

## **CHAPTER IV**

### **RESEARCH RESULT AND DISCUSSION OF RESEARCH**

#### **A. Research Result**

This type of research uses quantitative methods because the research data are in the form of numbers and the analysis uses statistics<sup>1</sup>. The technique used is simple random sampling<sup>2</sup>. Data collection techniques in this study were to use questionnaire, test, and documentation.

The questionnaire technique was used to determine the effect of English songs on vocabulary mastery of fifth grade students at SDN Pakong 2, while the test technique was used to determine the level of students' vocabulary mastery skills. And documentation techniques are used to find out the data of students who become respondents. The purpose of this research was to determine level of the effect of English songs in English learning on students' vocabulary mastery skills.

This research was carried out in two stages, first on 11 August 2020 which was used for observing the object to be studied then compiling and analyzing the instrument by conducting trials on fourth grade students as many as 29 students, then on August 18, 2020 which was used for testing the

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<sup>1</sup> Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: Holt, Penerbit Alfabeta, 2008), Page 7

<sup>2</sup> Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: Holt, Penerbit Alfabeta, 2008), Page 82

questionnaire instrument questions and tests on the research sample, namely the 5th grade students of SDN Pakong 2 with both of these research still

applying the covid-19 protocol.

Determination of the sample using Microsoft Excel assistance with an error rate of 5%. The number of samples is 44 students taken from 60 students. 44 students these are in the offline learning method in the learning system in the new normal era after the Covid-19 pandemic, while 16 other students underwent an online learning system.

As for the research implementation stage is as follows :

### **1. Preparation Stage**

- a. Make observation to find out the object of research.
- b. Compile grids and test instrument questions and the questionnaire instrument amounted to 15 statements and the test instrument amounted to 18 questions.
- c. Testing the instrument in the trial class
- d. Analyze the instruments to be tested on the research sample.

### **2. Implementation Stage**

- a. The researcher divides the research questions and questionnaire to the sample.
- b. The researcher analyzed the results of research instruments that have been divided.
- c. The researcher concluded the research results that had been analyzed.

## **B. Data Analyze**

### **1. Instruments Analyze**

Instrument test trials were conducted to find validity, reliability, level of difficulty and differentiation.

### a. Data Validity

Test the validity of the test instruments and questionnaires were used to determine whether the instruments were valid. Invalid instruments will be discarded and valid questions will be used by researchers as the final evaluation of the sample.

The validity of the questionnaire instrument items the effect of english song is calculated using the *point biserial* correlation, and the measurement scale uses a *likert scale* formula in the form of multiple choices which has a gradient from very positive to negative<sup>3</sup>. In this research questionnaire, the answer choices that researchers use are very agree (SS), agree (S), and disagree (TS). With 3 score for (SS), 2 score for (S), and 1 score for (TS) in positive instruments. While negative instruments have 3 score for (TS), 2 score for (S), and 1 score for (SS).

The validity of the items on the test instrument of young learners' vocabulary mastery will be calculated using the *point biserial* correlation, by giving a score of 1 on the correct answer and 0 on the wrong answer.

Items are categorized as valid if they have  $r_{\text{count}} > r_{\text{tabel}}$ . The number of valid and invalid questionnaire instruments can be seen in table 4.1. as follows.

Table 4.1

Validity of The Questionnaire Instruments Items The effect of English Song

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<sup>3</sup> Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: Holt, Penerbit Alfabeta, 2008), P. 93-96

No.	Criteria	Number Items	Count
1.	Valid	1,2,3,4,5,6,9,11,12,15	10
2.	Invalid	7,8,10,13,14	5

The calculation of the questionnaire validity test with 15 instruments tested, obtained 10 valid instruments with  $r_{\text{count}} > 0,367$  and 5 invalid instruments with  $r_{\text{count}} < 0,367$ . Complete calculation data by using *Microsoft Excel* can be seen in the appendix.

The number of valid and invalid test question items can be seen in table 4.2. as follows

Table 4.2

#### Validity of The Test of Young Learners' Vocabulary Mastery

No.	Criteria	Number Items	Count
1.	Valid	1,2,3,4,5,6,7,9,10,11,12,13,14,15,16,17	16
2.	Invalid	8,18	2

The calculation of the validity test of the test items with a total of 18 questions, 9 questions about fruits and 9 questions about body parts, obtained 16 questions that met the valid criteria with  $t_{\text{count}} > t_{\text{table}}$ , with 8 questions about fruits and 8 questions about body parts, and 2 invalid questions with  $r^{\text{count}} < 2,05$ . Complete calculation data using *Point Biserial* correlation helped by *Microsoft Excel* can be seen in the appendix.

### b. Data Reliability

The instrument reliability test was used to determine the consistency of the instrument's answers. The instrument is said to be reliable or can be trusted if it gives fixed results if tested many times<sup>4</sup>. The question is said to be reliable if  $r_{\text{count}} > r_{\text{table}}$ .

The reliability of the questionnaire and test instruments was calculated using the KR-20 formula<sup>5</sup>. The results of calculating the reliability of the questionnaire with the number of instruments as many as 18, obtained  $r_{11} = 1,015$  and  $r_{\text{table}} = 0,367$ , then the statement of the questionnaire instrument is reliable because  $r_{\text{count}} > r_{\text{table}}$ .

While the results of the calculation of the reliability of the test items with a total of 18 questions, obtained  $r_{11} = 0,686$  and correlated with  $r_{\text{table}}$  with  $n = 29$  and a significant level of 5% obtained  $r_{\text{table}} = 0,367$ , then the test questions are reliable because  $r_{\text{count}} > r_{\text{table}}$ .

### c. Test the difficulty level of the question

This test is conducted to determine the difficulty level of the question, whether it has very difficult, difficult, medium, easy, and very easy criteria. The calculation uses the difficulty index formula<sup>6</sup>:

$$P = \frac{B}{JS}$$

P = difficulty index

B = the number of students who answered correctly on the question

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<sup>4</sup> Suharsimi Arikunto, *Dasar-Dasar Evaluasi Pendidikan* (Jakarta: Bumi Aksara, 2015), Page 100

<sup>5</sup> Sugiyono, *Statistika Untuk Pendidikan* (Bandung: Alfabeta, 2007), Page 359

<sup>6</sup> Suharsimi Arikunto, *Dasar-Dasar Evaluasi Pendidikan* (Jakarta: Bumi Aksara, 2015), Page 223

JS = total students

and the data is obtained in table 4.3. below.

Table 4.3.

Instrument Difficulty Criteria For The Young Learners' Vocabulary Mastery Test

No.	Criteria	Question Number	Count
1.	Difficult	-	-
2.	Medium	8,10	2
4.	Easy	1,2,3,4,5,6,7,9,11,12,13,14,15,16,17,18	16

The results of the calculation of the level of difficulty of the test questions which amounted to 18 obtained the results of the questions with difficulties criteria<sup>7</sup>, namely the difficulty index in the interval 0,00 – 0,30 there is nothing of questions. Questions with medium criteria, namely the number of questions with difficulty level in the interval 0,31 – 0,70 there are 2 questions. And questions with easy criteria, namely the difficulty index in the interval 0,71 – 1,00 there are 16 questions. The complete calculation can be seen in the appendix.

#### d. Test of Different Power Questions

This test is conducted to determine the ability of respondents with high abilities and respondents with low abilities<sup>8</sup>.

<sup>7</sup> Suharsimi Arikunto, *Dasar-Dasar Evaluasi Pendidikan* (Jakarta: Bumi Aksara, 2015), Page 225

<sup>8</sup> Suharsimi Arikunto, *Dasar-Dasar Evaluasi Pendidikan* (Jakarta: Bumi Aksara, 2015), Page 227

Calculation using discrimination formula<sup>9</sup> and obtained data as in table 4.4.

Table 4.4

Power Criteria of Test Questions of Young Learners' Vocabulary Mastery

No.	Criteria	Question Number	Count
1.	Very Ugly	8,18	2
2.	Ugly	11,12	2
3.	Sufficient	1,2,3,5,6,14,15,16,17	9
4.	Good	4,7,9,10,13	5
5.	Very Good	-	-

The results of the calculation of the test of the difference in the power of the questions, amount to 18, obtained questions with bad criteria, namely the discrimination index is in the interval 0,00-0,20 as many 4 questions. Questions with sufficient criteria are as many 9 items with interval 0,20-0,40. While obtained 5 questions with good criteria index, namely in the interval 0,40-0,60. The complete of calculation can be seen in the appendix.

After testing the questionnaire and test instruments, data on the instrument questions were obtained to be given to the research sample in table 4.5 below.

<sup>9</sup> Suharsimi Arikunto, *Dasar-Dasar Evaluasi Pendidikan* (Jakarta: Bumi Aksara, 2015), Page 228



Table 4.5.

## Instrument Number Data and Questions

No.	Instrument	Number Items	Count
1.	Questionnaire	1,2,3,4,5,6,9,11,12,14	10
2.	Test	1,2,3,4,5,6,7,9,10,11,12,13,14,15, 16,17	16

The questionnaire instrument used to determine the effect of the English song was as many as 10 validity and reliability instruments, while the test questions used to find out the young learners' vocabulary mastery were 16 validity and reliability items. The complete of calculation can be seen in the appendix.

## 2. Hypothesis Test Analysis

The results of the questionnaire value of The effect of English Song and the Vocabulary Mastery test obtained by the sample, namely the 5th grade students of SDN Pakong 2 are as follows.

Table 4.6.

## Data on The Value of Questionnaire and Respondent Test

No.	Code	Questionnaire Value (X)	Test Value (Y)
	1	2	3
1.	<b>R-01</b>	24	15

2.	<b>R-02</b>	29	16
3.	<b>R-03</b>	25	14
4.	<b>R-04</b>	24	13
5.	<b>R-05</b>	26	14
6.	<b>R-06</b>	24	10
7.	<b>R-07</b>	27	15
8.	<b>R-08</b>	24	12
9.	<b>R-09</b>	13	13
10.	<b>R-10</b>	24	13
11.	<b>R-11</b>	29	16
12.	<b>R-12</b>	23	15
13.	<b>R-13</b>	24	13
14.	<b>R-14</b>	26	12
15.	<b>R-15</b>	23	14
16.	<b>R-16</b>	24	16
17.	<b>R-17</b>	14	11
18.	<b>R-18</b>	25	14
19.	<b>R-19</b>	30	15
20.	<b>R-20</b>	26	13
21.	<b>R-21</b>	24	15
22.	<b>R-22</b>	24	14
23.	<b>R-23</b>	27	14
24..	<b>R-24</b>	28	15

25.	<b>R-25</b>	24	11
26.	<b>R-26</b>	13	13
27.	<b>R-27</b>	25	13
28.	<b>R-28</b>	29	14
29.	<b>R-29</b>	24	12
30.	<b>R-30</b>	17	11
31.	<b>R-31</b>	24	15
32.	<b>R-32</b>	26	13
33.	<b>R-33</b>	24	16
34.	<b>R-34</b>	25	16
35.	<b>R-35</b>	26	13
36.	<b>R-36</b>	25	12
37.	<b>R-37</b>	28	14
38.	<b>R-38</b>	24	13
39.	<b>R-39</b>	24	13
40.	<b>R-40</b>	27	15
41.	<b>R-41</b>	24	16
42.	<b>R-42</b>	17	10
43.	<b>R-43</b>	24	14
44.	<b>R-44</b>	25	14
<b>Total Score</b>		<b>1062</b>	<b>600</b>

The value data above is the data used by researchers in the normality test, about The Effect of English Songs on Students or Young Learners'

Vocabulary Mastery, students' level of mastering vocabulary, and *product moment* correlation test.

#### a. Normality Test

The normality test is used to determine whether the data obtained is normally distributed or not<sup>10</sup>. The normality test of the questionnaire of The Effect of English Song with the test of Vocabulary Mastery in fifth grade at SDN Pakong 2 Pamekasan was calculated by using the Chi-Square ( $\chi^2$ ) formula<sup>11</sup>.

Before calculating the Chi-Square, you must first find the number of class intervals, data ranges, and average values obtained. the calculation results can be seen in table 4.7 as follows.

Table 4.7

The Results of Normality Instruments Test

No.	Formula	Questionnaire	Test
1.	Total Value	1062	600
2.	Class Interval	6,42	6,42
3.	Data Range	17	6
4.	Average of Value	24,14	13,64

The testing criteria performed is with a significant level  $\alpha = 5\%$  with  $dk = n-1$ . If  $\chi^2_{\text{count}} < \chi^2_{\text{table}}$  then the data is normally distributed, and vice versa

<sup>10</sup> Sugiyono, *Statistika Untuk Pendidikan* (Bandung: Alfabeta, 2007), Page 75

<sup>11</sup> Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: Holt, Penerbit Alfabeta, 2008), P. 334

if  $\chi^2_{\text{count}} > \chi^2_{\text{table}}$  then the data is abnormally distributed. The results of normality testing can be seen in table 4.8.

Table 4.8

The Results of Normality Instruments Test

Instrument	Dk	$\chi^2_{\text{count}}$	$\chi^2_{\text{table}}$	Information
Questionnaire	4	0,02	9,48	Normal
Test	3	0,67	7,81	Normal

From this calculation, the questionnaire of The Effect of English Song is normally distributed, with  $\chi^2_{\text{count}} (0,02) < \chi^2_{\text{table}} (9,48)^{12}$ . Then  $0,67 < 7,81$  of the test of students' vocabulary mastery, it means the data are normally distributed, because  $\chi^2_{\text{count}} < \chi^2_{\text{table}}^{13}$ . The frequency of the data distribution and the criteria for the questionnaire of students' vocabulary mastery and the effect of English songs' test are obtained as shown in table 4.9 and 4.10.

Table 4.9

Frequency Distribution Data and Criteria for The Effect of English Song

No.	Class Interval	Frequence	Relative Frequence	Criteria
1.	13 – 16	3	7%	Very Negative Impact

<sup>12</sup> Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: Holt, Penerbit Alfabeta, 2008), P. 334

<sup>13</sup> Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: Holt, Penerbit Alfabeta, 2008), P. 172

2.	17 – 20	2	5%	Negative Impact
3.	21 – 24	19	43%	Sufficient Impact
4.	25 – 28	16	36%	Positive Impact
5.	29 – 32	4	9%	Very Positive Impact
	$\Sigma$	44	100%	

From the table above and using the average value of the questionnaire instrument obtained 24,14, it can be concluded that *The English Song* has an positive effect for fifth grade students at SDN Pakong 2 Pamekasan. The complete calculation can be seen in the appendix.

Table 4.10

Frequency Distribution Data and Criteria For The Level of Students' Vocabulary Mastery Knowledge

No.	Class Interval	Frequence	Relative Frequence	Criteria
1.	10 – 11	5	11%	Very Good
2.	12 – 13	15	34%	Good
4.	14 – 15	18	41%	Deficient
5.	16 – 17	6	14%	Very Deficient

	$\Sigma$	44	100%	
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From the data table above and by using the average value obtained on the test questions namely 13,64. The students have the good criteria about *Vocabulary Mastery*. The complete calculation can be seen in the appendix.

The table below shows the value of the questionnaire result of The Effect of English song when viewed from the average value obtained.

Table 4.11

The Average Value of The Effect of Englis Songs' Questionnaire

No.	Indicator	Value	Average Value
1.	Improve students' vocabulary mastery		
	a. Make easier to mastering vocabulary	92	2,09
	b. Confused in capturing vocabulary (negative statement)	127	2,89
	c. Increase the English value with vocabulary mastery	88	2,00
2.	Sharpen vocabulary memories		
	a. Good method to sharp memory of English Vocabulary	94	2,14
	b. Reducing previous vocabulary memory (negative statement)	126	2,86

3.	Increase students' spirit to mastering vocabulary		
	a. Making fun in learning English vocabulary	94	2,14
	b. Often to listen English song independently	96	2,18
	c. Lazy listening English song independently (negative statement)	127	2,89
4.	Easy to re-practice		
	a. Easy to re-practice English vocabulary by song	92	2,09
	b. Make difficult in re-practice English vocabulary (negative statement)	126	2,86

### b. Product Moment Correlation Test

Hypothesis testing using the *product moment correlation* formula technique. This technique is used to prove the relationship between two variables when the data for the two variables are in the form of intervals or ratio with one dependent<sup>14</sup>.

The hypothesis in this study are :

Ha : is a hypothesis that indicates an influence or a relation between two or more variables.

<sup>14</sup> Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: Holt, Penerbit Alfabeta, 2008), P. 153



Ho : is a hypothesis states that there is no significance relationship between two or more variable.

Ha is accepted and Ho is rejected if the significance value  $\geq 0,297$

Ha is rejected and Ho is accepted if the significance value  $\leq 0,297$

Interpretation of coefficient correlation index numbers<sup>15</sup>:

- 1) 0,00 – 0,19 = Very Low
- 2) 0,20 – 0,39 = Low
- 3) 0,40 – 0,69 = Medium
- 4) 0,70 – 0,89 = Strong
- 5) 0,90 – 1,00 = Very Strong

Before testing the hypothesis by using *product moment correlation* formula, you must first know the value of the X and Y variables. the values of the X and Y variables can be seen in table 4.12 below.

Table 4.11

Correlation Test Data of The Effect of English Song with English Vocabulary Mastery

No.	Code	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1.	<b>R-01</b>	24	15	576	225	360
2.	<b>R-02</b>	29	16	841	256	464
3.	<b>R-03</b>	25	14	625	196	350
4.	<b>R-04</b>	24	13	576	169	312
5.	<b>R-05</b>	26	14	676	196	364

<sup>15</sup> Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: Holt, Penerbit Alfabeta, 2008), P. 184

6.	<b>R-06</b>	24	10	576	100	240
7.	<b>R-07</b>	27	15	729	225	405
8.	<b>R-08</b>	24	12	576	144	288
9.	<b>R-09</b>	13	13	169	169	169
10.	<b>R-10</b>	24	13	576	169	312
11.	<b>R-11</b>	29	16	841	256	464
12.	<b>R-12</b>	23	15	529	225	345
13.	<b>R-13</b>	24	13	576	169	312
14.	<b>R-14</b>	26	12	676	144	312
15.	<b>R-15</b>	23	14	529	196	322
16.	<b>R-16</b>	24	16	576	256	384
17.	<b>R-17</b>	14	11	196	121	154
18.	<b>R-18</b>	25	14	625	196	350
19.	<b>R-19</b>	30	15	900	225	450
20.	<b>R-20</b>	26	13	676	169	338
21.	<b>R-21</b>	24	15	576	225	360
22.	<b>R-22</b>	24	14	576	196	336
23.	<b>R-23</b>	27	14	729	196	378
24.	<b>R-24</b>	28	15	784	225	420
25.	<b>R-25</b>	24	11	576	121	264
26.	<b>R-26</b>	13	13	169	169	169
27.	<b>R-27</b>	25	13	625	169	325
28.	<b>R-28</b>	29	14	841	196	406

29.	<b>R-29</b>	24	12	576	144	288
30.	<b>R-30</b>	17	11	289	121	187
31.	<b>R-31</b>	24	15	576	225	360
32.	<b>R-32</b>	26	13	676	169	338
33.	<b>R-33</b>	24	16	576	256	384
34.	<b>R-34</b>	25	16	625	256	400
35.	<b>R-35</b>	26	13	676	169	338
36.	<b>R-36</b>	25	12	625	144	300
37.	<b>R-37</b>	28	14	784	196	392
38.	<b>R-38</b>	24	13	576	169	312
39.	<b>R-39</b>	24	13	576	169	312
40.	<b>R-40</b>	27	15	729	225	405
41.	<b>R-41</b>	24	16	576	256	384
42.	<b>R-42</b>	17	10	289	100	170
43.	<b>R-43</b>	24	14	576	196	336
44.	<b>R-44</b>	25	14	625	196	350
<b>Σ</b>		<b>1062</b>	<b>592</b>	<b>26270</b>	<b>8294</b>	<b>14609</b>

From the data obtained in the table above, the calculation results are entered into the *product moment correlation* formula.

*Product Moment Correlation* Formula

$$r_{xy} = \frac{N\Sigma xy - (\Sigma x)(\Sigma y)}{\sqrt{(N\Sigma x^2 - (\Sigma x)^2)(N\Sigma y^2 - (\Sigma y)^2)}}$$

Explanation :

$r_{xy}$  = correlation coefficient between variable x and variable y

N = the number of test respondents

X = the value of X variable

Y = the value of Y variable

$\Sigma xy$  = count of times X and Y

$$\begin{aligned}
 r_{xy} &= \frac{N\Sigma xy - (\Sigma x)(\Sigma y)}{\sqrt{(N\Sigma x^2 - (\Sigma x)^2)(N\Sigma y^2 - (\Sigma y)^2)}} \\
 &= \frac{642796 - 637200}{(\sqrt{1155880 - 1127844})(\sqrt{364936 - 360000})} \\
 &= \frac{5596}{\sqrt{28036 - 4936}} \\
 &= \frac{5596}{164,44 - 70,2567} \\
 &= \frac{5596}{11763,7} \\
 &= 0,475
 \end{aligned}$$

The results of the calculation by using the *product moment correlation* formula with  $n = 44$  and a significant level of 5% according to table value of product moment<sup>16</sup> obtained  $r_{table} = 0,297$ , while the result of  $r_{count} = 0,475$ . Then the conclusion is  $r_{count} \geq r_{table}$ ,  $H_a$  is accepted while  $H_o$  is rejected, for

<sup>16</sup> Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: Holt, Penerbit Alfabeta, 2008), P. 184

the coefficient correlation between X and Y is sufficient correlation according to Sugiyono<sup>17</sup>.

### C. Discussion

Based on the results of the research, it is known that there is an effects in the application of English song to several aspects of the 5th grade students of SDN Pakong 2 Pamekasan. That is the English song can improve students' vocabulary, sharpen students' vocabulary mastery, increase students' spirit and motivation to learn vocabulary, and easy to re-practice.

The dimension of English Song can improve students' vocabulary based on the data above, obtained the average value 6,98 or 21% of the maximum average value is 24,14. While the dimension of English Song can sharpen young learners' vocabulary mastery get score 5,00 or 21% of the maximum average score of 24,14 effect for students.

English song also increase students' spirit to learn vocabulary, with the average score value is 7,20 or 30% of the maximum average score of 24,14. And the indicator that song is easier to re-practice get the average score of 4,95 or 20% of the maximum average score of 24,14.

That is suitable with the theory put forward by Neil T. Millington cited As Murphey says that Songs can help young learners improve their listening skills and pronunciation, therefore potentially helping them to improve their speaking skills. Songs can also be useful tools in the learning of

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<sup>17</sup> Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: Holt, Penerbit Alfabeta, 2008), P. 184

vocabulary, sentence structures, and sentence patterns, not to mention their reflectivity of mother tongue culture<sup>18</sup>.

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<sup>18</sup> Neil T. Millington, *Using Song Effectively To Teach English To Young Learners* (Japan: Language Education in Asia, 2011), P. 134