



# *The Art of Thinking*

*A Guide to Critical and  
Creative Thought*

fifth edition

VINCENT RYAN RUGGIERO

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Critical and  
Creative Thought

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# TO THE INSTRUCTOR

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Throughout this century, many educators felt that thinking was learned automatically when certain subjects (notably science and math) were studied, and that therefore it need not be formally taught. Others believed that thinking could not be learned, at least not by the average student. As a result, schools did not generally offer formal instruction in thinking, and colleges confined their offerings to formal logic courses inaccessible to students outside the discipline of philosophy.

This situation has never gone unchallenged. There have always been dissenters, here and abroad, who urged that systematic training in thinking be offered to all students. But when they were heard at all, such people were either misunderstood, like John Dewey, or dutifully applauded and then ignored, like Alfred North Whitehead and Jean Piaget.

Now, thanks to the persistence of those prophets and that of the small but determined number of educators who continued to press for the reforms those prophets championed, a new era seems to be dawning. Many prestigious studies, beginning with the one released by the U.S. Department of Education in November 1981, call attention to the lack of critical thinking and problem-solving skills in today's students. Support for thinking instruction has been registered by numerous respected organizations, including the National Council of Teachers of English, the Presidential Commission on Excellence in Education, the College Board, the Carnegie Foundation for the Advancement of

Teaching, the American Federation of Teachers, the Association of American Colleges, the National Institute of Education, the U.S. Department of Education, the Association for Supervision and Curriculum Development, and the University/Urban Schools National Task Force. Numerous colleges and universities now require students to complete one or more courses in thinking.

## This Book's Premises

This book has been designed both for existing courses in thinking and for those that are being instituted in various departments: philosophy, humanities, social science, and English. As the title *The Art of Thinking* suggests, this book is more comprehensive than most texts on thinking. The following four premises underlie its content and organization:

1. *The emphasis in a textbook on thinking should be more on what to do than on what to avoid doing.* Thinking is not an ivory tower enterprise. It is a practical matter. Moreover, it is active and dynamic, not reactive and static. Effective thinkers do not merely sit back and criticize others' efforts; they solve problems, make decisions, and take stands on issues. For this reason, textbooks focusing on fallacies are little more successful than music books that focus on avoiding the wrong notes or typing manuals that focus on avoiding all possible mis-strokes.
2. *A textbook on thinking should introduce students to the principles and techniques of creative thinking.* The considerable literature that has been published on thinking in the past three decades demonstrates that the creative process and the critical process are intertwined: first, we produce ideas (more or less creatively); then we judge them. It is not enough to give students *already formed* arguments for analysis; they must be taught how to generate arguments of their own.
3. *A text on thinking should teach students how to evaluate their own ideas, as well as the ideas of others.* Human beings have a great capacity for self-deception. Accordingly, it is much more difficult for students to see their own blind spots, their own prejudices, and their own errors than it is for them to see other people's. Yet it is their own weaknesses and mistakes that pose the greatest obstacle to their effective thinking.
4. *A text on thinking should teach students how to persuade others.* Many brilliant ideas have never been put into practice simply because the originators assumed that others would recognize excellence without assistance. Students need to learn how to anticipate objections to their ideas before they occur and how to overcome them.

## Special Features Retained from Previous Editions

- Wherever possible, the chapters are presented in the sequence that occurs in actual problem solving and issue analysis. For example, expressing the problem

(Chapter 7) is followed by investigating the problem (Chapter 8), producing ideas (Chapter 9), and refining the solution (Chapter 11).

- Part 2, “Be Creative,” offers direct answers to the questions that most baffle students and prevent their progress in thinking. These are questions such as “How can I be more imaginative, more original in my solutions to problems?” “What should I do when I experience ‘thinker’s block,’ when I get confused, or when I get in the rut of producing the same kinds of solution?” and “How does insight occur, and what can I do to stimulate it?”
- A separate chapter (Chapter 6) addresses the problem of motivating students to apply their thinking skills to problems and issues in every college course, as well as in everyday life. Authorities agree that to be effective, thinking instruction must focus not only on skills but also on *dispositions*.
- A separate chapter (Chapter 8) explains in detail how to investigate issues quickly, efficiently, and with ingenuity, both in the library and out.
- Chapters 14 and 15 offer specific techniques for anticipating negative reactions to ideas and a helpful approach to use in persuading others.
- Separate appendixes provide brief guides to composition; formal speaking, conversation, and group discussion; and formal logic.
- Warm-up exercises are provided at the end of each chapter, in addition to a generous supply of problems and issues. These exercises are designed to develop students’ interest and build their self-confidence, thereby making the formal applications less intimidating.
- Applications are provided following the warm-up exercises in each chapter.
- An instructor’s manual is available to qualified adopters.

## New Features in the Fifth Edition

The fifth edition contains a number of changes, each of them a response to suggestions from instructors who have used the text in their classes. The changes are as follows:

- Chapter 1: The addition of a section on the importance of thinking.
- Chapter 2: An expanded discussion of the problem of remembering.
- Chapter 4: The addition of a section on testing ideas; an expanded discussion of the distinction between language and reality.
- Chapter 8: The addition of a section on conducting one’s own research.
- Chapter 12: A reorganization of the chapter to make it more accessible to students.
- All chapters: All the problems and issues in the “Group Discussion Exercises” have been changed.

## Variations in Teaching Format

*The Art of Thinking* has been used successfully in composition courses and public speaking courses, as well as in creative/critical thinking courses; and in a number of disciplines, including business, the humanities, the social sciences, and the sciences.

Instructors who find the book's table of contents not well suited to their courses or their students' needs may wish to consider one of the following alternative sequences.

### **For Composition Courses:**

Appendix A: "A Guide to Composition"

Chapter 1: "Developing Your Thinking: An Overview"

Chapter 15: "Build a Persuasive Case"

Chapter 2: "Establish a Foundation"

Chapters 3 through 14

### **For Speech Courses:**

Appendix B: "A Guide to Formal Speaking, Conversation, and Group Discussion"

Chapter 1: "Developing Your Thinking: An Overview"

Chapter 15: "Build a Persuasive Case"\*

Chapter 2: "Establish a Foundation"

Chapters 3 through 14

### **Another Alternative:**

Chapters 1 through 4

Chapter 15: "Build a Persuasive Case"

Chapters 5 through 14

In this alternative, students would be directed to consult the composition, speech, and other appendixes as necessary.

## **Acknowledgments**

I wish, first, to express my appreciation to all the men and women—the prophets, the researchers, the risk takers—who labored to advance the cause of knowledge in a subject that for many decades was unfashionable. Without their contributions, this book would never have been written. I also wish to thank the following professors for their constructive criticisms and helpful suggestions:

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\*Certain applications, notably 14 through 16, may not be suitable for the early weeks of a course.



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