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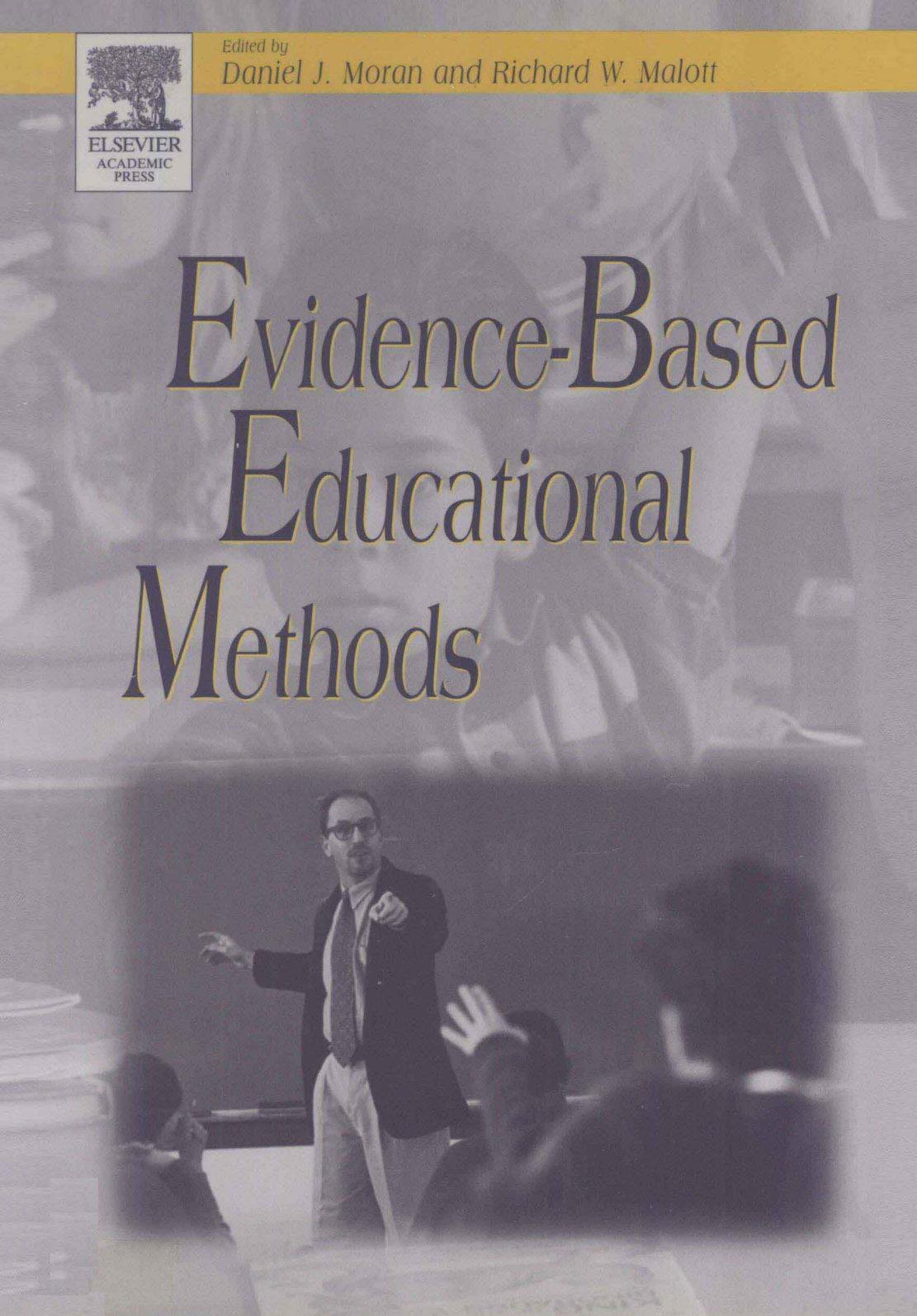
Daniel J. Moran and Richard W. Malott

Evidence-Based Educational Methods



A Volume in the Educational Psychology Series

Evidence-Based Educational Methods

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For all teachers and students, especially Jen, my dearest teacher, and Harmony and Louden, my cherished students

DJM

For Fred and Lillian Malott

RWM

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Preface

The age of accountability is affecting a wide array of cultural practices. Society is asking for verification of the effectiveness and efficiency of corporations, health agencies, and governmental organizations. Society is also asking for verification of the effectiveness and efficiency of instructional practices provided by the institutions of education. The *No Child Left Behind Act of 2001* clearly indicates a nationwide interest in improving student education, and it suggests that this goal will be met by using instructional methods developed from scientific research, in other words, instructional methods whose effectiveness and efficiency have been verified. The appeal for evidence-based educational methods comes not only from this legislation but also from teacher organizations, administrators, parents, community agencies, and even the students themselves. The educational community and the legislation pose an important challenge to the scientific community: the research community must develop and refine effective and efficient educational methods.

Evidence-Based Educational Methods answers the challenge by presenting scientific principles and applications aimed at improving human learning. Decades before the current era of accountability, researchers were developing strong assessment and educational methods based on the science of behavior analysis. Precision Teaching (PT), Direct Instruction (DI), Computerized Teaching (Computers), Personalized System of Instruction (PSI), and other unique applications of behavior analysis (e.g., Peer Tutoring and Generative Instruction) are all informed by the scientific principles of learning, They have been tested successfully in the laboratory, and many have also been tested successfully in the field.

This book is divided into five sections regarding each of the four aforementioned approaches: PT, DI, Computers, and PSI, and another section for additional applications. It is important to note that the principles and applications from all five sections can be synthesized into a cohesive whole. Each of the sections has much in common with the others, but each also brings different perspectives and techniques to evidence-based education. In addition, the chapters are authored by leading educational researchers from each domain.

Individuals and agencies responsible for executing instruction that leaves no children behind will find this book an important resource for achieving that important goal. Not only can teachers and administrators use this book as a valuable guide to improving education, but involved parents, community leaders, and PTA groups can use it as a model of how educational goals can be formulated and accomplished. In addition, student-teachers can use it as a text showing the blueprint for the evidence-based education systems being planned for the future.

This book is a compendium of empirically verified instructional methods that can be seamlessly integrated into most general and special education curricula. The book is unique in that it unites separate educational domains by looking at those domains with a common vision, a common educational philosophy, and common principles of learning.

Society has demanded more efficient and effective education, and our government has legislated it. The evidence-based educational methods in this book meet those demands because these methods have evolved from a long line of scientific, behavioral research aimed at developing efficient and effective educational methods.

Daniel J. Moran
Richard W. Malott

Contents

Contributors xix

Preface xxiii

1

Introduction to Evidence-Based Educational Methods

1. THE NEED FOR EVIDENCE-BASED EDUCATIONAL METHODS

Daniel J. Moran

Introduction 3
No Child Left Behind 4
Behavior Analysis and Education 5

2. REVIEWING THE OUTCOMES AND PRINCIPLES OF EFFECTIVE INSTRUCTION

Laura D. Fredrick and John H. Hummel

Introduction 9
Precision Teaching 14
Direct Instruction 15
Programmed Instruction 17

Personalized System of Instruction 18
Emphasis on the Written Word 19
Self Pacing 19
Mastery 20
Proctors 20
Lectures for Motivation or Reinforcement 20
Summary and Conclusion 21

3. A REAL SCIENCE AND TECHNOLOGY OF EDUCATION

R. Douglas Greer and Dolleen-Day Keohane

Introduction 23
The Need for a Strategic Science of Instruction 25
Components of an Advanced and Sophisticated Science and Technology of Instruction 28
Cabas®: A Systems Technology of Schooling and a Strategic Science of Pedagogy 37
Conclusion 41

2

Precision Teaching

4. PRECISION TEACHING: FOUNDATIONS AND CLASSROOM APPLICATIONS

Charles Merbitz, Doreen Vieitez, Nancy Hansen Merbitz, and Henry S. Pennypacker

Why Precision Teaching? 47
The Chart 49
Example of Precision Teaching Implementation 50
Read a Chart 50
Chart Features 52
Prediction 53
Relative Emphasis 53
Wide-Range Display 54
Another Chart Example: Middle School 55
Learning/Celeration 58

Precision Teaching's Place in Teaching and Education 59
Ethics and Precision Teaching Measures in Schools 60

5. PRECISION TEACHING: APPLICATIONS IN EDUCATION AND BEYOND

Charles Merbitz, Doreen Vieitez, Nancy Hansen Merbitz, and Carl Binder

Introduction 63
Precision Teaching and Special Education 66
Precision Teaching for Adult Learners in College and Pre-Vocational Training 68
Precision Teaching Applications for Individuals with Various Disabilities 70
Precision Teaching with Thoughts, Urges, and Other "Inner" Phenomena 74
Precision Teaching, Computers, and Internet Resources 74
Conclusions 76

3

Direct Instruction

6. DIRECT INSTRUCTION: THE BIG IDEAS

Timothy A. Slocum

Introduction 81
Teaching Generalizable Strategies 82
Instructional Programs that Powerfully and Systematically Build Skills 83
  Clear and Explicit Instruction 83
  Sequence of Instruction 84
  Provide Initial Support, Then Gradually Reduce Support 84
  Provide Sufficient Practice and Mastery Criteria 85
  Provide Clear Instructions to Teachers 86
  Tracks 86
Organize Instruction to Maximize High-Quality Instructional Interactions 87
  Placement 87

Flexible, Skill-Based Grouping for Efficient Instruction 88
High Rates of Overt and Active Engagement 89
Provide Effective Corrections 90
Research Related to Direct Instruction 91

7. TEACHER-MADE SCRIPTED LESSONS

John H. Hummel, Martha L. Venn, and Philip L. Gunter

Introduction 95
Definition of Explicit Instruction 95
Scripted Lessons 96
Orient and Review 97
Presentation of New Content 98
Practice 99
Model 100
Probes and Checks 101
Formal Assessments 101
Independent Practice 105
Exams 105
Distributed Practice 105
Positive Outcomes of Scripted Lessons 106

8. THE COMPETENT LEARNER MODEL: A MERGING OF APPLIED BEHAVIOR ANALYSIS, DIRECT INSTRUCTION, AND PRECISION TEACHING

Vicci Tucci, Daniel E. Hursh, and Richard E. Laitinen

Introduction 109
Applied Behavior Analysis and The Competent Learner Model 112
What repertoires need to be developed or weakened? 112
What stimuli are available to affect change in behavior? 113
What contingencies are required to develop or weaken the repertoires? 113
How can the parts of instructional conditions be arranged and rearranged to develop the competent learner repertoires? 114
Direct Instruction and the Competent Learner Model 114
Precision Teaching and the Competent Learner Model 117
The Components of the Competent Learner Model 117
The CLM Course of Study 117
Coaching 118
Collaborative Consultation 118
Evidence of the Impact of the Competent Learner Model 121

4

Computers and Teaching Machines

9. EFFECTIVE USE OF COMPUTERS IN INSTRUCTION

Marcie N. Desrochers and G. David Gentry

Introduction 127
What are the Types of Instructional Software? 128
- Tutorial 128
- Drill-and-Practice 128
- Simulations 129

What are the Features of EffectiveInstructional Software? 130
- Antecedents for Desired Behavior 130
- Behavior: Active and Frequent Student Responding 131
- Consequences: Feedback for Student Responses 132

What Makes Software Design Effective? 132
- Navigational Aids 132
- Presentation Style and Organization Structure 133
- Distinctiveness of Information 133
- Text Characteristics 133

What is the Evidence for the Effectiveness of Automated Instruction? 134
- Meta-Analytic General Results 135
- Specific Meta-Analytic Findings 136

How Should Particular Instructional Software be Evaluated? 137
- Content 137
- Outcomes 137
- Generalization 137

Conclusions 138

10. ADAPTIVE COMPUTERIZED EDUCATIONAL SYSTEMS: A CASE STUDY

Roger D. Ray

Undergraduate Teaching in the Modern University 143
Undergraduate Teaching in Small Liberal Arts Colleges 145
Computers and Adaptive Instruction 149
Adaptive Control, Teaching, and Learning 151
Adaptive Instruction 151

Adaptive Testing 153
Mediamatrix and its Current Use in Higher Education 154
Tutor Level One: Fully Supported Shaping of Reading Comprehension Skills 155
Tutor Level Two: Successive Approximations to Less Prompted Learning 156
Tutor Level Three: Further Development of Verbal Associate Networks 157
Tutor Level Four: Full Development of Verbal Associate Networks 158
How the Probe Mode Works 159
More on Adaptive Programmed Instruction: Parametrics of How Mediamatrix Works 159
Assess and Certification Modes 159
Instructor Options for Managing Student Contact with the Tutoring System 160
Empirical Research on Mediamatrix Delivered Adaptive Instruction 161
Higher Education's Four Horsemen of its Apocalypse 165
Conclusion 168

11. SELECTED FOR SUCCESS: HOW *HEADSPROUT READING BASICS*™ TEACHES BEGINNING READING

T. V. Joe Layng, Janet S. Twyman, and Greg Stikeleather

Introduction 171
Key Skills and Strategies Students and Teachers' Best Friends 172
Learning Methodologies: Foundational and Flexible 175
Embracing the Burden of Proof: Headsprout's Unparalleled Learner Testing 178
Enabling Evolution: Headsprout's Recombinant Teaching and Engineering Models 182
Headsprout's Internet Advantage: Broad Availability and Continuous Improvement 183
Headsprout Reading basics: Empirical Data 183
Instructional Adaptability 184
Learner Performance Data 184
Reading Outcomes 185
Demonstrated Effective 192
Educator Feedback 192
Conclusion 195

5

Personalized System of Instruction

12. THE PERSONALIZED SYSTEM OF INSTRUCTION: A FLEXIBLE AND EFFECTIVE APPROACH TO MASTERY LEARNING

Eric J. Fox

Introduction 201
History and Overview 202
- Key Features of PSI 203
- The Rise of PSI 204
- The Fall of PSI 205

Effectiveness 206
Flexibility 208
Implementing PSI in the 21st Century 209
- Deciding To Use PSI 210
- Key Features of PSI: Updated and Revised 211

Conclusion 216

13. MAKING THE MOST OF PSI WITH COMPUTER TECHNOLOGY

Joseph J. Pear, Toby L. Martin

Introduction 223
Computers in Higher Education 224
A Brief History of CAPSI 224
How CAPSI Utilizes Computer Capabilities 225
Information-Processing Capabilities 226
- Data Storage Capabilities 229
- Communications Capabilities 229

Refinements of CAPSI 230
- Higher-Order Thinking 230
- Incentives for Student Behavior 234
- Plagiarism 235
- Preventing Mastery-Criterion Circumvention 235
- Training 236
- Programming CAPSI 237

The Peer Review System at Work 237

Comparison with Traditional Courses 241
Comparison with Other Computer-Mediated Courses 241
Expanding on Technology 242
Research Studies on CAPSI 242

6

Significant Developments in Evidence-Based Education

14. THE MORNINGSIDE MODEL OF GENERATIVE INSTRUCTION: AN INTEGRATION OF RESEARCH-BASED PRACTICES

Kent Johnson and Elizabeth M. Street

About Morningside Academy 247
Current Work 248
Morningside Teachers' Academy 249
External Partnerships 249
Summer School Institute(SSI) 249
Morningside Technology Transfer 249
Philosophical and Empirical Underpinnings 250
Generativity and Contingency Adduction 251
A System of Instruction 252
Establishing Objectives and Analyzing Content 252
Content-Dependent Analysis 253
Content-Independent Analysis 253
Instructional Program Development 254
Critical Thinking and Self-Regulation 259
Self-Direction and Independence 260
Program Placement and Monitoring Based on Continuous Measurement of Performance 261
Classroom Management 262
Empirical Data Supporting Technology Transfer of the Morningside Model of Generative Instruction 263
Conclusion 264