Chapter four

Finding and Discussion

This chapter explains the research findings and discussion around three research questions. The questions were about reading comprehension, vocabulary knowledge and the correlation between reading comprehension level and vocabulary knowledge for students in ELED of PUY batch 2016. The research finding presents data based on the data gathered by the researcher from before data research. Then in the discussion, the findings were explained based on the result of data.

Finding

In this part, the researcher presents the findings for three research questions. The first research question was "What is the students' reading comprehension at English Language Education Department?" The second research question was "How is the students' vocabulary knowledge at English Language Education of Department?" Then, the last question was "is there any correlation between students' reading comprehension and vocabulary knowledge at English Language Education Department?" This research was conducted in ELED of PUY. The findings of the research are explained as follows:

Finding. 1. The students' reading comprehension at ELED of PUY batch 2016.

The first research question was about students' reading comprehension at ELED of PUY batch 2016. The reading comprehension grades were taken from the

students' TOEFL post-test score of ELED of PUY students' batch 2016 for the reading section. The researcher collected the data from data-based uploaded in the ELED of PUY website. The minimum TOEFL score for the reading section was 32 and the maximum score was 53. Based on Genius TOEFL (2018) the reading comprehension level score levels have four categories (see in Table 3.1). They were the intermediate score, low intermediate score, high intermediate score, and advance score in TOEFL categories. Their result of students' reading comprehension in TOEFL is showed as follows:

The Students Reading Comprehension Level	Frequency	Percent
Intermediate: 310 - 420	31	38.8
Low intermediate: 421-480	36	45.0
High intermediate: 481-520	11	13.7
Advance: 520-677	2	2.5
Total	80	100.0
The Mean score		43,8

Table 4.1 the result of students reading comprehension level

Based on the result in the table above, the total of students were 80 students. Based on table 4.1, 31 students were at the intermediate level, 36 students are in the low intermediate level, 11 students are in the high intermediate level, and 2 students are in the advanced level. Then, it can be seen in the next figure. The total mean score

of reading comprehension is 43,8, which means that the reading comprehension of the ELED of PUY students' batch 2016 is in the low intermediate level.
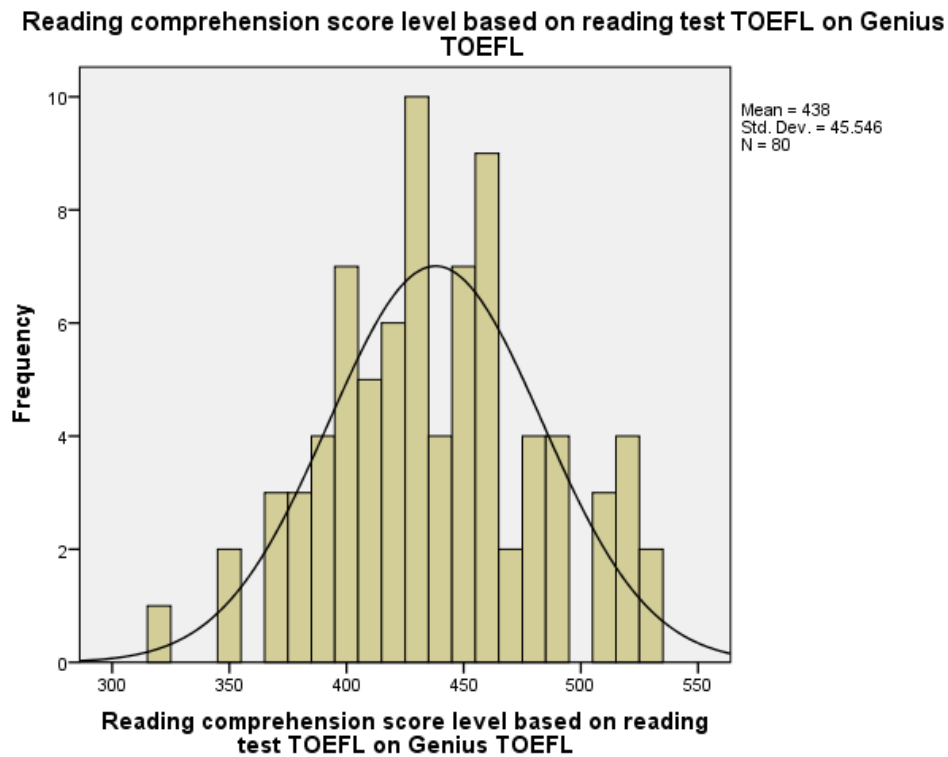

Figure 4.2 Reading Comprehension Score Level based on Reading

The graphic showed the result of reading comprehension score level. Dev with number 45.546, the minimum with number 32, and the maximum with number 53. The histogram showed if students of ELED of PUY batch 2016 had the mean score of the reading comprehension level of 43,8. Therefore, based on the table of reading comprehension level, the students are included in the low intermediate category in TOEFL score for reading comprehension level.
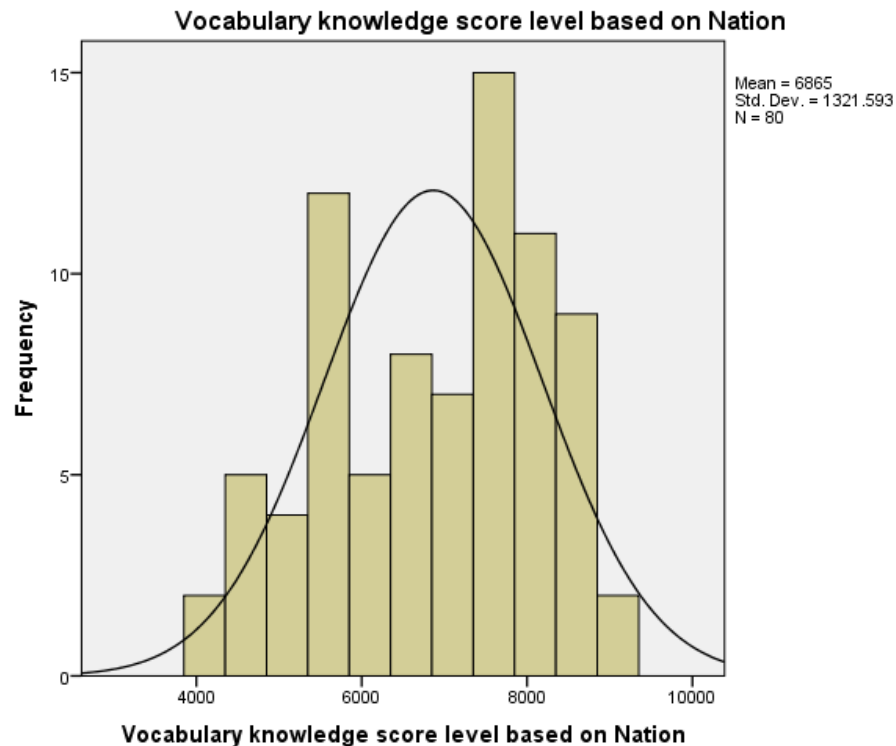
Finding. 2. The students' vocabulary knowledge in ELED of PUY batch 2016.

The second research question of this research was "How is student's vocabulary knowledge in ELED of PUY?" The score of vocabulary can calculated before all data already submitted. The data showed that the minimum score was 1.000 and the maximum score was 14.000. The score was calculated with multiplying the score with 100. If the students get the score 35x100= 3.500, so students get the score 3.500. The test based on Nation (2012) had 140 questions for knowing vocabulary knowledge score.

The Students Vocabulary Knowledge Level	Frequency	Percent
High Frequency: 1000-2000	0	0
Mid Frequency: 3000-9000	80	100
Low frequency: 10.000-14.000	0	0
Total	80	100
The Mean score		6865

Table 4.3 the result of student's vocabulary knowledge

Based on the result in table 4.3, the total of students is 80 students. Based on the result of the table, 80 students were in mid-frequency level. Then, the total mean score of vocabulary knowledge is 6865; it means that based on Nation (2012), students' vocabulary knowledge for university students was in mid frequency level (3000-9000 words).

Graphic 4.3 Vocabulary Knowledge Score Level

The graphic showed the result of the vocabulary knowledge scores based on Nation (2012). The result of graphic are in the Std. Dev 1321.593, the minimum with number 4100, and the maximum with number 8900. Thus, the histogram showed score for the students of ELED of PUY have mid frequencies category in the vocabulary knowledge test.

Finding. 3. The correlation between students' reading comprehension level and students' vocabulary knowledge in ELED of PUY.

The last research question for this research is "Is there any correlation between students reading comprehension level and students vocabulary knowledge in ELED of PUY. The researcher used SPSS 20 to check all of the data. In this finding, the researcher has been analyzing the normality test, the linearity of data test, and the last is the correlation test.

Normality test. The researcher did the normality test using Kolmogorov-Smirnov analysis to find out the data distribution was normal or not. The normality test has a significance value if the data distribution is more than 0.05 (sig.>0.05). Then if the data are lower than 0.05 (sig.>0,05), the data are classified as not normal. The result of the normality test for vocabulary knowledge is shown below:

Tests of Normality

	Kolmogorov-Smirnov[a]
	Statistic
Reading comprehension score level based on reading test TOEFL on Genius TOEFL	.082
Vocabulary knowledge score level based on Nation	.135

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Table 4.4 Normality test for research data

SPSS 20 is used to find out the normality data of this research. Based on the table, the researcher used the data from Kolmogorov-Smirnov table. The normality

data has a significance value which is more than 0.05 (sig.0.05). In the table reading comprehension level has scores 0.082 that means the number more than 0.05. Then reading score is considered normal and it can be used for the next test. Then, the score of vocabulary knowledge is 0.135, this is more than the value which uses for Nation (2012). Thus, vocabulary knowledge has in normal and used for the next test. The reading comprehension level and vocabulary knowledge have normal data based on normality test.

Linearity test. The linearity test has been done to know whether the X variable and Y variable have a significant linear or not. The data is linear if the significance value is lower than 0.05 (sig < 0.05).

Test of Linearity

		Sig
Reading comprehension score level based on reading test and vocabulary knowledge	(Combined)	.093
	Linearity	.000
	Deviation from Linearity	.768

Table 4.5 Table linearity test

The ANOVA table in this research needs linearity value based on the data. The data that less than 0.005 (linearity <0.005) that have a mean in linearity score. The data form the linearity test is 0,000. Then, the data explain the value-based two-

variable have linearity test. Then the significance value of deviation from linearity was 0.000 with F-Deviation of Linearity value was 0.768. The significance value was higher than 0.05 (F= 0.205, linearity > 0.05). In conclusion, the score of table have suitable score in the linear score, so the linearity test for reading comprehension level and vocabulary knowledge appropriate for the next test.

Hypothesis test. The last step provides the answer to the third question about the correlation between students' reading comprehension level and students' vocabulary knowledge. A hypothesis must be proved to know the result of the test acceptable or not. The correlation between students' reading comprehension level and students' vocabulary knowledge use Pearson Product Moment Correlation (r) to identify the data based on the table.

Table Correlations

		Reading comprehension score level based on reading test TOEFL on Genius TOEFL	Vocabulary knowledge score level based on Nation
Reading comprehension score level based on reading test TOEFL on Genius TOEFL	Pearson Correlation	1	.545[**]
	Sig. (2-tailed)		.000
	N	80	80

Vocabulary knowledge score level based on Nation	Pearson Correlation	.545**	1
	Sig. (2-tailed)	.000	
	N	80	80

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.6 Table hypothesis test

The last test for this research is correlation the tests, because the last purpose is to find out the correlation between reading comprehension level and vocabulary knowledge. Based on the significance score sig. (2-tailed) from the output table hypothesis test, the score of sig. (2-tailed) between reading comprehension level and vocabulary knowledge is 0.00 < 0.05. It means that the score have a significance correlation. Then based on score r (Pearson correlation), the research to know r score about the reading comprehension level and vocabulary knowledge. The score correlation between reading comprehension level and vocabulary knowledge is 0.545. Therefore, the researcher can conclude that reading comprehension level correlates with vocabulary knowledge. Lastly, the score has correlation can be seen based on Pearson Correlation score in the symbol (**) following the score of correlation. Based on the symbol (**), the score means the correlation between reading comprehension and vocabulary knowledge. The score of correlation included in category a moderate correlation level based table Pearson Product Moment. Then, the

researcher found out that the result reading comprehension level and vocabulary knowledge is moderate correlation. The result of research can be classified in moderate correlation because the score of correlation is 0.545, the score between score 0.35 until 0.65, that it means the score is useful for limited prediction in correlation. In conclusion, the correlation between students' reading comprehension level and students' vocabulary knowledge score is 0.545. Then the researcher can conclude r score or Pearson correlation in analysis is a positive correlation between two variables. In the correlational design, researcher gets moderate correlation which is limited correlation but limited score. Then, the result of correlation is positive correlation which means that the score of reading comprehension level increases and score of vocabulary also increases. Finally, the result of correlation research in hypothesis is positive because researcher has hypothesis that the students reading comprehension level and students vocabulary knowledge have correlation. In line with the conclusion, the students' reading comprehension level and students' vocabulary knowledge is in the positive correlation and in moderate correlation.

Discussion

In this part, researcher explains the discussion of the three research questions of research study. The first research question is students' reading comprehension level in ELED of PUY. Then, the second question is students' vocabulary knowledge in ELED of PUY. The last question is the correlation between students' reading comprehension level and the students' vocabulary knowledge in ELED of PUY.

Thus, followings explanations are the answer for every question in research question study.

The students' reading comprehension level in ELED of PUY. The first research question is how students reading comprehension in ELED of PUY batch 2016. The result described the mean score of students reading comprehension level score was 438. Based on the table categories of students reading comprehension level size score 320-530 was on the "low intermediate" categories. It can be concluded if the students of ELED of PUY batch 2016 have a low intermediate level for reading comprehension level in TOEFL score.

The result of reading comprehension above explains the result of the other research applied for students' in university. Based on Hartanto and Inayati (2016), the students in the university must get TOEFL scores for English literature with a minimal score is 500 and then non-English literature with a minimal score is 450 for the requirement of pass graduate. The minimal score for students in ELED of PUY to requirement is 500 for TOEFL score, so this is same with Hartono and Inayati (2016) who said, a minimal score for students in university is 500 for TOEFL score. The reading comprehension level means score in ELED of PUY is 43,8 that give evidence that the number is lower than passing grade students if the score decreased for the requirement pass graduate. Based on Sucahyo (2016), the mean score for TOEFL score from students English language faculty in Institute *Agama Islam Negeri* Samarinda is 397; the score is in elementary level. This is the same with Hartanto and

Inayati (2016) stating that the range of score TOEFL in this research is 300-400. This result is less than 500. The two scores has score that one under in passing grade for student's English language. The result of reading comprehension level has low score for students' need for requirement of the students' graduation.

The result of reading comprehension level makes researcher understand for the definition of reading comprehension. The definition according to Sedita (2005) the meaning of comprehension is help students to understand and remember any meaning words in paragraph and reading material. The researcher concerns on two things about the reading comprehension level. The first, students must understand the meaning of word from the paragraph. The second student can remember the meaning of the words in the paragraph. Then, for lecture they can give more reading material and assignments that appropriate for reading comprehension to students. The last, for future researcher, they can take the reading comprehension a test again to know students' reading comprehension development.

The students' vocabulary knowledge in ELED of PUY. The second research question is how student's vocabulary knowledge in ELED of PUY is. The data have been collected from 80 students of ELED of PUY batch 2016 through Nation (2011) 14.000 words receptive vocabulary test. The result described the mean score of students' vocabulary knowledge score which was 6865, and then the value based on the categories of vocabulary knowledge in table mid-frequency, the score was 4100-8900. The score was calculated with way 1 true answer times with 100, for

example the true answer is 35x100 = 3.500, so the score of vocabulary is 3.500. According to Nation (2012), the vocabulary size was classified into three levels. The score shows that the vocabulary knowledge in ELED of PUY is in mid-frequency level.

The research about vocabulary knowledge is not only explained by Nation but also explained by Golkar and Yamimi (2007). According to Golkar and Yamimi (2007), the vocabulary knowledge for students in university needs 10.000 words for the requirement in study. Based on their study, Moghdam, Zainal, and Ghardepour (2012) showed that vocabulary knowledge in 2000-word and 3000-word levels were correlated with variable reading comprehension. According to Golkar and Yamimi (2007), the learners need 5000 words level for students in university. Then, based on Hever and Caderberg (1997) as stated in Golkar and Yamimi (2007), students in school system in Sweden need vocabulary knowledge of 5000-7000 words for the pre-university level. Based on Nation (2006), Golkar and Yamimi (2007), and Hever and Caderberg (1997), the result of this research and another research have different result and the score lower for students university need. In conclusion, vocabulary knowledge for ELED of PUY result score is 6865.00 and in mid-frequency. The level of mid frequency of the score of vocabulary is 3000-9000 word family lists, meaning that in learning procedure readers can read deliberately in teaching and learning activity (Nation, 2012). Based on Nouri and Zerhouni (2016), the major component in acquisition process and language acquisition research that important in language

acquisition is vocabulary knowledge. According to Rouhi and Negari (2013) who said that vocabulary size test has been formed based on the vocabulary knowledge that tests from item on knowledge. The result of vocabulary knowledge in the score 6865, the score included in mid frequency. The means of mid frequency level in vocabulary knowledge is learning procedure for readers that can deliberated to reading in activity teaching and learning (Nation, 2012). Thus the vocabulary knowledge test have result still in the mid frequency, hence the activity to get vocabulary knowledge must be added for students.

The correlation between students' reading comprehension level and students' vocabulary knowledge. The last question is 'Is there any correlation between students' reading comprehension level and students' vocabulary knowledge. The last research question can determine the result in this research. The result has described the significance value was 0.00 and this is lower than 0.05 (0.000<0.05). It means score showed a positive correlation between students reading comprehension level and the students' vocabulary knowledge in ELED of PUY. Based on Moghdam, Zainal, and Ghardepour (2012), the result of the study for foreign language context have a high positive correlation between vocabulary knowledge and reading comprehension because of the good performance in attainment between reading comprehension and vocabulary knowledge. This is a same as Negari and Rouhi (2012). They said that the correlation between reading comprehension performance and the depth of vocabulary knowledge for Iranian English Foreign Language

learners' is strongly correlated. The result of research according to Moghdam, Zainal, and Ghardepour (2012) is in foreign language context. The positive correlation means if the students' reading comprehension was in moderate correlation level, the students' vocabulary knowledge score was 0.545. Then, the results shows that an alternative hypothesis (H_1) is accepted. This research has found students' vocabulary knowledge is correlated with reading comprehension level in this research. When the researcher compares the result of research with another research, the researcher finds out there have different score and result. The differential lies in the research instrument for other researcher. According to Rouhi and Negari (2013) the research used research instruments there are vocabulary levels test (VLT), word associate test (WAT), and a reading comprehension test (RCT). And, based on Moghdam, Zainal, Ghardepour (2012) the research use research instrument were the vocabulary level test bilingual version (English- Thai) and reading test. Thus, the result of research have different findings because the research instrument for other research is different. Thus, the result of research is a moderate correlation and in positive correlation to show the correlation between students' reading comprehension and students' vocabulary knowledge.