

CHAPTER 1:	Introduction to Learning and Instruction	1
------------	--	---

SECTION I:	LEARNING	29
-------------------	-----------------	-----------

CHAPTER 2:	Learning to Read Fluently	30
------------	---------------------------	----

CHAPTER 3:	Learning to Read for Comprehension	72
------------	------------------------------------	----

CHAPTER 4:	Learning to Write	112
------------	-------------------	-----

CHAPTER 5:	Learning Mathematics	146
------------	----------------------	-----

CHAPTER 6:	Learning Science	190
------------	------------------	-----

SECTION II:	INSTRUCTION	237
--------------------	--------------------	------------

CHAPTER 7:	Teaching by Giving Productive Feedback	238
------------	--	-----

CHAPTER 8:	Teaching by Providing Concreteness, Activity, and Familiarity	274
------------	---	-----

CHAPTER 9:	Teaching by Explaining Examples	306
------------	---------------------------------	-----

CHAPTER 10:	Teaching by Guiding Cognitive Processes During Learning	326
-------------	---	-----

CHAPTER 11:	Teaching by Fostering Learning Strategies	360
-------------	---	-----

CHAPTER 12:	Teaching by Fostering Problem-Solving Strategies	398
-------------	--	-----

CHAPTER 13:	Teaching by Creating Cognitive Apprenticeship in Classrooms	428
-------------	---	-----

CHAPTER 14:	Teaching by Priming Students' Motivation to Learn	456
-------------	---	-----



CONTENTS

CHAPTER 1:	Introduction to Learning and Instruction	1
	<i>Wild Boy, 2</i>	
	<i>What Is Educational Psychology? 4</i>	
	<i>A Brief History of the Relationship Between Psychology and Education, 9</i>	
	<i>A Closer Look at the Learner-Centered Approach, 14</i>	
	<i>How to Foster Meaningful Learning, 19</i>	
	<i>What Is the Promise of Educational Psychology? 24</i>	
	<i>Chapter Summary, 26</i>	
<hr/>		
SECTION I:	LEARNING	29
<hr/>		
CHAPTER 2:	Learning to Read Fluently	30
	<i>The Problem of Reading a Word, 32</i>	
	<i>Recognizing Phonemes, 36</i>	
	<i>Decoding Words, 43</i>	
	<i>Accessing Word Meaning, 55</i>	
	<i>Sentence Integration, 62</i>	
	<i>Chapter Summary, 69</i>	
CHAPTER 3:	Learning to Read for Comprehension	72
	<i>Effort After Meaning, 74</i>	
	<i>Schema Theory, 77</i>	
	<i>Using Prior Knowledge, 80</i>	
	<i>Using Prose Structure, 87</i>	
	<i>Making Inferences, 95</i>	
	<i>Using Metacognitive Knowledge, 100</i>	
	<i>Building a Reading Comprehension Program That Works, 109</i>	
	<i>Chapter Summary, 110</i>	
CHAPTER 4:	Learning to Write	112
	<i>The Storytelling Problem, 114</i>	
	<i>Cognitive Processes in Writing, 116</i>	
	<i>Planning, 120</i>	
	<i>Translating, 125</i>	
	<i>Reviewing, 133</i>	
	<i>Building a Writing Program That Works, 138</i>	
	<i>Chapter Summary, 144</i>	

CHAPTER 5:	Learning Mathematics <i>What Do You Need to Know to Solve Math Problems?</i> 148 <i>Problem Translation,</i> 152 <i>Problem Integration,</i> 157 <i>Solution Planning and Monitoring,</i> 169 <i>Solution Execution,</i> 179 <i>Chapter Summary,</i> 188	146
CHAPTER 6:	Learning Science <i>The Intuitive Physics Problem,</i> 192 <i>Recognizing Anomalies: Discarding a Misconception,</i> 194 <i>Initiating Conceptual Change: Constructing a New Conception,</i> 205 <i>Developing Scientific Reasoning: Using a New Conception,</i> 213 <i>Building Scientific Expertise: Learning to Build and Use Scientific Knowledge,</i> 226 <i>Chapter Summary,</i> 234	190
<hr/>		
SECTION II:	INSTRUCTION	237
<hr/>		
CHAPTER 7:	Teaching by Giving Productive Feedback <i>A Response Learning Task,</i> 240 <i>The Law of Effect,</i> 242 <i>How Do Classroom Management Techniques Affect Classroom Behavior?</i> 246 <i>How Do Rewards Affect Classroom Activities?</i> 252 <i>How Does Feedback Affect Response Learning?</i> 256 <i>How Does Feedback Affect Concept Learning?</i> 260 <i>How Does Feedback Affect Skill Learning?</i> 267 <i>Chapter Summary,</i> 271	238
CHAPTER 8:	Teaching by Providing Concreteness, Activity, and Familiarity <i>The Parallelogram Problem,</i> 276 <i>Concrete Methods,</i> 278 <i>Discovery Methods,</i> 287 <i>Inductive Methods,</i> 298 <i>Chapter Summary,</i> 303	274

CHAPTER 9:	Teaching by Explaining Examples <i>Introduction, 308</i> <i>Worked-Out Examples, 309</i> <i>Case-Based Learning, 319</i> <i>Chapter Summary, 323</i>	306
CHAPTER 10:	Teaching by Guiding Cognitive Processes During Learning <i>How to Improve a Textbook Lesson, 328</i> <i>Cognitive Theory of Instruction, 329</i> <i>Adjunct Questions, 332</i> <i>Signaling, 338</i> <i>Advance Organizers, 348</i> <i>Chapter Summary, 358</i>	326
CHAPTER 11:	Teaching by Fostering Learning Strategies <i>How to Turn a Passive Learning Task into an Active Learning Task, 362</i> <i>Mnemonic Strategies, 364</i> <i>Structure Strategies, 370</i> <i>Generative Strategies, 386</i> <i>Chapter Summary, 395</i>	360
CHAPTER 12:	Teaching by Fostering Problem-Solving Strategies <i>Can Problem-Solving Skills Be Taught? 400</i> <i>What Makes an Effective Problem-Solving Program? 401</i> <i>Productive Thinking Program, 413</i> <i>Instrumental Enrichment, 417</i> <i>Project Intelligence, 421</i> <i>The Case for Improving Problem-Solving Skills Instruction, 424</i> <i>Chapter Summary, 426</i>	398
CHAPTER 13:	Teaching by Creating Cognitive Apprenticeship in Classrooms <i>Introduction 430</i> <i>Learning in and out of School, 434</i> <i>Traditional and Cognitive Apprenticeship, 437</i> <i>Reciprocal Teaching, 440</i> <i>Cooperative Learning, 444</i> <i>Participatory Modeling, 450</i> <i>Chapter Summary, 454</i>	428



CHAPTER 14:	Teaching by Priming Students' Motivation to Learn	456
	<i>Introduction, 458</i>	
	<i>Motivation Based on Interest, 461</i>	
	<i>Motivation Based on Self-Efficacy, 469</i>	
	<i>Motivation Based on Attributions, 475</i>	
	<i>Chapter Summary, 481</i>	
REFERENCES		483
CREDITS		504
AUTHOR INDEX		508
SUBJECT INDEX		511