The Thinker’s Guide to

The Art of

Asking

Essential Questions

By

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and

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Based on

Critical Thinking Concepts and Socratic Principles

The Foundation for Critical Thinking
Dear Reader:

This miniature guide introduces the art of asking essential questions. It is best used in conjunction with *The Miniature Guide to Critical Thinking* and *The Miniature Guide to How to Study and Learn*.

The quality of our lives is determined by the quality of our thinking. The quality of our thinking, in turn, is determined by the quality of our questions, for questions are the engine, the driving force behind thinking. Without questions, we have nothing to think about. Without essential questions, we often fail to focus our thinking on the significant and substantive.

When we ask essential questions, we deal with what is necessary, relevant, and indispensable to a matter at hand. We recognize what is at the heart of the matter. Our thinking is grounded and disciplined. We are ready to learn. We are intellectually able to find our way about.

To be successful in life, one needs to ask essential questions: essential questions when reading, writing, and speaking; when shopping, working, and parenting; when forming friendships, choosing life-partners, and interacting with the mass media and the Internet.

Yet few people are masters of the art of asking essential questions. Most have never thought about why some questions are crucial and others peripheral. Essential questions are rarely studied in school. They are rarely modeled at home. Most people question according to their psychological associations. Their questions are haphazard and scattered.

Essential questions fall into a range of categories. Some essential questions are principally analytic, some principally evaluative. Some apply predominantly to academic subjects, others to our innermost thoughts, feelings, and desires.

As you might expect, the categories and lists of essential questions in this mini-guide are illustrative, not exhaustive. Furthermore, the ideas we provide are useful only to the extent that they are employed daily to ask essential questions. Practice in asking essential questions eventually leads to the habit of asking essential questions. But we can never practice asking essential questions if we have no conception of them. This mini-guide is a starting place for understanding concepts that, when applied, lead to essential questions.

Sincerely,

Diet W. Paul

Guido Elder

Contents

Introduction: The Power of Essential Questions ............................................. 3

Part One: Analytic Questions ................................................................. 5
  Questioning the Structure of Thinking ...................................................... 5–8
  Asking One System, No System, and Conflicting System Questions ............. 9
  Questioning Dogmatic Absolutism and Subjective Relativism ................... 10
  Questioning Concepts ............................................................................ 11–12
  Conceptual Tools for Conceptual Questions ........................................... 13–14
  Questioning Data, Information, and Experience ........................................ 15
  Questioning Questions: Identifying Prior Questions .................................. 16
  Asking Complex Interdisciplinary Questions ........................................... 17
  Interdisciplinary Questions: An Example .................................................. 18
  Questioning in Decision-Making and Problem-Solving ............................ 19–20

Part Two: Evaluative Questions ............................................................... 21
  Determining Value, Merit, and Worth ....................................................... 21
  Evaluating Reasoning (Overall) ............................................................... 22–23
  Evaluating Reasoning (The Parts) ........................................................... 24
  Questioning Clarity and Precision ........................................................... 25
  Questioning As We Read ......................................................................... 26
  Questioning As We Write ..................................................................... 27
  Asking Ethical Questions ....................................................................... 28–30
  Questioning Bias and Propaganda ......................................................... 31

Part Three: Questioning Within Academic Disciplines ............................ 32
  Questioning the Fundamental Logic of Academic Disciplines .................. 32–33
  Questioning the Status of Disciplines ................................................. 34
  Questioning to Understand the Foundations of Academic Disciplines ........ 35–36
  • Essential Questions in Science ............................................................ 35–36
  • Essential Questions in the Social Disciplines ........................................ 36
  • Essential Questions in the Arts ............................................................ 36

Part Four: Questioning for Self-Knowledge
  and Self-Development ........................................................................... 37
  Questioning Ourselves as Learners ......................................................... 37–38
  Questioning Our Egocentrism ............................................................... 39–40
  Questioning Our Sociocentrism ............................................................. 41
  Questioning to Develop Intellectual Dispositions ................................... 42–44

Conclusion: Questioning Systematically
  and Socratically .................................................................................... 45–46
The Quality of Our Thinking is Given in the Quality of Our Questions
Introduction: The Power of Essential Questions

It is not possible to be a good thinker and a poor questioner. Questions define tasks, express problems, and delineate issues. They drive thinking forward. Answers, on the other hand, often signal a full stop in thought. Only when an answer generates further questions does thought continue as inquiry. A mind with no questions is a mind that is not intellectually alive. No questions (asked) equals no understanding (achieved). Superficial questions equal superficial understanding, unclear questions equal unclear understanding. If your mind is not actively generating questions, you are not engaged in substantive learning.

Thinking within disciplines is driven, not by answers, but by essential questions. Had no basic questions been asked by those who laid the foundation for a field — for example, physics or biology — the field would not have been developed in the first place. Every intellectual field is born out of a cluster of essential questions that drive the mind to pursue particular facts and understandings. Biology was born when some humans pursued answers to the questions: “What are the characteristics of living systems? What structures exist in them? What functions do these structures serve?” Biochemistry was born when biologists began to ask questions such as: “What chemical processes underlie living things? How and why do chemical processes within living things interact and change?”

Every field stays alive only to the extent that fresh questions are generated and taken seriously as the driving force in thinking. When a field of study is no longer pursuing significant answers to essential questions, it dies as a field. To think through or rethink anything, one must ask the questions necessary to thinking through the logic of that thing, clearly and precisely.

In this miniature guide, we introduce essential questions as indispensable intellectual tools. We focus on principles essential to formulating, analyzing, assessing, and settling primary questions. You will notice that our categories of question types are not exclusive. There is a great deal of overlap between them. Deciding what category of question to ask at any point in thinking is a matter of judgment. Having a range of powerful questions to choose from is a matter of knowledge.

Because we cannot be skilled at thinking unless we are skilled at questioning, we strive for a state of mind in which essential questions become second nature. They are the keys to productive thinking, deep learning, and effective living.
Questioning in a live and “learning” mind never ends, rather questions become transformed. They generate further questions and stimulate new ways to think, new paths to follow as we analyze thinking and evaluate thinking to improve our thinking.
Part One: Analytic Questions

Asking essential analytic questions is vital to excellence in thought. When we analyze, we break a whole into parts. We do this because problems in a “whole” are often a function of problems in one or more of its parts. Success in thinking depends, first of all, on our ability to identify the components of thinking by asking essential questions focused on those components.

Questioning the Structure of Thinking

One powerful way to discipline your questions is to focus on the components of reasoning, or parts of thinking. They are as follows:

As you formulate questions, consider the following guidelines and sample questions:

1. **Questioning Goals and Purposes.** All thought reflects an agenda or purpose. Assume that you do not fully understand someone’s thought (including your own) until you understand the agenda behind it. Questions that focus on purpose in thinking include:
   - What are we trying to accomplish here?
   - What is our central aim or task in this line of thought?
   - What is the purpose of this meeting, chapter, relationship, policy, law?
   - What is our central agenda? What other goals do we need to consider?
   - Why are we writing this? Who is our audience? What do we want to persuade them of?

2. **Questioning Questions.** All thought is responsive to a question. Assume that you do not fully understand a thought until you understand the question that gives rise to it. Questions that focus on questions in thinking include:
   - I am not sure exactly what question you are raising. Could you explain it?
   - Is this question the best one to focus on at this point, or is there a more pressing question we need to address?
   - The question in my mind is this… Do you agree or do you see another question at issue?
   - Should we put the question (problem, issue) this way… or that…?
   - From a conservative viewpoint the question is …; from a liberal viewpoint it is… Which is the most insightful way to put it, from your perspective?
Questioning Questions: Identifying Prior Questions

Whenever we are dealing with complex questions, one tool useful in disciplining our thinking is that of identifying questions presupposed in a question that is our direct concern. In other words, because questions often presuppose other questions having been answered, it is often useful to question a question by figuring out what “prior” questions it assumes, or, alternatively, what other questions it would be helpful for us to answer first, before we try to answer the immediate question at issue. This is especially important when dealing with complex questions. We can often approach a complex question through simpler questions.

Hence, to answer the question “What is multiculturalism?” it would be helpful to first settle the question, “What is culture?” And to settle that question, it would be helpful to answer the question, “What are the factors about a person (nationality, religion, ideology, place of birth…) that determine what culture he or she belongs to?”

To construct a list of prior questions, begin by writing down the main question you are focused on. Then formulate as many questions as you can think of that you would have to answer, or it would be helpful to answer, before answering the first. Then take this list and determine what question or questions you would have to answer, or it would be helpful to answer, prior to answering these questions. Continue, following the same procedure for every new set of questions on your list.

As you proceed to construct your list, keep your attention focused on the first question on the list as well as on the last. If you do this well, you should end up with a list of questions that shed light on the logic of the first question.

**Main question:** What is history?

**Prior questions:**
- To what extent do all historians share the same goal?
- Is it possible to include all relevant facts of the past in a history book?
- How many of the events during a given time period are left out in a history of that time period?
- Is more left out than is included?
- How does a historian know what to emphasize?
- Can historical value judgements be objective?
- What variables might influence a historian’s viewpoint?
- Is it possible to simply list facts in a history book or does all history writing involve interpretations as well as facts?
- Is it possible to decide what to include and exclude and how to interpret facts without adopting a historical point of view?
- How can we begin to evaluate a historical interpretation?
- How can we begin to evaluate a historical point of view?
Asking Complex Interdisciplinary Questions

When addressing a complex question covering more than one domain of thought, target prior questions by formulating questions according to domain. Does the question, for example, include an economic dimension? Does it include a biological, sociological, cultural, political, ethical, psychological, religious, historical, or some other dimension? For each dimension of thinking inherent in the question, formulate questions that force you to consider complexities you otherwise may miss.

When focusing on domains within questions, consider such questions as:
- What are the domains of thinking inherent in this complex question?
- Am I dealing with all the relevant domains within the question?
- Are we leaving out some important domains?

This figure shows some of the domains that might be embedded in a complex question:

Domains of Questions (by discipline)
This diagram was adapted from a diagram created by John Trapasso.
Questioning in Decision-Making and Problem-Solving

Everyday life is an endless sequence of decisions. Some decisions are small and inconsequential; some large and life-determining. When we consistently make rational decisions, we live a rational life. When we consistently make irrational decisions, we live an irrational life. Rational decisions maximize the quality of one's life without violating the rights or harming the well-being of others. Rational decisions maximize our chances of happiness, successful living, and fulfillment.

The same points can be made for problem-solving. Our daily lives are filled with problem-solving situations. The better we are at solving problems, the more fulfilled and rational are our lives.

The Logic of Decision-Making

To make rational decisions, we need to use our understanding of the logic of decision-making to routinely ask questions that improve the quality of our decisions. Through our questions, we raise the process of decision-making to the level of conscious and deliberate choice.

The logic of decision-making, then, is determined by the need to make a decision and the consequences that follow from that need.

- **The goal:** to decide between some set of alternatives, the one most in keeping with our welfare and the welfare of others.
- **The question:** “At this point in my life, faced with the alternatives (A or B or C or D), which is the one most likely to enhance my welfare and the welfare of others?”

Four keys to sound decision-making are:

1. To recognize when you face an important decision
2. To accurately identify the alternatives
3. To logically evaluate the alternatives
4. To act on the best alternative

Good thinkers routinely ask the following types of questions when making decisions:

- What should be my main goal in making this decision?
- From what point of view am I looking at this decision?
- What is the precise question I am trying to answer?
- What information do I need to answer this question?
- What can I safely assume in reasoning through this decision?
- What are my alternatives in this situation?
- What are some likely implications of my deciding this versus deciding that?

The Logic of Problem-Solving

Most of the points we made about decision-making can also be made about problem-solving. Problems are embedded in the fabric of our lives almost to the same extent as decisions. Every domain of decision-making is also a domain in which we have to solve problems. Every decision has an impact on our problems, either to minimize them or to contribute to them. Poor decisions create problems. Many problems can be avoided by sound decision-making early on.

Problems can be divided into two types:

1. Problems that we ourselves have created by our own decisions and behavior.
2. Problems created by forces outside of us.

Let us then divide each of these into two groups:

1. Problems that we can solve, in whole or in part.
2. Problems beyond our control.

Clearly, we are apt to have the best chance of solving problems that we ourselves have created, for we often have the capacity to reverse decisions we previously made and modify behavior in which we previously engaged.
Questioning Clarity and Precision

One of the most common problems in addressing complex questions arises when the question at issue is unclear. When the question is unclear or vague, thinking has no clear guide. It wanders without a clear sense of relevance. Thoughts are scattered. But when we take time to clarify a question, we are better able to settle it. We make clear to ourselves the intellectual task at hand and what that task requires of us.

One of the most effective strategies is to add details to the question, to break it down, and to be more exact. We disentangle questions best treated separately. We notice relations and overlap between distinguishable sub-questions.

Consider the following, and the multiple meanings the question might have, depending on the context and situation within which we are asking it. By making the question more precise, we are better able to answer it:

**How can we best preserve our environment?**

- What can individual persons do to minimize the pollution they create?
- What legislation would be helpful in protecting the environment while minimizing problems for business or inconvenience to the public? What can citizens do to convince…
- How can citizens educate themselves about the nature and history of the environment?
- What are our most serious environmental problems? How have they been caused? What can we learn from them? What must we understand to take appropriate action to solve them?
- What can citizens do in combination to reduce environmental problems in their local communities?
- To what extent are governmental agencies acting to minimize environmental damage (without imposing inappropriate bureaucratic restraints)?

**Essential Idea:** A question is clear when we know precisely what we need to do to settle it. A vague interrogative sentence is not a clear question. Don’t try to answer a question until you know precisely what it is asking.
Four Ways to Generate Questions that Lead to Disciplined Thinking

Use your knowledge of structures of thought and logic systems

- to focus on questions based on the elements of thought:
  - Purpose
  - Assumptions
  - Implications
  - Questions at issue
  - Information
  - Point of view
  - Concepts
  - Interpretations

Use your knowledge of systems

- to focus on three types of questions:
  - Questions with one right answer
  - Questions that are a matter of subjective preference
  - Questions requiring reasoned judgement

Use your knowledge of standards

- to focus on questions based on standards:
  - Clarity
  - Relevance
  - Logicalness
  - Accuracy
  - Depth
  - Fairness
  - Precision
  - Breadth
  - Significance

Use your knowledge of disciplines and domains

- to focus on questions specific to a discipline or domain:
  - Scientific questions
  - Historical questions
  - Mathematical questions
  - Literary questions
  - and so on
The Foundation for Critical Thinking seeks to promote essential change in education and society through the cultivation of fair-minded critical thinking, thinking predisposed toward intellectual empathy, humility, perseverance, integrity, and responsibility. A rich intellectual environment is possible only with critical thinking at the foundation of education. Why? Because only when students learn to think through the content they are learning in a deep and substantive way can they apply what they are learning in their lives. Moreover, in a world of accelerating change, intensifying complexity, and increasing interdependence, critical thinking is now required for survival.

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