gives posttest to the students after the experimental treatment is given.</p> | <p>Post-test: the teacher gives posttest to the students after the experimental treatment is given.</p> |

E. Validity and Reliability Testing

1. Validity Testing

Based on Anderson (2005:13) validity is the complement to reliability and refers to the extent to which what we measure reflects what we expected to measure. From Ary et al. (2010:226) statement, the process of gathering evidence to support (or fail to support) a particular interpretation of test scores is referred to as validation. We need evidence to establish that the inferences, which are made on the basis of the test results, are appropriate.

According to Lodico et al. (2006:188-189) validity is generally divided into two concepts: internal validity and external validity. Internal validity is the degree or extent to which the differences in the dependent variable are due to the experimental manipulation and not some extraneous variable therefore, external validity is the degree to which the results are generalizable beyond the sample used for a study.

There are four types of validity, such as content validity, criterion-related validity, construct validity and face validity. The researcher use content validity and construct validity in analyze the test. The aim is to measure whether the test has a good validity.

a. Content validity

Content validity is the test that the content is relevant with the purpose of the test. According to Ary et al. (2010:226) the question on a test is representative of some defined universe or domain of content. It means the researcher must seek evidence that the test to be used represents a balanced and adequate sampling of all the relevant knowledge, skills, and dimensions making up the content domain.

Content validity is the test that if has a good content is looked at from the content of test. It means a test has valid if the content of test is a representative among lesson given. The researcher will combine both between the content of test and the material of test to know the test is valid or not. The material of test is taken from syllabus and the test based on course objective on the syllabus.

Table 3.3 Content Validity

| The Material | Standard Competence | Basic Competence | Indicator | Technique |
|------------------------------|--|--|--|--|
| Narrative text about legend. | 4.15 Menangkap makna teks naratif lisan dan tulis berbentuk legenda, sederhana | 4.1 Understanding the language feature from oral narrative text about legend that have been listening. | Students are able to identify the language feature of short and simple narrative text about legend. | Fill in the blank, multiple choice, and true/false statements. |
| | | 4.2 Understanding the general idea or specific information/imp licit/detail from oral narrative text that have been listening. | Students are able to mention the specific information of short and simple narrative text about legend. | |
| | | 4.3 Understanding the content of oral narrative text that have been listening. | Students are able to determine the true/false information based on short and simple narrative text about legend. | |

$$\text{Score} = \frac{\text{Total score}}{\text{Score maximal}} \times 100 =$$

From the table above, the test has a content validity because there is appropriateness between the test and the indicator. It is appropriate with course objectives based on syllabus of the tenth grade of vocational school.

b. Construct validity

Construct validity is the essential concept of validity. Construct validity the one of functioning to know how far the test can be measuring based on definition conceptual which is decided. To know the test has a construct validity is the test can be quickly reflect by three aspect, cognitive, affective, and psychomotoric, which is described on standard competence, basic competence, and indicator from curriculum.

The writer uses three sections in test listening comprehension. There are fill in the blank, multiple choices, and true or false statements.

Table 3.4 Example of Fill in The Blank Questions

As the years passed, Perseus grew taller, 1) _____, and more 2) _____ any young man on the island. He was the best at 3) _____ races and 4) _____. However, he was not 5) _____.

Table 3.5 Example of Multiple Choice Questions

How long will the tour last?

- a. Seven days
- b. Fourteen days
- c. Three days
- d. One month

Table 3.6 Example of True or False Statements

| Questions | TRUE | FALSE |
|---|------|-------|
| 1. Impalak, his wife, and the crew arrived in Impalak's downtown because the storms attacked their bagga. | | |
| 2. Impalak was happy meet his father. | | |

The test consists of 20 questions which it is divided into 3 sections in one text. First are fill in the blank which consist of 10 questions. Second are multiple choices which consist of 5 questions. Finally are true false statements which consist of 5 questions.

2. Reliability Testing

According to Ary et al. (2010:236-237), the reliability of a measuring instrument is the degree of consistency with which it measures whatever it is measuring. People who use such measuring instruments must identify and use techniques that will help them determine to what extent their measuring instruments are consistent and reliable. On a theoretical level, reliability is concerned with the effect of error on the consistency of scores. In this world measurement always involves some error. There are two kinds of errors: random errors of measurement and systematic errors of measurement. Reliability is concerned with the effect of such random errors of measurement on the consistency of scores. But some errors involves in measurement are predictable or systematic.

The researcher conducts tryout first both pretest and posttest to the students in the same grade before give test and treatment the sample to find out the reliability test. Tryout is conducted on March 23th 2018 at the grade of SMK PGRI 1 Tulungagung. The researcher conducts tryout in class X AK 3.

To know reliability of test the researcher measures the score used Cronbach's Alpha formula by using SPSS 16.0. The procedure is input the

answer between correct or incorrect. One correct answer in given point 1, and one incorrect answer is given point 0. Then, the value of reliability test for tryout pre test is 0,823. Then, the value of reliability test for tryout post test is 0,818. See appendix to know the analysis score tryout pre test and post test.

Table 3.7 The Value of Reliability Pre Test

| Reliability Statistics | |
|-------------------------------|------------|
| Cronbach's Alpha | N of Items |
| .823 | 20 |

Table 3.8 The Value of Reliability Post Test

| Reliability Statistics | |
|-------------------------------|------------|
| Cronbach's Alpha | N of Items |
| .818 | 20 |

It means that the pre test and post test instrument have high reliability of test. To know both pre test and post test have high reliability of test, see the table of reliability test classification below.

Table 3.9 Classification Reliability Test

| Reliability Test Coeficient | Classification |
|------------------------------------|-----------------------|
| 0,80-0,99 | Very high |
| 0,60-0,799 | High |
| 0,40-0,599 | Fair |
| 0,20-0,399 | Low |
| 0,000-1,999 | Very low |

Based on the table above, the instrument test of both pretest and posttest is reliable.

F. Normality and Homogeneity Testing

1. Normality Test

Normality test are used to determine whether a data set is well modeled by a normal distribution or not. The aim is to know the data distribution is normally. To measure the normality, the researcher used SPSS 16.0 One-Sample Kolmogorov-Smirnov Test. The ways to know the data is normal or not are as follows:

- a. Ho: If the significance value > 0.05 , the data has normal distribution.
- b. Ha: If the significance value < 0.05 , the data hasn't normal distribution.

Here, the result of normality testing in experimental class can be seen below:

Table 3.10 Table of Normality Testing in Experimental Class

One-Sample Kolmogorov-Smirnov Test

| | | pretest_exp | posttest_exp |
|---------------------------------|----------------|-------------|--------------|
| N | | 36 | 36 |
| Normal Parameters ^a | Mean | 62.50 | 77.36 |
| | Std. Deviation | 12.392 | 8.903 |
| Most Extreme Differences | Absolute | .142 | .166 |
| | Positive | .080 | .112 |
| | Negative | -.142 | -.166 |
| Kolmogorov-Smirnov Z | | .854 | .994 |
| Asymp. Sig. (2-tailed) | | .460 | .276 |
| a. Test distribution is Normal. | | | |
| | | | |

Based on the table above, it shows that the significance values of pre-test and post-test in experimental class are 0,460 and 0,276. The significance values of both pre-test and post-test are bigger than 0,05. It means that the data of experimental class has normal distribution. Then, the result of normality testing in control class can be seen below:

Table 3.11 Table of Normality Testing in Control Class

| | | One-Sample Kolmogorov-Smirnov Test | |
|---------------------------------|----------------|---|----------------------|
| | | pretest_contro l | posttest_contr ol |
| N | | 35 | 35 |
| Normal Parameters ^a | Mean | 60.29 | 65.86 |
| | Std. Deviation | 13.170 | 11.014 |
| Most Extreme Differences | Absolute | .141 | .140 |
| | Positive | .075 | .089 |
| | Negative | -.141 | -.140 |
| Kolmogorov-Smirnov Z | | .834 | .826 |
| Asymp. Sig. (2-tailed) | | .489 | .502 |
| a. Test distribution is Normal. | | | |
| | | | |

Based on the table above, it shows that the significance values of pre-test and post-test in control class are 0,489 and 0,502. The significance values of both pre-test and post-test are bigger than 0,05. It can be concluded that the data of experimental class has normal distribution.

2. Homogeneity Test

Homogeneity testing is used to determine data variation, whether the data has a homogeneous variance or not. The researcher used

Homogeneity of Variances Test by using SPSS 16.0 with the significant value is 0.05.

- a. If the significance value > 0.05 , then the data distribution is homogeneous
- b. If the significance value < 0.05 , then the data distribution is not homogeneous

The result of Homogeneity Testing can be seen below:

Table 3.12 Table of Homogeneity Testing

Test of Homogeneity of Variances

post_test

| Levene Statistic | df1 | df2 | Sig. |
|------------------|-----|-----|------|
| 1.222 | 5 | 26 | .327 |

Based on the table 3.12 above showed that the significance value of post-test is 0,327. It can be concluded that significance value that is 0,327 is bigger than 0,050 and the data distribution is homogeneous.

G. Data Collection Method

In quantitative study, the researcher observes and records the data. Based on Anderson (2005:172) the record has to be both reliable and valid. The data requires both these properties if they are to support sound research. Reliable or consistent, data records depend on the instrument used to collect them and the approach used to gather the data.

The quantitative data (score) was collected by using test which consist of written test. The data source is pretest score of students' listening

comprehension test (scores that gathered from the students before the experimental treatment is given), and posttest score of students' listening comprehension test (scores that gathered from students after the experimental treatment is given). Pretest and post test applied in experimental class (class that had a treatment) and controlled class (class that had not a treatment).

The data of students' listening comprehension divide into two: the data in experimental class and the data in controlled class. The collecting data procedures as follows:

1. Pre-test

Based on Creswell (2012:297) pretest provides a measure on some attribute or characteristic that you assess for participant in an experimental before they receive a treatment. The pretest was conducted before the experimental treatment is given. It means that the teacher gives test in the first meeting. The test is in the form of listening comprehension test that consist of 10 fill in the blank, 5 multiple choice and 5 true and false statements. The test held on 11th April, 2018 in experimental and at 13th April, 2018 in controlled class.

2. Post-test

According to Creswell (2012:297) posttest is a measure on some attribute or characteristic that is assessed for participants in an experiment after a treatment. The test was conducted in the last meeting with same test between pretest. The test consist of 10 items in the form of fill in the blank, 5 items in the form of multiple choices and 5 items in the form of

true false statement. The test held on 2nd May, 2018 in experimental and at 5th May, 2018 in controlled class.

The researcher will collect and compare both of pretest and posttest scores to know whether this strategy is effective to increase the students listening comprehension or not and students who learn listening comprehension by using dictogloss achieve better than the students who do not receive dictogloss strategy in learning listening comprehension.

H. Procedures in Teaching Listening Comprehension

- a. Before given the treatment in Experimental class, the researcher asked the teacher which one would be the experimental class and control class. Then, the researcher tried out both test pretest and posttest in other class but in same level. The researcher gave pretest before treatments are given.
- b. The researcher applied dictogloss in class AK 1. The procedures are as follows:

Table 3.13 The Procedures of Listening Comprehension

| Teacher | Students |
|--|--|
| 1. Preparation | |
| Teacher gives warm up, prepare the vocabularies and mind map, explain the procedures, and divide them in some group. | Students attend teacher's explanation, write vocabularies' preparation, and sit in their group. |
| 2. Dictation | |
| Teacher reads the text twice. | In the first dictation, students just hear without write down any words. In the second dictation, students begin to write down any words, complete the mind map, |

| | |
|---|--|
| | and classify the words based on type of word. |
| 3. Reconstruction | |
| Teacher is as a monitor and facilitator. For example, reduce an error grammatical structure to more focus on stage 4 and give the point out in the area around the error words. | Students discuss and work in their group to reconstruct the text. Students correct and make a good text. |
| 4. Analysis and Correction | |
| Teacher gives the original text to compare. | Students analyze the text by copying the original and their own text. For example, students analyze each sentence by sentence, and correct their mistake in constructing the text. |

- c. The researcher gave posttest after treatments are given. Finally, the researcher computed their score to know whether dictogloss was effective in students' listening comprehension.

I. Data Analysis

The researcher analyze the data both pretest and posttest scores. The scores gather from both experimental class and controlled class. The researcher want to know the significant effectiveness of using dictogloss strategy to students' listening comprehension used statistic calculation of t-test formula with degree of 5% significance by using SPSS 16.0. First, the researcher determines the mean of experimental class (E) and controlled class (C). The data which is gained from the pre-test and post-test of students' listening comprehension, then it will be analyzed by the t-test statistic. Then,

determine standard error mean of variable X and Y. Finally, determine t-test to know the students' achievement in listening comprehension.

The method of the data is the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted when the significant level is bigger than significant value. It means that there is any different score between the students' listening comprehension in experimental class and controlled class. And the different is significant. Then, If the significant level is smaller than significant value, the null hypothesis (H_0) is accepted and the alternative hypothesis (H_a) is rejected. It means that there is not any different score between the students' listening comprehension in experimental class and controlled class. Finally, the different is not significant.