

## To Evaluate Thinking We Must Understand and Apply Intellectual Standards

Reasonable people judge reasoning by intellectual standards. When you internalize these standards and explicitly use them in your thinking, your thinking becomes more clear, more accurate, more precise, more relevant, deeper, broader and more fair. You should note that we focus here on a selection of standards. Among others are credibility, sufficiency, reliability, and practicality. The questions that employ these standards are listed on the following page.

### Clarity:

understandable, the meaning can be grasped

### Accuracy:

free from errors or distortions, true

### Precision:

exact to the necessary level of detail

### Relevance:

relating to the matter at hand

### Depth:

containing complexities and multiple interrelationships

### Breadth:

encompassing multiple viewpoints

### Logic:

the parts make sense together, no contradictions

### Significance:

focusing on the important, not trivial

### Fairness:

justifiable, not self-serving or one-sided

### Clarity

Could you elaborate further?  
Could you give me an example?  
Could you illustrate what you mean?

### Accuracy

How could we check on that?  
How could we find out if that is true?  
How could we verify or test that?

### Precision

Could you be more specific?  
Could you give me more details?  
Could you be more exact?

### Relevance

How does that relate to the problem?  
How does that bear on the question?  
How does that help us with the issue?

### Depth

What factors make this a difficult problem?  
What are some of the complexities of this question?  
What are some of the difficulties we need to deal with?

### Breadth

Do we need to look at this from another perspective?  
Do we need to consider another point of view?  
Do we need to look at this in other ways?

### Logic

Does all this make sense together?  
Does your first paragraph fit in with your last?  
Does what you say follow from the evidence?

### Significance

Is this the most important problem to consider?  
Is this the central idea to focus on?  
Which of these facts are most important?

### Fairness

Do I have any vested interest in this issue?  
Am I sympathetically representing the viewpoints of others?

## Analyzing the Logic of an Article, Essay or Chapter

One important way to understand an essay, article or chapter is through the analysis of the parts of the author's reasoning. Once you have done this, you can evaluate the author's reasoning using intellectual standards (see page 9). Here is a template to follow:

- 1) The main **PURPOSE** of this article is \_\_\_\_\_.  
(Here you are trying to state, as accurately as possible, the author's intent in writing the article. What was the author trying to accomplish?)
- 2) The key **QUESTION** that the author is addressing is \_\_\_\_\_.  
(Your goal is to figure out the key question that was in the mind of the author when he/she wrote the article. What was the key question addressed in the article?)
- 3) The most important **INFORMATION** in this article is \_\_\_\_\_.  
(You want to identify the key information the author used, or presupposed, in the article to support his/her main arguments. Here you are looking for facts, experiences, and/or data the author is using to support his/her conclusions.)
- 4) The main **INFERENCES** in this article are \_\_\_\_\_.  
(You want to identify the most important conclusions the author comes to and presents in the article).
- 5) The key **CONCEPT**(s) we need to understand in this article is (are) \_\_\_\_\_. By these concepts the author means \_\_\_\_\_.  
(To identify these ideas, ask yourself: What are the most important ideas that you would have to know to understand the author's line of reasoning? Then briefly elaborate what the author means by these ideas.)


- 6) The main **ASSUMPTION**(s) underlying the author's thinking is (are) \_\_\_\_\_.  
(Ask yourself: What is the author taking for granted [that might be questioned]? The assumptions are generalizations that the author does not think he/she has to defend in the context of writing the article, and they are usually unstated. This is where the author's thinking logically begins.)
- 7a) If we accept this line of reasoning (completely or partially), the **IMPLICATIONS** are \_\_\_\_\_.  
(What consequences are likely to follow if people take the author's line of reasoning seriously? Here you are to pursue the logical implications of the author's position. You should include implications that the author states, and also those that the author does not state.)
- 7b) If we fail to accept this line of reasoning, the **IMPLICATIONS** are \_\_\_\_\_.  
(What consequences are likely to follow if people ignore the author's reasoning?)
- 8) The main **POINT(S) OF VIEW** presented in this article is (are) \_\_\_\_\_.  
(The main question you are trying to answer here is: What is the author looking at, and how is he/she seeing it? For example, in this mini-guide we are looking at "analysis" and seeing it "as requiring one to understand" and routinely apply the elements of reasoning when thinking through problems, issues, subjects, etc.).

If you truly understand these structures as they interrelate in an article, essay or chapter, you should be able to empathically role-play the thinking of the author. These are the eight basic structures that define all reasoning. They are the essential elements of thought.

**Be aware:** It is possible to use the basic structures of thinking to analyze articles, essays, and chapters. This analysis will deepen one's insight into the author's reasoning.

# The Thinker's Guide to Analytic Thinking

The Thinker's Guide to  
Analytic Thinking  
by Linda Elder and Richard Paul

The  
Foundation  
for  
Critical Thinking  
P.O. Box 196, Tomales, CA 95472

All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or by any information storage and retrieval system, without written permission from the author, except for the inclusion of brief quotations in a review.

Copyright © 2012, 2010, 2003 by Linda Elder and Richard Paul  
Second edition.

Published in the United States of America

ISBN # 978-0-944583-19-7 (13 digit)  
ISBN # 0-944583-19-9 (10 digit)

[www.criticalthinking.org](http://www.criticalthinking.org)