CHAPTER 3

METHOD OF DATA COLLECTION AND ANALYSIS

Type of Research

This study aims to find out what the students' and teacher's opinions are about the writer's product (workbook). According to Creswell (2013), there are three methods in research design: quantitative, qualitative, and mix methods. This research used mix methods; questionnaire as the quantitative method and an interview as the qualitative method.

1.1 Data Collection

1.1.1 Population and Sample

To collect the quantitative data, the writer used 83 out of 120 respondents of 4th-grade students in SDI AL-Azhar 14 Semarang as the participants. Based on Cohen, Manion, and Morrison (2007) theory, the number of sample must be 83 to get 90 percent of the confidence level if the population number is 120. From 83 students, the number of male students is 45 and the number of female students is 38.

For the qualitative data, the writer let the teacher get involved in this research through interview as the participant.

1.1.2 Instrument

This research used the following instruments:

a. Questionnaire

For the quantitative method, the writer chose questionnaire. There are two kinds of questionnaire: open-ended and close-ended questionnaire. A close-ended questionnaire was used in this research to find out students' opinion about the product. The writer used Likert Scale in this questionnaire, but she decided to remove the "Netral" option so that the students have to choose their answer. These are the options the writer made to quantify the data:

SA : Strongly Agree (score 4)

A : Agree (score 3)

D : Disagree (score 2)

SD : Strongly Disagree (score 1)

b. Interview

The writer also did an interview as the qualitative method. The interview was used to find out teacher's opinion about the product and to support the questionnaire.

1.1.3 Procedures

This research conducted some procedures as follows:

1. Conducting an interview

   The writer conducted the interview with an English teacher in SDI Al-Azhar 14 Semarang on October 15th, 2018. The interview aims to identify whether the school needs the workbook or not.

2. Designing prototype

   After doing the interview, the writer made the prototype. The prototype consisted of 9 units which is matched with the material book.

3. Asking for expert judgement

   The prototype is brought to the judge expert after it is done. The judge expert was one of the lecturers in the Faculty of Language and Arts who has expertise in how to make a testing product or a textbook. The lecturer gave suggestions to make sure the font type and size are suitable for the students to read. She also suggested the writer to make the answer key for teachers. The details of her suggestion is written in chapter 4.

4. Revising the product

   The writer revised the prototype based on expert judgement. After that, the writer printed the product.

5. Designing questionnaire

After the prototype had been revised, the writer designed the questionnaire. There are 15 statements with 4 options in the questionnaire. The statements are about the design, the level of difficulty, the suitability, and the effectiveness of the workbook.

6. Piloting

The questionnaire was piloted to 30 students in order to find out the validity of the test in the workbook using SPSS 20. The writer used r table moment as the validity level with the formula df = total of sample -2. For the significance level is two tailed of 5%, the validity level of 30 respondents is 0.361. Hence, if $R_{value} > R_{table}$, the statement is valid, whereas if $R_{value} < R_{table}$, the statement is not valid. Table 3.2 shows the result of the pilot study result.

Table 3.1

Validation of pilot study

Item	R_{value}	R_{table}	Information
S1	*0.688***	*0.361*	*Valid*
S2	*0.750***	*0.361*	*Valid*
S3	*0.595***	*0.361*	*Valid*
S4	*0.664***	*0.361*	*Valid*

S5	*0.741***	*0.361*	*Valid*
S6	*0.663***	*0.361*	*Valid*
S7	*0.638***	*0.361*	*Valid*
S8	*0.725***	*0.361*	*Valid*
S9	*0.841***	*0.361*	*Valid*
S10	*0.600***	*0.361*	*Valid*
S11	*0.426***	*0.361*	*Valid*
S12	*0.696***	*0.361*	*Valid*
S13	*0.548***	*0.361*	*Valid*
S14	*0.748***	*0.361*	*Valid*
S15	*0.569***	*0.361*	*Valid*

Based on the result, there is no invalid statement. The R_{value} numbers were higher than the R_{table} numbers. Thus, the writer decided to use all statements to be distributed to SDI Al-Azhar 14 Semarang.

7. Testing the product

   The writer came to the school to test the students with her product.

8. Distributing questionnaire

   After the writer implemented the test, she distributed the questionnaire directly to 83 students. The writer also used r table

moment as the validity level. The validity level of 83 respondents is 0.216. Here is the writer shows the table of the questionnaire validation:

Table 3.2

Validation of questionnaire

Item	R_{value}	R_{table}	Information
S1	*0.468***	*0.216*	*Valid*
S2	*0.597***	*0.216*	*Valid*
S3	*0.593***	*0.216*	*Valid*
S4	*0.629***	*0.216*	*Valid*
S5	*0.701***	*0.216*	*Valid*
S6	*0.673***	*0.216*	*Valid*
S7	*0.723***	*0.216*	*Valid*
S8	*0.681***	*0.216*	*Valid*
S9	*0.800***	*0.216*	*Valid*
S10	*0.555***	*0.216*	*Valid*
S11	*0.570***	*0.216*	*Valid*
S12	*0.670***	*0.216*	*Valid*
S13	*0.552***	*0.216*	*Valid*
S14	*0.708***	*0.216*	*Valid*
S15	*0.637***	*0.216*	*Valid*

9. Analyzing and interpreting data

   The writer analyzed the data from the questionnaire using SPSS 20 and the interview result using transcript method.

1.2 Method of Data Analysis

After the data obtained, the writer analyzed the questionnaires as the primary instrument using SPSS. The writer used simple descriptive statistic to measure the means of responses. If the means average is above 3, the response is positive. If the means average is below 3, the response is low.

The result of the interview with the English teacher supported the questionnaires. Later, the writer interpret and present the results.