CHAPTER IV

RESEARCH FINDING AND DISCUSSION

A. Research Finding

Based on the observation result, in this chapter there are three conductions of data analysis. First is independent variable analysis (variable X), second is dependent variable analysis (variable Y) and third is analysis the correlation of both variables. There are three kinds of data which was obtained. First is data source from the class observation checklist, second is data source from questionnaire and third is data source from documentation contains with students reading 4 cumulative score. Here is the finding:

1. **Students' Learning Approach**

   a. **Class Observation**

      Class observation was conducted in Reading 4 class which the teaching materials was reading journal article.

      This observation checklist result was based on researcher's view in reading 4 teaching learning process. The class activity was group discussion and presentation. On the previous meeting, teacher divided students into 9 groups which consist of 5-6 students. Teacher asked each

1

student to search a journal article, then read it at home and brought it in the next meeting.

In the class, teacher's next instruction was asking students to read again their journal in 15 minutes duration of time. Then, each student should share their journal content to their own group member, each students had chance in 5 minutes duration. Not only present the content, but the students also should conclude their explanation in the end of presentation. This activity continued until all group members finish presented their journal.

The result of class observation showed that all activities which included in deep approach were happened. It comprised like seeking meaning of vocabularies by themselves or asking to others, making conclusion, often questioning to the lecturer about reading materials and feel interest and excited in class.

All activities which included in strategic approach were also happened. Students followed up teacher's instruction orderly, they work in group effectively through teaching learning process and they were also good in followed the teacher's said about.

Based on the result, activities which included in surface approach were also completed. There were some students who did not bring the journal article and they were confused when they were asked to present it. Students who did not bring journal article seem not interested and passive, and

trouble in making sense appeared when some students seem confused in presenting their journal article.

From the explanation above, almost all of activities in each learning approach were happened. It means that learning approach was also happened in reading 4th class. For more data information, table of class observation checklist result is served in appendix 3.

b. Questionnaire

Based on questionnaire result, the students was classified into 3 parts of learning approaches, some of them were included in deep approach, some others were included in strategic approach and surface approach.

Total sample was 80 students. After the questionnaire was analyzed, the result of students' learning approach classification was served in the appendix 4.

Based on the questionnaire result, it could be percentage as follows:

Table 4.1

Students' Learning Approach Percentage

NO	Learning Approach	Frequency	Percentage
1	Deep Approach	28	35 %
2	Strategic Approach	44	55 %
3	Surface Approach	8	10 %

It can be seen from the table, there were 28 students who was qualified in deep approach. It means that 35% students from total sample used deep approach. 44 others were qualified in strategic approach students. Most of the students were included in this approach by percentage 55% students from total sample. And the smallest number was in surface approach which just had 8 students qualified on it by percentage 10%.

Based on SPSS analysis result, here was the output of questionnaire response which analyzed by summing the respondents answer per items:

Table 4.2

Descriptive Statistic Questionnaire Output

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Deep Approach	80	14	34	48	38.69	3.340
Strategic Approach	80	17	35	52	41.41	4.068
Surface Approach	80	27	20	47	36.39	4.362
Achievement	80	44	50	94	76.14	7.817
Valid N (listwise)	80					

From 80 total respondents, strategic approach had the highest value, it means students who classified into strategic approach was more than other

approach. It was proved by the percentage result that strategic approach was the highest percentage value in 55%.

2. Students' Reading Achievement

Students' reading achievement was another data source which needs to be analyzed. This data was documentation taken from reading 4 lecturer recapitulation score. The result of students' reading achievement is served in appendix 5.

From those students' reading achievement data, it was analyzed in SPSS 18 to get the descriptive statistic result, and the outcome is served on the table below:

Table.4.3

Descriptive Statistic of Students' Reading Achievement

	N	Minimum	Maximum	Mean	Std. Deviation	Variance
Reading Achievement	80	49	94	75.76	8.378	70.183
Valid N (listwise)	80					

It can be seen from output above, students' reading achievement of total sample in 80 students had minimum score 49 and maximum score 94. Mean of all scores was 75,76. To know more detail about the descriptive statistic value of students' achievement specifically, this table was the result:

Table.4.4

Descriptive Statistic of Students' Reading Achievement

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Deep Approach	28	26	68	94	81.93	6.457	41.698
Strategic Approach	44	17	67	84	74.50	4.251	18.070
Surface Approach	8	24	49	73	59.88	8.236	67.839
Valid N (listwise)	8						

Deep approach which consist of 28 students had minimum score 68 and maximum score 94. Mean of deep approach students' score was 81,93. Meanwhile, strategic approach which consist of 44 students had minimum score 67 and maximum score 84. Mean of strategic approach students' score was 74,50 and it was lower than deep approach which have smaller number of students. The last was surface approach which had less number of students and less in minimum score 49, maximum score 73, mean of surface approach students' score was 59,88.
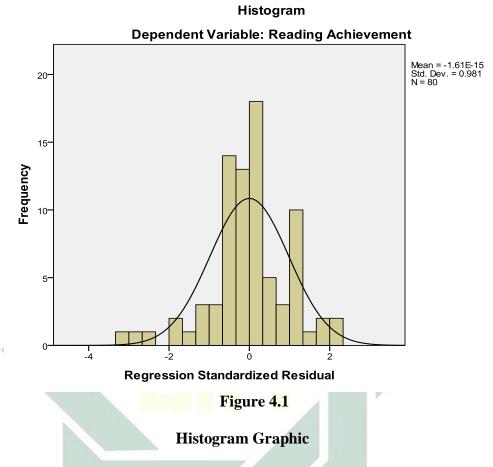
For standard deviation and variance value, surface approach had higher score by 8,236 than deep 6,457 and the lowest was strategic approach by 4,251. In variance surface approach still be the higher by 67,839, then deep approach 41,698 and the lowest was strategic approach by 18,070.

3. **Correlation Analysis of Students' Learning Approach (Variable X) and Their Reading Achievement (Variable Y)**
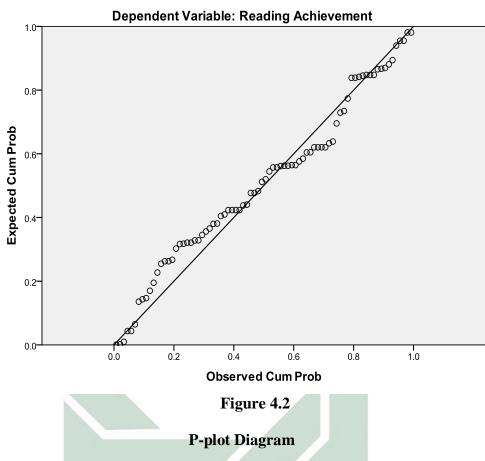
To analyze the correlation of both variables, it used multiple regression analysis because the independent variables here were more than one. The result bellow was the output from SPSS for windows version 18. The output itself included classic assumption test both normality test and multikolinierity test, also statistic descriptive, correlation, entered and removed variable, R square, anova, and coefficient. Here was the interpretation:

a. **Normality Test**

Normality test should be tested before calculated the linear regression. Normality test was done by used graphic histogram, p-plot diagram and kolmogorove smirnove (KS) value to test the residual regression model which appears below:

Histogram

Dependent Variable: Reading Achievement

Figure 4.1

Histogram Graphic

This graphic showed that the data spread around the histogram graphic. It was assumed that the data was normal. Besides could be seen from histogram graphic, normality test also could be assumed from p-plot diagram like as follow:

Normal P-P Plot of Regression Standardized Residual

Dependent Variable: Reading Achievement

Figure 4.2

P-plot Diagram

Normal probability of p-plot above showed that data spread around following diagonal line. It means that regression model complied normality assumption. To make sure the normality test result, it can be checked on kolmogorove smirnove (KS) value, and the result of KS test was:

Table 4.5

Kolmogorove Smirnove output

		Deep Approach	Strategic Approach	Surface Approach	Reading Achievement
N		80	80	80	80
Normal Paramet ers[a,b]	Mean	38.69	41.41	36.39	75.84
	Std. Deviation	3.340	4.068	4.362	8.379
Most Extreme Differen ces	Absolute	.156	.153	.135	.111
	Positive	.156	.153	.135	.078
	Negative	-.085	-.077	-.115	-.111
Kolmogorov-Smirnov Z		1.394	1.367	1.211	.993
Asymp. Sig. (2-tailed)		.041	.048	.106	.278

a. Test distribution is Normal.

b. Calculated from data.

This statistic analysis table below assumed that Kolmogorove Smirnov value was 1,394 in variable deep approach, 1,367 in variable strategic approach, 1,211 in variable surface approach and 0,993 in variable reading achievement, with significant value more than 0,05. It means that residual distribution was normal.

b. Multikolinierity Test

Table 4.6

Model Summary Table

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.105 a	.011	-.028	8.495	.011	.285	3	76	.036

a. Predictors: (Constant), Surface Approach, Deep Approach, Strategic Approach

Based on model summary table above, could be stated that the predictors data inputted were independent variables, those were surface approach, deep approach and strategic approach. Whereas the dependent variables was reading achievement.

R Square value was 1,1 % and it was lower than significant value in α= 5% . Standard error value was just 8,495 not too high, it means that multikolinierity was not happened. Mutikolinierity test also can be seen from coefficient table like as follow:

Table 4.7

Coefficient Regression

Model	Correlations			Collinearity Statistics	
	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)					
Deep Approach	-.086	-.047	-.046	.778	1.285
Strategic Approach	-.093	-.061	-.060	.664	1.507
Surface Approach	-.023	.011	.011	.835	1.197

According to the tolerance value, every variables had tolerance value more than 0,10 (>0,10) and all Variance Inflation Factor (VIF) value of all variables were lower than 10 (<10), it assumed that multikolinierity was not happened. Correlation partial of all variables was negative, it means there was no correlation between independent variables.

c. **Correlation**

To know the correlation between independent variable (students' learning approach) and dependent variables (students' reading achievement), this table was the correlation result of both variables which has been analyzed:

Table 4.8

**Correlation Result of Students' Learning Approach and Students'
Reading Achievement**

		Reading Achievement	Deep Approach	Strategic Approach	Surface Approach
Pearson Correlation	Reading Achievement	1.000	.386	.293	.086
	Deep Approach	.386	1.000	.464	.113
	Strategic Approach	.293	.464	1.000	.398
	Surface Approach	.086	.113	.398	1.000
Sig. (1-tailed)	Reading Achievement	.	.025	.015	.020
	Deep Approach	.025	.	.000	.160
	Strategic Approach	.015	.000	.	.000
	Surface Approach	.020	.160	.000	.
N	Reading Achievement	80	80	80	80
	Deep Approach	80	80	80	80
	Strategic Approach	80	80	80	80

Table 4.9

Interpretation of Coefficient Correlation

Correlation	Interpretation
0	No correlation
0,01-0,20	Very weak
0,21-0,40	Weak
0,41-0,60	Rather weak
0,61-0,80	Enough
0,81-0,99	Strong
1	Very strong

From the hypothesis below :

Ho : there is no positive correlation between students' learning approach and students' reading achievement

Ha : there is positive correlation between Students learning approach and students' reading achievement

If the significant < 0,05, Ho is rejected and Ha is accepted (there is a significant correlation) and if the significant > 0,05 Ho is accepted and Ha is rejected. From the correlation table, it showed:

1). The correlation between deep approach (X_1) and students' reading achievement was 0,386, it means that the correlation was weak. The significant value was 0,025 (0,025< 0,05), Ho was rejected and ha was accepted. It means there was positive correlation between deep approach and students' reading achievement.

2).The correlation between strategic approach (X_2) and students' reading achievements had correlation value 0,293. It means that the correlation was weak. The significant value was 0,015 (0,015< 0,05), Ho was rejected and ha was accepted. It means there was positive correlation between strategic approach and students' reading achievement.

3). The correlation between surface approach (X_3) and students' reading achievement had correlation value 0,086. It means that the correlation was weak. The significant value was 0,020 (0,020< 0,05), Ho was rejected and ha was accepted. It means there was positive correlation between strategic approach and students' reading achievement.

Based on the analysis result, all independent variables had significant correlation. Deep approach was the highest correlation with value 0,386 and surface approach was the lowest correlation with value 0,086. All approach had positive correlation but the correlation interpretation was weak and very weak.

d. Entered and Removed Variable

Table 4.10

Entered and Removed Variables

Model	Variables Entered	Variables Removed	Method
1	Surface Approach, Deep Approach, Strategic Approach[a]	.	Enter

b. Dependent Variable: Reading Achievement

Variable entered and removed table above showed that all variables were entered includes surface approach, deep approach and strategic approach. The dependent variable was reading achievement. There was no variable removed because it used enter method.

e. R Square

Table 4.11

R Square

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.105[a]	.011	.028	8.495

a. Predictors: (Constant), Surface Approach, Deep Approach, Strategic Approach

R Square table above indicated that R value was 0,11, which was quadrate result of correlation coefficient (0,105 x 0,105). 0,11 x 100% = 1,1 %, it means 1,1% of students' reading achievement was influenced by students' learning approach and 98,9% was influenced by other variables

The standard error of the estimate was 8,495. In statistic descriptive analysis before, deviation standard of students' Achievement was 8,378. Because of standard deviation value had smaller than standard error of the estimate, it means that regression model was disable to predict students' achievement.

f. F test (Anova)

Table 4.12

F Test Result (Anova)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61.710	3	20.570	.285	.036[a]
	Residual	5485.178	76	72.173		
	Total	5546.888	79			

a. Predictors: (Constant), Surface Approach, Deep Approach, Strategic Approach

1). Hypothesis :

Ho : there is no positive correlation between deep approach, strategic approach, surface approach and students' reading achievement.

Ha : there is positive correlation between deep approach, strategic approach, surface approach and students' reading achievement.

2). F value was 0,285 with the significant value was 0,036 < 0,05. It means Ha was accepted, there was positive correlation between deep approach, strategic approach and surface approach and students' reading achievement.

g. **t Test (Coefficient)**

Table 4.13

t Test Result

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	86.379	13.299		6.495	.000
Deep Approach	.675	.294	.300	2.295	.025
Strategic Approach	.092	.261	.048	.355	.034
Surface Approach	-.182	.232	-.101	-.782	.437

a. Dependent Variable: Reading Achievement

a. Deep Approach Variable (X_1)

Ho : b1 = there is no positive correlation coefficient between deep approach and students' reading achievement.

Ha : b1 = there is positive coefficient between deep approach and students' reading achievement.

Based on SPSS analysis, deep approach t value is 2,295 and significant value is 0,025. Significant value was lower than significant limit value 0,05. It means that Ha is accepted.

b. Strategic Approach Variable (X_2)

Ho : b2 = there is no positive correlation coefficient between strategic approach and students' reading achievement.

Ha : b2 = there is positive coefficient between strategic approach and students' reading achievement.

Strategic approach t value is 0,355 and significant value is 0,034. Significant value here was lower than significant limit value 0,05. It means that Ha is accepted.

c. Surface Approach Variable (X_3)

Ho : b3 = there is no positive correlation coefficient between surface approach and students' reading achievement.

Ha : b3 = there is positive coefficient between surface approach and students' reading achievement.

Strategic approach t value is -0,782and significant value is 0,437. Significant value here is higher from significant limit value 0,05. It means that Ha is rejected.

B. Discussion

Based on research finding obtained by observation, it will be discussed the result of the finding. It includes students' learning approach, students' reading achievement and the correlation between students' learning approach and their reading achievement.

1. Students Learning Approach

Based on the class observation result which served on finding above, it can be seen that learning approach was conducted in reading class of 4th semester students' teaching learning process. The instrument checklist result indicated that almost all of learning approach criteria and characteristics did in reading 4 class activities.

From the questionnaire result, 80 respondents were categorized into 3 learning approaches, those are deep approach, strategic approach and surface approach. There are 28 students categorized in deep approach with the percentage 35%, there are 44 students categorized in strategic approach with the percentage 44% and surface approach which consist of 8 students with the percentage 10%. So, it can be stated that the most frequent learning approach used by 4th semester students English Teacher Education Department UINSA is strategic approach. From this statement, the first research question has been answered.

2. Students' Reading Achievement

From the table 4.5 which served the final score of 4th semester students in reading 4 class, it can be seen that the minimum score of all students was 49 and the maximum score was 94. From 80 samples, it had mean score 75,76.

After classified into each learning approach, it can be stated that almost students who categorized into deep students had good score with maximum score 94, and minimum score 68 with the average 81,93. The lowest score was students who categorized into surface approach, they have maximum score 73 and minimum score 49 with the average 59,88. Because of most students are categorized into strategic approach, most of them had average score ranging from 74,50.

Based on theory which served in previous chapter, deep approach had positive result in learning process outcome and it can be proved by deep students' score which had highest average of all learning approach. Surface approach which had negative result in learning process also can be seen from surface students who had low average score just ranging from 59,88.

From table 4.5, it can be seen detailed that there were some students who had same score, but they had different learning approach. It happened because their learning approach had different level. Because this research just focused on analyze the learning approach which most

used by 4th semester students English Teacher Education Department UINSA and this correlation with students' learning achievement, so students' learning approach level will be included in suggestion.

3. **The Correlation between Students' Learning Approach and Students' Reading Achievement**

In order to find the correlation of the variables by using multiple regressions, the first should be done was calculate the classic assumption test. Classic assumption test here were normality test and multikolinierity test.

a. Normality Test

Normality test is done to know whether data distribution was normal or not. The principle of this normality test can be seen from histogram graphic, p-plot diagram and kolmogorove smernove value. Based on figure 4.1 histogram graphic and figure 4.2 p-plot diagram showed that the data distribution is normal. This statements is strengthened by Kolmogorove smirnove test result which is also showed that the data distribution is normal by the significant value more than 0,05.

b. Multikolinierity Test

Multikolinierity test was done to find there was correlation between variable independents or not. According to the R square value in table 4.9, tolerance and VIF value in table 4.10, assumed that multikolinierity was not found. It means there was no correlation

between independent variables. Based on Diyah Nirmala Arum, regression model is good if there was no correlation between independent variables.

c. Regression Analysis

The correlation quantification which was analyzed using multiple regressions was founded. For the correlation itself, table 4.12 showed that among all learning approaches had significant correlation between each independent variables and dependent variable, but the correlation is weak. Deep approach had weak correlation value 0,386. Strategic approach also had weak correlation value 0,293. But the correlation of deep approach was higher than strategic approach. Meanwhile, surface approach had very weak correlation value by 0,086.

Based on the theory by J.B.Biggs, deep approach had highest value than others and surface approach is the lowest, is proofed by the correlation output result. Based on this research, deep approach was the highest and surface was lowest, but both correlations were weak.

From anova F test result, hypothesis Ha was accepted. So, here it is found there was positive correlation between deep approach, strategic approach, surface approach and students' reading achievement.