

## INDUCTIVE THINKING FOR WRITING

Inductive logic, the basis for inductive thinking, is one of the most commonly used patterns of thinking.<sup>1</sup> This article is devoted to clarifying the pattern of inductive thinking for written composition<sup>2</sup>; since induction is commonly used in academic writing and communication.

Inductive thinking/strategy can be described in varied simplistic ways. The inductive thinking process, though natural, is usually not as clearly defined and portrayed in academic writing as is deductive thinking. The human mind uses induction, as well as deduction, very naturally throughout the day in innumerable situations. However, the inductive process is more difficult to discern, implement accurately, and control.

The inductive thinking process is often referred to as “generalizing”<sup>3</sup> because it essentially means that one begins with specific details or facts and progresses to a general principle as a conclusion. Therefore, induction functions as the opposite to deduction. Further, inductive generalizing is based on probability, not certainty. “An inductive argument claims that it’s *likely* (but not logically necessary) that if the premises are all true then so is the conclusion.”<sup>4</sup> Thus, if inductive process is used accurately, the best that can be said is that its conclusion(s) is *probably* valid and accurate.

An erroneous inductive conclusion is extremely easy to make, for it is very quick and convenient. In academic writing, wise students will be cautious to avoid inappropriate inductive conclusions for sake of time and convenience. The intelligent academic reader/instructor can easily discern inaccurate and convenient inductive generalizations.

### *Varied Examples of Inductive Thinking*

#### *Example 1 – Seeing and Summarizing:*

**Details:**        **I look at a man, and I see he is wearing gray Nike shoes, light brown slacks, dark blue pull-over shirt, light gray vinyl jacket, and black baseball cap having a silver emblem on it.**

*These details lead to -*

**Generalization (Conclusion):**    **These are the man’s clothes.**

#### *Example 2 – Bible Analysis and Application:*

**Details:**        **Observation: I carefully and thoroughly examine a passage in the Bible (e.g., Psalm 23), noting the meaning of words and idioms, and the relationships between words, sentences and paragraphs.**

**Interpretation: My goal in this step is to decide what key spiritual lesson the Bible passage (Psalm 23) contains based on my Observation step. I decide**

**what the spiritual lesson is, and I mentally frame it as a principle (e.g., God’s providential care for the psalm writer) found in the passage.**

*These details lead to -*

**Generalization (Conclusion): Application: I take the principle interpretation of the Bible passage (Psalm 23) I have decided upon, and I generalize that principle enough that it can be applied to my life today (e.g., God’s providential care for all of His people) in an accurate and meaningful way.**

### **Example 3 – Limit to One’s Perspective:**

There is an old proverb that criticizes a person as one who “**can’t see the forest for the trees.**” This means that a person cannot see the whole forest in which he/she stands because he/she is busy focusing on viewing the trees in the forest. The trees represent details. The forest represents a generalization (a general principle). The proverb teaches that a person’s perspective is limited, that he/she cannot discern the scope and extent of something as long as he/she persists in focusing upon its details.

Criticism of this tree examiner can be eliminated by implementing the inductive thinking process. The details of the trees are fine and good up to a point. Inductively, the details must lead to a general conclusion. If the tree examiner will stop his/her close-up analysis, retreat from the trees, and view the entire forest at once from a distance, he/she will have acted inductively.

### **Example 4 – Stereotyping:**

Stereotyping is well known. Stereotyping is an application of inductive thinking, but it is an inaccurate misuse of the details-to-generalization process. Stereotyping happens in that it is easy and convenient logic, but not valid in its conclusion.

A stereotype is created in one’s mind by too quickly and ignorantly assuming that details of a part correctly apply to the general whole. Thus, stereotypes can be inaccurate generalizations of mistrust, such as, “**All politicians are crooks**”; racist or sexist generalizations, such as, “**Wives belong at home to tend the house and kids**”; or generalized responses of disgust, such as, “**I will never shop at a Wal-Mart again.**” Stereotypes take many other forms as well. Such generalizations are inductive but are inaccurate, uncertain, or without sufficient evidence to support them.

### *Inductive Strategy in Writing*

Given that the inductive thinking process functions in contrast to deductive thinking, and that legitimate inductive conclusions are valid but at best only probable – how may inductive thinking impact a student’s academic writing? As a reply, here are some writing guidelines:

- (1) The facts or detailed evidences/arguments used in the composition must be accurate, properly researched, and used in a fair and logically justifiable manner. Inaccurate facts or other data will lead to inaccurate conclusions derived from them.
- (2) Intelligent caution and discernment should be used in wording generalizations and/or arguments and conclusions. Descriptive words such as “all,” “ever,” “always,” “only,” and “never” are categorical and indicate certainty. Such terms should be avoided unless the writer wishes to clearly limit discussion to a select data or group. Otherwise, in wording generalizations and arguments, it is best to use terms more reasonable like “most,” “many,” “some,” “seldom,” etc.<sup>5</sup>
- (3) Ultimately, inductive logic and its conclusions consist of unproven assumptions<sup>6</sup> that hopefully may be written into a composition in a reasonable and sensible fashion. Far-reaching or absurd assumptions, and generalizations simply for sake of convenience, must be avoided. The inductive details-to-general conclusion process is valid if the details are accurate and the conclusion(s) is reasonable and in some verifiable way.
- (4) Both deductive and inductive reasoning are natural and necessary to human existence and activity. Both are natural to academic writing, but inductive reasoning is less neat, precise, and sure. Both kinds of reasoning, working together, can potentially construct a well-designed and persuasive composition.

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<sup>1</sup> For discussion of basics of inductive strategy, see: Gensler, Harry J. (2002). *Introduction to logic*. London/New York: Routledge, pp. 267-304.

<sup>2</sup> For comments on inductive thinking for writing, see: Hacker, Diana (2006). *The Bedford handbook* (7<sup>th</sup> ed.). Boston/New York: Bedford/St. Martins, pp. 506-507.

<sup>3</sup> Ibid., p. 506.

<sup>4</sup> Gensler, p. 268.

<sup>5</sup> Hacker, p. 507.

<sup>6</sup> Gensler, pp. 302-304.