Contents

Preface v

Unit 1 EVALUATION IN EDUCATION 1

Chapter 1 INTRODUCTION TO MEASUREMENT AND EVALUATION 3

Need for Decision Making 3
Definitions: Test, Measurement, Evaluation, and
Assessment 4
Information Gathering and Educational Decision
Making 5
Purposes of Measurement and Evaluation 6
Issues in Measurement and Evaluation 11
Summary 14
Points to Ponder 14

Chapter 2 NORM- AND CRITERION-REFERENCED MEASUREMENT 15

Distinctions Between Norm- and CriterionReferenced Measurement 16
Constructing Norm- and Criterion-Referenced
Achievement Tests 19
Uses for Norm-Referenced Measurement 19
Uses for Criterion-Referenced
Measurement 20
Comparing the Two Measures 21
Summary 22
Points to Ponder 23

Unit 2 TEACHER-MADE EVALUATION TOOLS 25

Chapter 3 THE ROLE OF OBJECTIVES IN EDUCATIONAL EVALUATION 27

Definition of Terms Why Have Goals or Objectives? Approaches to Determining (Selecting) Objectives 29 Approaches to Stating (Communicating) Goals Making Objectives Amenable to Measurement and Evaluation Objectives for Criterion-Referenced Tests 45 Unanticipated and/or Unmeasurable Outcomes 46 An Example of Stating Objectives for Instruction and Evaluation Summary 47 Points to Ponder 48

Chapter 4 CLASSROOM TESTING: THE PLANNING STAGE 49

Why Teacher-Made Tests? 50
Deficiencies in Teacher-Made Tests 52
Classification of Teacher-Made Tests 53
Planning the Teacher-Made Test 55
Differences Between the Essay and Objective
Test 65

Factors to Consider When Selecting an Item
Format 66
Additional Details in Test Planning 68
General Considerations in Writing Test
Items 73
What Does It Take to Be a Good Item
Writer? 76
Constructing Criterion-Referenced Tests 78
Summary 79
Points to Ponder 80

Chapter 5 THE ESSAY TEST: PREPARING THE QUESTIONS AND GRADING THE RESPONSES 81

Classification of the Essay Question 82 Advantages and Limitations of the Essay Test 84 Why Are Essay Tests Still Popular? Suggestions for Preparing Good Essay Tests An Example of the Development of a Good Essay Question Grading Essays The Oral Question 103 104 Summary Points to Ponder 105

Chapter 6 WRITING THE OBJECTIVE TEST ITEM: SHORT-ANSWER, MATCHING, AND TRUE-FALSE 106

Objective-Type Tests 107
Suggestions for Writing Objective Items 107
Writing Short-Answer Items 111
Writing the Matching Exercise 115
Writing True-False Items 119
Summary 126
Points to Ponder 127

Chapter 7 WRITING THE OBJECTIVE TEST ITEM: MULTIPLE CHOICE AND CONTEXT-DEPENDENT 128

The Multiple-Choice Item 129
Advantages and Limitations of Multiple-Choice
Items 132
Item Shells 133

Suggestions for Writing Multiple-Choice Items 134 Writing Context-Dependent Items 141 Summary 148 Points to Ponder 149

Chapter 8 ASSEMBLING, REPRODUCING, ADMINISTERING, SCORING, AND ANALYZING CLASSROOM ACHIEVEMENT TESTS 151

Getting the Test Ready 152
Reproducing the Test 156
Administering the Test 157
Recording and Scoring the Answers 158
Testing the Test: Item Analysis 160
Summary 170
Points to Ponder 171

Chapter 9 OTHER TEACHER-MADE EVALUATION PROCEDURES 173

Performance Assessment: Evaluating Procedures and Products 175
Observational Tools and Techniques 179
Types of Observational Tools 182
Evaluating Personal-Social Adjustments
Sociometrically 196
Measurement in the Affective Domain 200
Measuring Attitudes 201
Summary 204
Points to Ponder 206

Unit 3 INTERPRETING TEST SCORES 207

Chapter 10 DESCRIBING EDUCATIONAL DATA 209

Kinds of Scores 210
Presenting Data Succinctly: Tabulating and
Graphing 211
Shapes of Data Distributions 215
Measures of Central Tendency 216
Measures of Variability 218
Measures of Relationship 220
Summary 223
Points to Ponder 223

Chapter 11 NORMS, SCORES, AND PROFILES 224

Norms 225
Types of Norm-Referenced Scores 230
Types of Criterion-Referenced Scores 239
Expectancy Scores 241
Profiles 244
Summary 246
Points to Ponder 247

Chapter 12 RELIABILITY 248

Definition of Reliability Classical Theory of Reliability Standard Error of Measurement 251 Estimates of Reliability Factors Influencing Reliability 258 Reliability of Difference Scores Reliability of Criterion-Referenced Tests 261 Reliability and Instrument Construction and Administration 262 Reliability and Test Use 263 Summary 264 Points to Ponder 264

Chapter 13 VALIDITY 265

Kinds of Validity Evidence 266 Methods of Expressing Validity 273 Factors Affecting Validity Validity and Decision Making 278 Validity Generalization Validity and Test Use 283 Validity of Criterion-Referenced Tests 284 Summary 284 Points to Ponder 285

Unit 4 STANDARDIZED EVALUATION PROCEDURES 287

Chapter 14 INTRODUCTION TO STANDARDIZED TESTS AND INVENTORIES 289

Definition and Classification of Standardized Tests 289 Functions of Standardized Tests in Schools 290 Standardized Testing Programs 291 Summary 303 Points to Ponder 304

Chapter 15 STANDARDIZED APTITUDE MEASURES 305

Introduction 306
Individually Administered Tests of General
Intelligence (Aptitude) 318
Group Tests of General Aptitude 323
Multifactor Aptitude Tests 330
Special-Aptitude Tests 335
Using Aptitude Test Results 336
Summary 342
Points to Ponder 343

Chapter 16 STANDARDIZED ACHIEVEMENT TESTS 345

Differences Between Standardized and Teacher-Made Achievement Tests Classification of Standardized Achievement Tests Standardized Diagnostic Achievement Tests Criterion-Referenced Standardized Achievement Tests Standardized Achievement Tests in Specific Subjects 363 Standardized Achievement Test Survey Batteries 371 Individually Administered Achievement Tests 377 Using Achievement Test Results New Directions in Testing 391 Summary 393 Points to Ponder 394

Chapter 17 INTEREST, PERSONALITY, AND ATTITUDE INVENTORIES 396

Introduction 397
Measuring Noncognitive Characteristics: Some
Challenges 398
Measuring Interests 404
Using Interest Inventory Results 418
Career Awareness and Development 421
Personality Assessment 423

xiv CONTENTS

Attitude and Value Assessment 426 Summary 430 Points to Ponder 431

Chapter 18 ASSESSING EXCEPTIONALITY 433

Introduction Equality of Education and the Handicapped 435 Assessing the Exceptional Child 437 Types of Special Education Some Other Measures The Gifted 451 Putting It All Together 452 Summary 454 Points to Ponder 455

Chapter 19 FACTORS INFLUENCING MEASUREMENTS OF INDIVIDUALS 456

Test (Evaluation) Anxiety Guessing 461 Test-Wiseness 465 Coaching and Practice (On Aptitude Tests) 467 Coaching/"Cheating" (On Achievement Tests) 469 Response Styles 471 Other Factors Affecting an Examinee's Test Performance Summary 474 Points to Ponder 475

Unit 5 EVALUATION: ITS DISCLOSURE AND THE PUBLIC 477

Chapter 20 MARKING AND REPORTING THE RESULTS OF MEASUREMENT 479

Necessity for Reporting Procedures: Who Needs Them? 480 Bases for Marking and Reporting 482 Marking and Reporting Procedures 483
Criteria for a Marking-Reporting System 494
Summary 494
Points to Ponder 495

Chapter 21 ACCOUNTABILITY: TESTING AND EVALUATION PROGRAMS 496

Accountability 496
External Testing Programs 500
Summary 504
Points to Ponder 505

Chapter 22 PUBLIC CONCERNS ABOUT AND FUTURE TRENDS IN EVALUATION 506

Public Concerns About Measurement and Evaluation 507 Future Trends in Evaluation 526 Summary 531 Points to Ponder 531

Appendix: Selective List of Test Publishers 533

References 534

Name Index 575

Subject Index 585