

## **CHAPTER IV**

### **CONCLUSION**

Human has brain as the most important part of the body. Indeed, brain has the largest part which is called cerebrum. The cerebrum itself composes of two hemispheres. They are left hemisphere and right hemisphere. Both of the two hemispheres seem like mirror images of each other, but actually they are asymmetries in structure and function. Structurally, the left hemisphere is almost always larger than the right hemisphere. The right hemisphere contains long neural fibers, whereas, the left hemisphere contains shorter fibers. Functionally, the left hemisphere controls the right side of the body and vice versa. The left hemisphere controls speech, reading, writing and arithmetic, whereas, the right hemisphere plays a special role in musical and artistic abilities, in imagery and dreaming and in constructing geometric and perspective drawings. Thus, the localization of cognitive and perceptual function in particular hemisphere of the brain is called lateralization.

In this study, lateralization of the brain is questioned. The research relates the lateralization of the brain by giving two tests to the respondents. The first test is to comprehend picture story. It is considered to get involved in the activity of right hemisphere as it relates with drawing, whereas, the second test is to comprehend written text. It involves the activity of the left hemisphere. Indeed, the respondents in this study are the students of product-design engineering of the 10 November Institute of Engineering Surabaya (ITS). There are 30 students who

are taken as the sample. Furthermore, they dominantly learn courses which relate to drawing and mostly spend their time to draw.

The scores of their tests reveal that their scores of test I (picture story) are better than those of test II (written text). There are 27 of the respondents or 90 % of them got the scores above 60 in test I, whereas in test II, only 8 or 26.7 % of the respondents got the scores above 60. This is also shown by the value of the chi square test in which the  $\chi^2$  value of the analysis ( $\chi^2=20.581$ ) is not more than the  $\chi^2$  value from the table ( $\chi^2=42.557$ ). By the meaning of this, the first hypothesis,  $H_0$ , the comprehension of the students of product-design engineering in comprehending picture story is better than that of written text, is accepted. Thus, it shows that the abilities of the students of product design engineering in comprehending picture story are better than those of written text. Roughly speaking, it probably happens because of the frequency and the sort of the courses they customarily get. They usually utilize their brain for certain courses which relate with drawing, thus it involves the right hemisphere's work.

Moreover, there are probably two factors which affect the scores of the respondents in doing the tests. They are internal and external factors. The internal factors include the psychological conditions of the respondents such as their health, temperaments and moods; the respondents' habits, for instance, the frequency of reading and the sort of the courses they receive in the college; and the reading materials in the tests. Whereas external factors might be the situation of the classroom and its surroundings which may affect the concentration of the respondents in doing the tests.

In fact, some researchers who focus their attention in this field confirm that actually there is no strict line which truly separates the work of the hemispheres (left and right). Thus, they only differ in their specialization. In other words, they work in different ways. Both might have the same abilities in doing some works, but one hemisphere does them better than the other.

## **REFERENCES**