CHAPTER IV

FINDING AND DISCUSSION

In this chapter, the researcher presented the finding and discussion of the research. In the finding research, the researcher showed all the data that collected during the research and in the discussion, the researcher analyzed all the data in finding item.

4.1. Research Finding

In this chapter, the researcher discussed about the result of the validity of the test and the result of morphological awareness test and vocabulary level test that were conducted on the subject of the research. The data were collected from two classes of fifth semester of English Language Education Study Program UNISNU Jepara in academic year of 2020/2021. The total participants of this research were 47 students. Before administrated the test, there were also validity of the instruments which were given to the seventh semester of English Language study program of UNISNU Jepara.

The first test that administrated to the participant was morphological awareness. The test conducted on October 8[th,] 2020. The second test was vocabulary level test that conducted on October17[th,] 2020. After each data was analyzed, the researcher analyzed both data by applying formula and Pearson's

Correlation Product Moment in SPSS 20.0 version to see the correlation between

Morphological Awareness and Vocabulary Mastery.

4.1.1 The Validity and Reliability of the Test
4.1.1.1. Validity

    1. Validity Content

        The researcher used validity content and validity construct to

provide participant with valid instrument evidence. The researcher

consulted to the lecturer of Linguistic subject on the validity of the tool

in which the subject of the research would be given and the researcher

chooses to be expert that would give validity of the test.

Table 4.1 Format Validity Content

No	Question	Yes	No	Comment
1.	Do the indicators in the test instrument have covered all aspects measured?	✓		
2.	Are the direction and the instructions of test instrument clear enough?	✓		
3.	Is the time allocation quite effective?	✓		

| 4. | Does the assessment rubric has covered all aspects and indicators measured? | ✓ | | |
| 5. | Is the assessment rubric quite understandable? | ✓ | | |

In this research used content validity. The test was tested by experts (lecturer of Linguistic subject at English Language Study Program UNISNU Jepara) before being tested to the students. So, based on the table above, the result of the test validation showed that the experts agreed with all the aspects that had tested. So, it could be concluded that the instrument of this research was valid.

2. Validity Construct

The researcher also used validity construct, validity construct is concered with the extet to which an instrument measure concept or construct designed to measure (Brink & Wood 2008:274). There were two kind of test in this research, morphoogical awareness test and vocabulary mastery.

a. The Validity of Morphological Awareness Test

Morphological Awareness test was divided into two sections, the first section is Morpheme identification test that contained of 15 questions. It explained the results of the validity test by using SPSS 20.0 in a table below:

Table 4.2 Validity of Morpheme Identification Test

Number Of Item	Pearson Correlation	Sig	r_{table}	Criteria
1	0,343	0,210	0,514	No Valid
2	0,539	0,038	0,514	Valid
3	0,832	0,000	0,514	Valid
4	0,291	0,292	0,514	No Valid
5	0,593	0,200	0,514	Valid
6	0,688	0,005	0,514	Valid
7	0,497	0,590	0,514	No Valid
8	0,873	0,000	0,514	Valid
9	0,187	0,504	0,514	No Valid
10	-0,22	0,937	0,514	No Valid
11	0,521	0,046	0,514	Valid
12	0,709	0,003	0,514	Valid
13	0,812	0,000	0,514	Valid
14	0,736	0,002	0,514	Valid
15	0,596	0,019	0,514	Valid

Based on the table 5 above ,it can be seen there were 10 questions from 15 questions that valid. The researcher used r_{table} with the

level of significances 5% and it was 0,514. The item can be valid if r(pearson correlation>0,514.

Table 4.3 Validity of Morpheme Categories Test

Number of Item	Pearson Correlation	Sig	r_table	Criteria
1	0,680	0,005	0,514	Valid
2	0,574	0,250	0,514	Valid
3	0,762	0,001	0,514	Valid
4	0,680	0,005	0,514	Valid
5	0,574	0,025	0,514	Valid
6	0,600	0,180	0,514	Valid
7	0,715	0,003	0,514	Valid
8	0,599	0,018	0,514	Valid
9	0,600	0,180	0,514	Valid
10	0,584	0,022	0,514	Valid
11	0,715	0,003	0,514	Valid
12	0,515	0,049	0,514	Valid
13	0,703	0,003	0,514	Valid
14	0,419	0,120	0,514	No Valid
15	0,198	0,478	0,514	No Valid
16	0,241	0,386	0,514	No Valid
17	0,680	0,005	0,514	Valid
18	0,692	0,004	0,514	Valid

19	0,373	0,171	0,514	No Valid
20	0,186	0,507	0,514	No Valid
21	0,013	0,964	0,514	No Valid
22	0,884	0,000	0,514	Valid
23	0,809	0,000	0,514	Valid
24	0,742	0,002	0,514	Valid
25	0,815	0,000	0,514	Valid
26	0,431	0,109	0,514	No Valid
27	0,815	0,000	0,514	Valid
28	0,285	0,303	0,514	No Valid

Table 6 showed the result of validity for morpheme categories test which the second section of morphogical awareness tet. It can be seen that there were 20 questions were valid from 28 questions because all the items were valid have $r_{xy} > r_{table.}$ The reseracher used level of signifances 5 %(0,05).

b. The Validity of Vocabulary Level Test

Vocabulary Level test is used to measure the participants' vocabulary knowledge. Before tested to the participant , the researcher analyzed by using SPSS to check the validity of the test. The result was below :

Table 4.4 Validity of Vocabulary Level Test

Number Of Item	Pearson Correlation	Sig	r_{table} (5%)	Criteria
1	0,844	0,000	0,514	Valid
2	0,762	0,001	0,514	Valid
3	0,730	0,002	0,514	Valid
4	0,775	0,001	0,514	Valid
5	0,459	0,850	0,514	No Valid
6	0,540	0,038	0,514	Valid
7	0,701	0,004	0,514	Valid
8	0,787	0,000	0,514	Valid
9	0,816	0,000	0,514	Valid
10	0,821	0,000	0,514	Valid
11	0,845	0,000	0,514	Valid
12	0,855	0,000	0,514	Valid
13	0,634	0,011	0,514	Valid
14	0,188	0,502	0,514	No Valid
15	0,860	0,000	0,514	Valid
16	0,231	0,407	0,514	No Valid
17	0,844	0,000	0,514	Valid
18	0,865	0,000	0,514	Valid
19	0,517	0,048	0,514	Valid
20	0,382	0,160	0,514	No Valid

21	0,194	0,489	0,514	No Valid
22	0,656	0,008	0,514	Valid
23	0,885	0,000	0,514	Valid
24	0,752	0,001	0,514	Valid
25	0,710	0,003	0,514	Valid

Based on the table 7, it showed that there were 20 questions were valid because all items that have $r_{xy > table.}$ Number 5,14,16,20,21 were not selected to be tested to participant.

4.1.1.2. Reliability of the test

To find out the reliability of the instrument, the researcher used *Cronbach's Alpha* formula in *IBM SPSS Statistics 20*. It was aimed to know that the instrument was reliable or not. The result of Cronbach's Alpha formula in examining the reliability of the instrument can be seen in the table below:

Table 4.5 Reliability of morphological awareness test section 1

Reliability Statistics	
Cronbach's Alpha	N of Items
,769	15

Based on the table above, it showed that reliability of Cronbach's Alpha in this research was 0,769> 0,60. It could be concluded that the test was reliable.

Table 4.6 Reliability of Morphological Awareness Test Section 2

Reliability Statistics	
Cronbach's Alpha	N of Items
,910	28

Based on the table above, it showed that reliability of Cronbach's Alpha in this research was 0,910> 0,60. It could be concluded that the Morphological Awareness Test Section 2 was reliable.

Table 4.7 Reliability of Vocabulary Level Test

Reliability Statistics	
Cronbach's Alpha	N of Items
,755	26

Based on the table above, it showed that reliability of Cronbach's Alpha in this research was 0,755> 0,60. It could be concluded that the vocabulary level test was reliable.

4.1.2. Data Analysis

The researcher collected the data by conducting two tests, the morphological awareness test and vocabuary level test. The two classes of students of fifith semseter of English Language Education Study ProgramUNSNU Jepara in academic year 20162017 had completed the both tests. The total of students were 54 ,who have followed the test were

47 students, because 10 students did not join the class. The technique in scoring of both tests, the researcher uses the following technique:

$$Score = \frac{students'correct\ answer}{total\ number\ of\ item} \text{ x } 100$$

a. **Morphological Awareness Score**

From the technique in calculating score above, the result of Morphological Awareness Test which consist of 30 questions, the score of 47 students were as in the table follows:

Table 4.5 Score of Students'Morphological Awareness Test

No	Students' Name	Morphological Awarness Test
1	V.R.F	80
2	A.K	90
3	T.F.A.A	57
4	O.J.W	70
5	A.A	83
6	E.A.A	53
7	S.A.N	77
8	R.D.N	47
9	M.N.F	57
10	R.N	67
11	S.M.A	70

12	S.F	80
13	R.O	40
14	A.S	73
15	M.I.S	57
16	M.R.S	60
17	R.H.B.R	87
18	L.E.R	83
19	U.I.F	47
20	M.R.U	77
21	M.V.K	70
22	A.F	54
23	M.I.S.A	63
24	F.W	93
25	A.A.S	80
26	N.A.A	77
27	M.G.P	57
28	I.A.P	63
29	E.H.H	70
30	D.N.K.M	33
31	J.M.T	87
32	S.F.D	87
33	P.A.S	37

34	D.P.R		33
35	N.M.N		80
36	N.S		57
37	K		50
38	G.L.I		47
39	E.P.B		53
40	M.I.F		57
41	K.A		53
42	D.A.R		50
43	S.M.C		33
44	M.N.F		40
45	M.N.I		43
46	F.Z.F		37
47	M.F		97

Table 4.6 Descriptive Statistics

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
Morphological Awareness	47	64	33	97	62,87	2,599	17,821	317,592
Valid N (listwise)	47							

The table above showed that the total data was 47 respondents , the range of this data was 64, the maximum score was 97 and the minimum score is 30. The mean of the data 62,87 and standard derivation is 17,821.
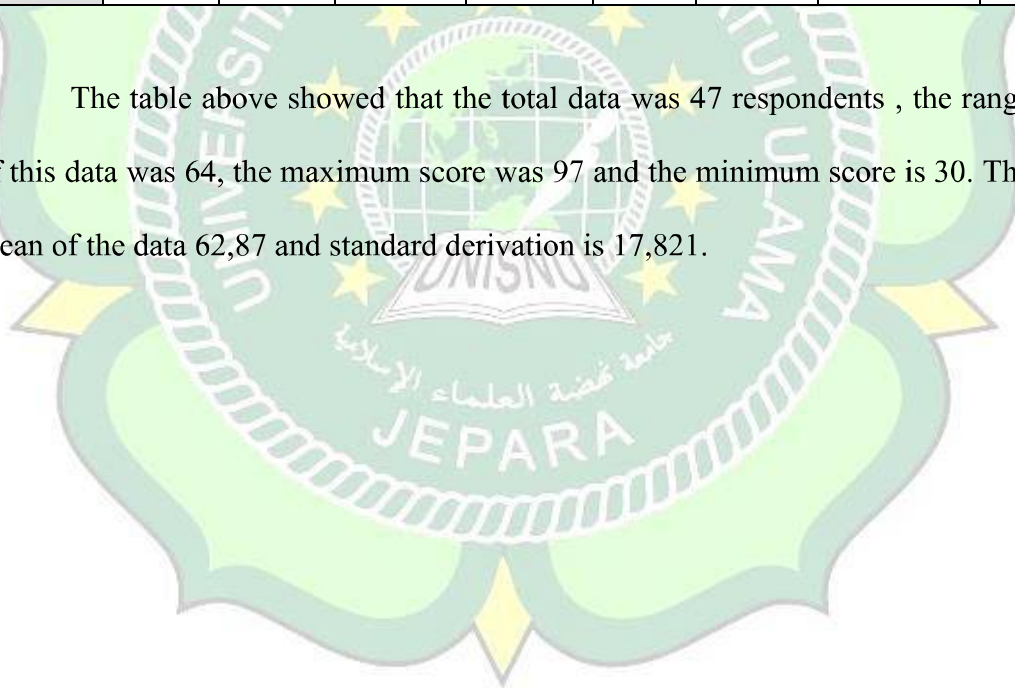
Table 4.7 The Analysis of Level Measurement of Students' Morphological Awareness Test

Interval	F	Criteria	Precentage
89-100	3	Excellent	6 %
73-88	13	Good	28 %
56-72	14	Enough	30%
40-55	12	Poor	26%
Under 39	5	Failed	10 %
F	47		100%

(source : Nafiah, 2017:55)

F : *frequency of score*

From the counting above, it is able to be seen that morphological awareness for the fifth semester students of English Education Study Program UNISNU Jepara is varietes. There were 6% or 3 students got excellent catergorization, 28% or 13 students got the good categorization ,30 % or 14 students got enough categorization, 26 % or 12 students got Poor categorization and 10 % or 5 students got the fair. It can be concluded that most of students' morphological awareness level is on enough categorization.

b. **Vocabulary Mastery Score**

Vocabulary Level Test was adminstrated to determine participants' vocabulary mastery. The test consisted of 20 questions. Each question has six

words and three meaning. The maximum score of this test was 60. The following table explained the result of students' vocabulary level test after it have accumalated :

Table 4.8 Score Of Vocabulary Level Test

No	Name	Vocabuary Level Test Score
1	V.R.F	93
2	A.K	93
3	T.F.A.A	50
4	O.J.W	88
5	A.A	90
6	E.A.A	47
7	S.A.N	78
8	R.D.N	35
9	M.N.F	58
10	R.N	75
11	S.M.A	98
12	S.F	92
13	R.O	33
14	A.S	87
15	M.I.S	52
16	M.R.S	55
17	R.H.B.R	90

18	L.E.R	82
19	U.I.F	70
20	M.R.U	82
21	M.V.K	75
22	A.F	43
23	M.I.S.A	67
24	F.W	100
25	A.A.S	82
26	N.A.A	87
27	M.G.P	52
28	I.A.P	58
29	E.H.H	92
30	D.N.K.M	28
31	J.M.T	93
32	S.F.D	90
33	P.A.S	40
34	D.P.R	43
35	N.M.N	65
36	N.S	73
37	K	30
38	G.L.I	65
39	E.P.B	33

40	M.I.F	48
41	K.A	52
42	D.A.R	35
43	S.M.C	43
44	M.N.F	40
45	M.N.I	32
46	F.Z.F	53
47	M.F	98

Table 4.9

Descriptive Statistic

Descriptive Statistics								
	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
vocabulary mastery	47	72	28	100	65,21	3,320	22,761	518,084
Valid N (listwise)	47							

From the data above, By implementing the SPSS program, it reveals that the range score is 72, the minimum score is 28, the maximum score of the students is 100, the mean score of students is 65,21 , and the standard score deviation is 22,761.

Table 4.10 The Analysis of Level Students' Vocabulary Level Test

Interval	F	Criteria	Precentage
86-100	13	Excellent	27 %
66-85	12	Good	25 %
46-65	14	Enough	30%
26-45	8	Poor	18 %
Under 25	-	Failed	
F	47		100%

(source : Depdikbud, 2004:10)

F : *frequency of score*

From the data above , it can be seen that there were 27 % or 13 students got excellent categorization, 25 % or 12 students got good categorization, 30 % or 14 students got enough categorization and 18 % or 8 students got poor categorization. Most of students' vocabulary level is in enough categorization.

4.1.3. Normality and Linearity test of The Data
a. Normality Test

Normality tets was used to know wether the residual value is normally distributed or not (Apriyono & Taman , 2013:32). The reseracher used SPSS 20.0 version to check the normlity of the data. The normality test is conducted using Kolmogrov Smirnor tst to acces the residual value of the regression equation. The data is declared normal , if the significant

value is greater that 0,05 (sig > 0,05). While if the significant value is less than 0,05 , the data is not normally distributed.

Table 4.11

One-Sample Kolmogorov-Smirnov Test		
		Unstandardiz ed Residual
N		47
Normal Parameters[a,b]	Mean	,0000000
	Std. Deviation	11,00282773
Most Extreme Differences	Absolute	,099
	Positive	,099
	Negative	-,060
Test Statistic		,099
Asymp. Sig. (2-tailed)		,200[c,d]
a. Test distribution is Normal.		
b. Calculated from data.		
c. Lilliefors Significance Correction.		
d. This is a lower bound of the true significance.		

The table above showed that significant of the data was 0,200. It means that sig =0,200 > 0,05. The significant of the data showed that it was more than 0,05. It could be concluded that the data was normal.

b. Linearity Test

The linearity test was conducted to recognize whether the correlation between thevariable were liner or not. The researcher used SPSS 20.0 to measure the linearity test. The data was declared linear if the p-value (deviation fromlinearity) was greater than 0,05(p-value > 0,05)

and if the p-value was less than 0,05 (p-value < 0,05) , the data was not linear. The result of linearity as follow

Table 4.12

			Sum of Squares	df	Mean Square	F	Sig.
	ANOVA Table						
vocabulary mastery * morphological awareness	Between Groups	(Combined)	21315, 539	19		1121, 870	
		Linearity	18263, 010	1		18263 ,010	
		Deviation from Linearity	3052,5 29	18		169,5 85	
	Within Groups		2516,333	27	93,1 98		
	Total		23831,872	46			

Based on the table above,it showed that p-value was 0,078 and α = 0.05. it meansthat Sig (p-value) > α 0,078>0.05. It can be concluded that the data was linear.

4.1.4. The Correlation Between Students' Morphological Awarenes And Vocabulary Mastery

The analysis of correlation is using the Pearson Product Moment formula. The researcher used Microsot Excel and SPSS 20.0 to measure the correlation between morphological awareness and vocabulary mastery. Some calculation of the test result indeed tbe applied in the formula, here are details as table follows :

Table 4.13

The Result of Product Moment

Correlations		MORPHOLO GICAL AWARENESS	VOCABUL ARY MASTERY
MORPHOLOGICAL AWARENESS	Pearson Correlation	1	,880[**]
	Sig. (2-tailed)		,000
	N	47	47
VOCABULARY MASTERY	Pearson Correlation	,880[**]	1
	Sig. (2-tailed)	,000	
	N	47	47
**. Correlation is significant at the 0.01 level (2-tailed).			

The data that had been calculated by using formula as it was discovered about result of the correlation ,then it would be intrepeted by the researcher. The correlation coefficient between morphological awarenesss and vocabulary mastery tended to be 0,88 at aignificant level of 0.01. The coeffiecient correlation was higher than critical value r table (0,88 > 0,331). The table of the interpretation of Product moment score can be seen to give the simple interpretation towards a correlation index Product Moment (r_{xy})

Table 4.14

The Interpretation of The Value Or Level Correlation

"r" count	Interpretation
0,800-1,00	The Correlation is High
0,600-0,800	The Correlation is Quite High
0,400-0,600	The Correlation is Fairy Low
0,200-0,400	The Correlation is Low
0,000-0,200	The Correlation is Very Low (there is no correlation)

(Arikunto,2018:316)

From the calculation of Pearson Product moment correlation , the researcher got the the result r_{xy}=0,88 (it's between 0,800-1,00). According to the simple interpretation above, the researcher concluded that the correlation beween variable X and variable Y was high.it meant that there was high correlation between morphological awareness (Variable X) and vocabulary mastery (Variable Y).

4.1.6. The Test of Hypothesis

To know the signifance of the coefficient correlation (t_{count}), the next step was tetsting the value of r_{xy} with the formula below :

$$t_{count} = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-1}$$

$$= \frac{0,875}{\sqrt{1-0,875^2}} \times \sqrt{47-1}$$

$$= \frac{0,875}{\sqrt{1-0,765625}} \times \sqrt{46}$$

$$= \frac{0,875}{\sqrt{0,234375}} \times 6,782$$

$$= \frac{0,875}{0,484} \times 6,782$$

$$= 12,261$$

The result of value of t_{count} was 12,261. The value of t_{count} will be compared with the t_{table} to measure the hypothesis of this reserach. The interpretation of r_{table} was used in this research. The researcer found out the degree of freedom (df) to get T_t (T table) with the formula :

df $= N - k$

$= 47-1$

$= 46$

Based on the table of significance df (46), it was found that the degree of signifance 5 % was 1,679 and the degree of significance 1 % was 2,410. Therefore, it can be stated that $t_{count} < t_{table}$ with the level of significant of 5% and 1 % .

5 % = $t_{count} < t_{table} = 1,679 < 12,261$

$1\% = t_{count} < t_{table} = 2,414 < 12.261$

Therefore , it can be stated that t_{table} was lower than t_{count}. From the calculation, it caused the H_A (Alternatif Hypotheses) is acceppted and H_o (Null Hypothesis) is rejected. There were the formulations of hypothesis of this research : Alternative hypothesis (Ha) : there is correlation between morphological awareness and vocabulary mastery of fifth semester students of English Languge Education Study Program University of Nahdlatul Ulama Jepara

a. Null hypothesis (Ho) : there is no correlation between morphological awareness and vocabulary mastery of fifth semester students of English Language Education Study Program Islamic University of Nahdlatul Ulama Jepara

From the calculation above, the researcher followed some assumption as below :

a. If the result of calculation t_{count} is higher than t_{table} $t_o > t_t$, the alternative hyppothesis (H_A) is accepted and the null hypothesis (H_o) is rejected.

b. If the result of calculation t_{count} is lower her than t_{table} $t_o < t_t$, the alternative hyppothesis (H_o) is accepted and the null hypothesis (H_o) is rejected.

Based on the description of above, the result of data analysis was t_{count} is higher than t_{table} ($t_o > t_t$). It can be concluded that H_A was accepted and H_o is rejected.

4.2. Discussion

This section discussed the result of the data analysis.The objectives of this research is to find out how is the correlation between morphological awareness and vocabulary mastery of fifth semester of English Language Education Study Program UNISNU Jepara in Academic year 2020/2021. The researcher found that from calculating Pearson's Product moment correlation, got the result from r_{xy}=0,875 (it is between 0,800-1,00), it means that the correlation in this study in high level.

On the T table the significance 5%= t_o: t_t=12,261 > 1,679. It means that t_o is higher that t_t. While in significance 1%= t_o: t_t = 12,261 > 2,410. It means that t_o is higher than t_t. It can be concluded that H_A is accepted and Ho is rejected. It meant that correlation between morpphological awareness and vocabulary mastery of fifth semester students of English Language Education study program UNISNU Jepara in academic year 2020/2021.

Based on the statement above, the researcher stated that the morphological awareness have significance correlation with vocabulary mastery. The vocabulary level test was designed to measure the students' vocabulary mastery. The increasing difficulty of the word in the test as the levels incresed might have had a negative effect on the score or affected the correlation between morphological awareness and vocabulary mastery. Each level of vocabulary level test is not equal interval ,it became increasingly difficult for students to be exposed to vocabulary associated

with that level of word families. Another factor that might have affected between morphlological awareness and vocabulary mastery is the modification of the morphological awareness test. the original test was designed for kindergartens and second graders. The modifications were made by the researcher tomake the test was appropiate for university students. In line with the result , Chang et al (2005) stated that morphological awareness was significantly corrected with the word identification , word attack and vocabulary scores. To sum up, after measure the correlation ,there was a high correlation between morphological awareness and vocabulary mastery on fifith semester of English Language Education Study Program UNISNU Jepara in Academic Year of 2020/2021.

Based on the research finding, it was similar some previous related finding. The first is Adam (2018), The second research was from Singgih (2014) The next research was from Khodadoust (2013) and The last research was from Nurhemida (2007). All the researches indicated that there were positive correlation between morphological awareness and vocabulary mastery. By seeing some of related finding above, the researcher concluded that the morphological awareness and vocabulary mastery have significant correlation.

The knowledge of morphological awareness contributed to help increasing vocabulary size. Another way that morphological awareness may lead to comprehension , which eventually increase vocabulary size by

faciliting the process of breaking down morphologically complex words. Understanding the morphologically complex word is the way students to apply their morphological knowledge to break down the complex words into meaningful morphemes as the learing strategy to understand the word of meaning. Moreover, categorizing the word according to the students' frequency level of vocabulary that facilitate the acquisition of word and help students to learn the most frequent words. The more students were aware of the morphological , the better their improvement in their vocabulary mastery. The correlation between morphological awareness test and vocabulary mastery was high, it meant that morphological awareness could give the influence to vocabulary mastery in order to be improved and strenght. For example , students got score 93 in morphological awareness test and got 100 in vocabulary level test. These student were gained best score in both test. Student who got the lower score in both test (both in morphological awareness test and 40 in vocabulary level test). The example showed that the higher students'' morpphological awareness score , the higher theit vocabulary level test score. By applying morphological awareness as learning strategy it contributed on the students' vocabulary mastery