CHAPTER IV

RESEARCH FINDINGS

This chapter presents the result of the research. The items will be presented are presentation data, hypothesis testing and discussion finding.

A. Presentation of Data

In this research the researcher presents some results of data based on the research instrument to collect the data, that is using test.

1. The Result of Test Data

In previous chapter, the researcher stated that the instrument in this study is the test, because this research is quantitative research, so that the data which were obtained from the test will be analyzed by using statistical method.

a. The result of pre test

The test are presented in pre-test and post-test form. In every test the researcher asked the student to choose the correct answer.

In this case, the researcher give a pre-test to the student of BBEC on Tuesday 14th of September 2021. The aim is to measure student learning outcome and to know student learning outcome before given treatment. There are 15 students conducting the pre-test. The result of pre-test is the following table :

Table 1

The Score of Pre-test

NO	STUDENTS NAME	SCORE	LETTER	CRITERIA
1	Sofiatus Sholehah	75	B	Satisfactory
2	Yeni Arika Wulandari	90	A-	Very Good
3	Intan Nor Ainy	45	C	Low
4	Raisya Faradila	95	A	Excellent
5	Lailatul Qamariah	75	B	Satisfactory
6	Makrifatul Hasanah	100	A	Excellent
7	Fitriyatul Kamilah	40	C-	Poor
8	Irmalatis Syarifah	95	A	Excellent
9	Fitriyatul Aini	100	A	Excellent
10	Nurlailatul Jannah	70	B	Satisfactory
11	Mi'ah	85	B+	Good
12	Lailatul Riskiyah	40	C-	Poor
13	Maulidatul Amina	85	B+	Good
14	Ira Fazira	90	A-	Very Good
15	Eva Susanti	100	A	Excellent
	$\sum x$	1185		

Based on the table above, 5 students got Excellent score, 2 students got very good, 3 students got satisfactory, 2 students got good score, 1 student low, and 2 students got poor score.

As for the total score of pre-test is 1185, to calculate mean of pre-test, the researcher uses the following formula :

$$X = \frac{\sum x}{N}$$

$$= \frac{1185}{15}$$

$$= 79,000$$

Explanation : X   =   Mean score of pre-test

$\sum x$ =   Total score of Pre-test

N   =   Total of student taking the test[1]

b. The Result of Treatment

For the next meeting on Wednesday, September 15 at 6:00 am, the researcher gave a treatment, the treatment is used four times meeting so the treatment is done on Saturday, September 18. The first treatment, the researcher conveyed the material about time signal and simple tenses using song self-created, the second treatment, the material that delivered is past and perfect, the third treatment, the researcher conveyed perfect continuous and sing vocabulary about verb that used in daily life, and the last treatment, sing all of song self-created together. The

---

[1] Hartono, *Statistik untuk Penelitian*, (Yogyakarta :Pustaka Pelajar, Offset, 2004), 30

researcher implemented song self-cereated as treatment with a steps, as following :

1) The researcher entered the class of BBEC

2) The researcher gave warming up to the student about 16 tenses and vocaulary of verb

3) The researcher introduced song self-cretaed that is written by the researcher about 16 tenses and vocabulary verb that used in daily life to student and gave the example to sing the song

4) The researcher explained the material (tenses and vocabuary of verb) using song self-created

5) The student understood and try to sing the song self-created together

6) It can sing for 15 minutes after that the researcher gave an exercises about tenses and vocabulary of verb that learned

7) The researcher closed the meeting by hamdalah

c. The result of Post-test

The researcher conducted post-test on September 19, 2021. Post-test gave to student after the researcher gave treatment (song self-created). There are 15 student of BBEC conducting post-test and these case the score of post test is higher than score of pre-test and many students get better score

achievement than in pre-test, these are 5 students got Excellent

score, 3 students got very good, 4 students got good score, 1

student sufficient, altough 2 students got low score but nothing

student in post-test got poor score. See in the table below :

Table 2

The Score of Post-test

NO	STUDENTS NAME	SCORE	LETTER	CRITERIA
1	Sofiatus Sholehah	85	B+	Good
2	Yeni Arika Wulandari	90	A-	Very Good
3	Intan Nor Ainy	50	C	Low
4	Raisya Faradila	100	A	Excellent
5	Lailatul Qamariah	80	B+	Good
6	Makrifatul Hasanah	100	A	Excellent
7	Fitriyatul Kamilah	50	C	Low
8	Irmalatis Syarifah	95	A	Excellent
9	Fitriyatul Aini	100	A	Excellent
10	Nurlailatul Jannah	80	B+	Good
11	Mi'ah	80	B+	Good
12	Lailatul Riskiyah	60	C+	Sufficient
13	Maulidatul Amina	90	A-	Very Good
14	Ira Fazira	90	A-	Very Good
15	Eva Susanti	100	A	Excellent

	$\sum y$	1250		

Based on the table above, the total score is 1250, to calculate mean of post-test, the researcher use the following formula :

$$Y = \frac{\Sigma y}{N}$$

$$= \frac{1250}{15}$$

$$= 83,333$$

Explanation : Y = Mean score of Post-test

Σy = Total score of Post-test

N = Total of student taking the test[2]

Table 3

The mean of pre-test and post-test achievement

Group	Number of Student	Score	Mean
Pre-test	15	1185	79,000
Post-test	15	1250	83,333

[2] Hartono, *Statistik untuk Penelitian*, 30

Based on the result above, mean of pre-test is 79,000 and mean of post-test is 83,333, the difference both of them is 4,333

2. **Data Analysis**

a. Validity of test instrument

After obtaining the score of pre-test and post test, the researcher will give prove about the validity of the t test that has been conducted. The researcher states that the test have content validity since the material that tested has been explained by the teacher. See in Appendix.

b. Reliability of test Instrument

A good test must be valid and reliable. Test reliability defines the degree in which a test consistently measures whatever it will measures. In this study the researcher used formula of Spearman Brown.[3]

In this case the reliability testing is applied individually, namely reliability testing of pre test and post test. They are explaining in the following above:

1) Reliability of Pre-test

The researcher splits the item of instrument into first halves and last halves. The correct answer will be score 1 and the wrong answer will get 0 scores.

---

[3] Suharismi Arikunto, *Prosedur penelitian suatu pendekatan praktik*, (Jakarta : PT Rineka cipta, 2006), 180

Table 4

The Pre-test Score

NO	Item Number																					
	First halves (X)											Second halves (Y)										
	1	2	3	4	5	6	7	8	9	10	score	1	2	3	4	5	6	7	8	9	10	score
1	1	1	1	1	0	0	1	1	1	1	8	0	0	0	1	1	1	1	1	1	1	7
2	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	1	1	1	0	0	8
3	1	1	1	1	0	0	0	0	0	0	4	1	1	1	0	0	0	0	0	1	1	5
4	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	0	1	1	1	1	1	9
5	1	1	1	1	1	1	1	1	1	1	10	1	1	1	0	1	0	1	0	0	0	5
6	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	1	1	1	1	1	10
7	0	0	1	1	0	0	1	0	1	0	4	0	0	0	0	0	0	1	1	1	1	4
8	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	1	0	1	1	1	9
9	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	1	1	1	1	1	10
10	1	1	1	1	1	1	1	1	1	1	10	0	0	0	0	1	0	1	0	1	1	4
11	1	1	1	1	1	1	0	1	1	1	9	1	1	1	1	1	1	1	1	0	0	8
12	0	0	0	0	1	1	0	0	0	0	2	1	1	1	0	0	1	0	0	1	1	6
13	0	0	1	1	1	1	1	1	1	1	8	1	1	1	1	0	1	1	1	1	1	9
14	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	1	0	0	1	1	8
15	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	1	1	1	1	1	10

Based on the table above, it is found the scores of each item

(X) and (Y), after that summing (X and Y) to get $\sum XY$ and

square (X) and (Y) to get $\sum x^2$ and $\sum y^2$, see in the table below :

Table 5

The result of $\sum X, \sum Y, \sum XY, \sum x^2, \sum y^2$

No	X	Y	XY	x^2	y^2
1	8	7	56	64	49
2	10	8	80	100	64
3	4	5	20	16	25
4	10	9	90	100	81
5	10	5	50	100	25
6	10	10	100	100	100
7	4	4	16	16	16
8	10	9	90	100	81
9	10	10	100	100	100
10	10	4	40	100	16
11	9	8	72	81	64
12	2	6	12	4	36
13	8	9	72	64	81
14	10	8	80	100	64
15	10	10	100	100	100

	125	112	978	1145	902

Before computing the reliability, the researcher had to correlate the score of first halves and second halves with the following formula :

$\sum x$ = 125

$\sum y$ = 112

$\sum xy$ = 978

$\sum x^2$ = 1145

$\sum y^2$ = 902

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum x^2 - (\sum x)^2\}\{N \sum y^2 - (\sum y)^2\}}}$$

$$= \frac{15 \times 978 - 125 \times 112}{\sqrt{\{15 \times 1145 - 125^2\}\{15 \times 902 - 112^2\}}}$$

$$= \frac{14670 - 14000}{\sqrt{\{17175 - 15625\}\{13530 - 12544\}}}$$

$$= \frac{670}{\sqrt{1550 \times 986}}$$

$$= \frac{670}{\sqrt{1.528.300}}$$

$$= \frac{670}{\sqrt{1\,236,24}}$$

$$= 0,541$$

The computation of r_{xy} was 0,541. After finding r_{xy} the researcher computed the reliability of pre-test, as follow :

$$r^{11} = \frac{2 \times r \, ^1/_2 \, ^1/_2}{1 + r \, ^1/_2 \, ^1/_2}$$

$$= \frac{2 \times 0{,}541}{1 + 0{,}541}$$

$$= \frac{1{,}082}{1{,}541}$$

$$= 0{,}702$$

Table 6

Table of Coffecience value of Correlation "r"

N	The Value of "r" in significant level of 5%
14	0,532
15	**0,514**
16	0,497

From the data above, the researcher can conclude that pre-test is reliable because the result of r^{11} is 0,702 is higher than "r" table in significant level of 5% is 0,514

2) Reliability of Post-test

The researcher splits the item of instrument into first halves and last halves. The correct answer will be score 1 and the wrong answer will get 0 scores

Table 7

The Post-test Score

NO	Item Number																					
	First halves (X)											Second halves (Y)										
	1	2	3	4	5	6	7	8	9	10	score	1	2	3	4	5	6	7	8	9	10	score

1	0	1	1	1	1	1	1	1	1	1	9	0	0	1	1	1	1	1	1	1	1	8
2	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	1	1	1	0	0	8
3	1	1	1	0	0	0	0	0	0	0	3	1	1	0	0	1	0	1	1	1	1	7
4	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	1	1	1	1	1	10
5	1	1	1	1	1	1	1	1	0	0	8	0	0	1	1	1	1	1	1	1	1	8
6	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	1	1	1	1	1	10
7	1	1	0	0	0	1	0	0	1	1	5	1	1	0	0	0	0	0	1	1	1	5
8	1	1	1	1	1	0	1	1	1	1	9	1	1	1	1	1	1	1	1	1	1	10
9	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	1	1	1	1	1	10
10	1	1	1	1	1	1	1	0	1	0	8	1	1	1	1	1	0	1	0	1	1	8
11	1	1	1	1	1	1	1	0	0	1	8	1	1	1	1	1	1	1	0	1	0	8
12	0	0	1	0	1	1	1	1	1	1	7	1	1	1	1	0	0	0	0	0	1	5
13	1	1	0	1	1	1	1	0	1	1	8	1	1	1	1	1	1	1	1	1	1	10
14	1	1	1	1	1	1	1	1	1	0	9	1	1	1	1	1	1	1	1	0	1	9
15	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	1	1	1	1	1	10

Based on the table above, it is found the scores of each item (X) and (Y), after that summing (X and Y) to get $\sum XY$ and square (X) and (Y) to get $\sum x^2$ and $\sum y^2$, see in the table below :

Table 8

The result of $\sum X, \sum Y, \sum XY, \sum x^2, \sum y^2$

No	X	Y	XY	x^2	y^2
1	9	8	72	81	64

2	10	8	80	100	64
3	3	7	21	9	49
4	10	10	100	100	100
5	8	8	64	64	64
6	10	10	100	100	100
7	5	5	25	25	25
8	9	10	90	100	81
9	10	10	100	100	100
10	8	8	64	64	64
11	8	8	64	64	64
12	7	5	35	49	25
13	8	10	80	64	100
14	9	9	81	81	81
15	10	10	100	100	100
	124	126	1076	1082	1100

Before computing the reliability, the researcher had to

correlate the score of first halves and second halves with the

following formula :

$\sum x$ = 124

$\sum y$ = 126

$$\sum xy \quad = 1076$$

$$\sum x^2 \quad = 1082$$

$$\sum y^2 \quad = 1100$$

$$r_{xy} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\{N \sum x^2 - (\sum x)^2\}\{N \sum y^2 - (\sum y)^2\}}}$$

$$= \frac{15 \times 1076 - 124 \times 126}{\sqrt{\{15 \times 1082 - 124^2\}\{15 \times 1100 - 126^2\}}}$$

$$= \frac{16140 - 15624}{\sqrt{\{16230 - 15376\}\{16500 - 15876\}}}$$

$$= \frac{516}{\sqrt{854 \times 624}}$$

$$= \frac{516}{\sqrt{532\ 896}}$$

$$= \frac{516}{\sqrt{729,99}}$$

$$= 0,706$$

The computation of r_{xy} was 0,706. After finding r_{xy} the

researcher computed the reliability of post-test, as follow :

$$r^{11} = \frac{2 \times r\ 1/2\ 1/2}{1 + r\ 1/2\ 1/2}$$

$$= \frac{2 \times 0,706}{1 + 0,706}$$

$$= \frac{1,412}{1,706}$$

$$= 0,827$$

Table 9

Table of Coffecience value of Correlation "r"

N	The Value of "r""in significant level of 5%

14	0,532
15	**0,514**
16	0,497

From the data above, the researcher can conclude that post-test is reliable because the result of r^{11} is 0,827 is higher than r table in significant level of 5% is 0,514

c. Determining "t" Test

The researcher computed dependent test (X_1 : pre-test) and (X_2 : post-test). The calculation is D (difference) = (X_1–X_2) and D^2= square D score. See the table below :

Table 10

The Score of Dependent test

No	Score of Pre-test (X_1)	Score of Post-test (X_2)	D = (X_1– X_2)	D^2= (X_1- X_2)
1	75	85	-10	100
2	90	90	0	0
3	45	50	-5	25
4	95	100	-5	25
5	75	80	-5	25
6	100	100	0	0
7	40	50	-10	100
8	95	95	0	0

9	100	100	0	0
10	70	80	-10	100
11	85	80	+5	25
12	40	60	-20	400
13	85	90	-5	25
14	90	90	0	0
15	100	100	0	0
	SUM		-65	825

After knowing the computation of dependent test, the next step is counting t-test. According to Sudjiono there are some steps in looking for t-test. Here some steps of counting t-test as follow :

a. Looking for D (difference) between score of pre-test and post-test, the calculation is D = (X_1 $-X_2$). See in the table 10.

b. Summing D until it gets ΣD it is obtain by adding all of the score of D, as it can be seen in the table 10 ΣD = - 65

c. Looking for mean of difference, by formula :

$$M_D = \frac{\Sigma D}{N}$$

$$= \frac{65}{15}$$

$$= 4{,}33$$

d. Square all of D score, then add all of square D score. In the table 10 the researcher obtain $\sum D^2$ = 825

e. Determining standard deviation from D by formula :

$$SD_D = \sqrt{\frac{\sum D^2}{N} - (\frac{\sum D}{N})^2}$$

$$= \sqrt{\frac{825}{15} - (\frac{65}{15})^2}$$

$$= \sqrt{55 - 4{,}33^2}$$

$$= \sqrt{55 - 18{,}7489}$$

$$= \sqrt{36{,}2511}$$

$$= 6{,}020$$

f. Determining standard error of mean by formula :

$$SE_{MD} = \frac{SD_D}{\sqrt{N-1}}$$

$$= \frac{6{,}020}{\sqrt{15-1}}$$

$$= \frac{6{,}020}{\sqrt{14}}$$

$$= \frac{6{,}020}{3{,}7416}$$

$$= 1{,}608$$

g. Determining t_o formula[4]

$$t_o \quad = \frac{MD}{SE_{MD}}$$

$$= \frac{4{,}33}{1{,}608}$$

$$= 2{,}692$$

Based on calculation of dependent t-test, the researcher found t_o was 2,692, to know whether alternative hypothesis is rejected or accepted, it must be done of the process of hypothesis testing

B. Hypothesis testing

Based on the calculation above it can be viewed the value t_o is 2,692. Hypothesis testing is used to know whether Ha (Alternative hypothesis) is rejected or accepted. In this research, the researcher used 5% level of significance. If "t" values is higher than or at least has the same value with "t" table, the alternative hypothesis is accepted. However, if "t" value is lower than "t" table, the alternative hypothesis is rejected.

The first step is determine df (degree of freedom). While the formula of df is df = N-1, where N is number of participants (N=15), so

---

[4] Anas Sudjiono, *Pengantar Statistik Pendidikan* (Jakarta: Rajawali Pers, 2014), 305.

the degree of freedom is 15-1=14. After knowing df, it is consulted to "t"

value on the level of significance 5% (0,05) with value of significance is

$(\alpha/2) = (0,05/2 = 0,025)$. It can be seen in the table

Table 11

Critical value of t-test

df	t0.10	t0.05	t0.025	t0.01	t0.005
13	1.350	1.771	2.160	2.650	3.012
14	1.345	1.761	**2.145**	2.624	2.977
15	1.341	1.753	2.131	2.602	2.947

After t_o compare with the "t" table. The researcher states that the

null hypothesis is rejected and alternative hypothesis is accepted because

$t_o > t_t$ (2,692 > 2,145)

From the statement above, the researcher conclude that student of

BBEC have better learning oucome after taught by using song self-created.

To know how significance of song self-created influence student lerning

outcome, it is known by change t_o = 2,692 to percent the result is

269,2%. So it can be concluded that Song self-created has a significant

effect on student learning outcome with 269,2%.

C. Discussion

This part presents a discussion of this result. The result shows there

is an effect of using song self-created on student learning outcome, this is

proven with compare "t" value of this research with "t" table. The "t"

value is 2,692. This value is higher than "t" table in level of significance 5% with N 15.

After the researcher examine the student of BBEC use pre-test and post-test, the researcher know if there is differences between student after taught by using song self-created have better learning outcome than student before taught using song self-created at BBEC Mambaul Ulum Bata-Bata Palengaan Pamekasan. It is proven from the mean of post-test 83,333 is higher than mean of pre-test 79,000. Beside that after provide treatment (song self-created) the score achievement obtained by students are better than before provide tretament, these are 5 students : Excellent score, 3 students : very good, 4 students : good score, 1 student : sufficient, 2 students : low score, and nobody student got poor score.

Based on analysis data by using "t" test formula that researcher done. The researcher can know that student of BBEC have better English learnig outcome after the implementation of model English Learning based on Song Self-Created at BBEC Mambaul Ulum Bata-Bata Palengaan Pamekasan. So the hypothesis of this research is accepted, it means this methotd (song self-created) is advisable to use in English learning because song self created is having a significance effect on students learning outcome with 269,2%.