

Contents

Preface	ix
Introduction	xiii

PART I Setting the Stage

1 Exploring Mental Models	3
2 Principles of Brain-Based Learning	17
3 Your Learning Climate	31
4 Reconceptualizing Outcomes	43
5 Guidelines for Process Groups	55

PART II Principles of Brain-Based Learning

6 Principle One: The Brain Is a Parallel Processor	73
7 Principle Two: Learning Engages the Entire Physiology	83
8 Principle Three: The Search for Meaning Is Innate	91
9 Principle Four: The Search for Meaning Occurs through Patterning	101
10 Principle Five: Emotions Are Critical to Patterning	117
11 Principle Six: Every Brain Simultaneously Perceives and Creates Parts and Wholes	127
12 Principle Seven: Learning Involves both Focused Attention and Peripheral Perception	137
13 Principle Eight: Learning Always Involves Conscious and Unconscious Processes	147
14 Principle Nine: We Have at Least Two Types of Memory— A Spatial Memory System and a Set of Systems for Rote Learning	159

Contents

15	Principle Ten: The Brain Understands and Remembers Best When Facts and Skills Are Embedded in Natural Spatial Memory	169
16	Principle Eleven: Learning Is Enhanced by Challenge and Inhibited by Threat	179
17	Principle Twelve: Each Brain Is Unique	189

Part III Making It Happen

18	Teaching for Meaning	195
19	Relaxed Alertness	209
20	Immersion of Learners in Complex Experiences	217
21	The Active Processing of Experience	223

A	Final Word	229
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Appendixes

A	The Process for Ordered Sharing in Groups	231
B	Perceptual Styles	235
C	Additional Exercises	245

	References	251
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	Index	253
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Introduction

Using This Book

What This Book Is About

This is a book about changing teaching and about changing schools. It deals with the two processes simultaneously because each influences the other and because *they are both aspects of the same general process*. Therefore, as we come to understand one better, we will also understand the other.

Students who learn well are those who can handle a significant amount of confusion and “active uncertainty.” This ability to handle uncertainty is absolutely crucial because the students’ ideas are being reorganized and there must be a time of transition between what students already know and what they come to know as they learn.

The same is true of a school that changes. It must be able to deal with a significant amount of turbulence because there must be a time of transition from a stable system (what it has been in the past) to a reorganized system (what it will become). A mind that is in the midst of some confusion is like a system that is in the midst of some turbulence and chaos.

Fortunately, both learning and change can be facilitated. What matters most in both cases is the basic set of ideas that we use to guide us in what we do.

PART I

Setting the Stage

Story

Somewhere in a galaxy not far away a story is being told. It doesn't have a name yet. That is why it is referred to as Story. But it knows that much of what has been taught about learning and teaching is wrong. And that is why it is on a quest.

It knows (and has known for a long time) that there are beings in the universe who can hear it—sometimes faintly and sometimes clear as a bell.

Once it popped into the head of a football coach when his team was right on the opponent's goal line. He didn't pay attention . . . and Story didn't get through.

A few thousand years ago a baby was with its mother by the side of a great river. It heard Story. Trouble was, the baby couldn't speak yet and Story got lost.

But it persisted!

It kept on circling the Earth and popping into the noosphere. Every few years it found more and more people who were curious, who heard fragments and wanted more. Those people began to meet each other and share thoughts, and they found that each of them had a different part of Story. And to their surprise, as they delved deeper and deeper into the parts they understood, they found Story there in its entirety, waiting . . .

1

Exploring Mental Models

The Real Problem

The biggest problem facing educators is that there are too many problems. For example, we have to prepare students to pass tests devised by others, on content selected by others. Our classes are full of people from a variety of cultural backgrounds, often speaking languages that we do not know.

Students come from backgrounds that may be deprived or enriched, secure or threatening, healthy or drug afflicted. We work with more people than can be managed, with inadequate resources and in content areas that often are not our fields of expertise. And all this occurs within a system of administration that often seems to be indifferent to the needs of the people in it.

Add to this all the strategies and practices that are currently being advocated.

Our challenge is to realize that all our problems are somehow related. They are connected to each other and they cause each other. We will finally turn education around, in our classrooms and in our communities, when we adequately grasp the nature of that connectedness. Then we will also see how to deal with our problems simultaneously.

The way to begin is to examine the situation as it is. First, we need to take stock of some of our current basic beliefs and examine our current mental model. Second, we need to assess the climate and nature of our current school community. We will then be in a position to develop a more powerful mental model and to set in motion a process for generating the sort of learning community that nurtures and supports significant change.

What Is a Mental Model?

A mental model is a personal, deeply held belief that drives what we do and how we do it. Mental models are beliefs about ourselves, others, what works and what doesn't, and how things happen. These models do not necessarily have anything to do with a formal theory or what we learned in school. Those theories tend to be associated with formal knowledge, which may or may not actually influence what happens in our classrooms. We tend to act on the basis of our much more personal, deeply held mental models.

Whenever we do anything, be it asking questions, answering questions, giving advice, or designing a lesson, a personal theory drives us. For example, a mental model might hold that children are blank slates waiting to absorb new knowledge provided by the teacher. A teacher whose mental model reflects this kind of belief will think and behave differently from one with a mental model that holds that children are active meaning makers born to make sense of their world and participate in their own learning. Let us imagine some consequences deriving from these two mental models.

Notes