Workshop series on Academic Writing & Logical Thinking at the library 2015 3rd Workshop – How to use logic practically

<u>1. What is a convincing support?</u>

Oxford Dictionary of English defines the adjective, "convincing", as "capable of causing someone to believe that something is true". Accordingly, a convincing support for a thesis statement is the one by which someone can come to believe that the thesis statement is true.

2. Convincing support and logical argument

Logical argumentation is the necessary means to building a convincing support. In order to know how to build a convincing support, it is necessary to know how to build a logical argument.

3. What is a logical argument?

A logical argument is basically a combinatorial product of premise and conclusion, connected in way that exhibits *an inferential relation*. Consider the following example:

- (1) Peter is either at his office or at his apartment.
- (2) Peter is not at his office.
- (3) Peter is at his apartment.

Premise serves as a supporting ground or reason for inferring a conclusion. Conclusion, accordingly, is affirmed or proven by its supporting premise or premises. Inferential relation between a premise and conclusion is the heart of a logical argument as well as convincing support.

4. Two main kinds of logical argument

(1) Deductive argument

In a deductive argument, the inferential relation between the argument's conclusion and its premise(s) exhibits an absolute necessity. In other words, the conclusion is claimed to follow from its premises with 100% certainty.

(2) Inductive argument

In an inductive argument, the inferential relation between the argument's conclusion and its premise(s) exhibits only a probability. In other words, the conclusion is claimed to follow from its premise(s) with less than 100% certainty.

5. The importance of logical reasoning

Apart from being convincing, there are other reasons to study logical reasoning. One important reason is to make a better sense of the information perceived through our five senses. We cannot get all the information about the world through our senses, therefore we need to think, and think logically.

6. Exercises on logical inference

There are two parts of the exercises on making logical inference, part A and B. Part A is designed to train you how to make a proper inference based on a premise. Part B is designed to train you how to find the proper premise for a conclusion.