# CHAPTER III
# RESEARCH METHODS

This study was conducted through some methodologies. They were the research design, data source, data collection, and data analysis.

## 3.1 Research Design

In conducting the study, the writer used quantitative approach. Ary et al (2002, p.22) states that "quantitative research uses objective measurement and statistical analysis of numeric data to understand and explain phenomena".

To get the data, the writer used survey method. According to Sugiyono (2009, p. 6), survey method is used to get the data from particular natural place, but the writer does something in collecting the data, such as distributing questionnaire, etc. The writer used survey method because the writer used questionnaire as the instrument to collect the data. The writer distributed the questionnaire to the participants of this study to collect the data about English learning styles that they use. Fraenkel and Wallen ( 2003, p. G-8, cited in Gunes 2004, p. 58) describe survey as follows: "Survey is an attempt to obtain data from members of population (or a sample) to determine the current status of that population with respect to one or more variables".

**3.2 Data Source**

Sugiyono (2009, p. 80) states that population is area which consists of object/subject that have quality and specific charateristic defines by the researcher to be examined. The population of this study was students of 11th grade of SMAN 1 Kauman Tulungagung. That were six classes of science program and five classes of social program which consist of 368 students.

According to Sugiyono (2009, p. 81), sample is the part of population. The samples of this study were students from XI IPA 1 and XI IPS 1 of SMAN 1 Kauman Tulungagung. The number of the samples were 67 students consist of 33 of Science Program students and 34 of Social Program students. Acccording to Ari Kuntoro (2002, cited in Putri 2011), a researcher may take 10%-15% or 20%-25% or more of the population used as the sample.

In this study, the writer took 67 students as samples that belongs to 18% of the population. The writer chose the samples by simple random sampling because all classes of 11th grade in this school are taught by same teacher, so all classes of 11th grade get the same treatment from the teacher, such as the way they are taught, etc. So, XI IPA 1 and XI IPS 1 represent all classes of 11th grade of science and social programs. Simple random sampling is usually used in quantitative approach. The writer got XI IPA 1 and XI IPS 1 by lottery. The data for this study were responses reflecting participants' English learning style.

### 3.3 Data Collection

According to Sugiyono (2009, p.137), collecting the data can be done by various settings, sources, and ways. The technique collecting the data can be done by interviewing, distributing questionnaire, observation, and combination of them, means that the researcher can do two of those things, three of those things, or all of those things to get the more data. In this study, the writer only distributed questionnaire to the participant to collect the data. In collecting the data, there were some steps as follows:

1. Preparing the instrument. The instrument for this research was Perceptual Learning Styles Preference Questionnaire by Reid (1984). The writer used this questionnaire because this questionnairee is often used by many researcher such as, Melton (1990), Hyland (1993), Sari (2001), Magfiroh (2002), Madika (2008), and Sholikatin (2008). This questionnaire is divided into six learning styles that are visual learning style, auditory learning style, kinesthetic learning style, tactile learning style, group learning style, and individual learning style. Each style has five statements, so there are thirty statements in this questionnaire. PLPSQ was translated into Indonesian for literacy consideration so that PLSPQ which had been given to the participants were in Indonesian version. Reid (1987, cited in Madika 2008, p. 46) mantains that translation of questionnaire into student's native language is worth doing, so that the students can respond well and the data gained will be more accurate. To make sure that the questionnaire translation in Indonesian has been appropriate with the

original one, the writer asked to the co-supervisor to correct the questionnaire translation to keep the validity of the questionnaire. Before the writer distributed the questionnaire to the participants, the writer tried it out to three people who are the writer's friends to respon the questionnaire to make sure that other people understand with the questionnaire. The result, those three people understand with the questionnaire. The result, person 1 is in auditory, tactile, and individual major learning style preferences and visual, kinesthetic, and group minor learning style. Person 2 is in visual, auditory, kinesthetic, tactile, and individual major learning style preferences and in group negligible learning style. Person 3 is in tactile and individual major learning style preferences and visual, auditory, kinesthetic, and group minor learning style. Those three people are college students in 8$^{th}$ semester.

2. Distributing Perceptual Learning Style Preference Questionnaire to the participants. Before distributing the questionnaire, the writer also gave explanations and instructions about the questionnaire to the participants in order to they understand about the questionnaire. The writer gave 10-15 minutes for the participants to respon the questionnaire during English class, so during 15 minutes, the writer was in the classroom to help the participants in completing the questionnaire.
3. Collecting the students's PLSPQ. After the participants responded the questionnaire, the writer collected it.

The writer presents the table about item of specification of Perceptual Learning Style Preference by Reid to make reader understand about the questionnaire' contents. The table as follows:

**Table 3.1 Item of Specification of the Questionnaire for Major Learning Style Preference by Reid**

| No | Definition | Indicator | Statements Number |
|---|---|---|---|
| 1 | **Visual**: learning best by seeing/using the sense of seeing. e.g: teacher writes down the definition of something on the blackboard. | *Learning by seeing/reading words on the blackboard and in the text book better | 6, 24, 29 |
| | | *Remember and understand written instruction/explanation better. | 10,12 |
| 2 | **Auditory**: learning best by hearing/using the sense of hearing. e.g: the teacher explains the definition of something orally. | *Learning by hearing/listening to spoken or oral explanation better, eg: listening to lectures, audiotapes,etc. | 17, 20 |
| | | *Remember information by reading aloud. | 9 |
| | | *Understand instruction by hearing. | 1,7 |
| 3 | **Kinesthetic**: learning best by experience, using total physical involvement with learning environment. e.g: the student is role playing as a foreigner first time coming to Indonesia. | *Learning by doing something or experiments. | 2,8,15 |
| | | *Learning by being involved in role plays or related activities in the classroom. | 19,26 |
| 4 | **Tactile**: Learning best with one's hand through manipulation of resources, or by doing "hands-on" experiences with materials. | *Making something for a class project, e.g: making clipping of vacation. | 11,14,25 |
| | | *Building something or drawing while studying, e.g: makinh charts, diagrams, pictures, etc. | 16,22 |
| 5 | **Group**: Learning best with at least one other student. | *Completing work well with other student. | 27, 28 |
| | | *Learning best with a group/ others students. | 4, 5, 23 |
| 6 | **Individual**: Learning best when working alone | *Making better progress in learning, completing work well when working alone. | 27.28 |
| | | *Studying and learning (new materials) alone better. | 18, 30 |
| | | *Remember information by yourself | 13 |

Adapted from Madika (2008:34)

### 3.4 Data Analysis

Before analyzing the data, the writer found the reliability of the data with Cronbach Alpha. According to Sekaran (1992, cited in Priyatno 2012, p.120), if the realibility is < 0,6 it means that the data is not quite good, if the realibility is 0,7 it means that the data is acceptable, and if the realibity is > 0,8 it means that the data is good. The Cronbach's Alpha for this data is 0,729. So the reliability is 0.7, it means that the data is acceptable.

In analyzing the data, there were four steps that the writer did in this study.

1. The writer examined students' learning styles profile by calculating the PLSPQ. The writer calculated the questionnaire based on Reid's guidelines. This guidelines exists in Reid's book 1995 entitled Learning Styles in the ESL/EFL Classroom. In the guidelines is explained that there are three categories. If the total score for each style 0-24 it means negligible, if the total score of each style 26-36 it means minor learning style, and if the total score of each 38-50 it means major learning style preference.
2. The writer analyzed the percentage of each learning style in each categories for each program by using SPSS (Statistical Product for Service Solution) version 16. The writer used descriptive statistic only focused on frequency to find out the percentage of each learning style.
3. The writer investigated the significant difference of learning styles between two programs by using T-test. According to Priyatno (2012). If the significance is <0.05 so there is significant difference between the

variable, and if the significance is >0.05 so there is no significant difference.

4. The last step, the writer drew the conclusion about the result of the writer's investigating.