# CHAPTER III

# RESEARCH METHOD

This chapter presents the research method. It focuses on the method used in conducting this study. It consists of the research design, the setting and subject of the study, the instruments for collecting data, data source, and data analyswas.

## A. Research Design

The study employed Quasi-exsperimental research design. This study was conducted by comparing the score of experimental group and control group. The control group was the class which was taught by using Conventional Technique. The class which was taught by using Inside Outside Circle Technique as a experimental group.

The design used in this study was adopted from Ary et al (2010:648) as follows :

**Table 3.1**

**The Illustration of Research Design**

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

**Note :**

E : Experimental group ( XIPS-4 )

C : Control group ( XIPS-3 )

$Y_1$ : Pretest for both of groups

X :Treatment for experimental group (Inside Outside Circle Technique)

$Y_2$ : Posttest for both of groups

From the Table 3.1 above, The researcher took two classes to be studies. One class was a experiment and another class was to be a control class. The experiment class, was given pre-test, treatment and post-test. The treatment given was Inside Outside Circle Technique. Meanwhile, For control class, they were also given pre-test, treatment and post-test. The treatment given was a Conventional Technique that was different from the Inside Outside Circle Technique.

**B.Population, Sample and Sampling**

1.Population

A population can be defined as all member of any well-defined class of people, event or object (Ary *et. al*, 2010: 148).Meanwhile, according to Ary et al (2006:167) population was the larger group about which the generalization

wasmade. Based on the description above the researcher take conclusion that the population was whole research subject used by the researcher.

The population in this research was the tenth grade of SMAN 1 Rejotangan Tulungagung in the academic year of 2017/2018. There was nine classes in the tenth grade: XMIPA-1, XMIPA-2, XMIPA-3, XMIPA-4, XMIPA-5, XIPS-1, XIPS-2, X IPS-3, X IPS-4 and each class consists of 24 until 30 students.

2.Sample

Sample was a group of subject or participant (students) was chosen from the populations to be a representative (Fraenkel and Wallen, 2009:90). A sample was selected because the population was too large to be studied in its entirety therefore the sample must be taken from population in order it can be representative of the general population.

As a sample, the researcher took XIPS-4 and XIPS-3 classes. Then, XIPS-4 as an experimental class, and XIPS-3 as a control class.

3.Sampling Technique

Sampling was a process of selecting a number of the students who will be represent from the large group (Ary,2010:155). In selecting the sample, researcher used purposive sampling technique.Purposive sampling was technique to determine sample with a particular consideration (Lodico 2006:7).

In this research, the reseacher took two classes of tenth grade at SMA N 1 Rejotangan in academic year 2017/2018, those XIPS-4 as treatment class and XIPS-3as control class. The researcher took both of two classes based on consideration thatboth of two classeshavethe average speaking ability almost the same in the case of learning result.

**C.Variable of The Study**

In this study they were two variables. They were independent variable and dependent variable.

1. Independent Variable

Creswell (2012: 116) states that an independent variable was an attribute or characteristic that influences or affects an outcome or dependent variable. Independent variable was the cause of other variable. The independent variable of this research was the use of Inside Outside Circle Technique

2.Dependent Variable

Creswell (2012: 115) states that a dependent variable was an attribute or characteristic that was dependent on or influenced by the independent variable. The dependent variable was not manipulated by the researcher, but it was affected by the independent variable. The dependent variable of this research wasthe students' narrative speaking ability.

**D. Data source**

The data were very significant in the research. The research will not be able to get information without the data. In this research, data sources was score of the speaking pre test and post test of XIPS-4 as exsperiment class and XIPS-3 as control class oftenth grade at SMAN 1 Rejotangan Tulungagung.

**E.Research Instrument**

In this study the researcher used test in the form of oral test as the instrument. Oral test was used to collect the data about students' narrative speaking ability. The researcher applied pre-test and post-test.

1. Pre-test

Pre-test was givento the class before getting treatment about Inside Outside Circle Technique for experimental classand Conventional Technique for control class. The form of pre-test was oral test.The researcher askedthe students to retell a narrative story that they have read. In assessing students' speaking ability, the researcher used scoring rubric that consisted of five items: comprehention, grammar, vocabulary, pronunciation, fluency *(see appendix 1).*

2.Treatment

After the researcher gave pre-test to both of classes. The researcher applied Inside Outside Circle Technique as treatment for experiment class and Conventional Technique for control class.

3.Post-test

Post-test was test given to measure students' speaking ability after getting treatment for experimental and control class. The form of post test was oral test. In the post-test, the researcher asked the students to retell a narrative story that they have read.

**F.Validity and reliability testing**

1.Validity

The researcher used validity to know whether the research instrument was valid or not. Validity was measure appropriate what will be measured, and usually established through an in depth review instrument, including an examination of the instrument's items being tested. validity was the most complex criterion of an effective test and the most important principle of language testing. It was the extent to which inferences made from assessment result are appropriate, meaningful, and useful in terms of the purpose of the assessment (Brown

2004:22). The measure whether the test has a good validity, the researcher analyzed the test from content validity, construc validity and face validity.

a.Content validity

Content validity was relevant. It means that the items or tasks in the test match what the test as a whole was supposed to assess. When the objectives of the programme were set out in detail, for example in a syllabus that lists skills or fuctions, then the content validity can be assessed by comparing the kind of language generated in the test against the syllabus (Underhill, 2006:106).

The instrument of study used content validity because the narrative as materials used for teaching speaking exist on syllabus Curriculum K13. Besides, the test was designed based on basic competence in syllabus Curriculum of K13*(see appendix 2)*. The content validity in this research can be showed as follows:

**Table 3.2 Matrix of Test Development**

| BASIC COMPETENCE | INDICATOR | ITEM TEST OF SPEAKING |
|---|---|---|
| • Distinguish social function, text structure, linguistic element s of some oral and written narrative texts by giving and asking information related to the popular legend, simple, in appropriate with the context of its use. | • The students are able to communicate purpose, text structure and language feature of narrative story.<br>• The students are able to retell a narrative story (simple legend) | • Retell a narrative story ( simple legend) by using own word and you have 3 minute to retell narrative story. |

| | | |
|---|---|---|
| • Comprehend contextually meaning related to social function text structure, and linguistic element of narrative text, oral and simple writing related to legend story. | | |

b. Construct validity

Construct validity was any theory, hypothesis, or model that attempts to explain observed phenomena in our universe of perception (Brown 2004:25). It means that it was a instrument to measure just the ability which supposed to measure. In thisstudy, to know the students' narrative speaking ability, the researcher testedstudents'speakingability used retelling narrative story (legend) orally. Meanwhile, the technique of scoring thespeaking ability based on the five component ofnarrative speaking; they are vocabulary, grammar, comprehension, fluency, and pronunciation.

In this study, scoring rubric adapted and modified by researcher from Brown (2001) as cited in Brown (2004 : 172-173). They were as follows :

**Table 3.3 Scoring Rubric of Speaking**

| **The description** | **Need improvement ( 1 - 10 )** | **Satisfactory ( 11 - 20 )** | **Good ( 21 - 25 )** | **Excellent ( 26 - 30 )** |
|---|---|---|---|---|
| Comprehension | The students retell a story with less organize and less comprehensive/details. | The students retell a story with enough organize and enough comprehensive/details. | The students retell a story with well organize and enough comprehensive/ details. | The students retell a story with well organized and very comprehensive /details. |
| **The description** | **Need improvement ( 1 - 7 )** | **Satisfactory ( 8 – 13 )** | **Good ( 14 - 20 )** | **Excellent ( 21 - 25 )** |
| Vocabulary | The students have inadequate vocabulary to express his / her idea properly. | The students are able to use a few vocabularies, but are lacking, and can't expand his or her idea. | The students are able to use a lot of vocabulary and he or she can expand his or her idea. | The students are able to use rich precise vocabulary in a good manner, and she or he can expand his / her idea. |
| **The description** | **Need improvement ( 1 - 5 )** | **Satisfactory ( 6 - 12 )** | **Good ( 13 - 16 )** | **Excellent (17 - 20 )** |
| Grammar | The students have | The students able | The | The |

| | | | | |
|---|---|---|---|---|
| | a hard time to retell a story and make grammar mistake is so bad so, it is not understandable | to retell a story adequately but often displayed inconsistencies with their sentences structure and tenses and less understandable. | students able to retell a story well but their make a little mistake tenses and sentences structure and understanda ble. | students able to retell a story well with proper sentence structures and tenses. And the sentences are clear and easy to understand. |
| **The description** | **Need improvement ( 1 – 3 )** | **Satisfactory ( 4 - 6 )** | **Good ( 7 – 10 )** | **Excellent ( 10 - 15 )** |
| Pronunciati on | The students make mistake in all pronunciation word. | The students have a lot of mistake in pronunciation. | The students make a little mistake in their pronunciati on. | The students have not any mistake in their pronunciati on. |
| **The description** | **Need improvement ( 1 - 2 )** | **Satisfactory ( 3 - 4 )** | **Good ( 5 - 7 )** | **Excellent ( 8 - 10 )** |
| Fluency | The students speak at slow speed and pause too often and too long. | The students speak at slow speed and pause too often and not to long. | The students speak at normal speed and pause but not too often and not long. | The students speak at normal speed and do not pauses. |

To know classified the result of students' score, the researcher made a rating scale. It can be seen below :

**Table 3.4The Score'sCriteria**

| No | Interval Class | Criteria |
|---|---|---|
| 1. | 86-100 | Excellent |
| 2. | 76-85 | Good |
| 3. | 56-75 | Average |
| 4. | 46-55 | Poor |
| 5. | 0-45 | Very Poor |

c.Face validity

Ary (2010) as cited in Khoiriyah(2017 : 30)mentioned that face validity refers to the extent to which examines believe the instrument was measuring what was supposed to measure. Therefore, the test was said to have face validity if examiners believe the instrument measures what was supposed to measure. Hence, the test which have no face validity may be refused by test-takers, teachers, or advisor.In this research, the researcher had the face validity by consulting the expert ( advisor and teacher english) that the subject of the research it was appropriate with the basic competence on syllabus*(see appendix 5).*

2.Reliability

Brown (2004:20) stated a reliable test wasconsistent and dependable. Lodico, et, al. (2006:87), reliability refers to consistency of score, that was, an instrument`s ability to produce "approximately" the same score for individual

over repeated testing or across different raters. It mean that reliability of instrument was needed to make sure that the instrument can be consistent if used in other time. Therefore, the instrument as the test was reliable. Reliability was used to know whether the test wasconsistent and reliable.

To know reability of the speaking test, the researcher conducted tryout to get score of students' speaking ability on Monday. March 19th 2018. After that the researcher used Inter-rater reliability where the researcher involved two raters in scoring the students' speaking ability. The two raters here were the researcher herself and one of eight semester students of IAIN Tulungagung of English department. The researcher chose the rater because she can understand every point in the scoring rubrics.

The two sets of scores gotten from two raters calculated to know the reability of the test instrument . The researcher used*Pearson Product Moment formula*in SPSS 16.0 version to calculate of two set scores which was gained from the try-out test to know the reability of the test instrument.The result of reability testing can be seen in the Table 3.5 below :

**Table 3.5 Correlation of Post-Test Score (Try Out)**

**Correlations**

| | | rater1 | rater2 |
|---|---|---|---|
| rater1 | Pearson Correlation | 1 | .875** |
| | Sig. (2-tailed) | | .002 |
| | N | 10 | 9 |
| rater2 | Pearson Correlation | .875** | 1 |
| | Sig. (2-tailed) | .002 | |
| | N | 9 | 9 |

**. Correlation was significant at the 0.01 level (2-tailed).

Table 3.5 showed that Pearson Correlation was 0,875 and numeral significance was 0,002. The result of Pearson correlation (0,875) was closer to 1 and the numeral significant was lower than (0,002< 0,05). It means that the test was reliable. The criteria of reliability instrument can be divided into 5 classes, those are very reliable, reliable, enough reliable, rather reliable, and less reliable. The criteria of reliability can be showed as below:

**Table 3.6Criteria of Reliaility**

| Interval coefficient | Correlation |
|---|---|
| **0.80 - 1.00** | **Very reliable** |
| **0.60 – 0.79** | **Reliable** |
| **0.40 – 0.59** | **Enough reliable** |
| **0.20 – 0.39** | **Rather reliable** |
| **0.00 – 0.19** | **Less reliable** |

The result of calculation showed that reliability coefficient was 0.875 and the ideal reliability coefficient was 1. It can seen in Table 3.5 that the instruments

of this research was very reliable because 0.875was closer the reliability coefficient to 1.

**G. Normality and Homogeneity Testing**

1. Normality Testing

Normality testing wasused to test whether the data wasnormal or not. Normal here means if the data have a normal dwastribution. To test the normality of the data the researcher use the *One Sample Kolmogorov-Smirnov,* test with the provision that if Asymp. Sig > 0,05, the data were normally distributed. The hypothesis for testing normality are:

a. H0 : If the value of significance > 0.05, it meansthat data wasnormal distribution

b. Ha : If the value of significance < 0.05, it meansthat data was not normal distribution

The result of the normality test computed by SPSS 16.0 version can be seen as follow on the Table 3.7below :

**Table 3.7 The Resultof NormalityTestingOf Experimental and Control Class**

**One-Sample Kolmogorov-Smirnov Test**

| | | PRETEST_EXSPERIMENT | POSTTEST_EXSPERIMENT | PRETEST_CONTROL | POSTTEST_CONTROL |
|---|---|---|---|---|---|
| N | | 24 | 24 | 25 | 25 |
| Normal Parameters[a] | Mean | 47.50 | 60.08 | 47.32 | 49.12 |
| | Std. Deviation | 7.120 | 9.514 | 6.663 | 6.679 |
| Most Extreme Differences | Absolute | .155 | .089 | .200 | .225 |
| | Positive | .155 | .087 | .200 | .225 |
| | Negative | -.091 | -.089 | -.132 | -.143 |
| Kolmogorov-Smirnov Z | | .760 | .436 | 1.002 | 1.123 |
| Asymp. Sig. (2-tailed) | | .611 | .991 | .268 | .161 |

a. Test distribution wasNormal.

Based on Table 3.7, it showed that the significance value pretest of experimental group was 0.611, posttest of experimental group was0.991, pretest of control group was 0.268, and posttest of control group was 0.161, so all of sig value more than sig level 0.05. It means that Ho was accepted and Ha was rejected. So, all of the data were normal distributed.

2.Homogeneity Testing

Homogeneity testing was conducted to know whether the gotten data has a homogeneous variance or not. To know the homogeneity, the researcher used *Test of Homogeneity of Variances* with SPSS.16 by the value of significance (α) = 0.050. the researcher decided hypothesis testing as follows:

a. Ho : If the value significance > 0.05,it meansthat data was homogeneity

b.Ha : If the value significance < 0.05, it meansthat data was not homogeneity

For computation of homogeneity testing using One Way Anova by SPSS 16.0 version and the result of the homogeneity can be seen on the Table 3.8 below:

**Table 3.8TheResult of Homogeneity Testing(Pre-test Treatment and Control Class)**

**Test of Homogeneity of Variances**

STUDENTS SCORE

| Levene Statwastic | df1 | df2 | Sig. |
|---|---|---|---|
| .427 | 1 | 47 | .517 |

Based on Table 3.8 **Test of Homogeneity of Variances,** itshowed that the significance was 0.517> 0.05, it meansthat Ho was accepted and Ha was rejected. So, the homogenity testing in pretest of experiment and control class showed that the data had homogeneous variance and it was qualified to be analyzed.

**H.Method of Collecting Data**

The method of collecting data used in this research was administering test. The researcher used oral test to measure students' speaking ability.

1. Pretest

The researcher gave the pretest for both treatment and control class to know the students'narrative speaking ability before being given the treatment. In this research, the researcher gave the pretest to treatment class or XIPS-4 on Monday, March 26th 2018at 08.30- 10.00 and the researcher also gave the pre test to control class or XIPS-3 on Wednesday, March 28th 2018 at 10.20-12.00*(see appendix7).* The pretest asked the students to retell a narrative story that they have read for 3 minute.

2.Treatment

The researcher applied Inside Outside Circle Technique as treatmen in treatmen class and Conventional Technique in control class. In exsperiment class the researcher gave the treatment for three times. First meeting was done on Monday, March 2nd2018 at 08.30-10.00 and the next meeting was done on Monday, April 16th2018 and the last meeting of treatment class was on Monday, 23rdApril 2018*(see appendix 4).* The apllied Inside Outsie Circle Technique can be seen in Table 3.9 below:

**Table 3.9 Procedure of Inside Outside Circle TechniqueinExperiment Class**

| No | Step | Teacher activity | Students activity |
|---|---|---|---|
| 1 | Opening | • Greeting<br>• The teacher reviews the material | • Answer greeting<br>• The students pay attention forreview material |
| 2 | Main teaching | • The teacher gives the example of narrative story and ask the students to inquire about the material.<br>• The teacher gives instruction how to do Inside Outside Circle Technique<br>• The teacher devided number of student in the class into 2 group (Group A and Group B) .If there are 24 students in the class, that group A consist of 12 students and group B consist of 12 students too<br>• The teacher distributes a narrative story for each students. The students in group A and B get the different title of narrative story. They must read and understand for 15 minute.<br>• The teacher ask the students (Group A) to stand up and make circle as inside circle and they have to face out.<br>• After that, the teacher ask the | • The students ask about material.<br>• The students do the procedure of Inside Outside Circle Technique based on teacher instruction<br>• Each students gets a narrative story<br>• The students read and understand for 15 minute<br>• The students (Group A) stand up and make circle as inside circle and they have to face out.<br>• The students |

| | | | |
|---|---|---|---|
| | | students (group B) to stand up and make another circle outside the first circle. This formation show that each students exist inside of circle have a pair with student exist outside of circle. | (group B) stand up and make another circle outside the first circle. This formation show that each students exist insideof circle have a pair with students exist in outside of circle. |
| | | • The first step, the teacher asked the students which exist inside of circle (Group A) must retell story (legend) that they have read for ( Group B) that stand up in outside circle. | • The students in inside circle (group A) retell a narrative story that they have read for for ( Group B) that stand up in outside circle. |
| | | • After that the students which exist inside of circle cannot move, meanwhile the teacher asked the students which exist outside of circle move one step to the right. From this movement, automatically each student has a new partner. The second step, group B which outside of circle must retell narrative story to their new partner | • The students which exist outside circle (group B) move one step to the right. From this movement, automatically each student has a new partner. Group B retell narrative story to their new partner |
| 2 | Closing | • The teacher give the feedback on their grammar and | • The students listen the |

| | | | |
|---|---|---|---|
| | | pronunciation.<br>• The teacher gives conclusion about narrative story | teacher feedback and conclusion. |

For control class the researcher gave the treatment by using Conventional Technique for three times. First meeting was done on Wednesday,April 4th 2018 , the next meeting was on Wednesday, Apri 18th 2018 and the last meeting was on Wednesday,April 25th 2018*( see appendix 7).* The teaching activity can be seen at Table 3.10 below:

**Table 3.10 Classroom Activity inControl Class**

| No | Step | Teacher activity | Students activity |
|---|---|---|---|
| 1 | Opening | • Greeting<br>• The teacher reviews the last material | • Answer greeting<br>• The students pay attention for review material |
| 2 | Main teaching | • The teacher gives the example of narrative story and ask the students to inquire about the material.<br>• The teacher divides the number of students into 5 group<br>• The teacher give a narrative story for each group | • The students require about material.<br>• The students do the teacher instruction<br>• Each group get a narrative story from the teacher |

| | | | |
|---|---|---|---|
| | | • The teacher gives instruction for each group to read and understand a narrative story for 15 minute<br>• And the last, the teacher chooses one of member of each group to retell a narrative story that they have read in front of class. | • The students read and understand a narrative story for 15 minute<br>• One of students from each group retell a narrative story in front of class |
| 2 | Closing | • The teacher gives conclusion about narrative story | • The students listen the teacher conclusion. |

3.Post-test

The researcher gave the post-test to know the students' narrative speaking ability after being gottenthe treatment for treatment and control class.The researcher gave the post-test for treatmen class on Monday, May 30th 2018.at 08.30-10.00and control class was on Wednesday,May2nd2018 at 10.20-12.00*(see appendix 7).*

**I. Data analysis**

In this research, the researcher used a quantitative data analysis technique. The quantitative data of this research was analyzed by using statistical method.The data collected from pre-test and post-test students taught by using

Inside Outside Circle Technique in exsperiment class and by using Conventional Technique in control class. To know any significant different students' score on narrative speaking between both of classand to know the effectiveness of Inside Outside Circle Technique on students' narrative speaking, the researcher usedIndependent Sample T-Test through SPSS 16.0 for window.If the result of t-test was bigger than at the level of significant 0.05, the null hypothesis could not be rejected, indicated that Inside Outside Circle Technique was not effective on the students narrative speaking. And if the significant level was lower than t-test at the level of significance 0.05, the null hypothesis could be rejected indicating that Inside Outside Circle Technique was effective toward students' narrative speaking skill.