

CHAPTER I

1.1. Background of The Study

The brain is a complex structure and can be described in many different ways. Often, though, it is divided-for purposes of discussion-into three major components: portions concerned with basic bodily functions and survival; portions concerned with motivation and emotion; and portions concerned with such complex activities as language, planning, foresight, and reasoning.

The cerebral cortex-the thin outer covering of the brain-seems to be the part of the brain responsible for our ability to reasons, plan, remember, and imagine. In short, this structure accounts for our impressive capacity to process and transform information. It is important to note that the cortex is divided into two nearly symmetrical halves, the *cerebral hemispheres*. Thus, many of the structure are not entirely matched by similarity in function. The two hemispheres appear to be somewhat specialized in the functions they perform. The cerebral hemispheres are folded into many ridges and grooves, which greatly increase their surface area. Each hemisphere is usually described, on the basis of the largest of these grooves or *fissures*, as being divided into four distinct regions or lobes. (Baron : 1995)

A question of psychological interest concerns the extent to which different orthographies impose different processing demands on the readers, especially with regard to the involvement of the two cerebral hemispheres. Throughout the history of

research on hemispheric specialization, there has been speculation about the possibility that the functional organization of the literate brain may be related to the type of written script one has learned to read. (Baron : 1995)

Reading research in the 1970s and early 1980s was characterized by a search for more accurate and more revealing models of the reading process. As the other receptive language skill, listening (with which it shares much in terms of psycholinguistic processing), reading can be understood as an active, purposeful, and creative mental process in which the reader engages in the construction of meaning from a text-partly on the basis of new information provided by that text, but also partly on the basis of whatever relevant prior knowledge, feelings, and opinions that reader brings to the task of making sense of the words on the page. (Baron : 1995)

Major advances in our understanding of what readers actually do when they read have followed from a shift in orientation away from common-sense, bottom-up models of the process (from text to brain); in these, the reader, e.g. of English, is assumed to decode precisely from left to right, from letters into words, and from words into larger grammatical units, thereby retrieving the writer's meaning, step by step, from the text. There has now arisen a totally different view, the so-called top-down model of the reading process (from brain to text). This shift sometimes referred to as the 'top-down revolution'-a movement in which Goodman (and later Smith 1988a) have been especially prominent- has generated massive research support, and has been widely accepted in one form or another by reading process specialists. Top-down descriptions of the reading process characterized it as what Goodman has called

'a psycholinguistic guessing game'. The notion is that the reader does not decode in precise or sequential fashion, but instead attacks the text with expectations of meaning developed before and during the process. (Baron : 1995)

Since prior knowledge plays such a major role in this conception of reading, reading specialists have also devoted considerable attention to research on schemata theory. This work attempts to account for the way in which human beings store and organize information in net works of related notions called schemata (also 'plans', 'scripts', or 'scenarios').(IEL : 1992)

It's really never too early to start reading to a child. If a child is old enough to talk to- and parents talk to their children from day 1- then he or she is old enough to read to. For many children, reading has become the leisure activity of last resort. They dissociate reading with ditto sheets, workbooks, homework, and best scores. They develop a work book mentality about reading, carried on into adulthood. (IEL : 1992)

The important of knowledge is especially evident in reading. Every reader knows it is easier to read a text on a familiar topic than on unfamiliar topic, even if the wording, grammar, and style are otherwise fairly similar. To explain this well-known effect, a cognitive theory must describe hoe the knowledge is represented in the reader's mind and what role the knowledge plays in the comprehension processes. Reading also requires other kinds of knowledge. For example, the reader must know the meanings of specific words and the grammatical structure of English. This knowledge may not always be something that a reader can describe. The various

types of linguistic knowledge used in reading must be described as part of the theory of comprehension. (IEL: 1992)

1.2. Statement of The Problem

Based on the background of the study above, the following problem that the writer would like to present are:

1. How the children linguistic intelligence have an effect on their competence in reading?

H0: The relationship of both the linguistic intelligence and competence of comprehending English reading passage is equal to null

Hi: The relationship of both the linguistic intelligence and competence of comprehending English reading passage is not equal to null

2. Are there any significance relationships between the children's linguistic intelligence and their competence of comprehending English Reading passages?

1.3. Objective of the Study

In this study, the writer would like to know whether the linguistic intelligence of students of elementary schools correlates with their competence of understanding English reading passages or not.

1.4. Significance of the Study

Realizing that students of elementary schools linguistic intelligence and their competence are very crucial for success in English reading as foreign language, the writer would like to contribute the result of this study particularly to the progress of teaching program of elementary schools.

1.5. Theoretical Framework

Chomsky demonstrated that human language behavior can be explained only in terms of complex principles operating in the speaker's mind, principles that cannot be acquired by the simple mechanisms of association posited by the behaviorist.

Chomsky's work was one of the early landmarks of what came to be called the "cognitive revolution". Along with cognitive psychology and artificial intelligent, Chomskian generative linguistics breathed new vigor into the study of the mind, a vigor that continues unabated in today's cognitive science and neuroscience.

Norm Chomsky first laid out the basic parameters underlying a theory of language ability in the late 1950s and early 1960s:

- The Argument for Mental Grammar :

The expressive variety of language use implies that a language user's brain contains a set of unconscious grammatical principles.

- The Argument for Innate Knowledge :

The way children learn to talk implies that the human brain contains a genetically determined specialization for language.

These two arguments lead us to the conclusions that the ability to speak and understand a human language (say English) is a complex combination of nature and nurture. (Jackendoff : 1993)

Learning to read involves all aspects of language structure and use - phonology, graphology, vocabulary, grammar, discourse, and variety. Early reading books are typically evaluated in terms of the type of vocabulary they include and how they portray these sound-spelling relationships. And children's growth in reading skills is also traditionally assessed in this way. (Jackendoff : 1993)

Modern approaches are much more sensitive to the role of grammar, discourse, and variety awareness in the reading process. It is now evident that each of these levels contributes a great deal to success in reading, and also, at a later stage, provides an important foundation for writing. (Jackendoff : 1993)

A basic principle of early reading is that the language to be read should bear a close relationship to the spoken language used and heard by the child. Children should already know the words they are being asked to read, when they approach the task of reading, and the same principle applies to grammatical constructions. It is now well recognized that traditional readers included many features which were unfamiliar or even alien, and which promoted a 'mechanical' style of reading, where

words and sentences were visually decoded but not necessarily understood. Later, of course, reading becomes the main way of introducing children to new words and extending their grammatical abilities. However, with children who have reading difficulties, the principle of maintaining grammatical familiarity stays relevant until well into their teens. (Jackendoff: 1993)

The right-hemisphere damaged readers showed typical left visual neglect when copying geometric figures, drawing familiar objects, or describing their living-room furniture from memory; however, they never missed any subcomponent when writing. In contrast, left hemisphere damaged patients showed perfect performance in all the other tasks, but did poorly in writing logographs. In further studies, patients were asked to mentally put together a sequence of componential strokes into recognizable character; the result identified the left posterior region as the critical site for integrating graphemic features into a whole logograph.

These findings have important implications for the understanding of brain organization. In particular, they argue against the prevalent view, which assigns the task of reading logographic script solely to the right hemisphere. In fact, left hemispheric processing seems to be the rule for logographic as well as all other sound-based scripts. In other words, languages, regardless of the modality of their expression/reception, are highly modular in their cerebral organization. (IEL: 1992)

In other way across the central fissure from the frontal lobe is the parietal lobe. This contains *the somatosensory cortex*, to which information from the skin senses - touch, temperature, pressure, and so on - is carried. Discrete damage to this

area produces a variety of effects, depending in part on whether injury occurs to the left hemisphere, individual may lose the activity to read or write, or they may have difficulty knowing where parts of their own body are located. In contrast, if damage occurs in the right hemisphere, individuals may seem unaware of the left side of their body.

According to this view, people who speak different languages may actually perceive the world in different ways because their thinking is determined, at least in part, by the words available to them.(Baron . 1995)

Reading is a complex cognitive skill, consisting of a collection of psychological processes that together produce understanding of a text. Although reading involves many processes, a reader normally only becomes aware of them if one or another process encounters some difficulty. These difficulties make the reader aware of a few of the numerous processes that make up reading. The noun process refers to a set of operations that accomplish some goal. The process has a beginning state, an end state, and some intervening transformations.

In the case of reading, the beginning state includes the printed words on the page, the reader's initial knowledge of the topic, and the reader's knowledge of the language. The end state includes the new knowledge that reader has acquired from the text. The intervening transformations are all of the processes and structures that make up reading.

Reading is fundamentally the comprehension of language. The various levels of language, including words, phrases, sentences, and entire texts, are operated on by some of the component processes of reading.

Recently, researchers in artificial intelligence and psychology have been exploring how knowledge improves comprehension. It quickly became apparent that to improve comprehension, knowledge must be more than a set of isolated facts. To be useful, the facts must be organized. The organizational aspect of knowledge is captured in a knowledge representation called a *schema*. A schema is a framework containing a set of slots, with each slot labeled to indicate what type of information it can contain.

Finally, we pointed out that the term *reading* is actually label for a wide variety of reading related activities. A theory suggests that reading processes can operate in parallel (simultaneously) with each other and that they communicate by placing all their partial and final results in a common working memory.

1.6. Method of the Study

In doing this study, the writer uses the quantitative descriptive method since the analysis is mostly done by counting numbers and to prove whether the elementary schools students intelligence has relationship with their competence in comprehending English reading passages.

1.6.1. Definition of the Key Terms

- Intelligence*** : the ability to profit from past experiences, to learn both in the formal sense of every day integration of new experiences in the process of adaptation to circumstances or creative approaches to the environment, to deal with abstractions, or to think
- Linguistic intelligence*** : one of the most complex systems of rules to express a thought especially in the intelligence, and can be tested by make a poem
- Reading*** : the process to get meaning from a printed message
- Competence*** : the ability of the idealized speaker - hearer to associate sounds and meaning in accordance with rules of the language

1.6.2. Location and Population of the Study

The location of the study is Pucang Jajar II Elementary School Surabaya. The population of the study is the students who study at the Pucang Jajar II elementary school Surabaya within the age range of 10 - 12 years old. They have the same linguistic intelligence. They have been tested by linguistic intelligence test before. Most of them take a course outside of school.

1.6.3. Sampling

The population of this study is too large, so the writer takes sample to represent from the population. It's obtained by using the random sampling method. The writer takes 40 students within the age range 10 - 12 years of age.

1.6.4. Technique of Data Collection

In collecting the data, first, what the writer did is making preliminary observation. In the observation, she found the phenomenon, which was interesting to be analyzed further into the study. Since students of Pucang Jajar II elementary school within the age range of 10 - 12 years of old at two classes: A and B, then the writer choose the population which was taken from students who fulfill the criteria. The first criteria is all of the students in the same level of IQ, can be known from the school. The second criteria is all of the students take a course of English which given by the teacher after class. Those primary data were obtained by asking 50 students to answer on the 5 different English reading passages. The writer also asked the students to make a poem in the same title. The writer asked her 30 fellow students of English department to mark the students paper.

From the total sum of questionnaires, the writer took the questionnaires that fulfill the criteria. After distributing the questionnaires to the respondents, the writer made the reading test to find out the student's levels of competence. The test consists of five short reading English passages. They were designed to give the student's tests for their competence to understanding English passage in their linguistic intelligence.

Next in order to complete and support the validity of the data, the writer did the interview to the students.

Briefly the Data Collection's steps are:

1. Giving Reading test
2. Distributing questioners
3. Evaluating Questioners

1.6.5. Technique of Data Analysis

The analysis began with scoring the linguistic intelligence. The score range were 0 to 4. Four represented the highest score.

The linguistic intelligence is arrange into five categories: very intelligent; intelligent; sufficient; less intelligent; least intelligent to which the numerical scores 4,3,2,1,0 are assigned respectively.

Finally, the writer put all the value data into a table. Then by using the quantitative analysis the writer processed the data above.

Briefly the data analysis steps are:

1. Scoring the tests and the questionnaire
2. Classifying the data
3. Using non-parametric statistics
4. Making interpretation
5. Formulating the conclusion

CHAPTER II

**GENERAL DESCRIPTION OF THE
OBJECT OF THE STUDY**