

### Chapter III

## PRESENTATION AND ANALYSIS OF THE DATA

### III.1 PRESENTATION OF THE DATA

The outcomes of both tests; the test of general English competence [Test I] and the test of English medical brochure's comprehension [Test II] are presented as follows. The data are written in order based on their scores.

Table 1. The Result of Test I

NO	NAME OF RESPONDENTS	SCORE
1	Steven	55
2	Utami	55
3	Seprina	55
4	Juma'in	55
5	Eka	50
6	Widya	50
7	Sri L	50
8	Siti Farida	45
9	Anisah	45
10	Agus P	45
11	Atik M	45
12	Taufik	45
13	Hari	45
14	Mardiana	40
15	E'en	40

16	Endang	40
17	Astutik	40
18	Sri Endang W	35
19	Anas	35
20	Wulandari	35
21	Wiwik	35
22	Ahmad	35
23	Anik	30
24	Rini	25
25	Tutik	25
26	Yeni	25
27	Hani	25
28	Fanisah	20
29	Rudi	15
30	Hadi	5

The table represents respondents' performance in examining their general English competence. From the data, it can be seen that only four respondents or 13.2 % have the score above 50. About three respondents or 10 % get the score which is equal to 50 and twenty three respondents or 72.8 % of them have score less than 50. Respondents' scores which are the same as or more than 50 indicate their average levels of English competence. One who belongs to the average level knows the basic rule of word formation, sentence formation ( grammar ) and word choice ( diction ) although sometimes they get difficulty in applying those rules. The respondents who have score less than 50 means that their proficiency

of English particularly word formation and word choice as part of passive English competence is considered low. The highest score in test I is 55 and the lowest score is 5. The mean value of this test is 38,2. The lowest score {5} reflects bad competence of English which shows that the respondent may has little or no understanding of English grammar and diction. This condition can happen because of some other factors especially those from the respondent itself mainly his lack of English competence.

Table 2. The Result of Test II

NO	NAME OF RESPONDENTS	SCORE
1	Steven	65
2	Utami	80
3	Seprina	30
4	Juma'in	50
5	Eka	65
6	Widya	50
7	Sri L	55
8	Siti Farida	60
9	Anisah	65
10	Agus P	60
11	Atik M	45
12	Taufik	50
13	Hari	60
14	Mardiana	45
15	E'en	75
16	Endang	50

17	Astutik	45
18	Sri Endang W	60
19	Anas	60
20	Wulandari	55
21	Wiwik	55
22	Ahmad	25
23	Anik	50
24	Rini	45
25	Tutik	30
26	Yeni	30
27	Hani	25
28	Fanisah	10
29	Rudi	40
30	Hadi	40

The table shows respondents' performance in comprehending English medical brochure. Ten of the 30 respondents or 33.3 % get the score above 59. Their abilities are determined by the number of correct answers and more than half of the items are answered correctly. They are considered having good abilities in comprehending such brochures. They have been familiar with the terms used in passages which are taken from medical brochures. About eight respondents or 26.4 % are considered part of the average level with scores is between 50 and 59. They can comprehend English medical brochures although sometimes they still face some difficulties. The remaining twelve respondents or 40 % get the score below 50. They have poor understanding of English medical brochures.

They face many difficulties in comprehending such brochures. This happens because of many factors especially the environments where the respondents work in. Generally, the professional or hard working the pharmacist assistants are favorably influenced by the good condition of dispensaries for instance large, modern and convenience. Moreover, in a busy dispensary pharmacist assistants surely know much about medical jargon because they have much experience in comprehending such brochures. The highest score in the second test is 80 and the lowest score is 10. The mean value of this test is 48,2.

Table 3. The Result of Tests

NO	NAME OF RESPONDENTS	SCORE OF TEST I	SCORE OF TEST II
1	Steven	55	65
2	Utami	55	80
3	Seprina	55	30
4	Juma'in	55	50
5	Eka	50	65
6	Widya	50	50
7	Sri L	50	55
8	Siti Farida	45	60
9	Anisah	45	65
10	Agus P	45	60
11	Atik M	45	45
12	Taufik	45	50
13	Hari	45	60
14	Mardiana	40	45

15	E'en	40	75
16	Endang	40	50
17	Astutik	40	45
18	Sri Endang W	35	60
19	Anas	35	60
20	Wulandari	35	55
21	Wiwik	35	55
22	Ahmad	35	25
23	Anik	30	50
24	Rini	25	45
25	Tutik	25	30
26	Yeni	25	30
27	Hani	25	25
28	Fanisah	20	10
29	Rudi	15	40
30	Hadi	5	40

From the table it can be seen that most of the respondents face an increasing scores. It is about 80 % of the whole respondents. Two respondents get the highest increased score { 35 } including one respondent who got the lowest score in test I { Hadi }. About ten respondents get high increased score { 20-30 } and the other twelve respondents experience 5 to 15 increased score while 14 % of them get the same score in both tests; test I and test II. And the remaining 6 % have decreased scores. The decreased scores is from 10 to 25 which is quite an odd phenomenon compared to the others' outcomes. This condition

can happen because of various reasons including respondents' external and internal factors such as the condition of dispensary, test administration, readiness of respondents in doing the tests which reflects lack of concentration, and also the result of improper English teaching method obtained by the respondents.

In general, respondents abilities in comprehending English medical brochure is better than their abilities in comprehending English scientific texts of general topic. It is indicated by the mean value of test II that is higher than that of test I. It has ten points of difference; from 38.2 to 48.2.

### III.2. QUANTITATIVE ANALYSIS

The quantitative analysis use *Pearson Product Moment* (Correlation Coefficient) to prove the correlation between variables and *Simple Regression* (determination Coefficient) to determine the constant value of regression line and the percentage of independent variable's contribution to dependent variable. There are two variables used in this study; independent variable [X] which is general English competence and dependent variable [Y] which is degree of comprehension of English medical brochure.

From the statistical computation, the value of correlation coefficient is equal to 0.484. It indicates quite significant correlation between both variables of study; general English competence and the degree of

comprehension of English medical brochure. It is a positive relation therefore the increasing number of X reflects to the increasing number of Y. In other words, the higher English competence the better the understanding of English medical brochure or more complex English medical brochure reflects to the increasing involvement of English competence in comprehension process.

The statistical hypothesis is a null hypothesis [  $H_0 : r = 0$  ] in which is wished to test, the tenability of the hypothesis or there is no relation between general English competence and the degree of comprehension of English medical brochure. On the basis of the observed  $r$  from the random sampling of pharmacist assistants, it is decided either to accept this as tenable or to reject it as untenable. The tenability of  $H_0 : r = 0$  is proved by using t-test.

The t-table is equal to 2.763 with 99.5 % level of confidence. The t-observed is equal to 2.924 with 99.3 % level of confidence. Since the observed t-ratio is greater than 2.763, the null hypothesis [  $H_0 : r = 0$  ] is rejected at the 99.5 % level of confidence and the alternative hypothesis [  $H_1 : r \neq 0$  ] which means that there is a correlation between general English competence and the degree of comprehension of English medical brochure is accepted. Although the observed relationship is not high {  $r = 0.484$  },  $r$  value is significantly greater than 0 at the 99.5 % level of confidence.



By using simple regression, the value of determination coefficient [  $r^2$  ] can be decided. This value indicates the degree of English syntactic knowledge of English medical brochure comprehension process. The fact that  $r^2$  is equal to 0.234 can be stated that 23.4 % of the value of English medical brochure comprehension is influenced by the English competence and the remaining percentage is determined by other factors. Although the number of determination coefficient is quite low, only 0.234, English competence significantly affects the degree of comprehension of English medical brochure. Nevertheless, it is not a dominant factor in the process of comprehension English medical brochure.

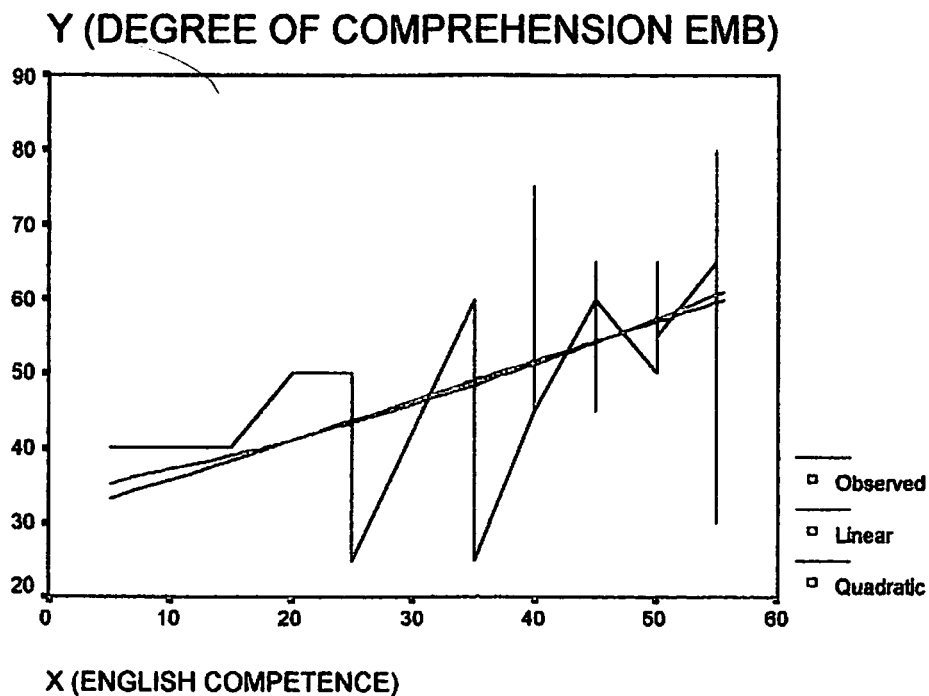


Figure 1. The relationship between general English competence and the degree of comprehension of English medical brochure

The relationship is linear and still tends to be linear. The linear relationship is indicated by the Y means for each value of X fall on a straight line. The bow of quadratic relationship is small and it tends to fall on a straight line. The result suits the above diagram. Although the slope is not clear, the positive relation of two variables is apparently exist. The unclear slope indicates relatively low value of correlation coefficient.

The general linear equation is  $Y = \alpha + \beta X$ . The function equation which is fulfilled the above case is  $Y = 30.424 + 0.531X$  with constant value of regression population ( $\alpha$ ) is in the middle of 15.360 and 42.219 with 95 % level of confidence and the value of direction of regression population ( $\beta$ ) falls between 0.159 and 0.902 with 95 % level of confidence. However, this equation cannot be applied directly without any studies on the other factors influencing the comprehension process.

### III.3 INTERPRETATION OF THE RESULT

The reading comprehension process involves so many factors; which directly can be observed or not. Specifically in comprehension process of English for specific purpose mainly English medical brochure among pharmacist assistants, there are two dominant factors; background knowledge and syntactic knowledge and other supporting factors.

### **III.3.1 THE MAIN FACTORS INFLUENCING THE COMPREHENSION PROCESS**

The outcome of the study suggests two important factors that influence one's comprehension in foreign language scientific text; English competence and background knowledge. The important role of the variables is shown by the increasing level of performance in test II.

It fits to some degree to Ulijn research. Ulijn clearly stated that in English for specific purpose ( ESP ) reading, background knowledge is the most important element for comprehension. He explained that readers more deal with content words rather than syntactic knowledge. The syntactic function will be necessary if the readers face difficulties in comprehension process. This phenomenon is shown by the positive relation of variables of the study. Related to this case, in Ulijn's opinion pharmacist assistants' work mostly concerns with medical jargon and also mathematical formulas than their English competence in comprehending English medical brochure. They will consider their English competence if they find some embarrassing situations such as ambiguous sentence.

However it also supports Alderson's statement about second language reading process. He said that both word interpretation and syntactic structure take an important part in comprehension. Although it seems that he concerns more in the syntactic knowledge than the relevant knowledge. Alderson's assumptions concerning syntax-based difficulty are

some languages share the same syntactic options to express important notions such as cause, condition, consequence, purpose and time in an scientific and technical register and efficient foreign language readers must rely on syntactic devices to get at the text meaning. The value of determination coefficient [  $r^2 = 0.234$  ] sustains Alderson's idea about the importance of syntactic knowledge. Even though it is only 23.4 % of the whole aspects, the syntactic knowledge's participation is quite significant because so many factors influence the comprehension process. Those various factors make the low value of  $r^2$  becomes meaningful.

The existence of an extreme outcome, the highest increasing score especially happened to Hadi who got the lowest score in test I, may be caused by some factors. The dominant factor here is environment specifically the condition of dispensary. In a busy dispensary which surely has a lot of consumers, many medicines from various pharmacy company are used. As a result, the pharmacist assistants experience more in reading medical brochures including English medical brochures than the others who come from ordinary dispensaries.

The low value of English competence participation in scientific and technical comprehension process suggests an idea that there are other factors which are more dominant. As said by Ulijn, another important factor is background knowledge. Background knowledge is knowledge of the specific topics, concepts or processes for reading particular subject

matter. Through knowledge, respondents organize information, interrelate it and draw appropriate inferences based on the relation among facts which were implicitly exist in the passage. However background knowledge of the text's content is not always held constantly. As stated by A Just [ 1987 : 472 ] that knowledge plays an increasingly important role as the conceptual difficulty of the subject matter increases.

### **III.3.2 OTHER FACTORS INFLUENCING THE COMPREHENSION PROCESS**

Beside those two important factors, there are so many other factors that affect respondent's performance in comprehension process. The factors can be divided into external and internal factors from the respondent's point of view. External factors are factors outside the respondent; like the condition of dispensary. In relation to the above explanation about the existence of extreme outcome, the condition of dispensary determines respondents' performance in doing their job. It is related to their reading habits and reading experiences. Reading experience is important in developing good reading skills. Although the relation is not directional, the fact said that poor reading skills may incline to avoid reading. Another external factor is improper teaching method pursued by the respondents. The English teaching method for the specific purpose does not fit yet with the demand of such knowledge in use.

The internal factors are factors inside the respondents. These are respondents' purpose and attitude in reading, personal experiences with a particular type of organizational format and the ability to use various word, identification strategies or cues to make sense of the message. All interactively contribute the reading performance. The size of type used, the style and method of expression also play a role. Besides, reading strategy and respondents' familiarity with the text also should be considered in talking about comprehension process. According to Alderson [ 1992:44 ] good reading strategies reflect to the consciousness of applying rules to understand texts in foreign language. About the important of respondents' familiarity with the text, Littlewood [ 1992:56 ] said : "respondent can't read in a language with good comprehension if the subject of the text is one he knows absolutely nothing about and therefore can have no real interest in". Related to this statement, the low respondents' performance in test I may be caused by the respondents' unfamiliarity with the passage's topic which consequently reflect to their interest in doing the test.

Respondents' performance in comprehending such brochure is not good {  $\bar{X}_1 = 38.2$  and  $\bar{X}_2 = 48.2$  }. Even though in general, result of the second test is better than the first test. The low level performance is caused by various factors for instance bad habit of pharmacist assistants in receive the English brochure. As stated by Stich [1978], poor reader

prefer to receive information such direction or instruction in oral form rather than in written form. In real life, pharmacist assistants usually do not read the English Medical Brochures. They just comprehend the information presented in the brochures from the detailers' explanation. Every pharmacy company has some detailers in order to maintain their products' distribution. The detailers surely know the characteristics of the medicine. Consequently the low performance of pharmacist assistants does not truly affect the patient's explanation toward the medicine.

There are obviously other factors, which contribute to reading comprehension. However, by measuring of one variable, general English competence, pharmacist assistants' performance in English Medical Brochures comprehension can be predicted.

## **CHAPTER IV**

## **CONCLUSION**