



Principles and Methods of Adapted Physical Education and Recreation

Kristi Roth | Lauriece Zittel | Jean Pyfer | David Auxter

Twelfth Edition





Principles and Methods of Adapted Physical Education and Recreation

Twelfth Edition

Kristi Roth, PhD, CAPE

Professor

University of Wisconsin—Stevens Point

Jean Pyfer, PED, CAPE

Professor Emeritus

Texas Woman's University

Lauriece Zittel, PhD, CAPE

Associate Professor

Northern Illinois University

David Auxter, EdD, CAPE

Senior Scientist

Research Institute for Independent Living



JONES & BARTLETT
LEARNING

World Headquarters

Jones & Bartlett Learning
5 Wall Street
Burlington, MA 01803
978-443-5000
info@jblearning.com
www.jblearning.com

Jones & Bartlett Learning books and products are available through most bookstores and online booksellers. To contact Jones & Bartlett Learning directly, call 800-832-0034, fax 978-443-8000, or visit our website, www.jblearning.com.

Substantial discounts on bulk quantities of Jones & Bartlett Learning publications are available to corporations, professional associations, and other qualified organizations. For details and specific discount information, contact the special sales department at Jones & Bartlett Learning via the above contact information or send an email to specialsales@jblearning.com.

Copyright © 2017 by Jones & Bartlett Learning, LLC, an Ascend Learning Company

All rights reserved. No part of the material protected by this copyright may be reproduced or utilized in any form, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without written permission from the copyright owner.

The content, statements, views, and opinions herein are the sole expression of the respective authors and not that of Jones & Bartlett Learning, LLC. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not constitute or imply its endorsement or recommendation by Jones & Bartlett Learning, LLC and such reference shall not be used for advertising or product endorsement purposes. All trademarks displayed are the trademarks of the parties noted herein. *Principles and Methods of Adapted Physical Education and Recreation, Twelfth Edition* is an independent publication and has not been authorized, sponsored, or otherwise approved by the owners of the trademarks or service marks referenced in this product.

There may be images in this book that feature models; these models do not necessarily endorse, represent, or participate in the activities represented in the images. Any screenshots in this product are for educational and instructive purposes only. Any individuals and scenarios featured in the case studies throughout this product may be real or fictitious, but are used for instructional purposes only.

08938-7

Production Credits

VP, Executive Publisher: David D. Cella
Publisher: Cathy L. Esperti
Acquisitions Editor: Sean Fabery
Vendor Manager: Sara Kelly
Director of Marketing: Andrea DeFronzo
VP, Manufacturing and Inventory Control: Therese Connell
Composition and Project Management: Cenveo® Publisher Services

Cover Design: Scott Moden
Rights & Media Specialist: Jamey O'Quinn
Media Development Editor: Troy Liston
Cover Images: Top center: ©Shutterstock/Studio 1One; Top right: ©Shutterstock/Jaren Jai Wicklund; Bottom: ©Getty Images/DisabilityImages
Printing and Binding: RR Donnelley
Cover Printing: RR Donnelley

Library of Congress Cataloging-in-Publication Data

Names: Roth, Kristi, author. | Zittel, Lauriece L., author. | Pyfer, Jean, author. | Auxter, David, author.

Title: Principles and methods of adapted physical education and recreation / Kristi Roth, Lauriece Zittel, Jean Pyfer, and David Auxter.

Description: Twelfth edition. | Burlington, MA : Jones & Bartlett Learning, [2017] | Includes bibliographical references and index.

Identifiers: LCCN 2016021005 | ISBN 9781284077810 (casebound : alk. paper)

Subjects: | MESH: Physical Education and Training—methods | Disabled Persons | Recreation

Classification: LCC GV445 | NLM QT 255 | DDC 790.1/96—dc23 LC record available at <https://lccn.loc.gov/2016021005>

6048

Printed in the United States of America

20 19 18 17 16 10 9 8 7 6 5 4 3 2 1

PART I	The Scope	1
CHAPTER 1	Adapted Physical Education	3
PART 2	Key Techniques	25
CHAPTER 2	Adapted Physical Education in the Public Schools	27
CHAPTER 3	Determining Educational Needs through Assessment	55
CHAPTER 4	Developing the Individualized Education Program	91
CHAPTER 5	Teaching to Meet Learners' Needs	141
CHAPTER 6	Delivering Services in the Least Restrictive Environment	183
CHAPTER 7	Enhancing Student Behavior	237
CHAPTER 8	Teaching with Technology	263

CHAPTER 9	Transition Programming/Community Recreation and Sport	279
PART 3	Needs of Specific Populations	297
CHAPTER 10	Infants, Toddlers, and Preschoolers	299
CHAPTER 11	Intellectual and Developmental Disabilities	379
CHAPTER 12	Autism Spectrum Disorder	413
CHAPTER 13	Specific Learning Disabilities	439
CHAPTER 14	Emotional Disturbance	459
CHAPTER 15	Physically Disabling Conditions	491
CHAPTER 16	Communicative Disorders	543
CHAPTER 17	Visual Impairments	581
CHAPTER 18	Other Health Impairments	607
	Glossary	645
	Index	677

Preface	xxi
Acknowledgments	xxv
Reviewers	xxvii

PART I	The Scope	1
CHAPTER 1	Adapted Physical Education	3
	Objectives	3
	Who Is Disabled?	4
	Myth of Disability	5
	Impact of Disability	5
	Disability Clarification	5
	The Process of Becoming Disabled	6
	Contributions by Adapted Physical Educators and Recreation Specialists	7
	Utilizing Evidence-Based Practices and Assistive Devices and Technologies	8
	Physical Activity and the Built Environment	8
	Addressing Potential Secondary Conditions	8
	Enriching the Lives of Others	9
	Definition of Physical Education	10
	Definition of Adapted Physical Education	11
	Benefits of Physical Education for Learners with Disabilities	11

	Roles of the Adapted Physical Educator	12
	Prevalence	13
	Advocacy and Adapted Physical Education	14
	Federal Legislation and the Civil Rights of Individuals with Disabilities	18
	The Teacher's Reality	22
	Summary	23
	Review Questions	23
	References	23
PART 2	Key Techniques	25
CHAPTER 2	Adapted Physical Education in the Public Schools	27
	Objectives	27
	Adapted Physical Education	27
	Philosophy	30
	Definition of Adapted Physical Education	30
	Goals and Objectives	30
	Criteria for Eligibility	31
	Referral Process	32
	Assessment Procedures	32
	Individualized Education Program	33
	Instructional Options/Delivery Models	33
	Equipment	35
	Accountability	38
	Interaction with Other Special Education Personnel	39
	Public Education	46
	The State and Local Education Agency	47
	Site-Based Management	48
	School–Family Partnerships	49
	Summary	53
	Review Questions	53
	References	54

CHAPTER 3	Determining Educational Needs through Assessment	55
	Objectives	55
	Purposes of Assessment	56
	Matching Type of Assessment to Purpose	57
	Legal Mandates for Determining	
	Present Level of Performance	61
	Types of Assessment	63
	Evaluating Physical Fitness	70
	Test Selection Criteria	70
	Need for Utilizing a Standardized Test	71
	Standardization	71
	Type of Disability	77
	The Testing Process	80
	Preparations for Testing	81
	Administering the Test	82
	Organizing and Interpreting the Test Results	84
	Summary	89
	Review Questions	90
	References	90
CHAPTER 4	Developing the Individualized Education Program	91
	Objectives	91
	Professional Personnel Who May be Involved in	
	the Individualized Education Program	
	and/or the Individual-Transition Plan	94
	Direct Service Providers	94
	Related Service Providers	99
	Description of Each Component of the IEP	111
	Present Level of Educational Achievement	111
	Goals	113
	Specific Educational Services	116
	Related Services	119
	Extent to Which the Student Will Not	
	Participate in Regular Education	120

Modifications/Accommodations Needed for the Student to Participate in Statewide and District-Wide Achievement Tests	120
Statement of Needed Transition Services	121
Positive Behavior Management	121
Projected Dates for Initiation and Termination of Services	123
Appropriate Objective Criteria and Evaluation Procedures	123
Additional Components of Most School-Based IEP Documents	123
Participants in the IEP/Multidisciplinary Team Meeting	125
The IEP Meeting Agenda	127
Encouraging and Maximizing Parent Participation in the IEP Process	131
Duties of the Professionals	135
Encouraging and Maximizing Student Participation in the IEP Process	135
Summary	137
REVIEW QUESTIONS	137
References	137
 CHAPTER 5 Teaching to Meet Learners' Needs	 141
Objectives	141
Levels of Motor Function	143
Incidental Versus Planned Learning	144
Facilitating Skill Development	145
Teach Specific Skills: Top-Down	146
Eliminate Deficiencies: Bottom-Up	149
Basic Neurological Building Blocks	150
Perceptual Motor Processes	160
Physical Fitness	172
Motor Fitness	175
Evidence-Based Practice and Response to Intervention	176
Modifications or Adaptations	177
Generalization to Community Environments	179
Commercial Programs	179

Parental Involvement	180
Summary	180
Review Questions	181
References	181

CHAPTER 6	Delivering Services in the Least Restrictive Environment	183
	Objectives	183
	The Least Restrictive Environment and Inclusive Education	183
	LRE and Developmentally Appropriate Practice in Physical Education	188
	Preparing for the Least Restrictive Environment—A Proactive Approach	188
	Preparing the Community	189
	The Building Principal: The Key to Effective Instructional Programs	190
	Preparing Parents	191
	Preparing Professionals, Including the General Physical Educator	195
	Preparing the Paraeducator	197
	Variables Affecting Instruction in Physical Education in the Least Restrictive Environment	198
	Accessibility and the LRE	199
	Curricular Variables Affecting Instruction in the LRE	201
	Assessment Variables Affecting Instruction in the LRE	204
	Support Personnel Variables Affecting Instruction in the LRE	204
	Teaching Style as a Variable Affecting Instruction in the LRE	212
	Management of Behavior as a Variable Affecting Instruction in the LRE	214
	Grading as a Variable Affecting Instruction in the LRE	216
	Equipment as a Variable Affecting Instruction in the LRE	217

	Working Document for the IEP Committee: Least Restrictive Environment in Physical Education	218
	Specific Strategies for Creating an LRE for Learners with Disabilities	222
	Collaboration to Create an LRE	225
	The Consultant's Contribution to an LRE	227
	Summary	233
	Review Questions	233
	References	233
CHAPTER 7	Enhancing Student Behavior	237
	Objectives	237
	Assertive, Effective Discipline	239
	Establishing the Rules	239
	Identifying Problematic Performance and Behavior	241
	Need to Assess and Monitor Performance and Behavior	241
	Define the Problem	242
	Determine Why the Problem Is Occurring	242
	Address the Problem	243
	Maximizing Student Performance	245
	Applying Good Reinforcement Practices	245
	Minimizing Distractions	248
	Managing Group Behavior	248
	Handling the Disruptive Behavior	251
	Consistent Management Techniques	255
	Contingency Contracting	258
	Support in School to Manage Behavior	259
	Discipline	260
	Summary	260
	Review Questions	260
	References	261
CHAPTER 8	Teaching with Technology	263
	Objectives	263
	Assessment	265
	Instruction	267

Equipment	270
Communication	271
Administration	272
Behavior Management and Classroom Structure	273
Summary	276
Review Questions	276
References	277

CHAPTER 9	Transition Programming/Community Recreation and Sport	279
	Objectives	279
	Transition	279
	Settings for Transition Goals	283
	Community Sport and Recreation	284
	Deaflympics, Special Olympics, Paralympics	288
	Deaflympics	288
	Special Olympics	289
	Paralympics	291
	Summary	293
	Review Questions	293
	References	294

PART 3 **Needs of Specific Populations** **297**

CHAPTER 10	Infants, Toddlers, and Preschoolers	299
	Objectives	299
	The Potential of Quality Early Intervention	300
	The Eight Types of Intelligence—The Philosophical Foundation of Effective and Appropriate Early Intervention	300
	Linguistic Intelligence	302
	Logical-Mathematical Intelligence	302
	Musical Intelligence	302
	Spatial Intelligence	303
	Bodily-Kinesthetic Intelligence	303

Interpersonal Intelligence	303
Intrapersonal Intelligence	304
Naturalist Intelligence	304
Developmentally Appropriate Assessment of Infants, Toddlers, and Preschoolers	304
Recommendations for Screening and Assessment of Infants, Toddlers, and Preschoolers	305
The Portfolio Assessment Process	314
Linguistic Intelligence	316
Logical-Mathematical Intelligence	316
Musical Intelligence	316
Spatial Intelligence	316
Bodily-Kinesthetic Intelligence	316
Interpersonal Intelligence	317
Intrapersonal Intelligence	317
Naturalist Intelligence	317
Ages and Stages—Understanding Typical and Atypical Development	318
Active Start: Recommendations Regarding Activity for Infants, Toddlers, and Preschoolers	326
Early Intervention Programs—Birth to 3 Years	327
Infants, Toddlers, and Their Families	327
Infant–Parent Relationships in Families with an Infant with a Disability	328
Early Intervention in Natural, Family-Centered Settings	331
Movement and Play in the Individual Family Service Plan	337
Role of the Adapted Physical Education Specialist with Infants and Toddlers in Natural Settings	338
Strategies and Techniques for Enhancing Sensory Stimulation	339
Strategies and Techniques for Enhancing the Development of Equilibrium Behaviors	340
Strategies and Techniques for Developing Simple Locomotor Competency	342

Strategies and Techniques for Facilitating/Scaffolding	
Symbolic Play Behavior	344
Strategies and Techniques for Scaffolding Learning	344
Demonstrating How Simple Materials Found	
(in the Home or Other Settings) Can Be Used	
to Facilitate Play and the Development of	
Gross Motor and Fine Motor Skills	345
Demonstrating the Use of Simple Toys	346
Helping the Parent (or Other Caregiver)	
Select Toys That Facilitate Communication	
between the Caregiver and the Child	346
Helping the Parent Select Toys That	
Empower the Child	347
Preschool Programs—Ages 3 to 5 Years	347
Quality Movement, Play, and Wellness	
Experiences in Preschool Programs	352
The Indoor Active Learning Center	356
The Outdoor Active Learning Center	358
Basic Standards for the Preschool	
Outdoor Play Area	364
Responsibilities of the Adapted Physical	
Education Specialist	364
Active Learning Center to Support a	
Transportation Theme	369
Atypical Play Behavior	369
Management of Behavior in the Preschool	
Learning Environment	370
Cultural Diversity in the Active Learning Centers	371
Summary	373
Review Questions	373
References	373

CHAPTER 11	Intellectual and Developmental Disabilities	379
	Objectives	379
	Definition	380
	Incidence	382

Causes	383
Fetal Alcohol Syndrome	384
Down Syndrome	384
Fragile X Syndrome	387
Characteristics of Individuals with	
Intellectual Disabilities	389
Cognitive Characteristics	390
Physical Characteristics	392
The Physical Education Program	395
Testing	395
Curriculum Design	397
Teaching Strategies	398
Modifications	402
Modifications for Students with	
Severe Intellectual Disabilities	403
Aquatics	404
Summary	407
Review Questions	407
References	408
 CHAPTER 12	
Autism Spectrum Disorder	413
Objectives	413
Definition	414
Incidence	417
Causes	417
Characteristics	418
The Physical Education Program	420
Testing for Autism Spectrum Disorder	420
Curriculum Design	421
Teaching Strategies	423
Summary	433
Review Questions	433
References	434

CHAPTER 13	Specific Learning Disabilities	439
	Objectives	439
	Definition of Specific Learning Disability	440
	Incidence of Specific Learning Disability	441
	Causes of Specific Learning Disability	441
	Characteristics of Specific Learning Disability	444
	Neurophysiological Differences	444
	Sensory Input Processing Differences	445
	Problems Processing Information	446
	Language Differences	448
	Memory Deficits	448
	Short Attention Span	449
	Testing to Determine Motor Functioning Levels	449
	Teaching Strategies	450
	The Physical Education Program	451
	Modifications	452
	Summary	453
	Review Questions	454
	References	454
CHAPTER 14	Emotional Disturbance	459
	Objectives	459
	Definition of Emotional Disturbance	460
	Continuum of Emotional Disorders	462
	Types of Mental Health Disorders	464
	Internalizing Disorders	465
	Externalizing Disorders	468
	Incidence of Emotional Disorders	473
	Causes of Emotional Disturbance	474
	Characteristics of Learners with	
	Emotional Disturbance	475
	A Supportive Learning Environment	
	for Children with Emotional Disturbance	477
	Special Considerations	477

	Testing	479
	Teaching Strategies	480
	The Physical Education Program	483
	Modifications/Adaptations/Inclusion Techniques	485
	Summary	486
	Review Questions	487
	References	487
CHAPTER 15	Physically Disabling Conditions	491
	Objectives	491
	Definition and Scope of Physically	
	Disabling Conditions	492
	Neurological Disorders	493
	Orthopedic Disabilities	514
	Traumatic Injuries	527
	Summary	538
	Review Questions	539
	References	539
CHAPTER 16	Communicative Disorders	543
	Objectives	543
	Deafness and Hearing Impairments	544
	Definition of Deaf or Hearing Impaired	545
	Incidence of Hearing Impairments in Children	546
	Causes of Hearing Impairments	546
	Conductive Hearing Impairments	547
	Sensorineural Hearing Impairments	548
	Mixed Hearing Loss	548
	Characteristics of Students with	
	Hearing Impairments	548
	Unilateral Hearing Loss	548
	Clues That Indicate Hearing Loss	549
	Motor Characteristics of Individuals	
	with Hearing Impairment	554
	The Physical Education Program	555
	Testing	555

Curriculum Design	556
Integrating Students with a Hearing Impairment	556
Teaching Strategies	558
Communication	558
Teaching Strategies	564
Deaf-Blind	568
Characteristics	569
The Physical Education Program	570
Speech and Language Disorders	572
Definition	573
Incidence	573
Causes	573
Fluency Disorders: Stuttering and Cluttering	574
Receptive Language Disorder	575
Expressive Language Disorder	575
Summary	576
Review Questions	576
Student Activities	577
References	577

CHAPTER 17	Visual Impairments	581
	Objectives	581
	Definition of Visual Impairments	582
	Incidence of Visual Impairments	583
	Causes of Visual Impairments	584
	Visual Conditions	585
	Impairments to the Extraocular	
	Muscle System	585
	Characteristics of Visual Impairments	587
	Motor Development	588
	Perceptual Development	589
	Physical Fitness	589
	Psychological and Social Adjustment	590
	The Physical Education Program	592
	Testing	592

Curriculum Design	592
Peer Assistance	593
Orientation and Mobility Training	594
Safety	595
Teaching Strategies	596
Teaching Modifications	597
Summary	602
Review Questions	603
Student Activities	603
References	603
 CHAPTER 18	
Other Health Impairments	607
Objectives	607
Attention Deficit/Hyperactivity Disorder	608
Definition	609
Incidence	609
Causes	610
Characteristics	610
Special Considerations	611
The Physical Education Program and Teaching Strategies	611
AIDS	612
Definition	612
Incidence	612
Causes	612
Characteristics	613
Special Considerations	613
The Physical Education Program and Teaching Strategies	614
Anemia	615
Definition	615
Incidence	616
Causes	616
Characteristics	617
Special Considerations	618

The Physical Education Program and Teaching Strategies	619
Asthma	619
Definition	619
Incidence	619
Causes	620
Characteristics	620
Special Considerations	621
The Physical Education Program and Teaching Strategies	622
Childhood Cancer	624
Definition	624
Incidence	624
Causes	625
Characteristics	625
Types of Childhood Cancers	626
Special Considerations	627
The Physical Education Program and Teaching Strategies	628
Cystic Fibrosis	629
Definition	629
Incidence	629
Causes	629
Characteristics	629
Special Considerations	630
The Physical Education Program and Teaching Strategies	631
Diabetes	632
Definition	632
Incidence	632
Causes	632
Characteristics	633
Special Considerations	634
The Physical Education Program and Teaching Strategies	636

Summary	639
Review Questions	639
References	640
Glossary	645
Index	677

This edition of *Principles and Methods of Adapted Physical Education and Recreation* aims to serve as a practical, evidence-based resource, just as previous editions have since its initial publication in 1969. This edition strives to continue to meet the needs of both undergraduate- and graduate-level students who are training to work with individuals with disabilities in an educational and recreational environment.

Having joined the author team with the 11th edition, Drs. Lauriece Zittel and Kristi Roth are now the book's lead developers, building on the exemplary work of Drs. Jean Pyfer and David Auxter in the previous editions. In addition to enjoying her retirement, Dr. Pyfer provided frequent feedback and guidance throughout the development process. There has been a strong effort to review each chapter and ensure that the content includes what is most practical for application in the education and recreation environment. As always, we have ensured the content is supported by current research.

We have carefully reviewed the feedback from external reviewers and vetted several chapters in development to ensure readability, applicability, and content quality. Several of our peers who are using the textbook in their courses indicated a need for the book to be more attractive to today's undergraduate student. To meet that need, we are excited to now publish with Jones & Bartlett Learning, which has helped create a visually attractive text with full-color photos and an easy-to-navigate layout. In tandem with this, all of the photos in the text have been updated.

Content Highlights

The textbook is divided into three parts: The Scope, Key Techniques, and Needs of Specific Populations. Each chapter in the text begins with Learning Objectives and concludes with Review Questions.

- Part I, “The Scope,” includes a general overview of adapted physical education and recreation and the need and legal requirements for services and support. It includes updated information related to the Every Student Succeeds Act and recent relevant litigation.
- Part II, “Key Techniques,” explores the process of qualification and delivery of services in the school environment, from determining educational needs through assessment to delivering services in the least restrictive environment. It includes an updated case study, evaluation report, and Individualized Education Plan (IEP) for physical education. This section has been strengthened by the inclusion of two new chapters: Chapter 8, “Teaching with Technology,” and Chapter 9, “Transition Programming/Community Recreation and Sport.”
- Part III, “Needs of Specific Populations,” delves into specific types of disabilities—including intellectual and developmental disabilities, autism spectrum disorders, specific learning disabilities, among others—and provides suggestions for intervention strategies. With this edition, these chapters now all utilize a consistent heading structure for ease of navigation.

New to This Edition

This edition has been thoroughly revised to reflect the latest standards and changes affecting the field of adapted physical education. Changes for this edition include the following:

- Part II, “Key Techniques,” now includes two new chapters: Chapter 8, “Teaching with Technology,” and Chapter 9, “Transition Programming/Community Recreation and Sport.” Chapter 8 explores the digital tools and resources available that can be used in teaching individuals with disabilities. Chapter 9, meanwhile, contains valuable content related to transitioning, community-recreation, and disability sport. This material

was previously located throughout various chapters in the book and has been condensed into one chapter for ease of use and continuity. This content has also been updated to reflect current sport organizations and research in transition as applied to physical education for individuals with disabilities.

- All chapters have been updated to reflect the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (DSM-5) current definitions and language.
- All chapters reflect the latest legislative changes, such as the Every Student Succeeds Act that was passed into law in 2015.
- Chapters 3, “Determining Educational Needs Through Assessment,” and 4, “Developing the Individual Education Program,” are based on a new case study. The sample assessment report reflects a new method for reporting test results and utilizes an updated test.
- Chapters in Part III, “Needs of Specific Populations,” now incorporate a consistent heading structure for ease of content navigation. Each chapter begins with a definition of the type of disability being covered before walking through the incidence, causes, characteristics, and the physical education program. Case studies previously featured in these chapters are now found in the slides.
- Chapter 12, “Autism Spectrum Disorder,” has been significantly revised to reflect changes in terminology, updated research, and the current evidence-based practices (EBPs) for individuals with autism spectrum disorder (ASD). Application of the 27 EBPs in the physical education setting is provided.

Instructor Resources

There has been a significant effort to provide support to instructors teaching with *Principles and Methods of Adapted Physical Education and Recreation*, and the instructor resources created for the 12th edition are more expansive and impactful than ever. Qualified instructors can access the following resources:

- Test Bank, containing more than 500 questions
- Slides in PowerPoint format, mapping to each chapter and incorporating a case study to frame class discussion

- Instructor's Manual, featuring active learning activities, an answer key for case studies found in the slides, and materials for a project-based final exam
- Screencast Lectures, providing real-life examples of chapter content and sharing valuable resources for further research

We hope you find the changes to this edition of *Principles and Methods of Adapted Physical Education and Recreation* beneficial, and we welcome your feedback to ensure that our revisions continue to meet your needs.

ACKNOWLEDGMENTS

The authors would like to gratefully acknowledge the many contributions of individuals who provided their wisdom, effort, and support in the preparation of the 12th edition of this text. We rely not just on the scientific literature in disability research but also on the leadership of the many passionate adapted physical educators in the field. First and foremost, we would like to thank Dr. Jean Pyfer for her guidance as Dr. Laurie Zittel and Dr. Kristi Roth assumed the lead on this edition. Her wisdom is unending, her editorial feedback is swift and gentle, and her passion for ensuring our content useful, yet research-based, is appreciated. In the early stages of development for this edition, we also relied heavily on feedback provided by external reviewers. They, along with the many passionate professionals in the field of adapted physical education, helped guide and inform our content.

We would like to share that we strive to include the love and wisdom infused in this textbook by Dr. Carol Huettig. Although she is no longer physically present, her presence is felt on a daily basis and helps to guide our advocacy efforts for individuals with disabilities and the continued revision of this resource.

We also would like to thank the parents, children, and college students involved in our campus practica for their consent in using their inspirational photographs as we set about the daunting task of updating every photo in the book. We also would like to thank the various individuals and organizations who provided us with photos, including the United States Association of Blind Athletes and the Great Lakes Adaptive Sports Association.

Additional gratitude is shared with Jones & Bartlett Learning for their editorial assistance, guidance, and advocacy for the development of this edition.

Finally, we owe the deepest gratitude to our families for their unending support. This textbook reflects not only our passion for the field and for children with disabilities but also the love we receive from those who we call home.

MaryJo Archambault, MS, CTRS

Assistant Professor
Southern Connecticut State University
New Haven, Connecticut

Ann L. Boe, MS

Assistant Professor
Rockford University
Rockford, Illinois

Lauren Cavanaugh, PhD

Assistant Professor
Canisius College
Buffalo, New York

Rose M. Chew, PhD

Assistant Professor
Grambling State University
Grambling, Louisiana

Beatrice Darden-Melton, PhD

Assistant Professor
Norfolk State University
Norfolk, Virginia

Candice Howard-Shaughnessy, PhD

Associate Professor
Troy University
Troy, Alabama

Michelle Hsiu-Chen Liu, PhD

Assistant Professor
Averett University
Danville, Virginia

Gerard G. Lyons, EdD

Professor
Idaho State University
Pocatello, Idaho

The Scope

In Part I we provide an overview of adapted physical education—what the term means, its historical development, the benefits strong programs have to offer persons with disabilities, and the barriers we must overcome if we are to provide quality, outcome-based services in the future. The significant growth of adapted physical education has been supported through strong advocacy. We highlight national organizations as well as name the outstanding professionals who have led advocacy work to make adapted physical education a mandated educational service. Court decisions and federal legislation that have had an impact on physical education for individuals with disabilities is presented.

Adapted Physical Education

OBJECTIVES

- Define adapted physical education.
- Explain physical education as a mandated, direct special education service.
- List several of the benefits of physical education for learners with disabilities.
- Briefly describe the many, varied roles of the adapted physical educator.
- Briefly explain the major advocacy events in the history of physical education for individuals with disabilities.

Adapted physical education is the art and science of developing, implementing, and monitoring a carefully designed physical education instructional program for a learner with a disability, based on a comprehensive assessment, to give the learner the skills necessary for a lifetime of rich leisure, recreation, and sport experiences to enhance physical fitness and wellness.

Adapted physical education (APE) and recreation are critical components for the well-being of children with disabilities. The Centers for Disease Control and Prevention, the federal agency responsible for promotion of the health of the nation, has stated that one of its highest



health priorities is participation in leisure physical activity. The contributions of adapted physical education to the U.S. public health goal are clear. The old notion of the “inoculation theory” that a dose of physical activity during the years of school will provide a health benefit for the rest of one’s life has been discredited. Rather, to establish and maintain health, ongoing participation in physi-

cal activity is necessary. In addition to keeping children with a disability physically fit during the school years, adapted physical education must provide skills that involve physical activity that can be generalized into homes and communities for a lifetime.

Who Is Disabled?

There are persistently recurring myths and misconceptions among the public that disabilities are rare and refer only to highly observable physical impairments. The data on disability reveal a different picture:¹¹

- There are approximately 56.7 million people with disabilities in the United States.
- The likelihood of having a severe disability is 1 in 4 for individuals 65 to 69 years of age.
- Persons 80 years of age and older are 8 times more likely to have a disability.
- The likelihood of having a severe disability is 1 in 20 for young adults 15 to 24 years of age.
- 9.4 million, noninstitutionalized adults experience difficulty with at least one activity of daily living.
- Approximately 30.6 million individuals experience difficulty walking or climbing stairs, or use assistive devices such as wheelchairs, canes, or crutches.

MYTH OF DISABILITY

There is a perception by many persons in the public that *disability* refers to persons who are in wheelchairs; however, in reality, the number of persons in wheelchairs is small. Most disabilities are invisible to the public because they are neuromuscular, cardiovascular, chronic respiratory, and/or mental disorders.

IMPACT OF DISABILITY

Nearly every extended family across three generations will most likely have a member with a disability. It is a costly social, public health, and moral issue. What determines a disability is the extent to which a person's physical and mental conditions limit his or her ability to meet the demands of his or her physical and/or social environments. Once a disability is identified, interventions should be implemented to lessen the impact of the disability. Adapted physical education strategies can help individuals improve functional capacity and avert further deterioration in physical and mental functioning.

DISABILITY CLARIFICATION

There are many federal definitions of disability. For instance, the Individuals with Disabilities Education Improvement Act's definition of disability refers to medical conditions associated with *adverse educational progress*. The Social Security definition of disability is associated with *ability to work*, not educational progress. Each of these definitions is limited. Because how one defines disability impacts the approach taken to address the disability, attempts have been made to clarify the causes and results of disabilities.

The Institute of Medicine (IOM) developed a model in collaboration with the Centers for Disease Control and Prevention and the National Council on Disability that builds on the World Health Organization (WHO) definition of disability.⁵ The IOM model places disability within the context of health and social issues. It depicts the interactive effects of biological, environmental (physical and social), lifestyle, and behavioral risk factors that influence each stage of the disability process. Adapted physical educators and recreation specialists should use this model and become more active players at each stage of the disability process because they have the skills needed to intervene at several different stages in the process.

Depending on the circumstance, progressively greater loss of function may not need to occur, and the progression toward disability could be halted or reversed. Adapted physical education strategies can be applied at any of the stages that precede disability as well as in the disability stage itself. Intervention can focus on facilitating development, restoration of lost function, or prevention of complications (secondary disabling conditions) that can exacerbate existing conditions or lead to new ones.

The Process of Becoming Disabled

The disabling process involves disability risk factors, pathology, impairment, and functional limitation. Examples of stages of the disability process are depicted in **Table 1-1**. Quality of life or well-being can be affected at each stage of the disability process. An example of diminished health that could lead to a disability follows:

- Disability risk factor:* inadequate physical activity and nutrition
- Symptoms:* defects in insulin secretion and/or action (i.e., diabetes)
- Physical impairment:* affects vision and the lower extremities
- Functional limitations:* blindness or lower-limb amputations

A variety of personal and social environmental factors can influence the progression of disability and secondary disabling conditions. Some of these factors are health status, psychological state, socioeconomic status, educational

TABLE 1-1 Disabling Process Stages

Disability Risk Factors	Physical inactivity, poor nutrition, substance abuse, smoking, improper eating habits, risky behavior that places a person’s health in danger, child abuse, risky sexual activity, domestic violence, lack of access to medical care, hypertension, arthritis, back pain, depression, postural disorders, and others
Symptoms	Joint pain, defects in insulin secretion and/or action, depression, low vision, hypertension, chronic cough, underachievement, and tiredness
Physical or Intellectual Impairment	Impaired organs of the body, such as the cardiovascular system, including the heart, musculoskeletal organs; mental health; vision; mental retardation; hearing; and the immune system
Functional Limitations	Inability to meet the demands of tasks in social and/or physical environments

attainment, and the presence of multiple conditions of disability. However, regardless of which of the factors is contributing to the condition, adapted physical educators and recreation specialists can moderate the situation by addressing the risk factors, utilizing evidence-based practices, employing assistive devices and technologies, and/or addressing the built environment.



Contributions by Adapted Physical Educators and Recreation Specialists

Risk factors are biological, environmental (social, physical), and lifestyle or behavioral characteristics that are causally associated with health-related conditions. Several specific examples are given in **Figure 1-1**. Identifying

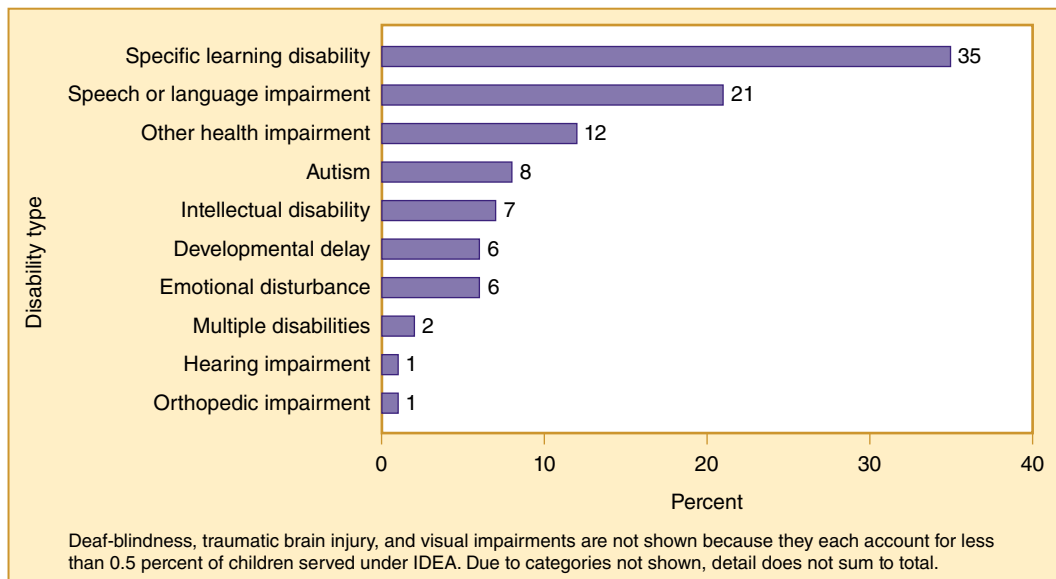


FIGURE 1-1 Percentage distribution of children ages 3–21 served under the Individuals with Disabilities Education Act (IDEA), Part B, by disability type: School year 2012–13.

U.S. Department of Education, Office of Special Education Programs, Individuals with Disabilities Education Act (IDEA) database, retrieved October 3, 2014, from <https://inventory.data.gov/dataset/8715a3e8-bf48-4eef-9deb-fd9bb76a196e/resource/a68a23f3-3981-47db-ac75-98a167b65259>. See Digest of Education Statistics 2014, table 204.30. http://nces.ed.gov/programs/coe/indicator_cgg.asp

such factors can be a first step toward streamlining a plan of action to combat the disabling process and develop appropriate interventions.

UTILIZING EVIDENCE-BASED PRACTICES AND ASSISTIVE DEVICES AND TECHNOLOGIES

Evidence-based practices and adaptations to help people with disabilities benefit from active lifestyles are essential. Knowing facts regarding types of disabling conditions, characteristics of the disabilities, teaching strategies, and specific suggestions of activities, modifications, and adaptations that will promote participation is necessary in order to effectively design developmentally appropriate and safe programming.

PHYSICAL ACTIVITY AND THE BUILT ENVIRONMENT

Modifying the “built environment” enables accommodation of persons with disabilities to reduce the discrepancy between their personal capabilities and the environment. Examples of well-known adaptations to the built environment for people with disabilities are ramps to buildings and swimming pools, buses that have provisions for easy access, curbs that are cut for wheelchair access, and entrances to buildings that enable wheelchair access. Great improvements to the built environment have occurred in the public in the past several years. These improvements have enhanced the ability of persons with disabilities to access their environments.

ADDRESSING POTENTIAL SECONDARY CONDITIONS

People with disabling conditions are often at risk of developing secondary conditions that can result in further deterioration of health status, functional capacity, and quality of life. Secondary conditions by definition are causally related to primary disabling conditions and include contractures, physical and cardiopulmonary deterioration, mental depression, and other adverse health conditions. Addressing potential secondary conditions is an important role of the adapted physical educator and the recreation therapist. Adapted physical educators and recreation personnel can, through development of skills and attitudes that generalize into recreational environments, impact the lifelong quality of life for persons who exit the educational setting for recreational/leisure living in the community.

ENRICHING THE LIVES OF OTHERS

The potential exists for the physical educator and the adapted physical educator to “do something,” to make an incredible difference in the life of a learner with a disability and the learner’s family.

Imagine the opportunities to “do something”:

- Share with a mother and father the Boy Scout award ceremony in which their son, diagnosed with Asperger’s syndrome, is presented his Swimming Merit Badge.
- Celebrate with a remarkable athlete named to the USA Wheelchair Basketball Team.
- Enjoy the “first walking steps” of a 20-month-old boy with Down syndrome who progressed because of a developmentally appropriate aquatics and motor development program.
- Spend time “in jail” to earn money for the Muscular Dystrophy Association.
- Share with a mother her delight that her son, diagnosed with autism, learned the skills necessary to go swimming with his younger brother at the community pool.
- Enjoy the success of an athlete who placed in the top 10 in the Boston Marathon, Wheelchair Division.
- Teach a child with a visual impairment to play Frisbee with a friend.
- Help a teenager with severe, multiple disabilities develop her own wheelchair aerobics routine to her favorite country-western music.
- Coach a Special Olympics team and be part of a worldwide program that currently serves millions of athletes worldwide.
- Help a student using a wheelchair learn to navigate an obstacle course and do a “wheelie.”
- Teach a young boy with Duchenne muscular dystrophy skills to swim using an elementary backstroke, a skill he will be able to use throughout his life span.
- Coach a teenager with a hearing impairment who wrestles on his high school wrestling team.
- Teach a toddler or preschooler play skills necessary to engage in parallel play.
- Develop an inclusive, after-school leisure, recreation, sport, fitness, and wellness program.

- Race downhill alongside a young woman using a sit-ski.
- Design a behavior enhancement program for a young girl with a conduct disorder to help her monitor/improve her behavior in physical education.
- Develop a swimming program, emphasizing the freestyle and back crawl, for learners with dyslexia, to help them develop cross-lateral integration.
- Reassure the young mother of a 13-month-old boy with Down syndrome that his atlantoaxial instability simply requires wise choices of play and physical activity and need not significantly limit his opportunities.
- Lead an aqua aerobics session daily to meet the needs of older adults with osteoarthritis and osteoporosis.
- Develop sign language skills in order to communicate with your students who are deaf.
- Coach judo for the United States Association of Blind Athletes.
- Share skills, in the home, with a young mother of a significantly low-birthweight baby, so she can encourage and foster developmentally appropriate play.
- Help a young girl with spina bifida learn to ride a tricycle to encourage/foster her walking.
- Contact local leisure, recreation, and sport facilities and help them accommodate individuals with disabilities who would like to use the facilities.

Definition of Physical Education

Physical education for individuals with disabilities was specifically defined in PL. 108-446, the Individuals with Disabilities Education Improvement Act (IDEIA 2004). The term *physical education* means the development of

1. Physical and motor fitness
2. Fundamental motor skills and patterns
3. Skills in aquatics, dance, and individual and group games and sports (including intramural and lifetime sports)

The term includes special physical education, adapted physical education, movement education, and motor development. The three essential components of physical education for persons with disabilities are developing and implementing an individualized education program (IEP), assessing child performance, and teaching the defined curricula of physical education. When specially designed physical education is prescribed on the child's IEP, educators will provide physical education to ensure children and youth with disabilities have an equal opportunity to participate in those services and activities. Each child with a disability is to participate in physical education with children without disabilities to the maximum extent appropriate.¹⁴

Definition of Adapted Physical Education

Adapted physical education is a direct special education service to be provided to all qualifying children. It is a carefully designed, modified physical education *instructional* program to accommodate a learner with a disability, based on a comprehensive assessment, to give the learner the skills necessary for a lifetime of rich leisure, recreation, and sport experiences to enhance physical fitness and wellness.

Benefits of Physical Education for Learners with Disabilities

Qualified and dedicated physical educators and adapted physical educators can “do something” because there are significant and long-term



benefits of a quality physical education program for learners with disabilities. Programs can enrich well-being by providing the prerequisites to healthy leisure physical activity. More specifically, quality programs can promote:

- The development of equilibrium, sensory discrimination and integration, and sensorimotor function
- The development of locomotor and nonlocomotor skills
- The development of object-control skills
- The development of play, leisure, recreation, sport, and physical fitness skills
- The development of physical fitness for maintenance of activities of daily living and health/wellness
- The development of a repertoire of movement skills necessary for independent and functional living
- The development of physical and motor prerequisites to vocational skills required for independent living
- The prevention and management of chronic health conditions
- The prevention of secondary disabling conditions

The benefits of a quality physical education program for learners with disabilities cannot be minimized. The major obstacle, however, is that the benefits are not clearly understood by the local, state, and federal educational administrators who make program decisions and allocate budgets.

Roles of the Adapted Physical Educator

The adapted physical education teacher is the person responsible for developing an appropriate individualized physical education program for individuals with disabilities. The APE teacher is a physical educator with highly specialized training in the assessment and evaluation of motor competency and the implementation of programs in physical fitness, play, leisure, recreation, sport, and wellness. *The APE teacher is a direct service provider*, not a related service provider, because special physical education is a federally mandated component of special education services.¹⁴ There has been confusion that APE is a related service due to circulation of misinformation and state education departments' misinterpretation of the federal law.

TABLE 1-2 Roles and Responsibilities the Adapted Physical Education Teacher May Assume

- Direct service provider (hands-on teaching)
- Assessment specialist, completing comprehensive motor assessments of individuals with disabilities and making specific program recommendations
- Consultant for physical education and special education professionals and paraprofessionals providing physical education instruction for individuals with disabilities
- IEP/multidisciplinary team committee member who helps develop and monitor the IEP
- In-service educator, providing training for those who will provide physical education instruction for individuals with disabilities
- Student and parent advocate
- Facilitator of a “circle of friends” for a learner with a disability
- Program coordinator who develops curricular materials and develops intra- and interagency collaborations to meet the needs of individuals with disabilities
- Transition facilitator who helps the IEP/multidisciplinary team develop an appropriate individual transition plan for those students preparing to leave school and move into the community
- Facilitator to coordinate efforts with existing health programs to ensure learners with disabilities have access to quality health care
- Coordinator to ensure individuals with disabilities have access to quality wellness and health promotion programs to reduce complications associated with secondary disabling conditions, such as hypertension, obesity, diabetes, and cardiovascular disorders
- Collaborator with community information outlets and local public policy makers
- Personal trainer/coach for individuals with disabilities exercising at home or participating in lifetime or competitive sports
- Disseminator of research/information regarding effective intervention in APE

Depending on the size of the school district, the numbers of students with disabilities who require adapted physical education, the caseload, and the unique skills of physical education and special education professionals, the APE teacher may assume any or all of the roles (see [Table 1-2](#)).

Prevalence

Child Find efforts to identify and serve children and youth with disabilities in the public schools have been successful. In the 2012–2013 academic year, more than 6.4 million learners with disabilities received special education services.⁷ Information regarding the number of children with specific disabilities served by special education is included in Figure 1-1.

Each year, the U.S. Department of Education, Office of Special Education and Rehabilitative Services (OSERS), reports to Congress pertinent facts about the education of learners with disabilities. Recent data indicate:

- Children with disabilities in special education represent approximately 13% of the entire school-age population.
- Approximately twice as many males as females, receive special education services.
- Approximately 95% of school-age children who receive special education are enrolled in the regular schools.⁷

OSERS reports serving 750,131 preschool children with disabilities in 2012, or 6% of all preschoolers who lived in the United States. This represents a 50% increase in the number of children needing services since 1990–1991. The overwhelming number of preschoolers requiring special education intervention is related to, but not limited to, the following:

- Growing numbers of infants affected by drug and alcohol use in utero
- Inadequate prenatal care during pregnancy
- Drastically increased numbers of children being raised in poverty
- Inadequate nutrition
- Inadequate health care
- Housing and schools in toxic environments
- Increased numbers of children who are victims of abuse and neglect
- Parents with limited or no appropriate, nurturing parenting skills
- Medical technology that allows more premature and medically fragile infants to survive

Advocacy and Adapted Physical Education

The history of adapted physical education is rich and reflects significant growth. The National Consortium for Physical Education and Recreation for Individuals with Disabilities (NCPERID) was formed in 1973 to advocate, stimulate, and encourage significant service delivery, quality professional preparation, and meaningful research in physical education and recreation for individuals with disabilities. This commitment and advocacy for individuals with disabilities was evidenced when a group of adapted physical

educators dedicated to providing appropriate programs for students with disabilities met in Washington, D.C. The purposes of their meeting were to define what constituted appropriate physical education for persons with disabilities and to develop a strategy for ensuring that physical education was identified in PL. 94-142, implemented in 1975. Some of the professionals who championed physical education as a mandated educational service, at that important meeting included Dr. David Auxter, Dr. Lane Goodwin, Dr. Jean Pyfer, and Dr. Julian Stein. They were successful in their lobbying efforts. That led to a national thrust to prepare physical educators with specialized training in providing programs for persons with disabilities.

In the spring of 1991, the NCPERID, in conjunction with the National Association of State Directors of Special Education (NASDSE) and Special Olympics International, conducted an “Action Seminar” on adapted physical education for state directors of special education and leaders of advocacy groups for individuals with disabilities. This conference had two goals:

- Identify the barriers that were preventing full provision of appropriate physical education services to individuals with disabilities.
- Establish an action agenda for addressing and resolving these problems.

To counter the trend of providing less than appropriate physical education experiences to students with disabilities, in 1994 the NCPERID published national standards for adapted physical education.⁶ The purpose of the Adapted Physical Education National Standards (APENS) project was to ensure that physical education instruction for students with disabilities was provided by qualified physical education instructors.¹ To achieve this end, the project has developed national standards (refer to [Table 1-3](#)) for the profession and a national certification examination to measure knowledge of these standards. This major movement in the field of adapted physical education was led by visionary educator Dr. Luke Kelly. Under Dr. Kelly’s careful supervision, the APENS standards and examination were developed maintaining a complete commitment to the process of ensuring validity and reliability.



TABLE 1-3 Adapted Physical Education National Standards (APENS) Categories

1. Human development
2. Motor behavior
3. Exercise science
4. Measurement and evaluation
5. History and philosophy
6. Unique attributes of learners
7. Curriculum theory and development
8. Assessment
9. Instructional design and planning
10. Teaching
11. Consultation and staff development
12. Student and program evaluation
13. Continuing education
14. Ethics
15. Communication

For more information regarding APENS standards, please go to the APENS website at www.apens.org.

This project was/is critically important to the field because, unlike other special education areas (learning disabilities, early childhood, etc.), most states did not/do not have defined certifications or endorsements for teachers of adapted physical education. In addition, the quality of physical education was compromised because the definition of who was “qualified” to provide physical education services to individuals with disabilities was left to the individual states and their respective certification requirements.

On May 10, 1997, the first national administration of the APENS certification exam was given at 46 sites around the country. A total of 219 teachers completed the exam, and 175 passed. To date there are more than 3,000 certified adapted physical educators (CAPEs), 3,127 who have passed and earned CAPE certification. Every state is currently represented; in many states there are more than 100 CAPEs (e.g., Texas).⁴

The consortium is now referred to as the National Consortium for Physical Education for Individuals with Disabilities (NCPEID) and has

played a major role in shaping the direction of the adapted physical education profession. Its members, primarily adapted physical education and recreation professionals involved in teacher preparation, actively serve as advocates for favorable legislation and funding at the national, state, and local levels; disseminate information about new legislation; and stimulate and conduct research.⁹

Adapted Physical Education/Adapted Physical Activity Special Interest Group (APE/APA SIG) is affiliated with SHAPE America. Its mission is to promote quality movement experiences for individuals with disabilities through research, advocacy, publications, programs at conventions and workshops, position statements, standards of practice, and cooperation with other organizations committed to people with disabilities.¹⁰

In the spring of 1999, Dr. Jim Rimmer, director of the Center on Health Promotion Research for Persons with Disabilities, Department of Disability and Human Development, University of Illinois at Chicago, received a \$7 million grant from the Centers for Disease Control and Prevention to establish the National Center on Physical Activity and Disability (NCPAD).¹ The NCPAD was developed through a cooperative venture of the University of Illinois at Chicago and the Secondary Conditions Branch of the Centers for Disease Control and Prevention. Currently the center is called the National Center on Health, Physical Activity and Disability (NCHPAD). Dr. Rimmer continues to direct the NCHPAD at the University of Alabama. The NCHPAD is

a public health practice and resource center on health promotion for people with a disability. NCHPAD seeks to help people with a disability and other chronic health conditions achieve health benefits through increased participation in all types of physical and social activities, including fitness and aquatic activities, recreational and sports programs, adaptive equipment usage, and more.⁸

Professional publications dedicated to the discipline of adapted physical education have provided the field with rich information. The *Adapted Physical Activity Quarterly* (APAQ), the official journal of the International Federation of Adapted Physical Activity, was first published in 1983. APAQ is the journal in which professionals share their research regarding adapted physical activity. *Palaestra: Forum of Sport, Physical Education,*

and Recreation for Those with Disabilities, edited by Dr. Marty Block is a quarterly publication released in cooperation with the United States Olympic Committee's Committee on Sports for the Disabled and the Adapted Physical Activity Council of the American Alliance for Health, Physical Education, Recreation and Dance (now SHAPE America), dealing with adapted physical activity for individuals with disabilities, their families, and professionals in the field. *Sports 'N Spokes*, for the past several decades, has been a magazine dedicated to the active wheeler. *Sports 'N Spokes* covers competitive wheelchair sports and recreational opportunities for individuals who use wheelchairs.

The need for quality adapted physical education and adapted physical activity programs is very clear. Unfortunately, many state education agency personnel, school board members, school district administrators, and parents have yet to understand the importance of physical education in the lives of all students, including those with disabilities. The value of physically active leisure for the health of Americans is well understood by some federal and state policy makers. Understanding the legal and moral value of providing physical education/activity to individuals of all abilities is critical.

Federal Legislation and the Civil Rights of Individuals with Disabilities

There is a long history of federal legislation that supports the education of learners with disabilities. Perhaps the most significant civil rights litigation tied to the education of learners with disabilities was *Brown v. Board of Education, Topeka, Kansas*, in 1954.³ Though the litigants, parents, sued in protest over “tracking” their African American children into non-college-preparatory classes, the affirmation of the courts regarding the significance of education in the lives of ALL children was a landmark case. The court wrote:

[Education] is required in the performance of our most basic responsibilities. . . . It is the very foundation of good citizenship. In these days, it is doubtful that any child may reasonably be expected to succeed in life if he [or she] is denied the opportunity of an education. Such an opportunity, where the state has undertaken to provide it, is a right that must be made available to all on equal terms.³

The rights of persons with disabilities became a central concern during the 1970s, when landmark court cases ruled that children with disabilities had a right to a free and appropriate education and training and persons in institutions had a right to rehabilitation. These court decisions paralleled and created the initiative for federal legislation such as the Rehabilitation Act of 1973¹² and the Education for All Handicapped Children Act of 1975 (PL. 94-142).¹³ Before the enactment of the Education for All Handicapped Children Act of 1975, the special education needs of children with disabilities were not being fully met. More than one-half of children with disabilities did not receive appropriate educational services that would enable them to have full equality of opportunity. One million children with disabilities in the United States were excluded entirely from the public school system and did not go through the educational process with their peers.



At the beginning of the 1990s, the passage of the Americans with Disabilities Act (ADA) and in 2004 the Individuals with Disabilities Education Improvement Act (IDEIA) (the Reauthorization of IDEA) further addressed the rights of persons with disabilities. The ADA had a significant impact on the civil rights of individuals with disabilities in the public and private sectors.

The Rehabilitation Act of 1973, the Education for All Handicapped Children Act of 1975, the Americans with Disabilities Act of 1990, and the Individuals with Disabilities Education Improvement Act of 2004 are four pieces of legislation created to provide equal opportunity for individuals with disabilities. The similarities are

- Equity of services for individuals with disabilities when compared with those without disabilities
- Accessibility to environments and programs, so that there is equal opportunity to derive benefits from services in the public and private sectors
- Encouragement of integration of individuals with and without disabilities

Court decisions that have had an impact on the education of individuals with disabilities in the past several decades are historically sequenced and briefly summarized in **Table 1-4**.

TABLE 1-4 Federal Legislation That Has an Impact on Physical Education for Individuals with Disabilities

2015	Every Student Succeeds Act (ESSA) (P.L. 114-95)
	This act assures equal educational opportunity for all children.
2004	Individuals with Disabilities Education Improvement Act (IDEIA) (P.L. 108-446)
	This act aligns the educational services provided to students with disabilities with NCLB and reinforces inclusion and evidence-based education.
2003	Reauthorization of the Child Abuse and Protection Act (P.L. 108-83)
	The reauthorization of PL 93-247 retained the mandate that a person who suspects child abuse must report it or commit a felony.
2003	Reauthorization of the Amateur Sports Act
	The reauthorization reinforces the rightful place of “elite athletes” with disabilities in the community of “elite athletes” who participate in amateur athletics, particularly the Olympics and the Paralympics.
2003	Improved Nutrition and Physical Activity Act of 2003
	The act is designed to encourage collaboration of public schools with community resources; the intent is to include persons with disabilities. The act provides training for personnel to improve participation in physical activity, particularly to prevent and ameliorate obesity.
2003	Workforce Reinvestment and Adult Education Act
	The act is designed to provide significant education opportunities for vocational training, including for individuals with disabilities. The recreation portion of the Rehabilitation Act of 1973 was reauthorized in this act.
2001	Physical Education for Progress Act
	The act is designed to improve physical education for ALL children, including children with disabilities in the public schools, by providing competitive grants.
2001	No Child Left Behind Act
	This act puts significant federal support behind the improvement of reading and mathematics scores and compromises other critical curricular areas, including physical education, health, history, art, computer science, and music.
1997	Reauthorization of IDEA (P.L. 105-17)
	The reauthorization emphasized education for learners with disabilities in the general education program and increased the emphasis on parental participation in the assessment and IEP process.

TABLE 1-4 Federal Legislation That Has an Impact on Physical Education for Individuals with Disabilities
(Continued)

1990	Americans with Disabilities Act (P.L. 101-336)
	The act expanded civil rights protections for individuals with disabilities in the public and private sectors.
1990	Individuals with Disabilities Education Act (IDEA)
	IDEA continued the emphasis on FAPE, IEP, LRE, and physical education as a direct, educational service.
1988	Assistive Technology Act (P.L. 103-218)
	This act made technology (basic and sophisticated) available to learners with disabilities so the learners could function within the public school system.
1975	Education for All Handicapped Children Act (P.L. 94-142)
	The act mandated (a) free, appropriate public education for all children with disabilities between the ages of 3 and 21 years; (b) individual education plan; (c) education in the least restrictive environment; and (d) physical education as a direct, educational service.
1973	The Rehabilitation Act (P.L. 93-112, Section 504)
	The act mandated that individuals with disabilities cannot be excluded from any program or activity receiving federal funds solely on the basis of the disability.

While the laws are designed to provide significant protection of individual education rights and to ensure access to programs and services, including leisure, recreation, sport, fitness, and wellness programs, there remain significant obstacles to the provision of quality services.

One of the significant problems that has emerged, in that the rights/assurances for individuals with disabilities are tied to the law, is that there is increasing litigation that “tests” the law. In particular, lawsuits against the public schools have proved incredibly costly in terms of both financial cost and human work hours. And, unfortunately, it has created a situation in which the parents with the most resources (money or power) can demand and receive for their children educational services that are not accessible to the children of the poor and disenfranchised, the children who inevitably need our services the most. (Table 1-5 provides a few examples of the focus of these decisions.)

TABLE 1-5 Court Decisions (Litigation) That Have Had an Impact on the Education of Learners with Disabilities

2015	<i>Phyllene, W. v. Huntsville City (AL) Board of Education</i>
	A child was not evaluated for a suspected hearing impairment and therefore was not provided FAPE. The lack of medical information meant no meaningful IEP was developed.
2006	<i>Arlington Central School District Board of Education v. Pearl and Theodore Murphy</i>
	Parents are not entitled to recover fees for services rendered by experts in IDEA actions. ²
2005	<i>Schaffer v. Weast</i>
	The burden of proof in a due process hearing regarding the IEP is on the parent if the state is silent on the matter. It limits parents' rights to acquire services they deem important from school districts.
2003	<i>Neosho School District v. Clark</i>
	School districts must develop and implement appropriate behavioral management plans (BMPs).
2002	<i>Girty v. School District of Valley Grove</i>
	The court required the school district to “prove” that a child with special needs cannot be accommodated in the general classroom with supplementary aids and services prior to placement in a special education program.

The Teacher’s Reality

Teachers continue to play a critical role in the lives of children and youth. Good physical education teachers and adapted physical education teachers continue to be the “pied pipers” of the professionals who work with children and youth.



Children are drawn, of course, to teachers who love to do what children love to do—play and move. And those who truly love children and love to teach continue to be the backbone of this society. The profession becomes even more important as children have more and more needs that must be met.

Certainly, as physical educators and adapted physical educators, the very future of students with disabilities lies in the palms of our hands. And that future has not been placed in our hands gently; it has been thrust on us because of an incredible need for good teachers—physical education teachers who are committed to learners with disabilities—to step forward and make a difference. With imagination, we can transform our profession and focus our energies.

SUMMARY

Remarkable growth in physical education for individuals with disabilities has taken place. Certainly, the law has continued to provide the impetus for this growth. There have been major changes in the public schools in the past several decades. These changes had at once challenged and frustrated the physical educator with a commitment to serving children and youth with and without disabilities. Certainly, the physical educator in the twenty-first century must demonstrate increased skills in facilitating cooperative play and in developing critical thinking skills and must demonstrate cultural competence. Best practice in adapted physical education involves knowing who is disabled and providing evidence-based programs for all children with disabilities through generalizing skills acquired in physical education to long-term, lifestyle patterns in the home and community. There are increased opportunities for individuals with disabilities to lead full and healthy lives, enjoying leisure, recreation, fitness, sport, and wellness opportunities because of a quality physical education program.

REVIEW QUESTIONS

1. What is adapted physical education? How does it differ, if it does, from general physical education?
2. What are the similarities among the major pieces of legislation affecting physical education for individuals with disabilities?
3. What are the benefits of a quality physical education program for individuals with disabilities?
4. What is APENS? Briefly describe its impact on the field.
5. What is the NCHPAD? Describe its mission.

REFERENCES

1. Adapted Physical Education National Standards (APENS). www.apens.org
2. *Arlington Central School District Board of Education v. Pearl and Theodore Murphy*, No. 03-785-cv, July 28, 2006. (2nd Cir., 2005).
3. *Brown v. The Board of Education*, 347 US, 483 (1954).
4. Davis, T. personal communication, January 2015.
5. Institute of Medicine of the National Academies. (2006). *Disability in America: A new look*. Washington, DC. Retrieved from www.iom.edu
6. Kelly, L. E. (1994). *National standards for adapted physical education*. Washington, DC: U.S. Department of Education, Office of Special Education Programs.

7. National Center for Education Statistics. (2015). Institute of Education Sciences. www.nces.ed.gov
8. National Center on Health, Physical Activity and Disability. *Building Healthy Inclusive Communities*. www.nchpad.org
9. National Consortium for Physical Education for Individuals with Disabilities. www.ncpeid.org
10. SHAPE America, Adapted Physical Education/Adapted Physical Activity Special Interest Group (APE/APA SIG). www.shapeamerica.org
11. United States Census Bureau. (2012).
12. U.S. Department of Health, Education, and Welfare. (1990). Section 504 regulations for the Rehabilitation Act of 1973, Rehabilitation Act amendments of 1974, and Education of the Handicapped Act. 45 C.F.R. sec. 339–395.
13. U.S. 94th Congress. Pub. L. 94-142 (November 29, 1975).
14. US Department of Education, 36th annual report to congress on the implementation of the Individuals with Disabilities Education Act, 2014.

Key Techniques

The types of services needed by learners are common; however, each individual has a unique profile that must be addressed in the most appropriate fashion. For learners to benefit fully from physical education, their specific needs must be identified, a program to address those needs must be designed, a teaching approach to facilitate each learner's needs should be provided in the most positive and least restrictive environment, and school systems must provide the necessary resources to ensure programmatic success. Teaching with technology in physical education is an essential part of working with individuals with disabilities to provide successful learning opportunities. Types of equipment and instruction with technology are provided in this part. Transition programming and community recreation and sport opportunities for individuals of various age groups and disabilities are presented to emphasize the importance of lifelong physical activity.

