

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

This chapter deals with the discussion of steps taken by the researcher in conducting the research. There are four sections in this chapter. The first section is research design. It presents the methodology used and illustrates how the study is carried out. The second section relates to research site and participants involved in the study. The data collection including the instrument employed and the procedure are discussed in the third section. The fourth section elaborates on how the data gathered is analyzed and interpreted

#### **3.1 Research Design**

Research Design stated by Yin (1984) says that it is a plan that guide researcher in the process of collecting, analyzing and interpreting data. Furthermore, he said that one of the factors determined research design is the research question. Therefore, in line with the research questions and purposes of the research which investigate the implementation of portfolio assessment and try to find out the obstacles faced by teacher and students in constructing portfolio assessment, this study employs qualitative design which emphasizes on observing, describing, interpreting and understanding the status of a group, a set of condition or how events take place in the real world or in the present (Nazir, 2003) and descriptive study which explains and describes the situation of an object completely and entirely, that is appropriate with the condition and the situation in the time of the research happened (Nazir, 2003).

Whitney (1960) cited in Nazir (2003) states that descriptive method is the finding of fact with correct interpretation. In other words, it can be said that descriptive method is applied to determine the existence of phenomenon by

describing them explicitly. Another definition comes from Hadari (1990) cited in (Defianty, 2007) says that descriptive study is concerned with condition or relationship that exist, opinion that are held, and process that are going on. Meanwhile, the data of the study may be originated from various sources among other documents and data processing which elaborate the finding into textual form (Alwasilah, Pokoknya Kualitatif, 2002) in its natural setting (Denzin & Lincoln, 1994). Moreover, Fraenkel & Wallen (2008) describe that qualitative research is a study that investigates the quality of relationship, activities, situations or materials. In relationship with this study, it investigates the implementation of portfolio assessment in the classroom. Fraenkel & Wallen (2003) present five distinctive characteristics of qualitative research (p.431-433).

1. Qualitative research employs the natural setting as the source of data. The researchers attempt to observe, describe and interpret settings as they are, while maintaining what Patton (2001, p. 55) calls as an “emphatic neutrality”. The researchers go directly to the particular settings of interest in which they observe and collect their data, as Bogdan & Biklen (1992) point out that the researchers feel that human behaviors can be best understood in the actual settings in which they occur. Due to that reason, this study employs classroom as the natural setting where researcher observes, describes and interprets the setting without changing anything.

2. Qualitative data are collected in the form of words or pictures rather than numbers. Therefore, the data collected can include field notes, interview transcripts, official records, personal comments, and anything else that reflect the actual behaviors of subjects. The data in this study are in the form of field notes of classroom observation, and interview transcripts.

3. Qualitative researchers are interested in process as well as product. Thus, their research typically contains highly detailed rich descriptions on how things occur: for instance, how people interact with each other, how people’s belief and

attitudes are translated into certain actions or how something is implemented particular setting. This study, in line with the research questions, which focuses on the implementation of portfolio is interested in analyzing the process of portfolio implemented in classroom and this study also tries to find out the obstacles faced by teacher and students in the process of completing portfolio.

4. Qualitative researchers tend to analyze their data inductively. They do not usually search out or reject the hypotheses formulated beforehand, as quantitative researchers normally do. In other words, qualitative researchers are not putting together a puzzle whose picture they already know. They are constructing a picture that takes shape, as they collect and examine the parts (Fraenkel & Wallen, 2003, p. 432). The data collected through classroom observation and interview are analyzed inductively and described as detail as possible in order to give clear picture of what is happened to the participants in their natural setting.

5. Qualitative researcher's major concern is how people make sense out of their lives. They want to know the assumptions, motives, goals, and value that the participants in a study have or share. This study tries to figure out the obstacle faced by teacher while implementing portfolio assessment in the classroom and by students in completing portfolio.

There are some varieties of approaches to qualitative research. Case study is one form of qualitative research, and thus case study is often discussed within the context of qualitative research and this study employs a case study. A case study is employed in this study to gain in-depth understanding of the implementation of portfolio assessment in the classroom. As stated by Merriam (1998) case study is an examination of a specific phenomenon such as program, an event, a person, a process, an institution or a social group which presents a detailed account of phenomenon under study, as it exists in its naturally occurring environment (Johnson,

1992) . In addition, (Shuttlerworth, 2008) states that case-study focuses on specific and interesting case.

An explanatory case study used when little is known about the case being investigated since it was aimed to seek the wholeness and integrity of the case (Punch) cited in Silverman (2005). It can also be considered as a case study dealing with a single case or a small case (Merriam, 1998), and typically emphasizing features that make one person or organization different from others which takes place in a natural setting, such as a classroom, neighborhood, or private home (Fraenkel & Wallen, 2003).

By the explanation above, it can be said that case study aims to describes the context and population of the study, to discover the extent to which program has been implemented, to provide feedback of a formative type, and to confirm the process by which the program has the effect to the event or the participants.

The strengths of case study are, as Merriam (1998) explains, that it offers a mean of investigating complex social units consisting of multiple variables of potential importance in understanding the phenomenon (p. 40). Case study are typically done in real-life situations, resulting in a rich and holistic account of a phenomenon, a process that offers insights and illuminates meanings that expand its readers' experiences. Accordingly, case study is the preferred method when the researcher seeks as comprehensive an understanding of an event or situation as possible. Due to that reason, case study is used in this study to describe the implementation of portfolio assessment in the classroom.

In order to establish trustworthiness, several data collection techniques are employed as a form of methodological triangulation (Mason, 1996 in Silverman, 2005). The techniques comprising the information were gained through observation, interview, questionnaire, and document analysis. In this study, the research only dealt

with analyzing the implementation of portfolio assessment from two classes and one teacher in a private senior high school in north Bandung. The result, then were not used to generalize the general condition of the whole senior high school in north Bandung.

## **3.2 Research Site and Participants**

### **3.2.1 Research Site**

The site of this study was one of the private schools in North Bandung. The school was chosen because the researcher used to be a teacher in that school therefore it would be easy to get the access to conduct the research. Furthermore, this school had already implemented the portfolio as an assessment since the KTSP curriculum.

### **3.2.2 Participants**

Two categories of participants were involved in this study. The first participant was one English teacher in the second grade of senior high school. The teacher was chosen because he had agreed to be the participant in the study and because only one teacher who applied portfolio assessment in that school, there was only one teacher whose the class would be observed.

The second participants in this study were students in two classes in the second grade. These classes were selected based on some reasons: the teachers taught in these two classes, the teacher chose the classes for the researcher. Each class consists of 30 to 32 students. The classes were one social class and one science class. The students' conditions in these classes were quite different. The social class tends to be more active students rather than in science class however in completing the given tasks, science class was more responsible and diligent with their tasks. It was proven by the way they obeyed teacher's instruction particularly in collecting the progress of their portfolio. Most of them collected it on time.

### **3.3 Data Collection**

Broadly speaking, there are some techniques used in collecting qualitative data, such as observation, interview, document review, and document analysis (Best & Kahan, *Research in Education*, 2005). Gray (1990) says a study which is designed as qualitative and descriptive study usually collecting the data through observation, interview, document analysis and questionnaire.

#### **3.3.1 Instrumentation**

In this study, the observation and interview techniques were employed to collect the data with additional of questionnaire to figure out the students' point of view about the implementation of portfolio assessment and the obstacles faced by them. The data collection method will be described as follow:

##### **a. Observation**

Observation used in collecting the data aimed to accommodate the whole information needed in the research. Observation was taken in natural situation, as Gay, Mills, & Airasian (2009) say that it is important to take study in its natural environment as lived by participants without altering or manipulating it. By observing the class, more objective information will be obtained (Gay, Mills and Airasian, 2009).

Observation is commonly used in qualitative research because of its advantages. They are: (1) making a better understanding of the context (the particular setting in the classroom of applying portfolio), (2) offering an opportunity to gain information on sensitive topics, such as students' reaction of tasks given by teacher in the classroom, (3) providing the resources otherwise unattainable – observer's impression, feeling, reflection and introspection (Patton, 1980). These can be part of

meaningful data to allow for understanding and interpreting the events and behaviors with a holistic perspective.

In collecting and gaining accurate data, field notes were used during the observation. Any events or activities happened in classroom was reconstructed into field notes (Fraenkel and Wallen, 2008). Field notes used to give description about condition in the classroom as accurately and as comprehensively as possible. Dealing with that matter, Creswell (2008) pictures field notes into two basic types of information: *descriptive field notes*: it records a description of events, activities and people. Descriptive information is also about what the researcher see or hear on site. It provides the data necessary to address the research questions, such as specific actions undertaken by participants in implementing portfolio assessment in his classroom. The other type of information is *reflective field notes*: it records personal thoughts of the researcher's insights, hunches or board ideas or themes that emerge during the observation. Reflective field notes is a type of field notes that helped not only to clarify patterns that might be present or connections between pieces of data, but also to keep on track and remain self-conscious of the development of this research (Glaser & Strauss, 1967)

During observation, it is hardly to capture everything happening in the classroom. Therefore, it is necessary to focus on certain kinds of activities and events that provide the particular information and insights helpful for answering the research questions of the study (Cha, 2006). Therefore, some strategies are needed not only to help sensitize the observer to certain kinds of events, activities and behaviors relevant to the purpose of the study, but also make the observation work manageable (Patton, 1987). Merriam (1998) suggests some elements to be the focus on observation (what to observe):

1. The physical setting: A close observation on physical environment (e.g., classroom) is indispensable in this study, since it can affect students' feelings and behaviors. For instance, a particular classroom setting facilitating group work can promote a higher level of student-to-student interactions during class.
2. The participants: Participants is one of important element in observation. The participants in this study were not only the teacher but also the students. Researchers observed teacher's behavior as well as students to find out whether the implementation of portfolio assessment in that classroom was conducted like what it should be or there was still misunderstanding about the concept of portfolio.
3. Activities and interaction: The observation was made on specific activities and behaviors of all participants relevant to the implementation of portfolio assessment. For example, the activities observed were related with the process stage of portfolio in the classroom. It included how teacher introduced portfolio to the students, how they considered the sample put in the portfolio.
4. Researcher's own behaviors: Merriam (1998) points out that the thoughts, comments, roles of the observer are as important as those of participants. Since the observation is not merely a close look on the scene with perfect neutrality, but involves a cognitive process that cannot totally exclude subjectivity of the observer (Fraenkel & Wallen). It is necessary to note what the observer is thinking about what is going on in observation.

To ensure the validity of the data, there are some strategies which can be used to meet the research validity in qualitative research such as triangulation, member checks, long-term observation, peer-examination, participatory or collaborative



modes of research and researcher's biases, thick description and multisite design (Merriam, 1998) cited in Alwasilah (2000).

To validate the data, the study employed a thick description by which attempts to provide detail description of where the study conducted, who were involved in the study and how the study conducted. Hence, the readers might be able to see how far the findings can be applied in their own situations (Merriam, 1998: p. 211).

The example of observation filed notes is presented below:

Table 3.1

### Observational Field Notes

Day/ Date :  
Observer :  
Time :  
Setting :  
Participants :  
Length of Observation :

Activity	Teacher's Action		Researcher's Note (Comments)
	Yes	No	
a) <b>Introducing the idea of portfolio to the class.</b>			
b) <b>Consider what samples / specifying portfolio content.</b>			
c) <b>Determine how samples will be selected.</b>			

**Observational Field Notes** (adapted from Creswell & Merriam, 1998)

#### b. Questionnaire

Questionnaire is the most common instrument used in descriptive method. It is extensively used to collect the data about phenomena that are not directly observable such as inner experience, opinions, perception, values, interest and the like (Alwasilah, 2002) or when factual information is desired (Best, 1950, p. 167). Questionnaire is a short of statements written in a paper and delivered to the respondent to get their opinion about the problem that is researched by the researcher. The advantage in using questionnaire in the research is the respondent free to express their feeling without any pressure from anyone (Alwasilah, 2002: 152). The questionnaire was designed in this study as one of the instruments to reveal students'

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opinion about the implementation of portfolio assessment and to find out the obstacles faced by the students during designing and completing portfolio. The questionnaire was divided into two forms.

Form A was closed-questionnaire. The closed form questionnaire is the check responses that provide for marking a yes/no, a short response, or checking an item from a list of suggested responses (Best, 1950: 168). Form A was consisted of thirty statements with five optional answers: Strongly Agree (SA), Agree (A), Uncertain (UC), Disagree (DA), and Strongly Disagree (SDA). This form was arranged with the scale of attitude because attitude scale was used when opinions rather than facts were desired. The technique in giving score towards students' responses used Likert Scale and each statement in the questionnaire consisted of values from 1 to 5. Likert Scale was very easy constructed and scored for measuring perception or attitudes (Linn & Gronlund, 1995, p. 285). Based on the Likert scale, each statement in the questionnaire consisted of values from 1 – 5 which 5 is the most positive one.

Table 3.2

**The Scoring System of the questionnaire**

Statements	Strongly Agree (SA)	Agree (A)	Uncertain (U)	Disagree (DA)	Strongly Disagree (SDA)
Positive	5	4	3	2	1
Negative	1	2	3	4	5

Before constructing the statements for the questionnaire, the framework had been made and the categories were based on the Sperling's theory (1982), which consisted of students' personal feelings, attitude, drive and goals, the sensory nature of the stimulus, the background or the setting of the stimulus and students' learning

experience. The complete framework can be seen in Appendix 1. The table below shows the framework of the statements.

Table 3.3

**The Framework of Students' Questionnaire**

No	Categories	Indicator	Item number	Total
1	Students' personal feelings, attitude, drive and goals	Students personal feeling toward the English subject and the implementation of portfolio assessment	1 – 5	15
		Students' attitude and drive toward the implementation of portfolio	6 - 9	
		Students' learning goals toward the implementation of portfolio	10 - 15	
2	The sensory nature of the stimulus	The implementation of portfolio assessment in improving students' English competence	16 - 20	5
3	The background or setting of the stimulus	Students' learning process	21	4
		Teachers' role in implementing portfolio	22	
		Process of assessing the portfolio	23 - 24	
4	Students' learning experience	The advantages of implementing portfolio assessment in learning	25-28	4
<b>TOTAL</b>				<b>28</b>

Form B of the questionnaire was an open-questionnaire. It is a type of questionnaire calls for a free response in the respondent's own words (Best, 1950: 169). This form was consisted of four questions. The data gathered were used to support the data in form A. The questionnaire was written in Bahasa Indonesia to ensure complete understanding of the items by participants.

### **c. Interview**

Interview or personal interview is the oldest and best known method of obtaining information directly from an individual. Interview is used to get the data that could not find through the observation and to figure out participants' point of view about the issues that was being researched. Interview is a process in collecting information to achieve the research purpose by doing a conversation between the interviewer and the person being interviewed face to face (Nazir, 2003). It means that interview is a process of conversation in form of asking and answering question between two people face to face.

Interview is a powerful technique that helps researchers produce very rich and valuable data (Wang, 2002) with deeper meaning and elaboration (Cha, 2006). Interview found the additional information that appears during observation in the classroom. Interview also can clarify questions, pursue promising lines of inquiry, give the interviewees an opportunity to qualify or expand on their answers (Linn and Gronlund, 1995), facilitates access to people's experiences and their conceptions of experiences (Wang, 2002) and examine attitudes, interest, feelings, concerns and values more easily (Gay, Mills and Peter Airasian, 2009).

Furthermore, the researcher used semi-structured interview to develop interview questions easily. As stated by Stainback & Stainback (1998, p. 52) that semi-structured interview is generally considered as the best way to learn about the

perceptions of participants. It has a fairly open framework, thereby allowing a great deal of flexibility in the kind of information that interviewees choose to give (Patton, 1990) and the questions are more flexible worded (Merriam, 1998: 73). Therefore, researcher only uses general guidelines (Sugiyono, 2010) in asking the questions. In brief, general questions function as the key words which lead the questions became wider and enables both the interviewer and the interviewee discuss the issues in a flexible way. This flexibility during the interview is important in qualitative research because it allows the researcher to respond to the situation at hand while bringing up information that the researcher might not anticipate, potentially shedding a whole new insight onto a problem (Merriam, 1998; Fraenkel & Wallen, 2003).

Nunan (1992) expounds that semi-structures interview provides three advantages for researcher. First it provides the interviewee a degree of power and control over the course of the interview. Second, it gives the interviewer a great deal of flexibility and the last one is it gives one privileged access to other people's lives.

There are no definite numbers in choosing the number of participants in interview; the most important thing is the nominal of participants is based on how important the participant for the research. The participant is chosen until the researcher gets the redundancy (Alwasilah, 2002).

On the process of interviewing, audio-taping was done during the conversation. Audio-tapes are convenient and reliable and they ensure that the original data is available at any time. Then, taped data collection was transcribed. The framework of interview with the teacher, as follows:

Table 3.4

**Teacher's Interview Guideline**

<b>No</b>	<b>Point</b>
1.	The understanding of portfolio and portfolio assessment
2.	Deciding a purpose or theme.
3.	Specifying portfolio content.
4.	Deciding the form and organization of portfolio
5.	Deciding the audience
6.	Deciding and constructing rubric scoring system for each skill
7.	The training of portfolio assessment
8.	The implementation of portfolio assessment
9.	The advantages of portfolio assessment
10.	The disadvantages of portfolio assessment
11.	The obstacle during implementing portfolio assessment

Interview with students was aimed to gain further information related with the statements in the questionnaire. Questionnaire which provided only statements without reason therefore, it needs further information to find out students' reasons why they choose that column. The guidelines of interviews for students stated below:

Table 3.5

**Students' Interview Guidelines**

<b>No</b>	<b>Point</b>
1.	Students' feeling toward English lesson
2.	Student's knowledge of portfolio
3.	Various tasks in portfolio
4.	Students' opinion about the implementation of portfolio
5.	Teacher instruction and explanation about the aims and way to do the task
6.	The choice of portfolio content
7.	Providing example before giving students assignments
8.	The advantages of using portfolio assessment
9.	Obstacles faced by students in doing and finishing portfolio
10.	Solving the difficulties in doing and finishing portfolio



11.	Teacher's feedback
12.	Students' preferences in finishing the tasks and students' role in learning process

### 3.3.2 Procedure

#### a. Observation

The observation of this study was made in natural settings in the classroom of the participants with the data were collected twice a week in two classes on Monday and Friday for two months with 90 minutes per meeting. The purposes of observation enabled researcher to describe in detail the process of implementation of portfolio assessment in the classroom, the activities that took place in the setting, and the meaning of the activities as perceived. Then the researcher observed how portfolio assessment was implemented in the classroom including all the activities done by the teacher and the students during the English classroom subject.

The observation was conducted four times: 23 of April, 16, 20, and 23 of May 2014. It was based on how many times teacher taught one topic. The first visiting of the researcher into the classroom on 23 of April was regarded as pre-observation and introducing the researcher to the students. At that that time, researcher intended to know the situation and the condition of teaching and learning activities in the classroom. It was also aimed to recognize the students in order to build closer relationship with the students. In this first meeting, the researcher only attended in the classroom and observed the teaching and learning process without taking a note and videotaping. The last three visiting of the researcher in the classroom was regarded as

the main observation (see Table 3.6). The long gap happened between the first visiting and the last three visiting due to the National Examination.

Table 3.6

**Table of Observation Visit**

No	Date	Phase of Study	Time	Description
1.	Wednesday, April 23, 2014	Pre – Observation	14.30 – 15.50	Introducing the situation and condition of the class
2.	Friday, May 16 2014	Main Observation	08.00 – 09.20	The beginning of new topic
3.	Tuesday, May 20 2014	Main Observation	11.00 – 1.30	Peer assessment and discussion of the topic
4.	Friday, March 23, 2014	Main Observation	08.00 – 09.20	The evaluation from teacher

During the observation, researcher took a field notes. In this case, the researcher wrote account of what she heard, saw and experienced during the teaching and learning process. The example of observational field notes is served in Table 3.1

## **b. Questionnaire**

The questionnaire was distributed on 23 of May 2014 into sixty students in two classrooms. The questionnaire consists of 28 statements in closed-questionnaire and four open-questionnaires.

In closed-questionnaire students were asked to put a tick in one of the columns written SA (strongly agree), A (agree), U (Uncertain), DA (Disagree), SDA (strongly disagree) which each number has a particular statement. In open questionnaire, students were able to answer the questions based on their perception without any limitation of the answers. The questions in open-questionnaire were aimed to answer the third question in research questions. Therefore, the questions related with the obstacles faced by students, how students overcome the problems and what the advantages of completing portfolio assessment are for them.

In distributing questionnaire, firstly researcher explained the purpose of asking students to participate in filling the questionnaire. Then, the specific term such as portfolio were explained since the teacher told before that he didn't tell that term to the students. After that, in one day the questionnaire was distributed in two classes. During the activity, students seemed quite understand about the statement and there was no further questions related with the statements or questions in the questionnaire.

Finish with distributing and collecting the questionnaire, it was then the time to analyze the data using specific formula which would be explained further in data analysis part.

### **c. Interview**

In this study, interview was important because the research was interested in the past events that were impossible to observe and also mapping the process of the portfolio implementation in the classroom under investigation.

The interviews, for teachers, were intended to seek teacher's perception on the implementation of portfolio assessment and the obstacles faced by teachers. The interview with teacher was conducted after classes on 26<sup>th</sup> May 2014. During the interview, the researcher asked sixteen questions related with teacher's understanding of portfolio and portfolio assessment; the way teacher decides a purpose; how teacher specifying portfolio content and deciding the form, organization and the audience; how teacher decide and construct rubric scoring system, the advantages and disadvantages; and the problems faced by teacher. Along with this, the researcher found out the process of implementation of portfolio assessment through observation in the classroom.

Student interviews were used to seek further information from the student's responses in the questionnaire especially in finding the obstacles faced by students. The interview was conducted to three students in one classroom on 23<sup>rd</sup> May 2014. There were around fourteen until nineteen questions. The interviewed were done in order to gain further explanation and information related with the statements in the questionnaire.

### **3.4 Data Analysis**

Data analysis is the process of systematically searching and arranging the numbers of data or materials that the investigator accumulate to increase their own

understanding of them and to enable to present what have been discovered to the other (Boarden and Biklen cited in Alwasilah (2002:153)). The data gained were analyzed both quantitatively and qualitatively.

Quantitative research talks about quantity and some data of analysis were presented in the forms of percentages. The quantitative data were obtained from the closed-questionnaire and the open-questionnaire and the interview were analyzed using qualitative method. Qualitative method explained the data investigated and the analysis that was mostly presented interpretatively.

### **3.4.1 Quantitative Data**

In quantitative data, the questionnaire that had been made must do the validity and reliability test. Validity and reliability are important in research because if both of them do not recognize it will be fatal in giving the conclusion or giving reasons of the relationship between the variable (Nazir, 2003). Validity refers to the adequacy and appropriateness of the interpretations made from assessment, with regard to a particular use (Linn and Gronlund, 1995: 147). Therefore, validity is concerned with the specific use of assessment results and the soundness of the interpretation of those results. Reliability refers to the consistency of assessment results (Linn and Gronlund, 1995). Reliability is needed to obtain valid result, statement that reliable does not mean valid, yet statement that valid must be reliable.

To obtain the data for validity and reliability testing, the questionnaire was conducted to the population but not the sample to find out the result. After that, the result was calculated to find out the statement in the questionnaire was valid and reliable or not before conducted to the sample. For measuring validity and reliability for the questionnaire with Likert Scale, the result of questionnaire was calculated by

Alpha-formula. The calculation of questionnaire was technically done by Alpha-formula through SPSS 21 for Windows program. The total items of questionnaire tried out are 28 questions. The score of validity for each item is  $r_{count}$ , which can be seen from the corrected item-total correlation table from SPSS data output (see appendix). Each item was valid if its  $r_{count} > r_{table}$ . The questionnaire was conducted toward 45 respondents with the level of significant 5 % and the degree of freedom (df)  $n-2$  or  $(45-2=43)$ , so  $r_{table}$  was 0.301. The result of computation of validity for each item could be seen on appendix. The result of computation, showed there were 7 questions which are not valid since  $r_{count} < r_{table}$ . Thus, there are only 23 questions used.

Moreover, the calculation of Alpha Cronbach can also be used to analyze the reliability of instrument. Table 3.7 show the computation result of reliability for questionnaire.

Table 3.7

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.885	.883	28

As Nugroho (2005) cited in Resmiati (2004) says that a research instrument is stated having high reliability if the coefficient of Alpha Cronbach  $\geq 0.6$ . From table

3.7 above, it can be seen that the coefficient of Alpha Cronbach is 0.885, which was higher than 0.60 ( $0.885 \geq 0.60$ ). Concisely, the construction of questionnaire was reliable.

After the validity and reliability testing finished, the data gathered from the questionnaire were tabulating and presenting through some stages were employed as follows:

1. Examining the data obtained from the questionnaire.
2. Selecting and classifying the data derived from the questionnaire into groups of factors two simplify the tabulation and interpretation based on percentages statistics. To ease the interpretation of the data the respondents' answers were classified into five classifications. The formula used to classify is

$$\text{Interval range} = \frac{\text{range}}{5}$$

Total level (Sudjana, 1997)

For students' questionnaire, the highest total score expected was 140 while the lowest total score expected was 28, so the interval range was:

$$\text{Interval range} = \frac{140-28}{5} = 22.4$$

5

So based on the calculation, the classification is depicted as follow:

Table 3.8

**Classification of Students' Perception Questionnaire**

No	Score	Category
----	-------	----------

1	28 – 50.3	Extremely negative
2	50.4 – 72.8	Negative
3	72.9 – 95.3	Fair
4	95.4 – 117.8	Positive
5	117.9 - 140	Extremely positive

3. Calculating the frequency (fo) of the respondents who answer each of items or statements. Then, it is calculating the percentage (%) of each total frequency of the respondents' answers to the item by using the formula below:

$$\text{Percentage (\%)} = \frac{\text{Total respondent who answer an item (fo)}}{\text{Total respondents (n)}} \times 100\%$$

(Sudjana, 1997)

Interpreting the result of percentage (%) calculation based on the total frequency (fo) of each item.

4. Classifying the data to be interpreted, therefore it is using reference according to Sudjana (1997) as follows:

Table 3.9

### Percentage Classification

No	Percentage	Classification
1	00,00 %	none



2	00,01 – 24,99%	a few of
3	25,00 – 49,99%	nearly half of
4	50%	half of
5	50,01 – 74,00%	best part of
6	75,00 – 99,99%	nearly all of
7	100%	all of

### 3.4.2 Qualitative Data

In data analysis, the data analyzed using Miles and Huberman's framework: data reduction, data display and conclusion or verification.

#### 1) *Data reduction*

On the research process, lots of complex information was gained by the researcher. Thus, the data gathered was selectively analyzed based on the importance point related to the research and the unimportant data were eliminated. It is in line with Miles and Huberman (1984) cited in Sugiyono (2010) that summarizing, selecting and focusing in the important data should be done as part of the data reduction process.

The data were collected through several methods, such as observation, interview, and questionnaire. The observation was used to gain the process done by the teacher related with the implementation of portfolio assessment. The processes which are observed included the way teacher introduce the idea of portfolio in the

classroom, how teacher consider the content of student's portfolio, how teacher give clear and detailed explanation about the portfolio includes the example of each task, how teacher give students some times to finish the portfolio, and how teacher share and respond student's questions related with scoring rubric.

The interview limited only to one teacher and three students in the classroom since the focus of the study was the implementation of portfolio assessment specific in the classroom. The three students were chosen based on their capability in English lesson; the low learner, middle learner and fast learner in order to get as accurate data as possible from all students' level.

The questionnaire was used in order to get the opinion from all the participants related with the implementation of portfolio. The limitation of time to interview all the participants encouraged researcher to develop questionnaire and the interview was used for asking clarification of students' answer in questionnaire.

## 2) *Data display*

Next step is describing the data in narrative text and displayed it into a summary table. A table was aimed to organize and arrange in a clear pattern, therefore the data can be understood easily (Miles and Huberman, 1984 cited in Sugiyono, 2010). In this step, data from interview and observation were transcribed, coded, classified, interpreted (Alwasilah, 2002) and re-read to make sure that the transcription had matched the data. Data from observation also analyzed as soon as the observation carried out, otherwise researcher might lose visual detail that might be important and might be forgotten if it is postponed to be analyzed (Maxwell, 1996).

The analysis of each research instrument was presented in a form of descriptive explanation. The data gained from the three instruments were cross-

checked by using triangulation to enhance research reliability and validity. The argument is supported by Denzin (1978) and Patton (1990) who say that triangulation is useful to overcome the intrinsic bias that comes from single-methods, single-observer, and single-theory-studies. The explanation of each method will be described below:

#### **3.4.2.1 Observation**

In analyzing the data, observation sheet and field notes were used to get deeper comprehension of the class activity. The result of analysis will be described comprehensively with the literature in chapter 4.

#### **3.4.2.2 Questionnaire**

The data from questionnaire used to find out students' perception around the implementation of portfolio to their interest of learning English, the effect of portfolio to their score, the advantages and disadvantages of portfolio, the problems faced by students during completing portfolio and the way students overcome those problems.

#### **3.4.2.3 Interview**

The data gained from teacher and some students were recorded by using voice-recorder. To analyze the data, the researcher transcribed the interview first, translated them to English and then interpreted the data into the some main issues based on the research questions: the implementation of portfolio assessment and the obstacles faced by both teacher and students. The final step was by linking those data with proper literature, which was presented in the next chapter.

### *3) Conclusion drawing or verifying*

The final step is answering and elaborating the research question through the conclusion from the data display. All the explanation related with finding will be described and explained in the next chapter with appropriate literature as a reference.

### **3.5 Concluding Remark**

This chapter has presented the research method of study which covers: research design, site and participants, data collection which was divided into instrumentations and procedure, and data analysis. This study attempted to find out the process of implementation of portfolio in the classroom and to discover the obstacles faced by students and teacher in completing and conducting portfolio.