CONTENTS

Contributors xiii

Intr	oduction
	Introduction to Measurement in Sport and Exercise Psychology 3
LB.	Gershon Tenenbaum, PhD, Robert C. Eklund, PhD, and Akihito Kamata, PhD
	Concepts, Items, and Responses4Steps in Designing Measures4Assigning Meaning to Measures5Introspection and Measurement: Reliability and Validity5Conclusion6
2	Measurement Practice in Sport and Exercise Psychology: A Historical, Comparative, and Psychometric View 9
	Weimo Zhu, PhD
	Key Developments in Educational and Psychological Measurement12Progress and Status of Measurement in Sport and Exercise Psychology16Conclusion and Recommendations19Acknowledgments21
PAR	I I Measurement Basics, Methods, and Issues 23
MEAS	SUREMENT BASICS
(25)	Reliability 25
9	Brandon K. Vaughn, PhD, Hwa-Young Lee, and Akihito Kamata, PhD
	The Theory of Reliability25Estimating the Reliability Coefficient26Standard Error of Measurement29Evaluating the Magnitudes of Reliability Coefficients29Improving Reliability30Relationship to Validity30Reliability for Multidimensional Instruments31Misconceptions and Misuses of Reliability32Conclusion32

Conceptualizing Validity	aaddaagiiiliin garroo aada oori iii garrighyo dhaga dhaday badaga Way Affiyy Malain Waliin Jaris iii
Brandon K. Vaughn, PhD, and Sarah R. Daniel	
Validity in the Premodern Era Collecting Evidence of Validity Validity in the Modern Era Issues of Validity in Research Designs Conclusion	
Validating Scores From New Assessments: A Compar Test Theory and Item Response Theory	rison of Classical
Yaacov Petscher, PhD, and Christopher Schatschneider, PhD	
Level of Analysis Item Difficulty Item Discrimination Item Response Theory Parameter Invariance Constructing the Assessment Sample Size Conclusion.	
Factorial Invariance: Tools and Concepts for Strength	-
Ryne Estabrook, PhD	
Factorial Invariance Configural Invariance. Metric Invariance Alternative Approaches Fitting Invariance Models Ordinal Data. Conclusion. Acknowledgments Appendix A: Coding Example for Mplus Appendix B: Coding Example for OpenMx.	
Modeling Change Over Time	
Kevin J. Grimm, PhD, and Nilam Ram, PhD	HACIONE SAMPONIALASTER UNE SICOROPORT ESCURRACIÓN (PER COME A PARTIE ESCURRACIÓN (ASTRONOCEMBRANDO COME COMETO COM
Sample Data Analysis Latent Growth Curve Modeling Conclusion Acknowledgements Appendix	
Rasch Modeling in Sports	
Bernd Strauss, PhD, Dirk Büsch, PhD, and Gershon Tenenbaum, PhD	n er filmpety – sta _{rres} (et cyrero i en <u>userostro</u> demone ajannatymisten i lateter stale evolutiktassettiste
The Basic Idea of the Rasch Model	

	Extensions and Generalizations of Rasch Modeling
MEASI	UREMENT METHODS
9	Idiosyncratic Measures in Sport 81
	W. Alex Edmonds, PhD, Michael B. Johnson, PhD, Gershon Tenenbaum, PhD, and Akihito Kamata, PhD
	Theoretical and Conceptual Framework
$\mathfrak{f}(0)$	Dynamic Assessment in Sport 91
	Thomas Schack, PhD
	Dynamic Assessment91Dynamic Assessment Concept and Procedures92Dynamic Assessment of Motor Learning Potential94Further Areas for Applying Dynamic Assessment in Sport Psychology100Conclusion100Acknowledgments101
11	Verbal Reports of Cognitive Processes 103
	David W. Eccles, PhD
	Validity of Verbal Reports of Cognitive Processes
12	Making Sense of Words and Stories in Qualitative Research: Strategies for Consideration 119
	Brett Smith, PhD, and Andrew C. Sparkes, PhD
	Analyzing the Whats: Content

MEASUREMENT ISSUES

13	Developmentally Informed Measurement in Sport and Exercise Psychology Research	131
	Alan L. Smith, PhD, Travis E. Dorsch, MS, and Eva V. Monsma, PhD	eco-ed/gen-jappet tem
	Cognitive Abilities and Structures Social Development. Biological Maturation. Change in Multiple Domains Conclusion.	135 137 139
14	Cultural Sport Psychology: Special Measurement Considerations	43
U -U	Tatiana V. Ryba, PhD, Robert J. Schinke, EdD, and Natalia B. Stambulova, PhD	SCHOOLS (1900 MF SHAM)
	Assumptions and Principles of Cultural Sport Psychology. Measuring Culture. Conclusion.	147
15	Synthesizing Measurement Outcomes Through Meta-Analysis	53
	Betsy Jane Becker, PhD, and Soyeon Ahn, PhD	
	What Is Meta-Analysis?. Meta-Analysis in Sport and Exercise Psychology	156 157
16	Ethics: Assessment and Measurement in Sport and Exercise Psychology	69
	Jack C. Watson II, PhD, Edward F. Etzel, EdD, and Justine Vosloo, PhD	ing page accessed page of
	Ethics and Ethics Codes Ethics Codes: Their Nature, Purposes, and Application Use of Technology Billing for Services. Cultural Issues Conclusion. Appendix: Codes of Ethics for Related Organizations	170 173 175 175 175
PART	II Cognition, Perception, and Motivation Measurement 1	77
COGNI	ITION MEASUREMENT	
17	Cognitive Measures Related to Exercise and Physical Activity	179
	Jennifer L. Etnier, PhD	1007 12071
	Theoretical Framework	

	Primary Measurement Tools
	Anticipation and Decision Making: Skills, Methods, and Measures 191
	Andrew Mark Williams, PhD, and Bruce Abernethy, PhD
	Anticipation in Sport: Capturing Performance. 191 Decision Making in Sport: Capturing Performance. 198 Anticipation and Decision Making: Identifying Causal Mechanisms Using Process Measures of Performance 198 Recommendations for Researchers and Practitioners 200
19	Measuring Mental Representations 203
	Thomas Schack, PhD
	Mental Representations.203Cognitive Representation and Performance: Perspectives and Methods204Mental Representations: A Theoretical Framework.205Measurement of Mental Representations205Measuring Mental Representations in Sport.209Measuring Mental Representations in Sport: Insight From Empirical Studies211Recommendations for Researchers and Practitioners214
SELF-P	PERCEPTION MEASUREMENT
20	Physical Self-Concept 215
	Herbert W. Marsh, PhD, and Jacqueline H.S. Cheng, PhD
	Construct Definition of Physical Self-Concept.215Dimensions and Sources of Confusion: Self-Esteem Versus Self-Concept and Self-Efficacy.216Tools to Measure the Physical Self.218Examples From the Literature.222Recommendations for Researchers and Practitioners224
91	Exercise and Self-Perception Constructs 227
	Catherine Sabiston, PhD, James R. Whitehead, EdD, and Robert C. Eklund, PhD
	Self-Esteem and Self-Concept.227Exercise Identity229Physical Activity Self-Definitions231Exerciser Self-Schemata231Possible Selves233Dimensions and Sources of Confusion234Recommendations for Researchers and Practitioners235
22	Exercise-Related Self-Efficacy 239
	Edward McAuley, PhD, Siobhan M. White, PhD, Emily L. Mailey, MS, and Thomas R. Wójcicki, BS
	Self-Efficacy and Social Cognitive Theory239Primary Self-Efficacy Measures240

	Evidence for Support: Examples From the Literature	
	Further Issues	
	Acknowledgments	
23	Self-Efficacy and Collective Efficacy	251
	Lori Dithurbide, PhD, and Deborah L. Feltz, PhD	Photo Historical was to all the second secon
	Definitions	251
	Theoretical and Conceptual Framework	
	Sources of Collective Efficacy Information	253
	Dimensions and Sources of Confusion in Self-Efficacy and Collective Efficacy	
	Guidelines for Constructing Self-Efficacy and Collective Efficacy Scales	
	Examples From the Literature	
	recommendations for researchers and reactitioners	202
24	Effort Perception	265
	Selen Razon, MS, Jasmin Hutchinson, PhD, and Gershon Tenenbaum, PhD	
	Historical Perspective on Perceived Exertion	265
	Modern Psychophysics	267
	Models of Psychobiological Responses to Exercise	
	Measurement of Perceived Effort	
	necommendations for nesearchers and Practitioners	2/3
MOTIV	/ATION MEASUREMENT	
25	Intrinsic and Extrinsic Motivation in Sport and Exercise	279
	Robert J. Vallerand, PhD, Eric G. Donahue, BSc, and Marc-André K. Lafrenière, BS	AND CONTRACT OF THE PROPERTY O
	Defining Intrinsic and Extrinsic Motivation	279
	Nature of Intrinsic and Extrinsic Motivation	279
	Multidimensional View of Intrinsic and Extrinsic Motivation	
	Intrinsic and Extrinsic Motivation at Different Levels of Generality	
	Evaluation of Measures of Intrinsic and Extrinsic Motivation in Sport and Exercise	
	necommendations for nesearchers and Fractitioners	290
26	Exercise Motivation	293
	Philip M. Wilson, PhD	
	Key Concepts and Theoretical Frameworks	293
	Theory and Measurement	295
	Exercise Motivation Instruments	
	Recommendations for Researchers and Practitioners	
	Acknowledgments	
2277	Achievement Motivation Processes	303
لما لـــــا	David E. Conroy, PhD, and Amanda L. Hyde, MS	
	History of Achievement Motivation Theories	303
	Review of Achievement Motive Measures	

Measurement of Autonomy-Supportive Behavior......439

	Confusion in Purposes of Sport Participation	439
	Recommendations for Researchers and Practitioners	440
3 (8)	Moral Behavior	443
	Maria Kavussanu, PhD, and Ian D. Boardley, PhD	
	Definitions of the Construct	443
	Theoretical and Conceptual Framework	
	Dimensions and Sources of Confusion	
	Main Tools for Measuring the Variables	
	Examples From the Literature	
	Recommendations for Researchers and Practitioners	
	Acknowledgments	453
39	Behavioral Measurement in Exercise Psychology	455
	Claudio R. Nigg, PhD, Patricia J. Jordan, PhD, and Angela Atkins, MPH	me militine militine de simb alexantación milita a del alexan feedore e
	Concept Definitions	455
	Conceptual Issues	
	Tools for Measuring Physical Activity	
	Recommendations for Researchers and Practitioners	

References 465 Mar Index 543 Mar About the Editors 551