

CHAPTER III

PRESENTATION AND ANALYSIS OF THE DATA

III.1. Presentation of the Data

The data which were obtained by the writer are divided into two groups. The first group belongs to the respondents of the English Department and the second group belongs to the respondents of the Management of Finance. Both groups of the data expose the score of their ability in comprehending a technical and scientific English text.

In accordance with the writer's aim, the text has been manipulated by the writer. There are two sections in the reading texts. The first section consists of multiple choice questions and the second section consists of written recall protocol. In order to make the score of each section similar, the writer assigned score 50 to each of them.

In scoring multiple choice questions, the writer differentiated between explicit questions and implicit questions. The answer of explicit question is explicitly stated in the text and it is considered as an easy question. Therefore, the writer gave score 5 for each number of the explicit questions. On the other hand, the answer of implicit question is stated implicitly and to find it needs more accuracy and some basic knowledge about the topic of the text. By considering its difficulty, the writer gave

score 7.5 for each number of implicit question. Since there are four explicit questions and four implicit questions in the text, the total score of multiple choice question will be 50.

Meanwhile, it is easier for the writer in scoring the written recall protocol. Since there are six points which are discussed in the text, the writer assigned score 8.33 for each point. This number is derived from 50 (the total score of written recall protocol) divided by 6 (the number of points of discussion in reading text) which is equal to 8.33.

In presenting the data, the writer arranges the results of the reading test in the form of tables. To make it easier to understand, the writer differentiates the data of each group (the respondents of the English Department and the respondents of the Management of Finance Department) and each section (multiple choice question and written recall protocol). Afterwards, the writer presents the score of section one and section two into the same table. It is done in order to gain the overall score of each group. Thus, the presentation of the data can be seen as follows:

Table 3.1.
Scores of Question Answers of the respondents from the English Department

NO	RESPONDENT	NO.1 EXP.	NO.2 EXP.	NO.3 EXP.	NO.4 IMP.	NO.5 IMP.	NO.6 IMP.	NO.7 IMP.	NO.8 EXP.	TOTAL SCORE
1.	A	5	5	5	X	7.5	7.5	X	X	30
2.	B	5	5	5	X	7.5	X	X	5	27.5
3.	C	5	5	X	X	7.5	X	X	5	22.5
4.	D.	5	5	5	X	7.5	7.5	X	5	35
5.	E	5	X	5	X	7.5	7.5	7.5	5	37.5
6.	F.	5	X	5	X	7.5	7.5	X	5	30
7.	G.	5	5	5	X	7.5	7.5	X	X	30

8.	H.	5	5	5	X	7.5	7.5	7.5	5	42.5
9.	I.	5	5	5	X	7.5	X	X	5	27.5
10.	J.	5	5	5	X	7.5	X	X	5	27.5
11.	K.	5	5	5	7.5	7.5	X	X	5	35
12.	L.	5	X	X	X	7.5	X	7.5	5	25
13.	M.	5	5	5	X	7.5	7.5	7.5	5	42.5
14.	N.	X	X	X	X	7.5	7.5	X	5	20
15.	O.	5	5	5	X	7.5	X	X	5	27.5

Note: Exp. = Explicit question

Imp. = Implicit question

Table 3.2.
Scores of Question Answers of the respondents from
the Management of Finance Department

NO.	RESPONDENT	NO.1 EXP.	NO.2 EXP.	NO.3 EXP.	NO.4 IMP.	NO.5 IMP.	NO.6 IMP.	NO.7 IMP.	NO.8 EXP.	TOTAL SCORE
1.	A	5	5	X	7.5	7.5	X	7.5	5	37.5
2.	B	5	5	X	X	7.5	7.5	7.5	5	37.5
3.	C	5	5	X	7.5	7.5	7.5	7.5	5	45
4.	D	5	5	5	X	7.5	7.5	7.5	5	42.5
5.	E	5	5	X	7.5	7.5	X	7.5	X	32.5
6.	F	X	X	X	7.5	7.5	X	X	X	15
7.	G	5	5	5	X	7.5	7.5	X	X	30
8.	H	5	5	X	7.5	7.5	7.5	7.5	5	45
9.	I	5	X	X	7.5	7.5	X	7.5	5	32.5
10.	J	5	5	X	X	7.5	7.5	X	5	30
11.	K	5	5	X	X	7.5	7.5	7.5	5	32.5
12.	L	5	5	5	X	7.5	7.5	X	5	35
13.	M	5	5	X	7.5	7.5	X	7.5	X	32.5
14.	N	5	X	X	7.5	X	X	7.5	5	25
15.	O	5	5	X	7.5	X	X	7.5	X	25

Note: Exp. = Explicit question

Imp. = Implicit question

From the data above, it is clear that in multiple choice questions, most of the respondents from the English Department (93.33%) made mistakes on the question number 4 and only one respondent (6.77%) correctly answer the question. The number of respondents from the English Department who failed on the question number 7 is also quite big (73.33%), and only few of them (26.67%) succeeded in

quite

doing this number. Furthermore, almost a half of them (46.67%) failed on the question number 6. Meanwhile, four of them (26.67%) failed on the question number 2, while the others (73.33%) succeeded. In doing the question number 3, three of them (20%) made mistakes while the others were correct (80%). Furthermore, two of them (13.33%) failed on the question number 8 and thirteen of them (86.66%) gave incorrect answer. It is interesting to know that all of the students can answer correctly the question number 5 although if we see from the type of question it belongs to implicit question. At last, only one student (6.77%) failed on the question number 1.

If we compare the data of the respondents from the English Department with the data of the respondents from the Management of Finance Department, we will find a significant difference. Only six of them (40%) failed on the question number 4 and more than a half of them answered this question correctly. Four of them (26.66%) made mistakes in answering the question number 7 and the rest were correct. Meanwhile, if we look at their result in answering the question number 6, seven of them (46.67%) failed and the others (53.33%) succeeded. It means that the number of respondents from the Management of Finance Department who failed on this question is the same with the number of the respondents from the English Department. The number of the respondents from the Management of Finance Department who failed on the question number 3 is quite big (80%) only three of them answered this question correctly. It is surprisingly, since the type of this question is categorized as an easy one. The number of respondents who answered

correctly the question number 8 is ten respondents (66.66%), while the rest could not. Only one of them failed on the question number 1 and three of them (20%) failed on the question number 2.

To sum up, most of the respondents from the English Department failed on the question number 4 (93.33%), the question number 6 (46.67%), and the question number 7 (73.33%). Meanwhile, most of them succeeded on the question number 5 (100%) and the question number 1 (93.33%).

Most of the respondents from the Management of Finance Department made mistake in answering the question number 3 (80%), the question number 6 (46.66%) and the question number 4 (40%). Meanwhile, most of the respondents (93.33%) answered correctly the question number 1 and the question number 5 (86.66%).

Table 3.3
Scores of Written Recall Protocol of the respondents from
the English Department

NO.	RESPONDENT	POINT 1	POINT 2	POINT 3	POINT 4	POINT 5	POINT 6	TOTAL SCORE
1.	A	X	8.33	8.33	X	X	8.33	24.99
2.	B	X	8.33	X	8.33	8.33	8.33	33.32
3.	C	X	X	8.33	8.33	8.33	8.33	33.32
4.	D	8.33	8.33	8.33	X	X	8.33	33.32
5.	E	8.33	8.33	8.33	8.33	8.33	8.33	50
6.	F	8.33	8.33	8.33	X	X	8.33	33.32
7.	G	8.33	8.33	X	8.33	X	X	24.99
8.	H	X	8.33	8.33	X	X	X	16.66
9.	I	X	8.33	8.33	8.33	8.33	X	33.32
10.	J	8.33	X	X	8.33	8.33	X	24.99
11.	K	8.33	8.33	X	8.33	X	8.33	33.32
12.	L	X	8.33	8.33	8.33	8.33	X	33.32
13.	M	8.33	8.33	8.33	8.33	X	8.33	41.65
14.	N	8.33	8.33	8.33	X	8.33	X	24.99
15.	O	8.33	8.33	8.33	8.33	X	8.33	41.65

Table 3.4
Scores of Written Recall Protocol of the respondents from
the Management of Finance Department

NO.	RESPONDENT	POINT 1	POINT 2	POINT 3	POINT 4	POINT 5	POINT 6	TOTAL SCORE
1.	A	8.33	8.33	8.33	X	8.33	8.33	41.65
2.	B	8.33	8.33	8.33	8.33	8.33	X	41.65
3.	C	X	8.33	8.33	8.33	8.33	X	33.32
4.	D	X	8.33	8.33	X	8.33	8.33	33.32
5.	E	8.33	8.33	8.33	X	X	8.33	33.32
6.	F	8.33	8.33	X	8.33	8.33	8.33	41.65
7.	G	8.33	8.33	8.33	X	8.33	8.33	41.65
8.	H	X	8.33	8.33	X	8.33	8.33	33.32
9.	I	8.33	8.33	8.33	8.33	8.33	X	41.65
10.	J	8.33	8.33	8.33	8.33	8.33	8.33	50
11.	K	8.33	8.33	8.33	8.33	8.33	8.33	50
12.	L	8.33	8.33	X	8.33	8.33	8.33	41.65
13.	M	8.33	8.33	8.33	X	8.33	X	33.32
14.	N	8.33	8.33	8.33	X	8.33	8.33	41.65
15.	O	8.33	8.33	8.33	8.33	8.33	8.33	50

Considering the scores of written recall protocol, only one of the respondents from the English Department (6.77%) mentioned all of the points in the passage. Meanwhile, there are three respondents from the Management of Finance Department (20%) who did. The number of the respondents from the English Department who could mention five points in the passage are two respondents (13.33%). It is fairly smaller than the number of the respondents from the Management of Finance Department of which there are seven respondents (46.66%) could mention five points. There are seven respondents from the English Department (46.66%) who could mention four points while five respondents (33.33%) from the Management of Finance Department could. The number of the respondents from the English

Department who could mention less than four points are five respondents (33.33%).

Contrariwise, all of the respondents from the Management of Finance Department could mention more than four points.

Table 3.5
Total Score of the respondents from the English Department

NO	RESPONDENTS	SCORE OF SECTION 1	SCORE OF SECTION 2	TOTAL SCORE
1.	A	30	24.99	54.99
2.	B	27.5	33.32	60.82
3.	C	22.5	33.32	55.80
4.	D	35	33.32	68.32
5.	E	37.5	44.98	82.48
6.	F	30	33.32	63.32
7.	G	30	24.99	54.99
8.	H	42.5	16.66	59.16
9.	I	27.5	33.32	60.82
10.	J	27.5	24.99	52.49
11.	K	35	33.32	68.32
12.	L	25	33.32	58.32
13.	M	42.5	41.65	84.15
14.	N	20	24.99	44.99
15.	O	27.5	41.65	69.15

Table 3.6
Total Score of the respondents from the Management of Finance Department

NO	RESPONDENTS	SCORE OF SECTION 1	SCORE OF SECTION 2	TOTAL SCORE
1.	A	37.5	41.65	79.15
2.	B	37.5	41.65	79.15
3.	C	45	33.32	78.32
4.	D	42.5	33.32	75.82
5.	E	32.5	33.32	65.82
6.	F	15	41.65	56.65
7.	G	30	41.65	71.65
8.	H	45	33.32	78.32
9.	I	32.5	41.65	74.15
10.	J	30	50	80

11.	K	32.5	50	
12.	L	35	41.65	76.65
13.	M	32.5	33.32	65.82
14.	N	25	41.65	66.65
15.	O	25	50	75

Considering the total scores which gained by the respondents from the English Department, the highest score is marked by blue color (87.48) and the lowest score is marked by red color (44.99). More than a half of them got total score more than 60, while 7 students got total score below 60.

Meanwhile, the highest score gained by the respondents from Management of Finance Department is 82.5 (also marked by blue color) and the lowest score is 56.62 (marked by red color). Surprisingly, most of them (14 respondents) got score more than 60 and only one respondent got score below 60.

III.2. Analysis Of The Data

The objective of setting up this test is to draw comparison between the mean of the first data (which belongs to the respondents from the English Department) and the mean of the second data (which belongs to the respondents from the Management of Finance Department). Therefore, the writer uses Mean Differential Test which fits to test the hypothesis proposed in this study.

Here, the first point to be made about the experiment is that the data of the respondents from the English Department and the data of the respondents from the Management of Finance Department, are independent to each other. As stated by Blalock, Jr. (1979: 55), reference is made to independent random samples. This

means that samples must be selected independently of each other. The fact that a sample is random assures independence within the sample in the sense that knowledge of the score of the first individual does not help us to predict the score of the second.

According to Walpole and Myers (1972: 75), any confidence statements or test of hypothesis must be based on assumption regarding the structure of the normal distribution. The requirement must be met in mean differential test. If the variance is unknown, it assumes that bit of samples have a normal distribution and $\sigma_1 = \sigma_2 = \sigma_3$. Thus , the t-test is used with degree of freedom (df) = $(n_1 - 1) + (n_2 - 1)$. This expression for df can be written in simpler form = $df = n_1 + n_2 - 2$. Then, we select an alpha level, and determine the values of t that are exceeded by the alpha of the t-observed value. After wards we can compute t-observed for the statistic.

Finally, we compare t-observed with t-critical value and degree of freedom. The decision rule is the same as that used for the single mean test = if $|t\text{-observed}| \geq t\text{-critical}$, reject H_0 . The statistic test required for this study is :

$$t = \frac{(\bar{X}_1 - \bar{X}_2)}{Sp \sqrt{\frac{1}{N_1} + \frac{1}{N_2}}}$$

\bar{X}_1 = the mean chain length of group 1 (English Department students)

\bar{X}_2 = the mean chain length of group 2 (Management of Finance's students)

N_1 = the number of the respondent of group 1

N_2 = the number of the respondent of group 2

Sp = Pooled standard deviation

S_p is derived from $\sqrt{S_p^2}$, while we would be able to get S_p^2 by applying the following formula :

$$S_p^2 = \frac{S_1^2(n_1 - 1) + S_2^2(n_2 - 1)}{n_1 + n_2 - 2}$$

In Conducting the analysis of the data, we must refer back to the available data in order to get the most basic element of the data. Thus, the computation of the data of this study can be described as follow :

a. At first, we compute the mean of the data. Since the data consist of two groups, i.e : the data of group one and the data of group two, we will have two means :

$$\bar{X}_i = \frac{\sum X_i}{n} ; i = 1, 2, 3 \dots i$$

$$\begin{aligned} \bar{X}_1 &= \frac{54.99 + 60.02 + 55.82 \dots + 69.15}{15} \\ &= \frac{943.15}{15} \\ &= 62.88 \end{aligned}$$

$$\begin{aligned} \bar{X}_2 &= \frac{79.15 + 79.15 + 78.32 \dots + 74.98}{15} \\ &= \frac{943.15}{15} \\ &= 73.7 \end{aligned}$$

b. After we get the mean of group one and group two, we would be able to compute the variance. The first point to be made about computing the variance is that the

value of $\sum X_1$, the value of $\sum X_2$, the value of $\sum X_1^2$ and the value of $\sum X_2^2$ must be known.

$$\begin{aligned}\sum X_1 &= n1_1 + n1_2 + n1_3 \dots\dots\dots + n1_{15} \\ &= 54.99 + 60.82 + 55.82 \dots\dots\dots + 69.15 \\ &= 943.15\end{aligned}$$

$$\begin{aligned}\sum X_2 &= n2_1 + n2_2 + n2_3 \dots\dots\dots + n2_{15} \\ &= 79.15 + 79.15 + 78.32 \dots\dots\dots + 74.98 \\ &= 1105.59\end{aligned}$$

$$\begin{aligned}\sum X_1^2 &= n1_1^2 + n1_2^2 + n1_3^2 \dots\dots\dots + n1_{15}^2 \\ &= 54.99^2 + 60.82^2 + 55.82^2 \dots\dots\dots + 69.15^2 \\ &= 3023.9 + 3699.07 + 3115.87 \dots\dots\dots + 4781.72 \\ &= 61102.4\end{aligned}$$

$$\begin{aligned}\sum X_2^2 &= n2_1^2 + n2_2^2 + n2_3^2 \dots\dots\dots + n2_{15}^2 \\ &= 79.15^2 + 79.15^2 + 78.32^2 \dots\dots\dots + 74.98^2 \\ &= 6264.72 + 6264.72 + 6134.02 \dots\dots\dots + 5622 \\ &= 82191.04\end{aligned}$$

The formula used to compute the variance of the data is :

$$S_i^2 = \frac{\sum X_i^2 - \frac{(\sum X_i)^2}{n}}{n-1}$$

$$S1^2 = \frac{61102.4 - \frac{(943-15)^2}{15}}{15-1}$$

$$\begin{aligned}
 &= \frac{61102 - \left(\frac{889531.92}{15} \right)}{14} \\
 &= \frac{61102 - 59302.19}{14} \\
 &= \frac{1800.21}{14} \\
 &= 128.59
 \end{aligned}$$

$$\begin{aligned}
 S_2^2 &= \frac{82191.04 \frac{(1105.59)^2}{15}}{15-1} \\
 &= \frac{82191.04 - \frac{(1105.59)^2}{15}}{15-1} \\
 &= \frac{82191.04 - \frac{(1,222,329.25)}{15}}{14} \\
 &= \frac{82191.04 - 81488.62}{14} \\
 &= \frac{702.42}{14} \\
 &= 50.17
 \end{aligned}$$

c) By knowing the variance value, we can easily get the standard deviation value,

$$S_i = \sqrt{S_i^2}$$

$$\begin{aligned}
 S_1 &= \sqrt{S_1^2} \\
 &= \sqrt{128.59} \\
 &= 11.34
 \end{aligned}$$

$$\begin{aligned}
 S_2 &= \sqrt{S_2^2} \\
 &= \sqrt{50.17} \\
 &= 7.08
 \end{aligned}$$

The descriptive statistic of the data of this study are :

	N	Mean	Standard Deviation	Variance
X1	15	62.8	11.25	126.64
X2	15	73.56	7.08	50.08

Afterwards, we compute pooled variance. Pooled variance is derived from variance of group 1 and variance of group 2. By applying the formula used for computing pooled variance. The computation will be :

$$Sp^2 = \frac{126.64(14) + 50.08(14)}{15 + 15 - 2}$$

$$Sp^2 = \frac{126.64(14) + 50.08(14)}{30 - 2}$$

$$Sp^2 = \frac{1772.96 + 701.12}{28}$$

$$= 88.36$$

and we obtain Sp :

$$Sp = \sqrt{Sp^2}$$

$$Sp = \sqrt{88.36}$$

$$= 9.4$$

By considering the Sp value, we would be able to calculate t-observed value ;

$$|t| = \frac{(\bar{X}_1 - \bar{X}_2)}{Sp \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

$$|t| = \frac{62.88 - 73.7}{9.45 \sqrt{\frac{1}{15} + \frac{1}{15}}}$$

$$|t| = \frac{-10.82}{9.45 \sqrt{0.133}}$$

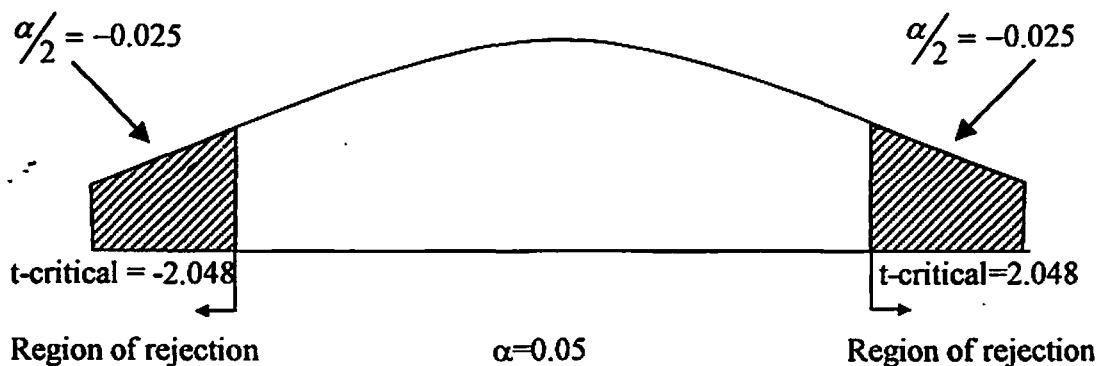
$$|t| = \frac{-10.82}{3.45}$$

$$|t| = \pm 3.17$$

Afterwards, we compare t-observed value with t-critical with degree of freedom = $\pm t \frac{\alpha}{2}$; $n_1 + n_2$. Since we use $\alpha = 5\%$, we have $\frac{\alpha}{2} = 0.025$. Thus,

we can see from the table that we have : $t(0.025 \cdot 28) = 2.048$.

Finally, the sampling distribution and t-critical values are shown as follows :



The null and alternative hypothesis required for this test :

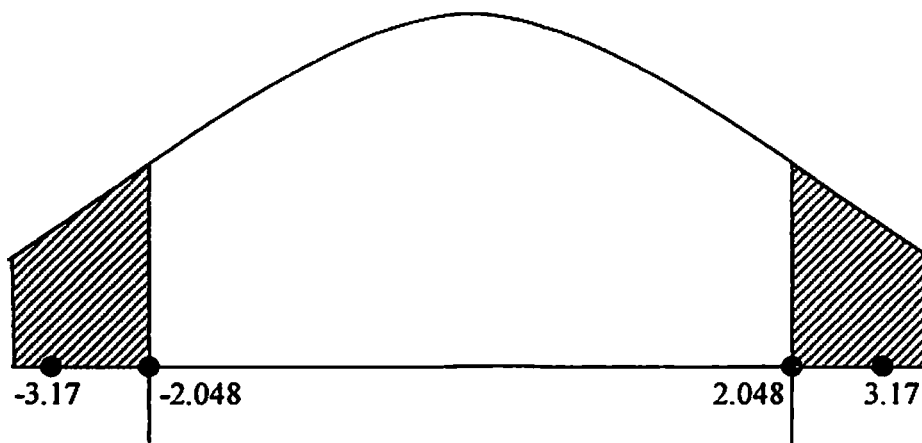
$$H_0 : \mu_1 = \mu_2$$

$$H_1 : \mu_1 < \mu_2$$

The condition required for this statistic test is that H_0 is rejected and H_1 is accepted if:

$$| t \text{ observed } | \geq t(\alpha/2, n_1 + n_2 - 2)$$

$$t \text{ observed } = |3.17| \geq t(0.025, 28) = 2.048$$



Since t-observed is greater than t-critical of 2.048, we reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1).

From the statistic test, it is briefly stated that the H_0 of this study (which is the linguistic schemata has the same contribution as the content schemata) is rejected,

while the H1 (that is the linguistic schema has less contribution than the content schema on comprehending scientific text on EFL reading) is accepted.

III.3. Interpretation of the result

The result of the statistical test shows that linguistic schemata has less contribution than content schemata to comprehend a scientific text on EFL reading. It is very surprising since it was hoped that the respondents with good linguistic schemata (because they have adequate linguistic knowledge) will be able to comprehend all kinds of reading passage well.

Thus, if we refer back to the gained data, we will find that either the score of written recall protocol or multiple choice questions of the respondents from the English Department is lower than the score of the respondents from the Management of Finance Department. It means that either in finding the answer of the questions or retelling the content of the provided text, the respondents from the Management of Finance Department are more capable than the respondents from the English Department.

Furthermore, if we refer back to the type of questions in multiple choice questions, we will find that the respondents from Management of Finance Department are more capable to answer the implicit questions. Only few respondents from this department made mistake in answering this type of questions. Meanwhile, the respondents from the English Department mostly succeeded in answering the

explicit questions and contrariwise, the number of the respondents from this department who failed in answering the implicit questions is quite big.

It is interesting to know the reason why this phenomenon appears in this study. We can analyze this case by using Schema Theory on Reading Comprehension. The first theory is the theory proposed by Anderson and Pichert in Anderson (1985:376-377) about the functions of schemata in reading comprehension. According to them, there are six functions of schemata in reading comprehension.. The first function is that a schema provides ideational scaffolding for assimilating text information. In this study, as the respondents from the Management of Finance Department have more appropriate content schema than the respondents from the English Department, means that they have more niches and slots about the text information. Since they are already familiar with the content of the text, it becomes the tools as ideational scaffolding for assimilating text information.

The second function is that a schema facilitates selective allocation of attention. In this study, it is easy for us to catch the point. The respondents from the Management of Finance Department who are supposed as skilled readers (since they have more appropriate content schemata which provides part of the basic for determining the important aspect of the text) have some forehand knowledge for deciding where to pay close attention. Of course, it will lead an advantage to them to minimize the time needed. Since, we know that the provided time in doing the text is limited; 15 minutes for reading the text and answering multiple choice question, and

10 minutes for recalling the content of the text. Contrariwise, since the respondents of the English Department do not have more appropriate content schemata which will ease them to catch the important aspects of the text, they needed longer time to do the text.

The third function is that a schema enables inferential elaboration. At this point, Anderson and Pichert in Anderson (1985: 376-377) give explanation that no text is completely explicit. A reader's schema provides the basic for making inferences that go beyond the information literally stated in the text. In this study, there are several explicit questions and implicit questions in the multiple choice questions. The implicit questions are considered as a difficult questions and they involve forehand knowledge to answer this kind of question. Again, the respondents from the Management of finance Department have good schemata that provide the basic for making inferences that go beyond the information literally stated in a text. Meanwhile, although the respondent from the English Department have good linguistic schemata, it is rather difficult for them to answer the implicit questions in which the answers usually implicitly stated in the text and they need some forehand knowledge to find them.

The fourth function is that a schema allows orderly searches of memory. This function also means that a schema can provide the reader with a guide to the types of information that need to be recalled. Here, the respondents from the Management of Finance Department can easily recall the information needed to understand the text. For instance if they attempt to understand a passage about **gearing**. It is easy for

them to understand what is gearing? What is equity capital? Or what is long term debt? Meanwhile, the respondent from the English Department who do not have additional knowledge about it will think that it is rather difficult to catch the point. Usually they need to read the text more than once, in order to understand the definition of each term. Moreover, the respondent from English department must have a large amount of vocabulary items. In this case, it is about economics terms. It means that the respondents who do not have adequate vocabulary items about economic terms, will be more difficult to understand the reading passage.

The fifth function is that a schema facilitates editing and summarizing. This function will help a reader in written recall protocol, since it enables the reader to produce summaries that include significant propositions and omit the less important ones. Mostly the respondents from the English Department try to memorize the content of the text, even they try to memorize the sentence. Of course, it will need longer time and the content of the written recall protocol would not be coherent since they often forget several parts. Contrariwise, if they do understand the text they will easily recall the important parts and edit the less important ones.

The sixth function is that a schema permits inferential reconstruction. At this point, where there are gaps in memory, a remember's schema will help to generate hypotheses about the missing information. In this study, it is true that respondents were forbidden to memorize the content of the text and advised to understand it. But sometimes, although they memorize the content of the text, they still need appropriate schema which can help them to get the idea about the missing information.

All of the functions of schemata in reading comprehension above, seem that they want to emphasize the importance of background knowledge or content schemata in reading comprehension. Here, the readers with adequate background knowledge are supposed to have a big advantage.

Furthermore, we can analyze this case by using Rumelhart's theory (1977: 48) to explain the reasons implicit in schema theory when a reader fails to correctly understand a passage. The first reason is that the reader may not have the appropriate schemata. In this case, he can not simply understand the concept being communicated. If the readers do not have some forehand knowledge about the topic, it will be more difficult for the reader to imagine and understand the content of the text. The same case happened in this study. The respondents from the English Department who do not have any background knowledge about **gearing**, will find difficulties to catch the idea of the text. To overcome this problem, they have to read the text correctly and carefully in order to be able to catch the point.

However, to grab the content of the text without having any appropriate schemata will need longer time, and it can make the readers get trapped to another problem, that is, the reader may find a consistent interpretation of the text but may not find the one intended by the author. As said by Rumelhart, sometimes the reader feel that they "understand" the text in accordance with their own interpretation about the text. Contrariwise, they misunderstand the author since their interpretation about the text is different with the author's.

And then, the last reason is that the reader may have the appropriate schemata, but the clues provided by the author may be insufficient to suggest them. Here, the reader will not understand the text but, with appropriate additional clues, they may come to understand it. Again, this theory seems want to emphasize the important of background knowledge or content schemata on comprehending a reading passage.

The last theory which will be applied in this study is fundamental psychology of reading proposed by Coady as cited in Hamied (1997: 92-93). Here, he suggested a model at which background knowledge of ESL or EFL's reader interacts with conceptual ability and process strategy in comprehending a text. What is meant by conceptual ability is the general intellectual capacity, while process strategy deals with various sub component of reading ability, including language processing such as syntactic information, lexical meaning and contextual meaning. The illustration of the interactive model is as depicted in figure 2.3.

Thus, if we take notice of the interaction between background knowledge and process strategy above, we will know that it is an interactive process. This means that background knowledge deals with process strategy, and vice versa. Both of those schemata are needed on comprehending a reading passage. This statement is also supported by Ullijn (1987:71) and Grellet (1991:12), reading in second language depends mainly on the meaning of word and the knowledge of the subject. Or in other words, we may say that the role of linguistic schema is as important as the role of content schemata in comprehending text in EFL reading.

But, it also provides the answer why the effect of content schemata is greater than linguistic schemata. Here, it is interesting to know that background knowledge may be able to compensate the syntactic weakness. As explained further by Coady, the interest and background knowledge will enable the student to comprehend at a reasonable rate and keep him involved in the material in spite of its syntactic difficulty. Thus, it becomes one of the reasons that make the contribution of the content schemata is greater than the linguistic schemata on comprehending scientific text in EFL reading.

CHAPTER IV

CONCLUSION