

Contents

About the Authors	iii
Free Video	iv
Introduction: The Role of Thinking in Today's Schools	vii
21st Century Skills	viii
The Common Core State Standards	x
Thinking and Assessments	x
Thinking in Children	x
What's Inside This Book	xi
1 What Is Thinking? Can We Teach It in School?	1
How Can Students Learn to Think About Texts?	2
How Conversation Helps You Think	4
Practical Thinking	5
2 Coming to Terms: Using Language to Describe Dialogue	8
Teaching Complex Texts	8
The Paideia Seminar: Roles and Intentions	9
3 The Paideia Seminar in Action	12
Thinking About Infinity: An Elementary Math Seminar	13
Literacy Skills and Big Ideas	17
4 Introducing Speaking and Listening Skills	18
Reaching All Students During the Seminar	20
Coaching Students to Speak Up	22
The Rough Drafts of Thoughts	23
Encouraging Differences of Opinion	24
Faculty Seminars	27
5 Mastering Speaking and Listening Skills	31
The Evolution of Literacy Skills	31
Seminar Partners	33
Note-Taking and Reflection	37
Complex Thinking and Linguistic Fluency	39
Judging a Text Fairly	40
Identifying Multiple Perspectives	42
Learning to Ask Authentic Questions	45

6	Developing the Mind Through Dialogue	49
	The Exercise of Conversation.....	50
	Sophistication and Amplitude.....	54
7	Assessing the Quality of Thoughtful Dialogue	58
	Setting Goals.....	59
	Collecting and Measuring Data.....	63
	Teacher Lesson Plans and Student Samples	65
	Self-Assessment Practices.....	89
8	Socrates Teaching Thinking: A Secondary Seminar	92
	<i>The Meno</i> : Analyzing a Socratic Dialogue	93
	Appendix A: Things Worth Talking About	107
	Ideas and Values for Discussion.....	108
	Appendix B: Questions Worth Asking	110
	Appendix C: Sample Seminar Texts and Plans	113
	Bibliography	159
	Glossary	162

Introduction

The Role of Thinking in Today's Schools

You hold in your hands a book intended for those who are interested in the practice of critical thinking skills through dialogue. Most of our examples come from the classroom and so will interest teachers first and foremost, but we also offer examples of adult discussions that are just as purposeful and intellectually fervent as those involving younger students.

We are concerned in these pages with the ability of the individual human being to think, both alone and in concert with others, and how that ability can be nurtured over time. We have written this book because we believe that it is possible to teach the vast majority of children and adolescents in our schools to think more clearly and coherently about sophisticated issues. We also believe that it is possible for us to continue honing our ability to think, extending the initial process of schooling into the deeper learning of adulthood.

Our goal in writing this book is to help teachers prepare their students to lead richer, more thoughtful lives in at least three ways:

- ◆ by being good citizens when democratic citizenship—whether local or global—requires objectivity and understanding
- ◆ by leading good lives, honoring our own hearts, minds, and souls as well as those of others
- ◆ by earning decent livings in what many commentators are calling the “Cognitive Age”

Indeed, the enhancement of citizenship, quality of life, and livelihood should be the goal of all *true* education, which is to say, lifelong education.¹

1 As originally inspired by *The Paideia Proposal* (1982)

Learning to think, however, takes consistent practice, and growth in the ability to think is usually a long journey rather than a quick fix. Learning to think involves practicing a range of skills, especially speaking and listening, eventually at very sophisticated levels. We believe we can practice thinking skills productively, in part because we already know a lot about the speaking and listening skills that make up the thinking process. When these skills are practiced together, the result—an enhanced ability to think—is much greater than the sum of its parts.

The primary place that teaching and learning to think come into play is our schools. Here, habits of mind are first formed in a deliberate way. There are, unfortunately, objections to teaching critical thinking in our schools. Among the most prevalent are the following: that teaching critical thinking is too time consuming; that thinking skills are too difficult to measure; and that not all students are capable of learning to think conceptually. None of these concerns are legitimate, and in fact, when we examine them closely, they lead us back to our original thesis: Not only is it possible to teach thinking; it is also the wisest course available to us.

The first question is whether we have time in school to learn to think. On the cusp of the 21st century, when everything we project about the human experience, both public and private, suggests the need for speed, can we afford quite literally to slow down and invest in teaching and learning thinking, a process that can be slow and even laborious? The answer is that we can't afford not to—now more than ever.

Everything we know about life in the 21st century tells us that our students must be prepared with a wide range of communication and thinking skills if they are to have a chance in the workplace and if they are to contribute to a functioning democracy. What we are going to describe in this book is, in many ways, a classical education intended for the 21st century world. It involves returning to ancient wisdom as a response to contemporary challenges.

21st Century Skills

The Partnership for 21st Century Skills—a coalition of American businesses with an international focus, funded in part by the U.S. Department of Education—has been at work articulating the skills that will be most in demand during the new century.² In *21st Century Skills, Education & Competitiveness: a Resource and Policy Guide*, the Partnership states bluntly that “the nation needs to do a much better job teaching and measuring advanced 21st century skills that are the indispensable currency for participation, achieve-

² For a full discussion of these skills and the growing movement to implement a new and different kind of education based upon them, visit the 21st Century Skills website at www.21stcenturyskills.org

ment, and competitiveness in the global economy” and goes on to summarize those skills:

- ♦ **Thinking critically and making judgments** about the barrage of information that comes their way every day—on the Web, in the media, in homes, in workplaces, and everywhere else. Critical thinking empowers Americans to assess the credibility, accuracy, and value of information; to analyze and evaluate information; to make reasoned decisions; and to take purposeful action.
- ♦ **Solving complex, multidisciplinary, open-ended problems** that all workers, in every kind of workplace, routinely encounter. The challenges workers face don't come in a multiple-choice format and typically don't have a single right solution. Nor can they be neatly categorized as “math problems,” for example, or passed off to someone at a higher pay grade. Businesses expect employees at all levels to identify problems, think through solutions and alternatives, and explore new options if their approaches don't pan out. Often, this work involves groups of people with different knowledge and skills who, collectively, add value to their organizations.
- ♦ **Employing creativity and entrepreneurial thinking**—a skill set highly associated with job creation. Many of the fastest-growing jobs and emerging industries rely on workers' creative capacity—the ability to think unconventionally, question the herd, imagine new scenarios, and produce astonishing work. Likewise, Americans can create jobs for themselves and others who have an entrepreneurial mindset—for example, the ability to recognize and act on opportunities and the willingness to embrace risk and responsibility.
- ♦ **Making innovative use of knowledge, information, and opportunities** to create new services, processes, and products. The global marketplace rewards organizations that rapidly and routinely find better ways of doing things. Companies want workers who can contribute in this environment.

These skills will withstand the test of time, fluctuations in the economy and the marketplace, and dynamic employment demands.

Most of these skills are couched in the more public world of work, but they clearly play a role in an individual's private life as well. The ability to communicate successfully and think coherently contributes to a man or woman leading a rich personal life as well as a public one.

The Common Core State Standards

For all those reasons, we are especially pleased with the Common Core State Standards (CCSS) that were released in 2010. We believe that the Paid-

The seminar embodies the reading, speaking, and listening standards that are at the heart of the Common Core.

eia (puh-day-uh) Seminar is a natural and effective part of any module of study that is designed to deliver the Common Core State Standards because the seminar embodies the reading, speaking, and listening standards that are at the heart of the Common Core. Indeed, any unit of study that doesn't stress speaking and listening as well as reading and writing will, by default, fail to deliver the full range of literacy standards.

Those skills that will be most in demand in this century—21st Century Basics, we might call them—take time to learn and time to teach. They are deep rather than surface skills, and require an ample time investment on the part of schools and school systems. Ironically, in order to teach our students how to flourish in a “fast” world, we will first have to teach them—and ourselves—how to slow down.

Thinking and Assessments

The second common question about teaching thinking in our schools has to do with assessment: Can we measure a student's ability to think critically and creatively? We believe the answer is yes, in part because we already know a good deal about how to measure skills that make up the thinking process—especially speaking and writing. Reading comprehension and writing ability may be easier (faster and less expensive) to assess because they can be measured through a written test or assignment. Yet, with a little more time and effort, we can apply strong measurement principles to intellectual understanding as it grows through conversation.

Beyond assessing the quality of an individual's thought through the quality of his or her reading, writing, speaking, and listening skills, we believe it is possible to describe successful thinking in a clear, measurable way. All assessment strategies simply require a certain level of commitment, and a willingness to go on learning throughout adulthood; coaching these fundamental literacy skills by example as well as direct instruction. In other words, learning to think is a lifelong endeavor—and a vital one for educators.

Thinking in Children

Even when you accept that it is possible to define, teach, and measure thinking skills, there remains a third question about making the teaching of

thinking a consistent part of schooling. This last objection is more insidious than the first two and indeed often goes unspoken. It is based on the common assumption that not all children or adolescents can learn to think at a high level. In other words, this point of view maintains that some children have the innate capacity for higher order thinking skills and some do not, and no amount of instruction or practice can change what is assumed to be a predetermined outcome.

There are three blunt points to be made in response to this assumption. First, the brain research of the last quarter century consistently suggests that our previous beliefs about innate potential were seriously flawed, and that indeed, the vast majority of human beings are capable of abstract and higher-order thought as well as sophisticated expression. What limits the growth of literacy and thinking skills is not capacity but experience—in school and elsewhere. For the second point, we need to refer again to the Partnership for 21st Century Skills and their plea for a universal transformation in how we teach thinking and communication: “All Americans, not just an elite few, need 21st century skills that will increase their marketability, employability and readiness for citizenship.”

There is a third, practical point in reply to the mistaken notion that not all children can learn to think. We believe learning to think is much like learning to read or write—in part because these skills are intimately related. In this century, we should no more accept the notion that some of our children won't learn to think clearly and coherently about abstract ideas than we should accept the notion that they won't learn to read. Critical thinking is as fundamental and basic a skill as reading, and like reading, it is a skill that *must* be consistently taught and practiced.

In “The Paideia Principles” (1988), Mortimer Adler and his colleagues argue eloquently that “schooling at its best is preparation for becoming generally educated in the course of a whole lifetime.”³ Never was this statement more true than in relation to learning to think. Ultimately, the goal of education is wisdom, and that comes from the continued practice—throughout one's life—of the skills we describe here.

Critical thinking is as fundamental and basic a skill as reading, and like reading, it is a skill that must be consistently taught and practiced.

What's Inside This Book

In this book, we will explore what actually happens as students are learning to participate in formal seminar discussion—first with proficiency and then with some expertise. We will examine how independent and interdependent thought grow in relation to each other as students become more

³ See pages 309–10 in *Reforming Education: The Opening of the American Mind*.

experienced in seminar practice. After discussing assessment and a detailed description of what might be termed the finished product, we provide appendices of practical materials gleaned from decades of experience, both in schools and elsewhere.

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