

DEDUCTIVE THINKING FOR WRITING

Deductive logic, the basis for deductive thinking, is one of the most commonly used patterns of thinking.¹ This article is devoted to clarifying the pattern of deductive thinking for written composition² since deduction is very commonly used in writing academic papers and assignments.

Deductive thinking can be described in varied simplistic ways. “A deductive argument claims that it’s *logically necessary* that if the premises are all true then so is the conclusion.”³ The key to understanding this description is to see that if deductive logic is being used accurately and correctly, accurate points or arguments will lead to an accurate conclusion or result. Otherwise, erroneous points or arguments must lead to an erroneous conclusion.

Deductive Thinking and Organization

Another and very simplistic version of the deductive process is to say that a person begins with a generalization and progresses to specific points. Does this sound familiar? It is the process normally seen in a descending outline format, like so:

- I. -----
- A. -----
- B. -----
- 1. -----
- 2. -----
- II. -----

In this outline example, Roman numeral “I” is a generalized statement or premise. Then deductively, specific logical points are identified from the generalization. It is easy to understand that if the generalization “I” is accurate, correct or true, then it is likely, though not guaranteed, that the specific points taken from it will be accurate, correct or true. However, if the general premise “I” is in error, then one or more specific points taken from it must also be in error.

Most university students are familiar with common outline logic and format as illustrated above. That descending outline format is deductive strategy. In good quality academic writing, a similar deductive outline format can be used as the skeleton of an entire paper or for each section of a paper.

The student writer can implement solid, logical and accurate deductive process by using an outline for the paper, project or composition assignment that is carefully designed and verified as accurate by pertinent research. Caution taken in research and in logical paper organization and written argument is vital because any one of the specific outline points (minor premises) can become erroneous.⁴

Deductive Thinking and Thesis Statement

Another commonly used category of deductive thinking is known as “propositional logic.”⁵ Essentially, propositions are arguments that follow an “if...then...” pattern. This logical pattern is common in any academic composition that uses a thesis statement, although the words “if” and “then” are not necessary to create the pattern.

A simple proposition often consists of a “premise” and its “proofs.” The premise is a “[s]tatement of an argument from which . . . the conclusion is claimed to follow.”⁶ The premise is validated by its proof. A “proof breaks a complicated [premise] argument into a series of small steps.”⁷ The process of premise and proof(s) might be illustrated as follows:

PREMISE:

Proof 1

+ Proof 2

+ Proof 3

+ Proof . . .

= Conclusion (i.e., premise is valid)

The pattern above is clearly deductive. The premise is a generalization followed by specific proofs (steps) explaining and validating it. The proofs lead logically to the conclusion that the premise is valid and accurate. How is this pattern propositional? In several ways, but for one instance—the proof(s) serve as “if,” and the conclusion serves as “then.”

Because this premise-proofs-conclusion pattern is so simple, it is very often the pattern used to write entire academic papers, whether they be simple or complex. Notice below how the deductive pattern functions easily for an academic composition:

THESIS STATEMENT:

Section or Argument 1

+ Section or Argument 2

+ Section or Argument 3

+ Section or Argument . . .

= Conclusion (i.e., thesis statement is valid)

¹ For discussion of basics of deductive strategy, see: Gensler, Harry J. (2002). *Introduction to logic*. London/New York: Routledge, pp. 7-34.

² For comments on deductive thinking for writing, see: Hacker, Diana (2006). *The Bedford handbook* (7th ed.). Boston/New York: Bedford/St. Martins, pp. 509-512.

³ Gensler, p. 268.

⁴ There are a variety of logical errors (fallacies) commonly committed in academic writing. Such fallacies are valuable to learn and discern, but beyond the scope of this article.

⁵ For thorough discussion, see: Gensler, pp. 35-70.

⁶ *Ibid.*, p. 395.

⁷ *Ibid.*, p. 71.