

CONTENTS

Preface vii | Acknowledgments xiv

PART I

Introduction to Tests and Measurements in Human Performance 1

Chapter 1	Concepts in Tests and Measurements 3
	Nature of Measurement and Evaluation 5
	Purposes of Measurement, Testing, and Evaluation 9
	Domains of Human Performance 11
	Summary 14
Chapter 2	Using Technology in Measurement and Evaluation ... 17
	Using Microcomputers to Analyze Data 19
	Using PASW 23
	Downloading Data Matrices 32
	Summary 34

PART II

Basic Statistical Concepts 35

Chapter 3	Descriptive Statistics and the Normal Distribution ... 37
	Scales of Measurement 38
	Summation Notation 40
	Reporting Data 40
	Central Tendency 42
	Distribution Shapes 43
	Variability 45
	Standard Scores 48
	Normal-Curve Areas (z Table) 49
	Summary 53
Chapter 4	Correlation and Prediction 55
	Correlation Coefficient 56
	Calculating r 59
	Prediction 63
	Multiple Correlation or Multiple Regression 66
	Summary 67

Chapter 5	Inferential Statistics.....	69
	Hypothesis Testing	70
	Independent and Dependent Variables	73
	Overview of Hypotheses Testing and Inferential Statistics.	74
	Selected Statistical Tests	75
	Summary	83
PART III	Reliability and Validity Theory	85
Chapter 6	Norm-Referenced Reliability and Validity.....	87
	Reliability	89
	Validity	102
	Applied Reliability and Validity Measures	108
	Summary	111
Chapter 7	Criterion-Referenced Reliability and Validity	113
	Developing Criterion-Referenced Standards	115
	Development of Criterion-Referenced Testing	116
	Statistical Analysis of CRTs	119
	Statistical Techniques to Use with CRTs.	120
	CRT Examples.	125
	Applying Criterion-Referenced Standards to Epidemiology.	131
	Summary	135
PART IV	Human Performance Applications	137
Chapter 8	Developing Written Tests and Surveys.....	139
	Planning the Test	141
	Constructing and Scoring the Test.	150
	Administering the Test	169
	Analyzing the Test.	173
	Item Analysis	175
	Sources of Written Tests	180
	Questionnaires	181
	Summary	186
Chapter 9	Physical Fitness and Activity Assessment in Adults ...	187
	Health-Related Physical Fitness	189
	Establishing the Risk for Fitness Testing	191
	Measuring Aerobic Capacity	193
	Measuring Body Composition	201
	Measuring Muscular Strength and Endurance	211

Measuring Flexibility	222
Health-Related Fitness Batteries	224
Physical Fitness Assessment in Older Adults	226
Older Adult Fitness Battery	228
Special Populations	239
Measuring Physical Activity	239
Certification Programs	244
Summary	244
Chapter 10 Physical Fitness and Activity Assessment in Youth . . .	245
Health-Related Fitness and Motor Fitness	249
Norm- Versus Criterion-Referenced Standards	250
Normative Data	250
Youth Fitness Test Batteries	251
FITNESSGRAM	255
Variable Standards in Youth Fitness Tests	266
Enhancing Reliable and Valid Fitness Test Results with Children	267
Special Children	268
Measuring Physical Activity in Youth	268
Summary	277
Chapter 11 Assessment of Sport Skills and Motor Abilities	279
Guidelines for Sport Skills and Motor Performance Tests	280
Effective Testing Procedures	281
Developing Psychomotor Tests	284
Issues in Skills Testing	286
Skills Test Classification	287
Testing Motor Abilities	301
Purposes of Human Performance Analysis	305
Summary	313
Chapter 12 Psychological Measurements in Sports and Exercise	315
<u>Robert S. Weinberg</u>	
Sport Psychology: Performance Enhancement and Mental Health	316
Trait Versus State Measures	317
General Versus Sport-Specific Measures	319
Cautions in Using Psychological Tests	321
Quantitative Versus Qualitative Measurement	323
Scales Used in Sport and Exercise Psychology	328

General Psychological Scales Used in Sport and Exercise	344
Summary	350

Chapter 13 Classroom Grading: A Summative Evaluation353

Evaluations and Standards.	355
Process of Grading	356
Determining Instructional Objectives	357
Consistency in Grading.	361
Grading Mechanics	362
Summary	377

Chapter 14 Performance-Based Assessment: Alternative Assessments for Measurement and Evaluation.379

Jacalyn L. Lund

Impetus for Developing a New Type of Assessment.	380
Types of Performance-Based Assessment.	385
Establishing Criteria for Judging Performance-Based Assessments	391
Subjectivity: A Criticism of Performance-Based Assessments. . . .	401
Selecting Appropriate Performance-Based Assessments	401
Issues to Consider When Developing Performance-Based Assessments	404
Improving Assessment Practices in Physical Education Settings.	406
Summary	409

Appendix A: Microsoft Excel Applications	410	Glossary	438	References	442	Index	449
About the Authors	455	About the Contributors	457				