



CONTENTS

List of Exhibits, Figures, and Tables xiii

Introduction to Volume One xxi

PART ONE: FOUNDATIONS 1

1 Some Principles Underlying the Cognitive Approach to Instructional Design 3

Wellesley R. Foshay

2 A Principle-Based Model of Instructional Design 23

Kenneth H. Silber

3 Origins and Evolution of Instructional Systems Design 53

Michael Molenda

PART TWO: ANALYSIS 93

4 Collecting Analysis Data 95

Jeanne Hites Anderson

5 From Performance Analysis to Training Needs Assessment 144

Kerry J. Burner

x CONTENTS**6 Behavioral Task Analysis 184***Herbert H. Bell, Dee H. Andrews, Wallace H. Wulfek II***7 Cognitive Task Analysis: Research and Experience 227***Steven W. Villachica, Deborah L. Stone***PART THREE: INSTRUCTIONAL STRATEGIES 259****8 An Analysis of the Failure of Electronic Media and Discovery-Based Learning: Evidence for the Performance Benefits of Guided Training Methods 263***Richard E. Clark, Kenneth Yates, Sean Early, Kathrine Moulton***9 Instructional Strategies for Receptive Learning Environments 298***Richard E. Mayer, Ruth Colvin Clark***10 Instructional Strategies for Directive Learning Environments 329***Ruth Colvin Clark, Richard E. Mayer***11 Assembling and Analyzing the Building Blocks of Problem-Based Learning Environments 361***David H. Jonassen***12 High Engagement Strategies in Simulation and Gaming 395***Conrad G. Bills***13 Video Game-Based Learning: An Emerging Paradigm for Instruction 435***Kurt D. Squire***14 Training Complex Psychomotor Performance Skills: A Part-Task Approach 468***Peter J. Fadde***PART FOUR: EVALUATION 509****15 An Overview of Level Two Certification Processes 511***Sharon A. Shrock, William C. Coscarelli***16 The Role of Evaluation in Instructional Design 554***Steven M. Ross, Gary R. Morrison***PART FIVE: MANAGEMENT 577****17 Managing ID/Training Development and Delivery 579***Deborah Singer Dobson, Michael Singer Dobson, Ted Leemann, Kevin Forsberg*

CONTENTS xi

18 Managing Relationships in the Performance Improvement Process 616

Jane Ranshaw

19 Managing ID in the Context of a Training Organization 658

Heather C. Maitre, Susan A. Smith

About the Editors 721

About the Contributors 723

Name Index 732

Subject Index 743

