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Frontmatter
More information

APPLIED INTELLIGENCE

Typical texts develop students' knowledge while only minimally developing the general skills they will need for success in school and in life. The goal of our text is to assist students in acquiring the most important skills for facing the diverse challenges life presents. The book contains an overview of theories of intelligence, but itself is based in large part on a theory according to which individuals need creative skills to generate new ideas and a vision for the future, analytical skills to make sure that the vision is a good one, and practical skills to execute the ideas and to persuade other people of their value. The book considers key skills in problem solving, logical reasoning, analysis of arguments, knowledge acquisition, creative and practical thinking, automatizing information processing, and avoiding life traps that derail even the most intelligent among us.

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To Seth and Sara

– RJS & ELG

For Allison,

For everything,

For always.

– JCK

CONTENTS

PREFACE

Can people make themselves smarter? Research in psychology suggests that they can – that the brain functions in much the way muscles do. The more you exercise it, the better it functions. Moreover, the better you understand it, the more you are in a position to make optimal use of it.

This book seeks simultaneously to accomplish two goals. It teaches students about the mind and how it functions, and at the same time, it helps them improve that functioning.

The book is written primarily for college students but can also be used by advanced high school students working at a college level. It is relevant in any course on thinking, reasoning, problem solving, decision making, critical thinking, creative thinking, or study skills that seeks simultaneously to help students understand better how they think and to improve their thinking skills. The book is appropriate either as a main text or a supplementary one.

A numer of features make this book unusual, if not unique, among programs for developing intellectual skills. First, the program is based on a contemporary psychological theory (the theory of successful intelligence) that has extensive data to support it (going back 35 years). Second, the book conceptualizes intelligence in a broad way; the range of cognitive skills addressed is much greater than in the typical program of this kind. Third, the book is written to motivate students as well as to teach them. Many practical examples are included, and the examples are drawn from many fields of endeavor. Fourth, the problems range from very abstract and test-like to very concrete and practical. This range is necessary to ensure that students transfer their learning from one task and situation to the next. For this transfer to occur, a program must teach for transfer – which the present program does. It is unlike many other programs that rely solely on test-like problems to enhance students' intellectual skills. Fifth, the book contains an entire chapter on emotional and motivational blocks to the use of intelligence. It does not matter how intelligent people are if they are unable to use their intelligence. This last chapter is intended to help students make full use of their developing intellectual skills.

The book comprises 14 chapters. The first two chapters are introductory. Chapter 1 presents alternative views of intelligence. Chapter 2 then presents the view that motivates this book, the theory of successful intelligence.

Chapter 3 presents metacognition and tools for improving one's metacognitive skills. Chapter 4 deals with advanced steps that can be taken to help one improve one's problem solving. Chapters 5–7 deal with the execution of problem solving. Chapter 5 concentrates on analogical and serial thinking, Chapter 6 on classificational and matrix-based thinking. Chapter 7 deals with logical thinking, and Chapter 8 with the kinds of inferential fallacies that can disrupt both formal and informal logical thinking.

Chapter 9 moves on to learning and knowledge acquisition. It discusses how we can improve our learning, particularly of new words and concepts. Chapter 10 teaches students how better to cope with novelty, and Chapter 11 deals with the umbrella set of skills and attitudes for coping with novelty, namely, creativity. Chapter 12 deals with how we can better automize thinking and other skills as they become routine. Chapter 13 deals with practical intelligence and common sense, and Chapter 14 with why people who are smart often fail despite their high intelligence. The book concludes with a complete set of references and an index.

The three of us have enjoyed working on this book, and we hope that it will be both fun and challenging to read. Many of the topics that we cover are areas that we also study. We would love to inspire you to think about these ideas – and, perhaps, to continue in the tradition of studying how people think, what intelligence is, and why people succeed.

Many people have contributed to making this book possible. The book is a successor to an earlier book, *Intelligence Applied*, written by the senior author and published in 1986. That book was supported by the Venezuelan Ministry for the Development of Intelligence. Luis Alberto Machado and Jose Dominguez Ortega were instrumental in making the earlier book happen, as were El Dividendo Voluntario para la Comunidad, Margarita Rodriguez-Lansberg, and Francisco Rivera. People who have contributed in various ways over the years to the development of the training materials here also include Barbara Conway, Janet Davidson, Louis Forster, Michael Gardner, Ann Kirkland, Robin Lampert, Diana Marr, Elizabeth Neuse, Susan Nolen-Hoeksema, Janet Powell, Craig Smith, Larry Soriano, Rebecca Treiman, and Richard Wagner.

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