

Teacher's Manual



*The Miniature Guide
to Critical Thinking
for Children*

Linda Elder

Dear Fellow Teacher,

Children's minds are a precious resource. Yet, too often, inquiring minds (ASK ME! ASK ME! ASK ME!) are transformed by 4th or 5th grade into passive, non-questioning minds (WHY ARE YOU ASKING ME? IS THIS GOING TO BE ON THE TEST?).

I hope that this manual and its companion, *The Miniature Guide to Critical Thinking for Children*, will become important and useful aids to you in fostering the development of your children's minds. We also have available posters and masks of Fairminded Fran, Selfish Sam, and Naïve Nancy.

All of the ideas and activities in this manual have been tested by teachers like you. As teachers become increasingly comfortable with critical thinking concepts and tools, their success in teaching their children grows accordingly.

When I work with elementary students, they enthusiastically participate in the activities suggested in this manual. I have found that children naturally gravitate toward intellectual stimulation (when they feel they can competently do the work being asked of them). Ironically, we tend to under-estimate the capacity of children to engage in critical thinking.

I wish you success in working with this manual. Please give me your feedback on what works best and where you have difficulties.
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Sincerely,



Linda Elder

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Introduction

Thinking is the Tool We Use to Make Sense of the World

Wherever children go, their thinking goes with them, making their lives better or worse—depending on the quality of their thinking.

Children’s thinking often gets them into trouble. It can lead to pain, suffering, and waste. It can lead to their delight or their embarrassment. Children’s thinking does not, by nature, function well. It does not naturally do the jobs they need it to do. It can make what is important seem unimportant. It can make the trivial significant. It can lead to superstition, prejudice, and stereotyping. It can lead to cruelty and injustice.

In other words the mind of the child doesn’t naturally develop the requisite skills, abilities, and dispositions essential to making good decisions, reasoning through complex problems, getting along with others, or contributing in a positive way in the world.

Developing the mind requires learning to think critically, to systematically analyze and assess our own thinking as well as the thinking of others, to take thinking apart in order to identify problems in it, and then to eliminate the problems we find.

Children Are Capable of Thinking Critically

From a young age, children are capable of learning some of the foundational critical thinking concepts and skills. Though they are largely egocentric, children can nevertheless *begin* to think about how their behavior affects other people. They can *begin* to take thinking apart (to focus, for example, on purpose, questions, information, inferences, in thinking). They can *begin* to apply intellectual standards to their thinking (such as clarity, accuracy, relevance and logicalness). They can begin to develop intellectual virtues (such as intellectual perseverance, intellectual humility, and intellectual integrity).

The Design of the Guide

The Miniature Guide to Critical Thinking for Children introduces children to some of the most basic concepts in critical thinking, making these concepts accessible to them through simplified language. As the teacher, you will need to determine how best to use the guide in your classes. The simplest way to do this is to foster student questioning using the model questions throughout the guide. If you routinely ask these questions of your children and regularly encourage children to ask these questions of you and their classmates, you will be pleased with the results. Thinking is question-driven. When children have no questions, they have no motivation to learn, to inquire, to discover. When teachers regularly focus on the questions in the mini-guide, students learn to formulate questions that improve their learning.

How To Use the Guide

One strategy you might use to bring important questions alive in your mind is to review them each day before class, asking yourself which of them you can foster with that day’s lessons, which of them you have focused on the most, which you need to focus on more.

This manual is designed to give you additional ideas for using *The Miniature Guide to Critical Thinking for Children*. It includes the following:

1. *The Miniature Guide to Critical Thinking Concepts and Tools*, a resource that briefly introduces the foundations of critical thinking. It should help you begin to learn the critical thinking concepts and theory you will need to effectively teach children to improve their thinking and learning. If you are teaching at the middle school level or higher, you may want to have your children use this guide rather than *The Miniature Guide to Critical Thinking for Children* (or both).
2. Suggestions for using *The Miniature Guide to Critical Thinking for Children* and teaching basic critical thinking concepts.
3. “Think for Yourself” activities for children to help them internalize critical thinking ideas. These exercises are indicated by the symbol TFY in the Table of Contents. If your children are at the k–2 level or have reading difficulties, you can use the exercises as idea generators for verbally teaching the concepts. You should use these activities as beginning places for designing your own exercises. Do not think of them as ends in themselves but as vehicles to developing a mind in command of itself.

Take the Long View: There is No Quick-Fix

It is essential to understand critical thinking as a set of skills and dispositions that can only be developed over a long period of time and through daily practice. Therefore you will want to design methods for daily student practice in critical thinking. You should try to infuse the critical thinking concepts into everything you do. For example, one important concept in critical thinking is the intellectual standard of *clarity*. You can focus some lessons on clarity to help children begin to understand the concept of clarity, but most importantly you should help children learn to clarify their thinking, and that of others, *whenever thinking is unclear*. Therefore, whenever you are unclear about what a child is saying, you should ask a question of clarification such as “Can you say that in other words? I’m not clear about what you are saying.” Or you can ask a student to ask a question of clarification. You can say, for example, “Mark, looking at page nine in your miniature guide, what question of clarification can you ask Mary based on what she has said?”

In teaching for thinking, you will want to encourage children to use the language of thinking on a regular basis both in the classroom and in their lives outside the classroom. You should encourage them to ask questions like: “What is our purpose right now? What might the consequences be if we decide to do this? What inference did you make in the situation and was there a more logical one you could have made?”

Think of teaching thinking as you would think of coaching. The best coaches design practice so that players learn to think within the logic of the sport. Then they guide practice so that players use their thinking to incrementally improve their performance. The best teachers design practice so that student learn to think within the logic of the content. Then they guide student practice so that students incrementally improve both their ability to think within the content, and their reasoning abilities in general. This manual will give you some ideas for designing this practice.

There is no cookbook approach to teaching one to take command of one’s mind. The human mind is far too complicated. There are often significant differences in student knowledge and intellectual skill level. Classes differ according to group dynamics. Therefore, teaching critical thinking requires a spirit of experimentation. It requires that you create and try new ideas, rethinking them as you go, redesigning them as necessary.

As you begin to use these materials in the classroom, you might find that you could better teach for critical thinking with a firmer foundation in it yourself. The best teachers of critical thinking are those who themselves become students of thinking and who recognize the development of critical thinking skills, abilities, and dispositions as a life-long process. For furthering your understanding of critical thinking, I recommend the book: *Critical Thinking: Tools for Taking Charge of Your Learning and Your Life*, by Richard Paul and Linda Elder. This book covers the key concepts in critical thinking, laying a firm foundation for understanding and teaching the concepts in *The Miniature Guide to Critical Thinking for Children*. If you would like to order this book, obtain other critical thinking resources or find out about workshops and conferences in critical thinking, contact us at (800)833-3645 or visit our Web site at www.criticalthinking.org.

Understanding the Relationship Between Content and Thinking

It is important to realize that the only way students, at any level, can learn content is to think it through. It is thinking that gives life to content. It is through thinking that we understand content, that we give meaning to content, that we question content, that we bring content into our thinking in order to use it.

In other words, to understand content of any kind is to think in a disciplined way within that content. We understand math when we think mathematically. We understand science when we think scientifically. We understand literature when we can think within the logic of literature. We understand history when we think historically.

To think through content, however, we need skills of mind, the skills of mind assessable through critical thinking. This is illuminated through focusing on the parts of thinking. For example, if we are studying the treatment of American Indians when whites colonized America, we can ask: What was the *purpose* of white immigrants with respect to the Indians? What were they fundamentally trying to accomplish? What did they *assume* about the Indians? What were some *implications* of their treatment of the Indians? By focusing on three of the parts of thinking: purpose, assumptions, implications, students have tools for thinking through the content.

In short, critical thinking is the vehicle for thinking within any and all content. As students master critical thinking, they become more adept at giving meaning to content. As you read through this manual, you will learn multiple ways for helping students take command of content through the skills, abilities and traits of mind.

Critical Thinking is For All Students, Not A Select Group

Teachers sometimes ask whether critical thinking skills, abilities and dispositions are best restricted to "gifted" or "advanced" students. Though students will learn at differing paces and at differing levels of depth, critical thinking can and should be taught to all students, even those with learning problems. All students, for example, can learn to ask questions of clarification. They can all learn to ask questions like, "Can you give me an example?" They can all learn to say, "I don't really understand what you are saying. Can you say that in other words?"

Moreover, all students *need* the skills of critical thinking. All students need to develop questioning skills. All students need to learn how to think through what they are learning so that content becomes meaningful and useful to them as thinkers. All students need to think about the importance of fairness in thinking, and to question whether they are being fair when others' interests are at stake.

Students with learning difficulties (without skills of critical thought) are especially at risk for being manipulated. When they get confused, for example, instead of asking questions of clarification, they often hide their confusion so as not appear “stupid.” These students need to learn that they are capable of developing as thinkers. They need to learn to have confidence in their ability to learn. Critical thinking provides the foundational skills for them to do so.

In short, it is a mistake to preserve the teaching of critical thinking to students considered more advanced than the typical student. It is a mistake to underestimate the capability of the student who may have to struggle more than others to learn ideas and concepts. Though some students may learn faster in some situations, every student needs the tools of mind that critical thinking fosters.

Critical Thinking Helps Us Achieve Academic Standards

On the next few pages you will find a list of thirty-five dimensions of critical thought. These dimensions are skills, abilities, and dispositions the teacher of critical thinking regularly fosters in the classroom. By focusing on the concepts in *The Miniature Guide to Critical Thinking for Children* you will begin to foster these dimensions of thought in your children. They are presented in three sections: Formally Named, Informally Characterized, and Explained in the words of Fairminded Fran.

You should be able to relate the thirty-five dimensions of critical thought to the standards you are expected to teach to within your school, system and/or state. In other words, critical thought is presupposed in teaching to any and all academic standards. Take, for example, the cognitive dimension “clarifying issues, conclusions or beliefs.” Without this macroskill in thinking, children cannot read, write, listen or speak as an educated person. They cannot clearly state what another person is saying. They cannot clearly comprehend what they are reading. They cannot clarify either verbally or in writing even what they believe.

Conclusion

All of the ideas in this manual have been used in demonstration classes with young children. As you use them, and modify them, I would like to get feedback from you on how these strategies have worked. Additionally, and most importantly, I would like to learn about new classroom strategies you develop in using this manual and *The Miniature Guide to Critical Thinking for Children*. As you know, teachers need concrete suggestions for teaching. This is especially true when they are teaching abstract concepts, as are all concepts in critical thinking. Examples you send me could be incorporated in future editions of this manual.

As you teach for the skills and dispositions of critical thinking, remember that the human mind, though naturally unskilled and undisciplined, is nevertheless capable of developing in multiple directions. Most children never reach their full potential as thinkers because they are never taught the importance of high quality thinking for living a productive life. They therefore never engage in the kind of practice it takes to regularly think well. As you use *The Miniature Guide to Critical Thinking for Children* on a daily basis in your classes, you are giving your children a beginning place for this essential process.

35 Dimensions of Critical Thought

(Formally Named)

A. Affective Dimensions

- thinking independently
- developing insight into egocentricity or sociocentricity exercising fairmindedness
- exploring thoughts underlying feelings and feelings underlying thought
- developing intellectual humility and suspending judgment
- developing intellectual courage
- developing intellectual good faith or integrity
- developing intellectual perseverance
- developing confidence in reason

B. Cognitive Dimensions—Macro-Abilities

- refining generalizations and avoiding oversimplifications
- comparing analogous situations: transferring insights to new contexts
- developing one's perspective: creating or exploring beliefs, arguments, or theories
- clarifying issues, conclusions, or beliefs
- clarifying and analyzing the meanings of words or phrases
- developing criteria for evaluation: clarifying values and standards
- evaluating the credibility of sources of information
- questioning deeply: raising and pursuing root or significant questions analyzing or evaluating arguments, interpretations, beliefs, or theories generating or assessing solutions
- analyzing or evaluating actions or policies
- reading critically: clarifying or critiquing texts
- listening critically: the art of silent dialogue
- making interdisciplinary connections
- practicing Socratic discussion: clarifying and questioning beliefs, theories, or perspectives
- reasoning dialogically: comparing perspectives, interpretations, or theories
- reasoning dialectically: evaluating perspectives, interpretations, or theories

C. Cognitive Dimensions—Micro-Skills

- comparing and contrasting ideals with actual practice
- thinking precisely about thinking: using critical vocabulary
- noting significant similarities and differences
- examining or evaluating assumptions
- distinguishing relevant from irrelevant facts
- making plausible inferences, predictions, or interpretations
- giving reasons and evaluating evidence and alleged facts
- recognizing contradictions
- exploring implications and consequences

35 Dimensions of Critical Thought

(Informally Characterized)

A. We use teaching strategies that encourage our children to begin to develop the attitudes and values essential to critical thinking. As a result:

- Our children begin to think for themselves.
- Our children begin to notice when they are seeing things narrowly.
- Our children begin to see when they are conforming to their peer group.
- Our children begin to appreciate the point of view of others.
- Our children begin to think about why they feel as they do.
- Our children begin to notice when they really know something and when they merely believe without good reasons.
- Our children begin to question what their peer group says and to speak up for what they believe.
- Our children begin to live up to what they expect of others.
- Our children begin to persevere in their tasks even when the work is difficult.
- Our children begin to discover how powerful their minds are, how much they can figure out by thinking.

B. We use teaching strategies that encourage our children to begin to develop large scale critical thinking skills and abilities. As a result:

- Our children begin to be more precise in what they say and to notice complexity.
- Our children begin to apply what they are learning to diverse situations.
- Our children begin to discover and develop their own points of view.
- Our children begin to clarify problems and questions.
- Our children begin to clarify what words mean.
- Our children begin to discover standards for measuring or judging things.
- Our children begin to discover when it makes sense to believe what they hear.
- Our children begin to ask deeper questions.
- Our children begin to analyze what they say and do.
- Our children begin to develop solutions to their problems.
- Our children begin to evaluate rules, policies, and behavior.
- Our children begin to learn how to question as they read.
- Our children begin to listen attentively and to ask questions that clarify what is said.
- Our children begin to make connections between what they are learning in different subjects.
- Our children begin to discover and ask different kinds of questions.
- Our children begin to learn from working and talking with each other.
- Our children begin to learn how to discuss differences in a more reasoned way.