

CHAPTER III

METHODOLOGY

Chapter III contains the methodology used in this study. This chapter provides four main parts of the investigation: research design, data collection, research procedures, and data analysis technique.

3.1 Research Method

Actually, this study employed descriptive research method in the form of the description from questionnaire and interview. As suggested by Alwasilah (2008, p.151), this design is used because it describes the characteristics of object-study. In this case, the study describes what are the students' and the teachers' perceptions towards the use of *ThinkQuest*.

3.2 Subject of the Study

This study was undertaken in senior high school in Bandung. This school was chosen because the school used *ThinkQuest* in its teaching and learning processes. Moreover, the researcher has been a teacher in the school at least for a semester. For that reason, the access to conduct a research in that school is quite feasible.

The population in this study is the first graders of a state senior high school in Bandung while as the sample is class X-10, who used *ThinkQuest* in their teaching and learning processes. This senior high school is employed regarding Alwasilah's (2008, p.145) suggestion about determining the sample's characteristic which are: 1. Human resource; 2. Background setting; 3; Processes and Cases. In addition, the member of the sample class is about 35 students.

3.3 Data Collection

The data used in this study were collected through two instruments; questionnaire and interview. Questionnaire was used to gain data about teachers and students opinions about the use of *ThinkQuest* as learning media. On the other hand, the interview was used as additional way in gaining deeper information about the difficulties faced by the students and the teacher (Alwasilah, 2008, p.154).

3.3.1 Questionnaire

In this study, the questionnaire is designed as close questionnaire with five optional answers which are Strongly Agree (SA), Agree (A), Uncertain (U), Disagree (D), and Strongly Disagree (SD). This format is based on Likert-Scale questionnaire. Besides, the questionnaire was designed as a structured questionnaire since it aimed at obtaining specified data which were needed to analyze the students' and the teachers' perspectives towards the use of *ThinkQuest* as learning media.

Technically, the questionnaire consisted of 20 close statements which were adapted from Sofijandi (2008), Cappel (2006), Kilickaya and Trajka (2010), Broekmann (2002), and Smart and Cappel (2006). The questionnaire also provided 1 short essay about the students' difficulty during the use of *ThinkQuest*. In addition, the questionnaire which was used in this study is provided in Appendix B.1.

Table 3.1 The Framework of Questionnaire's Items

No	Categories	Indicators / Elaborations	Items Number	Total
1	Students' interest and satisfaction	How the students feel about the use of <i>ThinkQuest</i> .	1,2,3,4,8, 10, 13	7
2	Features' relevance with the students need	The appropriateness of <i>ThinkQuest</i> 's features and their function in term of teaching and learning	5, 19, 18	2
3	Exploring students' participation	How <i>ThinkQuest</i> involves the students to do the learning activities	6	1
4	<i>ThinkQuest</i> appearance	<i>ThinkQuest</i> 's layout	11, 20,	3
5	Self-motivation	How <i>ThinkQuest</i> motivates the users before or after using it	9, 12, 14	3
6	Familiarity	How far the students know the <i>ThinkQuest</i> , its functions, its works, etc	16, 17	2
7	Independent study	Whether or not <i>ThinkQuest</i> helps students to do independent study learning (inside and outside the class-hour)	7, 15	2

(Adapted from Sofijandi, 2008; Smart and Cappel, 2006; Kilickaya and Trajka 2010; Broekmann, 2002; Smart and Cappel, 2006; Painter, 2001; SRI International 2009; and Muller, 2009)

3.3.2 Interview

Interview was employed as instrument which gains additional information about the use of *ThinkQuest*. In this study, 10 out of 35 students were interviewed. Conducting the interview, the students were chosen randomly in order to

minimize the external factor which might affect the information (Nunan, 1992, p.149).

The questions for interview were formulated as follows.

1. What do you think about English lesson?
2. What media which usually used in teaching and learning process in SMAN 22?
3. Have you ever known the *ThinkQuest* before you come to this school?
4. What do you think about using *ThinkQuest* in teaching and learning process, especially in English lesson?
5. Do you know how to operate (use) *ThinkQuest* to support your learning?
6. Since *ThinkQuest* required computer and internet connection, does it make your learning activity more difficult?
7. What do you think about the features that are provided in *ThinkQuest*?
8. Are the features in the *ThinkQuest* difficult to understand and to be used?
9. How is your teacher implementing *ThinkQuest* in your class?
10. Which one will you choose as a learning media, *ThinkQuest* or traditional media such as book, paper, *infocus*, and so forth? Why?

As well as the questionnaire, the interview was aimed at obtaining specified data in this research. The difference is that the interview was employed to analyze difficulties faced by the students during the use of *ThinkQuest* as learning media.

3.4 Data Analysis

The data which are analyzed in this study can be differentiated into two; the first is qualitative data and the second is quantitative data.

3.4.1 Quantitative data

Analyzing quantitative data which were gained from the interview required at least four steps, which are scoring, finding out the frequency of each response per item, calculating the percentage of each response based on the frequencies, and classifying the average percentage. Those steps are considered to be processed in order to make the statistical number (Sudjana, 1984, p.46). The steps are pointed out as follows.

a. Scoring

Scoring students' answers in the questionnaire is based on Likert-Scale scores which are depicted below.

Table 3.2 Likert-Scale statements scoring rubric

Category of Response	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Score	4	3	2	1	0

Tabel 3.3 Example of Questionnaire in this research

No	Pernyataan	<i>Sangat Setuju</i>	<i>Setuju</i>	<i>Ragu-ragu</i>	<i>Tidak Setuju</i>	<i>Sangat Tidak Setuju</i>
		4	3	2	1	0
8	<i>Saya merasa lebih fokus ketika saya belajar Bahasa Inggris dengan menggunakan media ThinkQuest.</i>					

According to Arikunto (2010), this Likert-Scale scoring design is aimed to make the obtained information more accurately, by providing the gradation of the options given. However, this is expected to make the data easier to be examined.

b. Finding out the frequency of each response per item

After examining the students' score, the next step is finding out the frequency before calculating the percentage of each response.

c. Calculating the percentage of each response based on the frequencies

Calculating the percentage of each response based on the frequencies employs the formula as shown as:

$$P = \frac{fo}{n} \times 100\%$$

Notes:

P: Percentage

fo: Frequency of answers

n: Total respondents

(Taken form Sudjana, 1984)

In addition, total respondents who were involved in this questionnaire were about 35 students. For that reason, each item's percentage is calculated to 35. Then, the number for f_o (Frequency of Answers) depends on the number of students' responses. Example:

Table 3.4 Questionnaire's responses per item

Elaboration/ Indicator	Items No	Answer Frequencies					Total
		Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	
How the students feel about the use of <i>ThinkQuest</i>	1	4	18	13	-	-	35

From the table above, the calculation of percentage is:

$$\text{-Strongly Agree} : \frac{4}{35} \times 100 = 11\%$$

$$\text{-Agree} : \frac{18}{35} \times 100 = 51\%$$

$$\text{-Uncertain} : \frac{13}{35} \times 100 = 38\%$$

$$\text{-Disagree} : \frac{0}{35} \times 100 = 0\%$$

$$\text{-Strongly Disagree} : \frac{0}{35} \times 100 = 0\%$$

d. Calculating the total frequencies

Calculating the total frequencies is the continuation step after calculating the percentage of each response based on the frequencies. This step is taken in order to examine the frequency of students who answer the questionnaire as a whole.

e. Classifying the average percentage

The final step in analyzing quantitative data which is gained from the questionnaire is classifying the average percentage. The classification is based on the criteria above.

Table 3.5 Score of percentage and its interpretation

Score of percentage		Interpretation
00, 00%		None
00, 01%	until 24, 99%	A few of
25%	until 49, 99%	Nearly half of
50, 01%	until 74, 99%	The best part of
75%	until 99, 99%	Nearly all of
100%		All of

Taken from Warsito (1992).

According to Warsito (1992), the interpretations of scores' percentage were made to make the description of the data more systematically. Moreover, the interpretation which based on score percentage was formulated in order to classify the group of each response.

3.4.2 Qualitative data

Qualitative data were obtained from the interview with the students. The data from the interview were transcribed and described logically to answer the Research Question which investigated the students and teacher's perception about the use of *ThinkQuest* and the its difficulties . After that, the data from the interview were related to the data from questionnaire and the theory of *ThinkQuest* as described in Chapter II.

3.5 Concluding Remark

This chapter has discussed the methodology used in this study, these includes four main parts of the investigation: research design, data collection, research procedures, and data analysis technique. As describe earlier, descriptive research method was employed in this study. Then close questionnaire and interview were used to obtain the data.

