

CHAPTER IV

RESULT AND DISCUSSION

A. Data Description

In this chapter, the writer would like to present a description of the data obtained. As the writer explained in the previous chapter that the population in this research were 211 students of seventh grade in SMPN 21 Kota Serang and the sample was 36 students of VII C as experimental class and 34 students of VII E as control class.

In this research, the writer analyzed quantitative data. The data is obtained by giving a test to the experimental class and control class. The test divided two types are pre-test and post-test. Pre-test was given before treatment and post-test were given after treatment. On the test, the students should pronounce some words in front of the class according to the instruction by the writer.

The writer identified some result to find out the effect of YouTube channel *BBC Learning English* to improve students' pronouncing the English consonants /ʃ/, /ʒ/, /tʃ/, /dʒ/, /θ/, and /ð/. They are the score of students before treatment, the score students after treatment and the differences between pre-test and post-test score of students. The writer describes the data in experimental class and control class as below:

Table 4.1 The Score of Pre-test and Post-test in Experimental Class

| No | Name of Students | Pre-test (X ₁) | Post-test (X ₂) |
|----|------------------|----------------------------|-----------------------------|
| 1 | AF | 58 | 66 |
| 2 | APS | 46 | 60 |
| 3 | AM | 60 | 66 |
| 4 | ASH | 52 | 74 |
| 5 | ASR | 66 | 80 |
| 6 | A | 48 | 60 |
| 7 | DL | 52 | 60 |
| 8 | DU | 72 | 80 |
| 9 | EA | 60 | 72 |
| 10 | EL | 62 | 70 |
| 11 | FEP | 68 | 82 |
| 12 | FPH | 70 | 82 |
| 13 | G | 68 | 76 |
| 14 | GMP | 60 | 76 |
| 15 | HS | 68 | 80 |
| 16 | H | 68 | 80 |
| 17 | IAS | 60 | 76 |
| 18 | LN | 72 | 80 |
| 19 | LAH | 72 | 80 |
| 20 | MKAA | 72 | 82 |
| 21 | MIN | 64 | 70 |
| 22 | M | 60 | 68 |
| 23 | MAS | 42 | 48 |

| | | | |
|----|------------|-------------|--------------|
| 24 | MP | 72 | 80 |
| 25 | MA | 70 | 82 |
| 26 | MAG | 42 | 50 |
| 27 | NN | 66 | 70 |
| 28 | RAF | 60 | 76 |
| 29 | RAD | 52 | 60 |
| 30 | RAR | 42 | 50 |
| 31 | R | 56 | 68 |
| 32 | SEM | 70 | 82 |
| 33 | SN | 60 | 66 |
| 34 | S | 68 | 70 |
| 35 | TR | 68 | 76 |
| 36 | U | 68 | 80 |
| | Σ | 2214 | 2578 |
| | X | 61,5 | 71,61 |
| | MAX | 72 | 82 |
| | MIN | 42 | 48 |

The table above shows the students' scores of pre-test and post-test in experimental class. The scores show the students' pronouncing the English consonants /f/, /z/, /tʃ/, /dʒ/, /θ/, and /ð/ at class VII C as experimental class mostly is less before giving treatment. It can be seen from the scores of pre-test, the highest score of students is 72 while the lowest score is 42. Then the highest score of students' pronouncing the English consonants /f/, /z/, /tʃ/, /dʒ/, /θ/, and /ð/ is

enough while the lowest score of students' pronouncing the English consonants /f/, /z/, /tʃ/, /dʒ/, /θ/, and /ð/ is low. Meanwhile, the students' score of post-test mostly is good, the highest score is 82 while the lowest score is 48. It can be known that there is an improvement in the criteria of students' score that the highest score is very good and the lowest score is low.

To find the mean score, the writer follows the formula:

$$\begin{aligned}
 M_1 &= \frac{\sum X_1}{N_1} & M_2 &= \frac{\sum X_2}{N_2} \\
 &= \frac{2214}{36} & &= \frac{2578}{36} \\
 &= \mathbf{61,5} & &= \mathbf{71,61}
 \end{aligned}$$

Note : M_1 M_2 = Mean

X_1 = Students' score (pre-test)

X_2 = Students' score (post-test)

N_1 N_2 = Number of students

Based on the calculation on table 4.1 of pre-test and post-test assessment in experimental class, it shows that the cumulative value of assessment result before applying YouTube channel *BBC Learning English* is 2214, the average of pre-test is 61,5. Meanwhile, the cumulative value of assessment result after applying YouTube channel *BBC Learning English* is 2578, the average of post-tets is 71,61.

Determining mean by formula:

$$M = M_2 - M_1$$

$$= 71,61 - 61,5$$

$$= \mathbf{10,11}$$

Note : M = Mean

M_1 = Mean of pre-test

M_2 = Mean of post-test

From the calculation of mean determining above, it has seen from the average score of pre-test and post-test (in experimental class) increase in amount of 10,11.

Table 4.2 The Score of Pre-test and Post-test in Control Class

| No | Name of Students | Pre-test (X_1) | Post-test (X_2) |
|----|------------------|-----------------------|------------------------|
| 1 | AZM | 50 | 56 |
| 2 | AR | 56 | 60 |
| 3 | AH | 64 | 70 |
| 4 | ARS | 64 | 72 |
| 5 | AN | 60 | 66 |
| 6 | AK | 44 | 48 |
| 7 | DR | 48 | 52 |
| 8 | EV | 50 | 52 |
| 9 | FEA | 58 | 60 |
| 10 | F | 64 | 70 |
| 11 | FIA | 64 | 70 |
| 12 | GKN | 60 | 72 |
| 13 | HJ | 60 | 66 |
| 14 | H | 62 | 68 |
| 15 | I | 44 | 48 |

| | | | |
|----|------------|--------------|--------------|
| 16 | IM | 48 | 58 |
| 17 | J | 50 | 58 |
| 18 | LM | 50 | 60 |
| 19 | MRP | 64 | 72 |
| 20 | MAS | 52 | 60 |
| 21 | N | 52 | 62 |
| 22 | NM | 64 | 70 |
| 23 | NA | 42 | 46 |
| 24 | RS | 42 | 44 |
| 25 | RAS | 52 | 66 |
| 26 | RR | 42 | 50 |
| 27 | SRP | 64 | 66 |
| 28 | SS | 64 | 72 |
| 29 | SA | 44 | 56 |
| 30 | SR | 42 | 44 |
| 31 | TNR | 46 | 52 |
| 32 | UA | 52 | 60 |
| 33 | YT | 50 | 56 |
| 34 | ZM | 62 | 70 |
| | Σ | 1830 | 2052 |
| | X | 53,82 | 60,35 |
| | MAX | 64 | 72 |
| | MIN | 42 | 44 |

The table above shows the students' scores of pre-test and post-test in control class. The scores show the students' pronouncing the English consonants /ʃ/, /ʒ/, /tʃ/, /dʒ/, /θ/, and /ð/ at class VII E as control class. The table above shows that the students' score of pre-test, the highest is 64 while the lowest score is 42. Meanwhile, the students' score of post-test the highest is 72 while the lowest score is 44.

To find the mean score, the writer follows the formula:

$$\begin{aligned}
 M_1 &= \frac{\sum X_1}{N_1} & M_2 &= \frac{\sum X_2}{N_2} \\
 &= \frac{1830}{34} & &= \frac{2052}{34} \\
 &= \mathbf{53,82} & &= \mathbf{60,35}
 \end{aligned}$$

Note : M_1 M_2 = Mean

X_1 = Students' score (pre-test)

X_2 = Students' score (post-test)

N_1 N_2 = Number of students

Based on the explanation above, it showed that the cumulative value of assessment result pre-test is 1830, the average of pre-test is 53,82. Meanwhile, the cumulative value of assessment result post-test is 2052 the average of post-tets is 60,35.

Determining mean by formula:

$$\begin{aligned}
 M &= M_2 - M_1 \\
 &= 60,35 - 53,82
 \end{aligned}$$

= 6,53

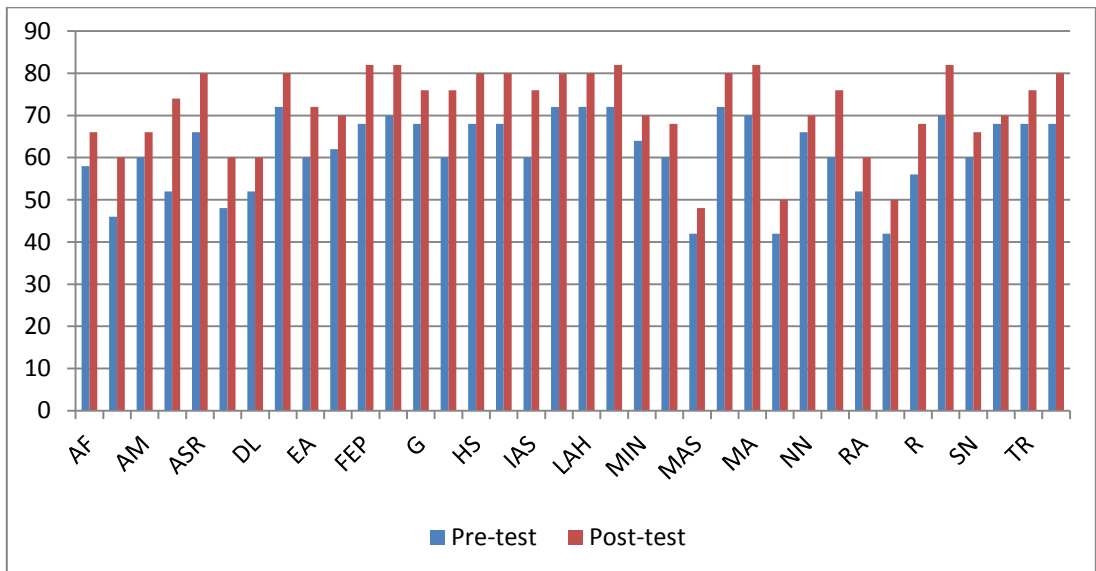
Note : M = Mean

M_1 = Mean of pre-test

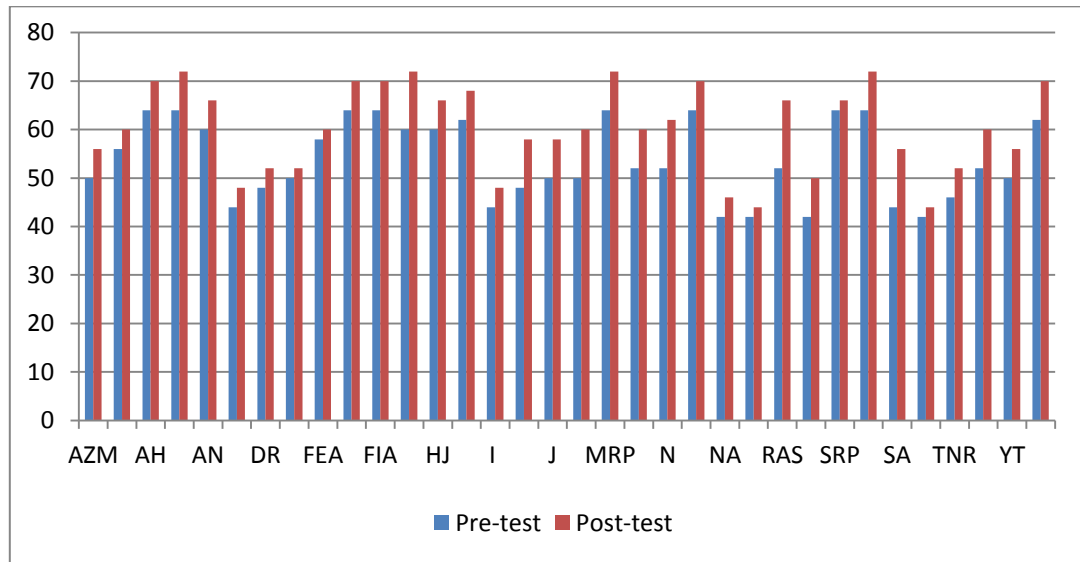
M_2 = Mean of post-test

From the calculation of mean determining above, it has seen from the average score of pre-test and post-test (in control class) increase in the amount of 6,53. It showed that the result of control class did not have a significant improvement. It caused the control class did not use YouTube channel *BBC Learning English* in teaching pronunciation.

Graphic 4.1 Description of Pre-test and Post-test Scores in Experimental Class



Graphic 4.2 Description of Pre-test and Post-test Scores in Control Class



B. Data Analysis

After getting the data from the post-test score of two classes, then the writer analyzed it by using t-test. The result calculation of post-test at experimental class and control would be described in the following table :

Table 4.3 The Calculation Result of Post-test at the Experimental Class (X_1) and the Control Class (X_2)

| No | Post-test | | x_1 | x_2 | x_1^2 | x_2^2 |
|----|-----------|-------|--------|-------|----------|----------|
| | X_1 | X_2 | | | | |
| 1 | 66 | 56 | -5,61 | -4,35 | 31,4721 | 18,9225 |
| 2 | 60 | 60 | -11,61 | -0,35 | 134,7921 | 0,1225 |
| 3 | 66 | 70 | -5,61 | 9,65 | 31,4721 | 93,1225 |
| 4 | 74 | 72 | 2,39 | 11,65 | 5,7121 | 135,7225 |
| 5 | 80 | 66 | 8,39 | 5,65 | 70,3921 | 31,9225 |

| | | | | | | |
|----|----|----|--------|--------|----------|----------|
| 6 | 60 | 48 | -11,61 | -12,35 | 134,7921 | 152,5225 |
| 7 | 60 | 52 | -11,61 | -8,35 | 134,7921 | 69,7225 |
| 8 | 80 | 52 | 8,39 | -8,35 | 70,3921 | 69,7225 |
| 9 | 72 | 60 | 0,39 | -0,35 | 0,1521 | 0,1225 |
| 10 | 70 | 70 | -1,61 | 9,65 | 2,5921 | 93,1225 |
| 11 | 82 | 70 | 10,39 | 9,65 | 107,9521 | 93,1225 |
| 12 | 82 | 72 | 10,39 | 11,65 | 107,9521 | 135,7225 |
| 13 | 76 | 66 | 4,39 | 5,65 | 19,2721 | 31,9225 |
| 14 | 76 | 68 | 4,39 | 7,65 | 19,2721 | 58,5225 |
| 15 | 80 | 48 | 8,39 | -12,35 | 70,3921 | 152,5225 |
| 16 | 80 | 58 | 8,39 | -2,35 | 70,3921 | 5,5225 |
| 17 | 76 | 58 | 4,39 | -2,35 | 19,2721 | 5,5225 |
| 18 | 80 | 60 | 8,39 | -0,35 | 70,3921 | 0,1225 |
| 19 | 80 | 72 | 8,39 | 11,65 | 70,3921 | 135,7225 |
| 20 | 82 | 60 | 10,39 | -0,35 | 107,9521 | 0,1225 |
| 21 | 70 | 62 | -1,61 | 1,65 | 2,5921 | 2,7225 |
| 22 | 68 | 70 | -3,61 | 9,65 | 13,0321 | 93,1225 |
| 23 | 48 | 46 | -23,61 | -14,35 | 557,4321 | 205,9225 |
| 24 | 80 | 44 | 8,39 | -16,35 | 70,3921 | 267,3225 |
| 25 | 82 | 66 | 10,39 | 5,65 | 107,9521 | 31,9225 |
| 26 | 50 | 50 | -21,61 | -10,35 | 466,9921 | 107,1225 |
| 27 | 70 | 66 | -1,61 | 5,65 | 2,5921 | 31,9225 |
| 28 | 76 | 72 | 4,39 | 11,65 | 19,2721 | 135,7225 |

| | | | | | | |
|----------|-------------|-------------|--------|--------|------------------|-----------------|
| 29 | 60 | 56 | -11,61 | -4,35 | 134,7921 | 18,9225 |
| 30 | 50 | 44 | -21,61 | -16,35 | 466,9921 | 267,3225 |
| 31 | 68 | 52 | -3,61 | -8,35 | 13,0321 | 69,7225 |
| 32 | 82 | 60 | 10,39 | -0,35 | 107,9521 | 0,1225 |
| 33 | 66 | 56 | -5,61 | -4,35 | 31,4721 | 18,9225 |
| 34 | 70 | 70 | -1,61 | 9,65 | 2,5921 | 93,1225 |
| 35 | 76 | | 4,39 | | 19,2721 | |
| 36 | 80 | | 8,39 | | 70,3921 | |
| Σ | 2578 | 2052 | | | 3366,5556 | 2627,765 |

Note :

X_1 = Score post-test (Experiment class)

X_2 = Score post-test (Control class)

x_1 = $X_1 - M_1$ (Mean post-test of experimental class)

x_2 = $X_2 - M_2$ (Mean post-test of control class)

x_1^2 = Squared value of X_1

x_2^2 = Squared value of X_2

After getting the data, the writer analyzed it by using t-test formula which its steps as follow:

1. Determining mean of variable X_1 :

$$M_2 = \frac{\Sigma X_1}{N_1} = \frac{2578}{36} = \mathbf{71,61}$$

2. Determining mean of variable X_2 :

$$M_2 = \frac{\sum X_2}{N_2} = \frac{2052}{34} = \mathbf{60,35}$$

3. Sum of the squared deviation score of X_1

$$\sum X_1^2 = \mathbf{3366,5556}$$

4. Sum of the squared deviation score of X_2

$$\sum X_2^2 = \mathbf{2627,765}$$

5. Determining t_o (t observation)

$$\begin{aligned} t &= \frac{M_1 - M_2}{\sqrt{\left(\frac{\sum x_1^2 + \sum x_2^2}{N_1 + N_2 - 2}\right) \left(\frac{N_1 + N_2}{N_1 \cdot N_2}\right)}} \\ &= \frac{71,61 - 60,35}{\sqrt{\left(\frac{3366,5556 + 2627,765}{36 + 34 - 2}\right) \left(\frac{36 + 34}{36 \cdot 34}\right)}} \\ &= \frac{11,26}{\sqrt{\left(\frac{5994,3206}{68}\right) \left(\frac{70}{1224}\right)}} \\ &= \frac{11,26}{\sqrt{(88,15) (0,05)}} \\ &= \frac{11,26}{\sqrt{4,41}} \\ &= \frac{11,26}{2,1} \\ &= \mathbf{5,36} \end{aligned}$$

6. Determining t_t (t table) at a significance level of 5% and 1%

$$Df = N_1 + N_2 - 2$$

$$= 36 + 34 - 2$$

= 68

Based on t-table that there is 68 with df as number 68 is got t-table as follow:

- a. At significance level 5% : $t_t = 1,66$
- b. At significance level 1% : $t_t = 2,38$

C. Hypothesis Testing

To prove the hypothesis, the data obtained from the experimental class and control class are calculated by using t-test formula with assumption as follow:

If $t_{\text{observation}} > t_{\text{table}}$: The alternative hypothesis is accepted. It means there is a significant effect of using YouTube channel *BBC Learning English* in students' pronouncing the English consonants /f/, /z/, /tʃ/, /dʒ/, /θ/, and /ð/.

If $t_{\text{observation}} < t_{\text{table}}$: The alternative hypothesis is rejected. It means there is no significant effect of using YouTube channel *BBC Learning English* in students' pronouncing the English consonants /f/, /z/, /tʃ/, /dʒ/, /θ/, and /ð/.

From the result of the calculation above, it is obtained that the value of $t_{\text{observation}}$ is = 5,36, the degree of freedom is 68. t_{table} in the 5% significance level is 1,66, while t_{table} in the 1% significance level is 2,38. Afterwards, the writer compared the data with t_{table} both at the 5% significance level and at the 1% significance level. Therefore $t_o : t_t = 5,36 > 1,66$ in the 5% significance level and $t_o : t_t = 5,36 > 2,38$ in the 1% significance level.

The statistic hypothesis states that if t_o is higher than t_t , it shows that H_a (alternative hypothesis) is accepted and H_o (null hypothesis) is rejected. It means that there is the effectiveness of using YouTube channel *BBC Learning English* in students' pronouncing the English consonants /ʃ/, /ʒ/, /tʃ/, /dʒ/, /θ/, and /ð/.

D. Interpretation of Data

In class VII C as experimental class, the highest score of pre-test is 72 and the lowest score is 42. Meanwhile, the highest score of post-test is 82 and the lowest score is 48. The mean of pre-test score obtained by students in experimental class is 61,5 and the mean post-test is 71,61. The mean of pre-test and post-test score has good enough improvement, it seen by $71,61 > 61,5$. The improvement caused in experimental class the students have learned pronouncing the English consonants /ʃ/, /ʒ/, /tʃ/, /dʒ/, /θ/, and /ð/ by using YouTube channel *BBC Learning English*.

In the class VII E as control class, the highest score of pre-test is 64 and the lowest score is 42. Meanwhile, the highest score of post-test is 72 and the lowest score is 44. The mean of pre-test in control class is 53,82 and the mean post-test is 60,35. In this class also realized improvement but lower than experimental class. It caused by control class did not learn to pronounce the English consonants /ʃ/, /ʒ/, /tʃ/, /dʒ/, /θ/, and /ð/ by using YouTube channel *BBC Learning English*.

The analysis is aimed to know the effectiveness of using YouTube channel *BBC Learning English* on students' pronouncing the English consonants /ʃ/, /ʒ/, /tʃ/, /dʒ/, /θ/, and /ð/. It has been known that the mean score of experimental class

is 61,5 in pre-test and 71,61 in post-test. Meanwhile, the mean score of control class is 53,82 in pre-test and 60,35 in post-test. Seeing the calculation the mean score of pre-test and post-test, the experimental class is improved on 10,11 points, it is better than the control class which is improved on 6,53 points.

Before deciding the result of the hypothesis, the writer proposes the interpretation with procedures as follow:

- a) $H_a = t_{\text{observation}} > t_{\text{table}}$. It means there is the effectiveness of YouTube channel *BBC Learning English* on students' pronouncing the English consonants /ʃ/, /ʒ/, /tʃ/, /dʒ/, /θ/, and /ð/.
- b) $H_o = t_{\text{observation}} < t_{\text{table}}$. It means there is no effect of YouTube channel *BBC Learning English* on students' pronouncing the English consonants /ʃ/, /ʒ/, /tʃ/, /dʒ/, /θ/, and /ð/.

According to the data, the value of $t_{\text{observation}}$ is bigger than t_{table} . $t_{\text{observation}} = 5,36 > t_{\text{table}} = 1,66$ (significant 5%) or $t_{\text{observation}} = 5,36 > t_{\text{table}} = 2,38$ (significant 1%). So H_o is rejected and H_a is accepted.

From the result above, the writer gives the conclusion that there is the effectiveness of YouTube channel *BBC Learning English* on students' pronouncing the English consonants /ʃ/, /ʒ/, /tʃ/, /dʒ/, /θ/, and /ð/. It can be seen that the students get good or better scores use YouTube channel *BBC Learning English*.