

Chapter I

INTRODUCTION

I.1.BACKGROUND OF THE STUDY

The increasing people's awareness of the importance of being healthy results in the rapid development of pharmaceutical industries. Pharmaceutical industries serve the demand of medicines. Related to the growth of such industries, there are so many medical brochures circulated in society. Today, 73 foreign pharmacy companies do their business in Surabaya. All of them surely have brochures to introduce their products. The latest data from MIMS records that more than 7000 of medical brochures spread in society and more less than half of the brochures is written in English.

Medical brochures have a great role to bring a pharmacy company and the drug consumers into contact by information of the products. The information includes detail characteristics of the drug; rules of drug consumption also precautions of drug administration. Such brochures are usually included in every pack of the medicine. However, not all of medicine given to consumers is followed by brochures. For instance, if patients do not buy a whole pack of the medicine, or if the brochures are only available in limited number or if the brochures are only printed in English. In such cases, the brochures are kept by the pharmacist as

dispensary records and patients are given general instructions of drug consumption instead. The action is taken in order to avoid patient's self-interpretation of the medicine. One who is totally responsible for medical brochure's interpretation as information for patients is a pharmacist assistant.

Pharmacist assistants have an active role in giving information to patients. Information here includes indication, contra indication, drug presentation, the effect of overdose, etc. Pharmacist assistants' explanation of recommended instruction of medicine consumption needs to be clear and complete in order to avoid patients' misinterpretation. Understanding medical brochure is closely related to patient's condition. Consequently, a little misinterpretation puts patient's life in danger. Therefore having the ability to comprehend medical brochures well is compulsory for a pharmacist assistant. Especially besides having knowledge of medicine in comprehending English medical brochures, a pharmacist assistant has to know the basic rule of English word formation (grammar) and word choice (diction) as part of English competence.

For Indonesians, English is their second working language. Most of Indonesian learners, because of various reasons, consciously or not are in process of learning English. According to the Stephen Kraschen in *Foreign and Second Language Learner* [1978] second language learning means conscious knowledge of a second language, knowing the rules, being

aware of them and being able to talk about them. However most of Indonesians, including Indonesian workers are passive learners. They are poor readers. Poor readers prefer to receive information such as directions or instructions in oral form rather than in written form [Sticht, 1978 - *The Psychology of Reading* by Carpenter]. The condition is also supported by improper method of teaching English. For instance, in medical field, English as a foreign language is taught as compulsory subject in medical schools for many years, but with possibly less urgency than the demands of modern international medicine field. The language teachers are not aware of and do not respond to that important area of teaching. Briefly, they have not focused on specific English-language teaching, in the case English used in pharmacy.

Based on the description above, it can be said that the English proficiency of Indonesian workers including pharmacy human resources is not satisfactory. Moreover, if it is believed that language competence depends on two important factors of language usage, grammar and vocabulary, the predictive conclusion which follows is that there must be so many misinterpretations in the process of understanding English medical brochures. This case may cause death. However the fact says conversely. There is no evidence that the increasing number of death is caused by the effect of pharmaceutical brochures' misinterpretation. So, there must be other factors influencing the process of comprehension.

Background knowledge of pharmacist assistants may be taken into consideration in discussing about comprehension in pharmaceutical field.

Thereby, the study focuses on the relation between the relevant degree of syntactic knowledge to English for professional purposes especially for pharmacy. The outcome of the study can determine the proper treatment that should be given to pharmacist human resources in facing the Asian Free Trade Area [AFTA-2003] and striving for obtaining the Good Pharmacy Service predicate, as one of the results of Pan Pacific Asian Congress on Clinical Pharmacy-1994.

I.2. STATEMENT OF THE PROBLEM AND HYPOTHESIS

Based on the background of the study above, the statement of the problem can be stated as follows:

1. Does the competence of English of pharmacist assistant affect his comprehension of English Medical Brochures ?
2. What are the other aspects that affect the comprehension of English Medical Brochures ?

Hypothesis

Ho : There is no correlation between English competence and degree of comprehension of English Medical Brochures among Pharmacist Assistants.

H1 : There is a correlation between English competence and degree of comprehension of English Medical Brochures among Pharmacist Assistants.

I.3. OBJECTIVE OF THE STUDY

The objective of the study based on the statement of the problem above is first, to know whether the English competence of Pharmacist Assistant affects the degree of comprehension of English Medical Brochures. Second, to describe the other factors affecting the comprehension of English Medical Brochures.

I.4. SIGNIFICANCE OF THE STUDY

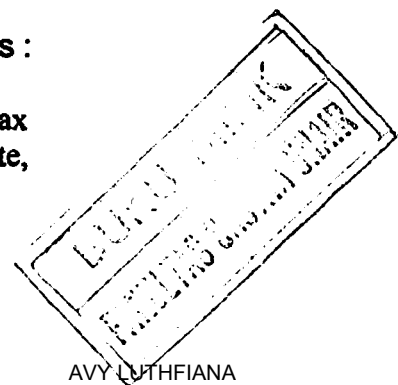
The study is due to readers of an English scientific and technical text. Moreover, the research could particularly be of some value to pharmacist assistants and as information toward pharmacy educational institutions including Faculty of Pharmacy, Vocational of Pharmacy School [Sekolah Menengah Farmasi/ SMF] and Pharmacist Assistant School [Sekolah Asisten Apoteker/SAA] in making a better school curriculum in increasing the quality of pharmacy human resources. Lastly, the research is expected to give contribution to other reading researchers at English Departments in the future.

I.5. THEORETICAL FRAMEWORK

Reading with comprehension means understanding what has been read. It is an active process, thinking process that depends not only on comprehension skills but also on the student's experiences and prior knowledge. As stated by Chittenden in Kustaryo's book *Reading Techniques for College Students* [1983]: "the ability to comprehend what one reads based on experience. Readers take what has been read and integrate it with previously learned language and experience". Another theory describes clearly what it means by experience. Previously acquired knowledge is called reader's 'Background Knowledge' and the previously acquired knowledge structure are called 'Schemata' (Patricia L Carrel – 1987:220).

Comprehension is always directed to and controlled by the needs and purposes of individual in reading. People read for many different purposes; getting information, enjoyment, improving writing ability, increasing vocabulary, enriching lives and so on. Comprehending English medical brochure is directed to give detail procedure of drug consumption. It fulfills the instructional purposes. If the readers in this case pharmacists and pharmacist assistants know the purpose of reading the brochure, they will be able to complete their work as efficient as possible. Similarly in Grabe's opinion [1986:45] reading for instructional purposes is :

The ability to recognize vocabulary and syntax automatically, the ability to read at reasonably rapid rate,



depending on the context, the ability to adjust rate and adopt strategies for careful analytic reading and critical evaluation, and the ability to establish a purpose when reading sets the limits for completing the job efficiently.

In comprehending a piece of text, readers draw new information from a page or script by identifying the categories and relationship represented in the visual forms of the page. In interpreting process, either background of knowledge or schemata becomes dominant depending on the necessities of reading. There is no general agreement among linguists about the dominant factors, which influence the linguistic process of reading comprehension, especially in foreign language reading.

As said by Ulijn [1987:71] and Grellet [1991:12], reading in second language depends mainly on the meaning of words and the knowledge of the subject. It can be stated that the readers of a foreign scientific and technical text deals more with the content words required for a conceptual analysis such as technical term and mathematical formulas than syntactic function words. For Ulijn, in reading comprehension, as the first point of reading process, knowledge is the basic element for comprehension. Therefore readers with low performance of syntactic knowledge will not face any difficulties in comprehending scientific text of certain knowledge which they are really familiar with. Another theory is proposed by Alderson [1992:1-27]. He said that poorer reading performance is caused especially by interpretation of words and syntactic structure. Poor reading of second language caused by poor ability in the first language and inadequate

knowledge of foreign language. In other words, the competence of relevant knowledge is not enough in comprehending second language scientific text, and readers should also know the rule of syntax of both the foreign language and the first language.

Moreover, Alderson explains potential sources and types of syntactic problems encountered interrelated to the competence of sentence structure. These problems such as :

- Constituent structure – what the parts of a sentence are and how they interrelate hierarchically.
- Structural items – function words and affixes which serve markers of grammatical relations and of constituent and rhetorical structure.
- Dependencies – relations expressed between discontinues element such as *so* and *that*.

In addition, there is an issue in English language, as in other languages that a single grammatical formative may perform various functions. The problem of functional overloading of a small set of very common grammatical formative needs special attention in second language learning.

Nowadays, the conception of what it means to be proficient in a language has expanded significantly. It rather emphasizes on communication including sociolinguistic and discourse competencies in addition to their grammar competence. The theory of the field of language

proficiency first proposed by Purcell [1983] and Bachman and Palmer [1982]. Bachman and Palmer's work drew on the theoretical model of communicative competence developed by Canale and Swain [1980]. Canale and Swain's work initially distinguished grammatical competence, sociolinguistic competence and strategic competence. The framework was later defined by Canale [1983] into grammatical, discourse, sociolinguistic and strategic competence. In the case of comprehension, readers deal more with grammar and vocabulary as the important things of written language usage. So, what it means by competence is passive English competence.

Performance on reading comprehension test or more generally - verbal ability test – is correlated with high school and college grades. In fact, verbal ability test is one of the best single predictors of academic success or job performance (Lavin 1965, cited in Hunt, Lunneborg & Lewis 1975).

1.6. DEFINITION OF KEY TERMS

This study is an experimental study. Some reasonable limitations and justifications to the definitions of some important terms are made. The terms have been explained directly in the background.

1. Pharmacy Human Resources

Personnel department of dispensary including pharmacists and pharmacist assistants.

2. Pharmacist Assistant

A person who has an active role in supplying medicines to patients.

They are graduates from Senior Pharmacy School or Pharmacist Assistants School.

3. English Medical Brochure

An English brochure, which contains instruction of, detailed characteristics of medicine. It describes indication, dosage and administration, contra indication, side effect of overdose, pharmacokinetics and others.

4. Medical Jargon

A set of words used in conceivable science, trade, profession and occupation of medical and pharmaceutical fields. For example :
Doudenal Ulcer, Reflux Oesophagitis, etc.

5. Pharmacy Company

A company deals with supplying demand of medicine. The product is not only finished drugs but also raw materials for medicine.

6. Foreign Pharmacy Company

A branch of international pharmacy company which has been registered in the Indonesian Directorate General Food and Drug Supervision. { Dirjen pengawasan obat dan makanan –DEPKES RI }

7. TOEFL { Test of English as Foreign Language }

Internationally standard test to measure the English proficiency of those whose native language is not English.

1.7. METHOD OF THE STUDY

-The method applied in this study is ***descriptive quantitative research*** - The study does not only describe the phenomena in English Medical Brochures comprehension-process among pharmacist assistants but also analyze the result of the study.-The hypothesis will be proved by comparing the results of two tests.-The analysis about the outcome of the test and description of other factors influencing comprehension process are also provided.

1.7.1. POPULATION

The population in this research is the pharmacist assistants who work in dispensaries in Surabaya. The researcher takes Surabaya as location of the study because Surabaya is the second biggest city of Indonesia, which will surely be affected by AFTA-2003. Another reason is that Surabaya is the researcher's residence so the knowledge of social condition of Surabaya workers will facilitate the researcher in making analysis.

I.7.2. LIMITATION

The research is focused on the English Competence of pharmacist assistants. Length of time of work is not considered in the analysis because seniority does not determine better comprehension in medical field. Fresh graduate may have better understanding of medical brochure.

I.7.3. SAMPLING

According to the latest data, there are over 832 pharmacist assistants in Surabaya. From the whole sum of pharmacist assistants in Surabaya, 30 of them are taken as samples by using *random taking sampling method* from four areas of Surabaya; East, West, South and North.

I.7.4. TECHNIQUES OF DATA COLLECTION

First, observation is held for the study conducted. Second, population is chosen. Third, samples are taken by using random sampling method from about 832 pharmacist assistants from four areas of Surabaya. Fourth, it is necessary to do preliminary study to support the assumption about the case. Fifth, tests are conducted. The sixth step is scoring process of the outcome of the tests and it is followed by recording the above result in tables.

The characteristics of the tests are:

Type of test : norm-referenced reading test

Skill involved : grammar and vocabulary

Type of passage : scientific text

Technique of testing : multiple choice, because

- It is highly structured so the test writer can get directly at many of the specific skills and the respondents cannot evade difficult problems.
- Scoring can be done quickly and involves no personal judgement as to degrees of correctness.
- It tends to have superior reliability and validity.
- Less time is consumed in examination process.

Type of items : 1. Completion or fill the missing part
2. Sentence interpretation
3. Scrambled sentence
4. Sentence alternatives

Time : 30 minutes (5 minutes for administration)

Sum of items : 20 items

Source –Test I : reading part or TOEFL

Test II : passages from English Medical Brochures

In short, the steps of technique of data collection are:

1. making observation
2. choosing the population
3. taking samples

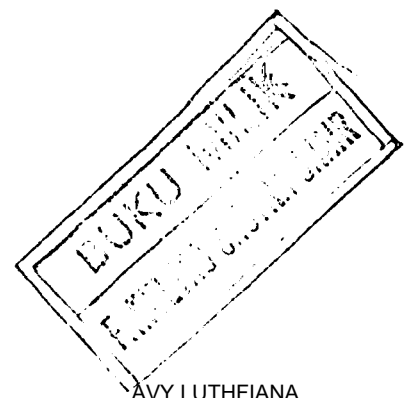
4. doing the preliminary research
5. conducting tests
6. scoring the outcome of the tests
7. recording the result of scoring process

1.7.5. TECHNIQUES OF DATA ANALYSIS

The result of the tests will be classified according to the degree of competence. It uses *Pearson Product Moment Correlation* and *Simple Regression* in statistical computation. The next step is making analysis for the outcome of the research. Last treatment is making conclusion.

In short, technique of data analysis are:

1. classifying the data
2. making statistical computation [parametric statistics]
3. making analysis
4. making conclusion



CHAPTER II

GENERAL DESCRIPTION OF THE OBJECTS OF THE STUDY