

Contents

Preface ix | Acknowledgments xii

Part I

What Is Motor Development?

Theoretical Perspectives 1

Chapter 1 Descriptive Perspectives 3

Definition of Motor Development Study 3

History of Motor Development in the United States 4

Concept of Development 5

Three Early Pioneers of Motor Development 6

Stage versus Age 14

Physical Educators and Kinesiologists in the Field 14

Legacies from the Descriptive Perspectives 15

Specific Contributions of the Descriptive Perspectives 16

Role of Description within Motor Development

 Research 29

 Summary 29

Chapter 2 Perspectives on Perception and Action 31

Indirect Perspective 32

Direct Perspective 42

A Resolution? 51

Summary 55

Chapter 3 Systems Approach 57

Model of Constraints 59

Dynamic Systems 63

Fundamental Characteristics of Dynamic Systems 65

Applying the Dynamic Systems Model to a Motor

 Development Problem 74

 Summary 76

Chapter 4	Motor Development Research Approaches	77
	Research Designs	77
	Development Simulation	84
	Dependent Variables	85
	Anthropometric Measures	89
	Moving the Field Forward: Strong Inference Research	91
	Moving the Field Forward: Wohlwill's Developmental Research Schema	94
	Research Methods in Practice: Esther Thelen and Reflex Stepping	95
	Summary	97
<hr/>		
Part II	What Perspectives Do Researchers Use to Study Motor Development?	
	<i>Contemporary Research</i>	99
<hr/>		
Chapter 5	Development of Postural Control	101
	Theoretical Perspectives	102
	Early Development	106
	Rising to Stand	114
	Postural Control in Older Adulthood	117
	Summary	129
Chapter 6	Development of Locomotion	131
	Intertask Developmental Sequence	131
	Intratask Developmental Sequences	134
	Further Study	151
	Summary	151
Chapter 7	Development of Ballistic Skills	153
	Intertask Developmental Sequence	154
	Intratask Developmental Sequences	158
	Developmental Research	175
	Summary	176
Chapter 8	Development of Manipulative Skills	177
	Reaching and Grasping	178
	Interception Skills	194
	Summary	210

Part III**How Do Practitioners Adopt a Developmental Perspective?*****Applying Research*211****Chapter 9 Atypical Motor Development. 213**

Identifying Atypical Development by Understanding Typical Development.	214
Motor Development That Is Not Average	215
Combining Theory and Practice	237
Summary	238

Chapter 10 Motor Development Interventions 239

Interventions in Typically Developing Populations	239
Interventions for Atypical Populations	244
Interventions for Children With Disabilities	251
Summary	260

Glossary 261 | References 265

Index 299 | About the Authors 307

PURPOSE

This book is written for graduate students who are interested in both a broader and a deeper examination of motor development. In this book, we focus on the ways that various perspectives and research paradigms have influenced the development of developmental phenomena. This advanced text in motor development is designed to stimulate students to reach a deeper understanding and awareness of the nature and course of motor development and the great range of behavior that motor development. It is aimed at those who may have already studied the basic aspects of motor development and want greater in-depth knowledge and understanding. While graduate study in motor development traditionally has been approached through a variety of readings, sometimes supplemented by an undergraduate text, this advanced text meets the need for in-depth study in a more cohesive way. It presents parallel text that highlights relationships in a way that individual readings might not. It also provides a foundation in the theoretical underpinnings within the field as well as demonstrates how these theories drive contemporary research.