

ADAPTED  
PHYSICAL ACTIVITY,  
RECREATION AND SPORT  
*Crossdisciplinary and Lifespan*

F O U R T H   E D I T I O N



*Claudine Sherrill*



ADAPTED  
PHYSICAL ACTIVITY,  
RECREATION AND SPORT  
*Crossdisciplinary and Lifespan*  

---

F O U R T H E D I T I O N

*Claudine Sherrill*  
Texas Woman's University

**WCB** Brown &  
Benchmark  
P U B L I S H E R S

Madison, Wisconsin • Dubuque, Iowa • Indianapolis, Indiana  
Melbourne, Australia • Oxford, England

## **Book Team**

Editor *Chris Rogers*  
Developmental Editor *Scott Spoolman*  
Production Editor *Suzanne M. Guinn*  
Designer *Eric Engelby*  
Art Editor/Processor *Rachel Imsland*  
Photo Editor *Robin Storm*  
Permissions Editor *Mavis M. Oeth*  
Visuals/Design Developmental Consultant *Marilyn A. Phelps*  
Visuals/Design Freelance Specialist *Mary L. Christianson*  
Publishing Services Specialist *Sherry Padden*  
Marketing Manager *Pamela S. Cooper*  
Advertising Manager *Jodi Rymer*

## **Brown & Benchmark**

Vice President and General Manager *Thomas E. Doran*  
Editor in Chief *Edgar J. Laube*  
Executive Editor *Ed Bartell*  
Executive Editor *Stan Stoga*  
National Sales Manager *Eric Ziegler*  
Director of CourseResource *Kathy Law Laube*  
Director of CourseSystems *Chris Rogers*  
Director of Marketing *Sue Simon*  
Director of Production *Vickie Putman Caughron*  
Imaging Group Manager *Chuck Carpenter*  
Manager of Visuals and Design *Faye M. Schilling*  
Design Manager *Jac Tilton*  
Art Manager *Janice Roerig*  
Permissions/Records Manager *Connie Allendorf*  
Consulting Editor *A. Lockhart*

President and Chief Executive Officer *G. Franklin Lewis*  
Corporate Vice President, President of WCB Manufacturing *Roger Meyer*  
Vice President and Chief Financial Officer *Robert Chesterman*

The credits section for this book begins on page 700 and is considered an extension of the copyright page.

Cover Image: Courtesy of the Junior Orange Bowl and the Sports Ability Games. Illustration by Mena

Copyedited by Mary Monner

Copyright © 1976, 1981, 1986, 1993 by The McGraw-Hill Companies, Inc. All rights reserved.

Library of Congress Catalog Card Number: 92-81313

ISBN 0-697-38831-X

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the publisher.

Printed in the United States of America by

10 9 8 7 6 5 4 3 2

---

## Foreword: Reflections on the New Title

---

The title change for this fourth edition reflects changes of the last two decades, particularly the emergence and influence of an international movement. The term *adapted physical education* in the old title is interpreted by most sectors as referring to school-based instruction and the ages from birth to 21 specified by federal legislation. Today's professional works with people of all ages in many settings. Physical educators, kinesiologists, recreators, occupational and physical therapists, music and dance therapists, and others adapt physical activity for all age groups.

*Adapted physical activity* was first proposed as the appropriate term for our body of knowledge in 1973, when the International Federation of Adapted Physical Activity (IFAPA) was founded in Montreal, Canada. The board of directors that created this new term included President Clermont Simard of Quebec, Vice President Robert L. Eason of the University of New Orleans, Julian Stein and John A. Nesbitt of the United States, Gudrun Doll-Teppe of Germany, Jean-Claude DePotter of Belgium, Eileen McLeish of England, David Jones of Australia, and Jean Claude Pageot and Fernand Caron of Canada. IFAPA meets every 2 years in various countries throughout the world and has many regional affiliates.

In 1984, the first professional journal to disseminate and extend our body of knowledge was created by Human Kinetics of Champaign, IL. This journal is called the *Adapted Physical Activity Quarterly (APAQ)*.

In 1986, the Adapted Physical Activity Council (APAC) of the American Alliance for Health, Physical Education, Recreation, and Dance (AAHPERD) was created by the merger of two structures, one of which dated back to 1905 and the early influence of Swedish medical gymnastics. Today, we support our profession when we join and attend meetings of APAC, which is housed within the Association for Research, Administration, Professional Councils and Societies (ARAPCS) of AAHPERD.

Clearly, adapted physical activity is the name of the present and the future. It is broad and inclusive and emphasizes the theory and practice of adaptation. It recognizes that adaptations are needed for all persons with psychomotor problems, not just those labeled as disabled. Professionals in a number of fields and disciplines can make these adapta-

tions. Adapted physical activity is especially linked to recreation and sport (not necessarily adapted recreation or adapted sport).

*Recreation* is retained in the title of this text for many reasons. The word *recreation* emphasizes a state of mind and reminds us that the purpose of adapting physical activity is to develop attitudes, appreciations, and habits that will contribute to an active, healthy lifestyle and rich, satisfying leisure. My first 15 years of university teaching experience were focused dually on therapeutic recreation and physical education. The partnership of these two professions is crucial to lifespan programming.

*Sport* has been added to the title in recognition of the right of all persons to engage in competitive sport. Whereas sport can be educational, recreational, or competitive, the term increasingly refers to competition. I have participated in all of the quadrennial international Paralympics summer events since 1984 (New York, Korea, and Spain) and in all of the Special Olympics summer events since 1979 (New York, Louisiana, Indiana, Minnesota). Cerebral palsy and les autres sports, in particular, have captured my imagination because they address the broadest spectrum of individual differences. Athletes and coaches in the disabled sport movement have contributed significantly to adaptation theory and practice. Sport is woven throughout the book and has especially strong coverage in the chapters on disability in Part 3.

*Crossdisciplinary* is a more accurate descriptor of the book's approach than multidisciplinary. Our body of knowledge does come from many fields, but the goal is to integrate content across disciplines into a broad-based theory that can guide professionals in the many fields that adapt physical activity. The term *multidisciplinary*, however, appears in federal law. This was the rationale for use of *multidisciplinary* in the title of earlier editions.

The word *lifespan* in the title reflects the revived interest in many fields of serving persons of all ages. This text includes a new chapter on infants, toddlers, and early childhood, and much content in other chapters is directed toward this area. Content has been expanded throughout to encompass problems of adults, but the chapters on fitness and other health impaired conditions have been especially strengthened.

# P R E F A C E

---

This fourth edition has been revised extensively to meet the diverse needs of undergraduate and graduate students, as well as beginning and experienced professionals. The intent was to develop a comprehensive, multipurpose resource that can serve as a textbook for several of the courses offered by colleges and universities and as a reference book throughout the professional's career.

This book can be used for basic adapted physical activity, recreation, and sport courses or for specialized courses on (a) assessment, (b) programming, (c) administration, (d) individual differences and disabilities, and (e) infants, toddlers, and early childhood. It is also perhaps the strongest resource available on the sport and disabled athlete movement and sport classification. The broad coverage affords professors the freedom to select content that meets individual needs and interests.

Adapted physical activity attitudes, knowledge, and skills must be *infused* into all courses. After university students are introduced to the content of this text in a basic course, their competencies should be further enhanced by a teacher training *infusion model* in which individual differences are addressed in every course. A goal is for this textbook to be used as a resource in every class. To achieve this, adapted physical activity proponents must share this text with regular education colleagues and emphasize infusion of content into daily lesson plans.

Public Law 101-476, the Individuals with Disabilities Education Act of 1990, brought major changes, all of which are incorporated into this text. Chief among these is the mandate that we use person-first terminology, thereby according persons with disabilities dignity and respect.

In the 1990s, regular and adapted physical educators will increasingly work as partners in the delivery of services to meet individual needs. More and more persons with disabilities will be in regular settings, and mainstream professionals will need considerable knowledge and skills for coping with wide ranges of behaviors and abilities. The content of this text is based on the belief that both regular and adapted physical activity personnel need competencies in seven areas:

- P Planning
- A Assessment
- P Prescription/Placement

- T Teaching/Counseling/Coaching
- E Evaluation
- C Coordination of Resources
- A Advocacy

I call the knowledge comprising these areas the PAP-TE-CA model. It would be helpful if this acronym spelled something meaningful, but we shall have to settle for its spirited rhythm. It is a mnemonic device that effectively assures memory of the services that guide competency development.

## Organization of Fourth Edition

This fourth edition begins with a list of competencies related to job functions. This list can guide self-evaluation and the development of a personal learning plan. Organization of the fourth edition into three parts is similar to that of the third edition. Titles of these sections have been changed, however.

### Part 1: Foundations

Part 1 includes nine chapters, four of which are new. All have been rewritten. "Foundations" presents information everyone should know prior to involvement with individual differences. For graduate students and experienced teachers, there is much new material also. A theoretical framework for our profession is proposed, and problems, issues, and trends are highlighted.

**Chapter 1** establishes the rationale for adapted physical activity; defines it; specifies core areas of knowledge and basic job functions; identifies underlying theories, principles, and models; and states 10 characteristics that distinguish adapted from regular physical activity service delivery. It also includes a brief history and proposes a philosophy.

**Chapter 2** emphasizes celebration of individual differences and promotion of positive attitudes. Eight case studies are presented to focus learning on human beings, not disabilities. Prejudice, stigmatization, and stereotyping are discussed, and four attitude theories are presented to guide classroom and community practices: (a) contact, (b) persuasive communication, (c) social cognitive, and (d) reasoned action.

**Chapter 3** identifies settings for either practical experiences or employment. Special attention is given sport organizations for persons with disabilities since these are

featured as major resources throughout the book. The remainder of the chapter covers all the basics needed for success in a first practicum. For advanced students, adaptation and creativity theory are proposed, with special emphasis on ecological task analysis.

**Chapter 4** focuses on advocacy and the worldwide human rights movement. Legislation that guides adapted physical activity service delivery is discussed, and the individualized education program (IEP) and the individualized family service plan (IFSP) are introduced.

**Chapter 5** centers on writing goals and objectives, observation techniques to guide global assessment, and information relevant to age-appropriate programming in the cognitive, affective, and psychomotor domains.

**Chapter 6** posits that self-concept and motivation are greater concerns in adapted than regular physical activity. The purpose of this chapter is to guide the development of a philosophy that supports humanistic service delivery practices. Assessment of self-concept and pedagogy for enhancing self-concept are thoroughly covered. Several psychosocial theories are explained.

**Chapter 7** presents purposes and types of assessment, methods of data collection, assessment procedures, and illustrative instruments. Three theories are explained: (a) normal curve, (b) personal best, and (c) sport classification.

**Chapter 8** contrasts least restrictive environment and regular education initiative placement approaches, discusses service delivery for regular education as well as special education students, and describes school district and individual planning. Transitional and inclusive models are described. All of the PAP-TE-CA services except assessment are discussed with respect to job functions.

**Chapter 9** reviews the biomechanical, exercise science, and motor learning foundations of adaptation and covers behavior management. Development of teacher creativity is emphasized.

## ***Part 2: Generic Service Delivery***

Part 2 is designed for professors who wish to focus on goals, objectives, and pedagogy instead of disabilities. It provides in-depth pedagogy for achieving nine goals of adapted physical activity. The section includes eight chapters. One is new, and four have been totally rewritten.

**Chapter 10** describes assessment and programming for nonambulatory locomotion, abnormal retention of reflexes, and delayed emergence of protective and equilibrium reactions. It presents the Milani-Comparetti assessment system and sensorimotor integration pedagogy. The chapter concludes with basic neurology and selected theories related to reflexes, reactions, and stereotypic patterns.

**Chapter 11** covers assessment and teaching of basic locomotor and object control skills, including writing goals and objectives and developing task cards and lesson plans. Both qualitative and quantitative assessment is included.

**Chapter 12** covers assessment and teaching of perceptual-motor abilities. A model is followed that includes at-

tention, sensation, cognition, memory, and perceptual-motor abilities. Ecological task analysis is emphasized.

**Chapter 13** includes everything needed to assess and program for lifespan wellness and fitness. Emphasis is on *persons with low fitness* and adaptations needed. American College of Sports Medicine (ACSM) guidelines are highlighted.

**Chapter 14** covers postures, appearance, and muscle imbalance. Content is especially important for persons working with physical disabilities and low fitness.

**Chapter 15** presents content related to the goal of relaxation, reduction of hyperactivity, and control of stress.

**Chapter 16** describes adapted dance and dance therapy. This content is particularly relevant to persons with low self-concept, poor mental health, and/or problems of social acceptance.

**Chapter 17** focuses on water activities for beginners and/or slow learners. Emphasis is on perceptual-motor learning in the water. Two instructional models (Sherrill and Halliwick) are presented.

## ***Part 3: Individual Differences, with Emphasis on Sport***

Part 3 is designed for persons who want in-depth knowledge of disabilities and basic information on incidence, prevalence, etiology, illustrative behaviors, and programming concerns and strategies. Sport classification is presented as the assessment approach. There are 10 chapters, and all but Chapter 18 follow more-or-less the same outline. Chapter 18 covers content relative to extending PL 101-476 assessment and programming to infants, toddlers, and early childhood. Topics of Chapters 18 through 27 are

**Chapter 18** Infants, Toddlers, and Young Children: The New Emphasis

**Chapter 19** Other Health Impaired Conditions

**Chapter 20** Learning Disabilities, Attention Deficits, and Hyperactivity

**Chapter 21** Mental Retardation and Special Olympics

**Chapter 22** Serious Emotional Disturbance and Autism

**Chapter 23** Wheelchair Sports and Orthopedic Impairments

**Chapter 24** Les Autres Conditions and Amputations

**Chapter 25** Cerebral Palsy, Stroke, and Traumatic Brain Injury

**Chapter 26** Deaf and Hard-of-Hearing Conditions

**Chapter 27** Blindness and Visual Impairments

## ***New Chapters in Fourth Edition***

New chapters, offering content not in the third edition, are

**Chapter 2** Celebrating Individual Differences and Promoting Positive Attitudes

**Chapter 3** Getting Started: Settings, Resources, Adaptation, and Creativity

**Chapter 6** Humanism, Self-Concept, and Motivation: Philosophy and Pedagogy

**Chapter 7** Assessment: The Key to Individualizing and Adapting

**Chapter 10** Motor Learning, Sensorimotor Integration, and Reflexes

**Chapter 18** Infants, Toddlers, and Young Children: The New Emphasis

## **Emphasis on Sports for Individuals with Disabilities**

Whereas some authors develop separate chapters and books on sports for athletes with disabilities, this text treats sports as an integral part of adapted physical activity. Over 150 pages of text on sport have been included in this fourth edition, as well as outstanding photographs of athletes with disabilities in competition.

## **Pedagogical Devices**

This text offers numerous pedagogical devices designed to help students blend theory with practice. Among these are

- *Chapter objectives to guide study*  
Objectives at the beginning of each chapter may form the basis for written assignments or may be used as essay questions on an examination. Or an objective may be assigned to a student who prepares an oral report for class, makes a tape recording or videotape, or develops a slide presentation.
- *Learning activities embedded in each chapter*  
These activities are designed to ensure that practicum experiences supplement classroom theory. Use of these activities works especially well in contract teaching.
- *Subject index that can be used as a dictionary for looking up spelling of words*  
The subject index can also be used as a testing device. A card for every word in the index is made and color-coded (if desired) by chapter. Students randomly draw cards from the stack for a particular chapter and talk or write for 60 sec on the subject drawn. The subject index can also be used in studying for the final exam; students should be able to spell and discuss every word in the index.

- *Name index for becoming familiar with authorities in adapted physical activity and related disciplines*  
The name index can be used the same way as the subject index. Emphasis on learning names (i.e., primary sources) is probably more appropriate for graduate than undergraduate students.
- *Numerous photographs and line drawings*  
Approximately 230 photographs and 200 line drawings enrich the text. Test questions can be drawn from figure captions since these descriptions provide double emphasis of facts.
- *American Psychological Association (APA) format*  
Adherence to APA writing style provides a model for students who wish to acquire research and publication skills.
- *Appendixes on prevalence and incidence statistics and medications*  
The statistics in Appendix A are helpful in preparing term papers and in documenting the need for adapted physical activity service delivery. Appendix B on medications is valuable in understanding individual needs and in working in a crossdisciplinary setting.
- *Appendix on assessment information*  
Appendix C presents information useful in making placement decisions, programming, and writing IEPs. It summarizes text tables that can be used for class assignments.
- *Appendixes on sources of information*  
Appendixes D, E, and F provide readers with over 100 addresses to write for additional information.
- *Appendix on history of adapted physical activity, recreation, and sport*  
Beginning in 1817 with the establishment of the first residential schools in the United States, the chronology of over 100 events presented in Appendix G includes the initiation of services, enactment of legislation, and formation of organizations.
- *References to reinforce understanding of primary sources*  
The reference list at the end of each chapter comprises recommended reading for persons who wish more in-depth coverage. Students should be encouraged to learn names of journals and to stay abreast of new issues as they are published.

# ACKNOWLEDGEMENTS

---

To the many individuals and agencies who shared in this adventure, a heartfelt thank you. I am especially grateful to *Julian Stein*, who served as major reviewer and advisor for the first edition and who has been my mentor for many years; to *Bill Hillman* and the other members of the National Consortium on Physical Education and Recreation for Individuals With Disabilities (NCPERIWD) who have expressed faith in my ideas and leadership; to *Janet Wessel* of I Can and the ABC curriculum whose work forms the basis of the PAP-TE-CA service delivery model in this textbook; and to *G. Lawrence Rarick*, whose rare combination of research abilities and humanistic beliefs serves as a model for us all.

## To Creators of Our Knowledge Base

I am indebted to the many persons who are creating the adapted physical activity knowledge base and to the editors of the journals that disseminate this knowledge. Work that appears in the *Adapted Physical Activity Quarterly* and *Palaestra: The Forum of Sport, Physical Education, and Recreation for the Disabled* significantly affects my thought, creativity, and commitment. My thanks to the editors of these journals for their service and scholarship: *Geoffrey Broadhead*, Kent State University; *Greg Reid*, McGill University; and *David Beaver*, Western Illinois University. Writers who particularly have stimulated my thinking are Terry Rizzo, Walter E. Davis, Allen Burton, Dale and Beverly Ulrich, Gail Dummer, Ted Wall, E. Jane Watkinson, Martin E. Block, and Patricia Krebs.

## To My Students

Most important, I thank my students at the Texas Woman's University, who keep me involved in research and practicum experiences, and the parents who trust us with their children. Each edition brings new students as well as memories of past ones who have shared and grown with me and significantly affected the contents of this book. I wish I could mention all their names, but a few will have to do: Karen DePauw, Luke Kelly, Jim Rimmer, Sarah Rich, Boni Boswell, Wanda Rainbolt, Ellen Lubin Curtis-Pierce, Jo Ellen Cowden, Garth Tymeson, Tom Montelione, Jim Mastro, April Tripp, Ellen Kowalski, Carol Pope, Ron Davis, and Leslie Low.

## To My Support Network

For her photography and assistance with the many aspects of production, I thank *Rae Allen*. I am indebted also to *Annetta Simpson*, my typist, and to many artists: *Mary Jane Cardenas* and *C. David Mathis*, first edition; *Molly Pollasch*, second edition; *Dr. Diann Laing*, third edition; and *Lin Hampton* and *Lisa West*, fourth edition. I am grateful also to the outstanding staff of Brown & Benchmark, whose editing, production, and marketing excellence make them the leaders in creating a knowledge base for adapted physical activity.

## To My Resource Persons

Special recognition is extended to *Wynelle Delaney*, DTR, who coauthored Chapter 16, "Adapted Dance and Dance Therapy;" *Jeff Jones*, *Carol Mushett*, *Dr. Ken Richter*, *Kim Grass*, *Ruth Burd*, and *Duncan Wyeth*, who shared their expertise on cerebral palsy sports; *Patricia Krebs*, who assisted with the chapter on mental retardation; *Charles Buell*, *Rosie Copeland*, and *James Mastro*, who taught me about blindness and visual impairments; *David A. Stewart* and *Gina Olivia*, who reviewed the chapter on deaf and hard-of-hearing conditions and offered valuable suggestions; *Abu Yilla* and *Don Drewry*, wheelchair athletes who shared their knowledge; *Inge Morisbak* of Norway, who helped with winter sports; *Terry Rizzo* and *April Tripp*, who assisted with content on attitudes and social acceptance; and *David Reams*, who helped obtain the artwork for the textbook cover.

## To My Role Models

Acknowledgments can be complete only if they extend backward in time to those persons who sparked the initial enthusiasm in teaching and writing: *Dr. Harry A. Scott* of Teachers College, Columbia University, who spoke of competency-based teaching in the early 1950s; *Dr. Josephine Rathbone*, also of Teachers College, who instilled in me a deep concern for the right of all persons to efficient and beautiful bodies; and *Dean Anne Schley Duggan*, Texas Woman's University, who taught me to hear the different drummer and to keep step to the music—however measured or far away.

—Claudine Sherrill



# C O M P E T E N C I E S

---

**A** *competency* is adequate and suitable philosophy, attitude, knowledge, or skill to perform a specific job function or task. Study of this textbook will result in the competencies necessary to (a) perform the job functions indigenous to direct service delivery, (b) conduct research to further the knowledge base of adapted physical activity, and (c) serve as a leader and professional educator in in-service and college and university settings.

## **Competencies Related to Advocacy (Action Aimed at Promoting, Maintaining, or Defending a Cause)**

- 1.1 Philosophy that supports
  - 1.11 The right of all persons to (a) high-quality physical education instruction and (b) lifespan sport, fitness, and recreation
  - 1.12 Assessed individual differences (not characteristics of people with disabilities) as the basis for adapted physical activity
- 1.2 Attitude of accepting and appreciating individual differences
- 1.3 Knowledge of
  - 1.31 Individual differences associated with normal curve theory and with various disabilities: myth and reality
  - 1.32 State physical education requirements and indicators of high-quality instruction
  - 1.33 Laws that eliminate barriers and protect rights
  - 1.34 Lifespan sport, fitness, and recreation opportunities in a variety of settings
  - 1.35 Theories, models, and strategies relevant to acceptance and appreciation of individual differences
- 1.4 Skill in
  - 1.41 Increasing comfort and communication among people with limited exposure to individual differences
  - 1.42 Applying attitude and behavior management theories to promote acceptance and appreciation of individual differences
  - 1.43 Using advocacy strategies in the 5 L model (Look at me, Leverage, Literature, Legislation, Litigation)
  - 1.44 Working with the press and media

## **Competencies Related to Coordination of Resources**

- 2.1 Philosophy that supports
  - 2.11 Resource utilization as a means of learning and personal growth as well as improving service delivery to others
  - 2.12 Multidisciplinary and crossdisciplinary cooperation
  - 2.13 Partnerships between persons with and without disabilities in promoting lifespan sport, fitness, and recreation
- 2.2 Attitude of self-confidence in human relationships
- 2.3 Knowledge of
  - 2.31 Many types of resources (e.g., organizations, athletes with disabilities, special educators, related services personnel, parents)
  - 2.32 Many types of settings for learning about and using resources
  - 2.33 Models and theories that impact on resource coordination
- 2.4 Skill in
  - 2.41 Locating, contacting, and establishing rapport with resources
  - 2.42 Bringing resources together (e.g., planning meetings or introducing people to each other)
  - 2.43 Serving as a chair or participant in meetings and projects
  - 2.44 Working with administrators and parents

## **Competencies Related to Planning**

- 3.1 Philosophy that supports critical thinking about
  - 3.11 Nature of adapted physical activity (APA); its philosophy, goals, and characteristics; core areas of knowledge; job roles and functions; service delivery; eligibility requirements for APA services
  - 3.12 Nature of human beings, the values of physical activity, and the rights of individuals and families
  - 3.13 Desirable student, parent, teacher, and administrator behaviors
  - 3.14 APA theories, models, principles, and practices
  - 3.15 Law, the role of government, morality, and personal ethics

- 3.2 Attitude of responsibility for critical thinking as the basis for
  - 3.21 Planning APA learning experiences for self and others
  - 3.22 Decision making in all aspects of direct service delivery
  - 3.23 Evaluating effectiveness
- 3.3 Knowledge of planning for (a) individual students; (b) classrooms, schools, and school districts; (c) communities; and (d) organizations and agencies
- 3.4 Skill in
  - 3.41 Decision making regarding variables to be assessed, procedures to be followed, and resources to be used
  - 3.42 Prioritizing and establishing goals
  - 3.43 Writing behavioral objectives to achieve goals
  - 3.44 Matching activities to objectives
  - 3.45 Calculating instructional time for objectives and activities
  - 3.46 Writing instructional units and lesson plans
  - 3.47 Addressing transitional education concerns and monitoring systems that maximize active lifestyles
  - 3.48 Creating behavior management plans

### **Competencies Related to Assessment**

- 4.1 Philosophy that supports assessment as the key to individualizing and adapting
- 4.2 Attitude of commitment to assessing both individuals and environments
- 4.3 Knowledge of
  - 4.31 Instruments and protocols for assessing performance in nine goal areas
  - 4.32 Scientific and psychosocial foundations that relate to assessment (e.g., biomechanics, exercise physiology, motor learning, human development, sport sociology)
- 4.4 Skill in
  - 4.41 Using various types of assessment
  - 4.42 Interpreting assessment data
  - 4.43 Decision making based on data collection and interpretation
  - 4.44 Making referrals for further assessment

### **Competencies Related to Prescription**

- 5.1 Philosophy that supports
  - 5.11 Individualized education programs (IEPs) as vehicles for curricular prescription for people with and without disabilities
  - 5.12 Exercise prescriptions as guides for fitness training
  - 5.13 Lesson plans as means of achieving prescribed objectives

- 5.2 Attitude of accountability
- 5.3 Knowledge of
  - 5.31 Parts of an IEP and of procedures in the IEP process
  - 5.32 Parts of an exercise prescription
  - 5.33 Parts of a lesson plan and of environmental variables to be manipulated
  - 5.34 Exercise indications and contraindications for specific conditions
  - 5.35 Models that guide school district decision making
  - 5.36 Support services and placement options
- 5.4 Skill in
  - 5.41 Making placement decisions
  - 5.42 Writing IEPs, exercise prescriptions, and lesson plans

### **Competencies Related to Teaching, Counseling, and Coaching**

- 6.1 Philosophy that supports
  - 6.11 Adaptation, creativity, and individualization as theories that guide instruction
  - 6.12 Counseling as an integral part of teaching and sport psychology as an integral part of coaching
  - 6.13 Self-concept and self-actualization as central constructs
  - 6.14 Humanistic teaching practices
  - 6.15 Inclusion, normalization, and least restrictive environment (LRE) strategies
- 6.2 Attitude of celebrating individual differences and life-span ability to learn and change
- 6.3 Knowledge of
  - 6.31 Adaptation, creativity, and individualization theories, models, processes, principles, and pedagogy
  - 6.32 Scientific and psychosocial foundations of adaptation (e.g., biomechanics, exercise physiology, motor learning and control, human development, psychology, sociology, behavior management)
  - 6.33 Assessment, curriculum, instruction, and evaluation practices that contribute to good teaching
  - 6.34 Counseling theory, weaving together sport, psychology, rehabilitation counseling, and movement therapy
  - 6.35 Pedagogy related to sensorimotor integration, reflexes, reactions, perceptual-motor learning, and play and game behaviors
  - 6.36 Pedagogy related to motor performance, dance, aquatics, sports, and games
  - 6.37 Pedagogy related to fitness, healthy lifestyle, postures, appearance, muscle imbalance, and relaxation

- 6.38 Pedagogy related to self-concept, social acceptance, inclusion, sport socialization, lifespan active leisure, and motor creativity
- 6.39 Individual differences in growth, development, and function that impact on teaching, counseling, and coaching
- 6.4 Skill in
  - 6.41 Adapting instruction for individual differences (age, performance) and for achievement of specific goals
  - 6.42 Using ecological and traditional task and activity analysis
  - 6.43 Motivating students and athletes to personal bests and managing individual and group behaviors
  - 6.44 Socializing persons into active, healthy lifestyles and sport
  - 6.45 Applying knowledge in all aspects of teaching, counseling, and coaching

### **Competencies Related to Program Evaluation**

- 7.1 Philosophy that supports continuous evaluation as an integral part of service delivery
- 7.2 Attitude of
  - 7.21 Striving for personal best while accepting that the best can always be improved
  - 7.22 Seeking ways to improve and being open to ideas for change
- 7.3 Knowledge of
  - 7.31 Instruments and protocols for program evaluation
  - 7.32 Evaluation theories, models, principles, and strategies
- 7.4 Skill in
  - 7.41 Using evaluation instruments and protocol and, when necessary, developing new ones
  - 7.42 Applying evaluation theories, models, principles, and strategies

### **Competencies Related to Research**

- 8.1 Philosophy that supports research as the method of choice for improving service delivery and for creating the knowledge base of a profession and discipline

- 8.2 Attitude of responsibility for
  - 8.21 Reading research to stay abreast of new knowledge
  - 8.22 Conducting research to contribute to the knowledge base
- 8.3 Knowledge of
  - 8.31 Journals and books that publish research
  - 8.32 Meetings where research is presented
  - 8.33 Research methods and strategies, including statistics
  - 8.34 Computer- and hand-search techniques for locating research
  - 8.35 Topics on which research is needed
- 8.4 Skill in
  - 8.41 Locating, reading, understanding, and applying research
  - 8.42 Reviewing research related to selected topics
  - 8.43 Conducting and reporting research

### **Competencies Related to Conducting In-service or College/University Professional Education Courses**

- 9.1 Philosophy that supports adapted physical activity training for professionals and parents
- 9.2 Attitude of helpfulness in assisting adults to achieve personal goals in relation to adapted physical activity competencies
- 9.3 Knowledge of
  - 9.31 Content in adapted physical activity textbooks and journals
  - 9.32 Roles, service delivery areas, specific job functions, and competencies
  - 9.33 Best practices and models of direct service delivery
  - 9.34 Pedagogy for adult education
- 9.4 Skill in
  - 9.41 Motivating adults to accept personal responsibility for learning
  - 9.42 Helping adults acquire favorable attitudes about individual differences
  - 9.43 Individualizing content and learning experiences for adults

# B R I E F C O N T E N T S

---

## P A R T I

### FOUNDATIONS 1

---

- 1 Quality Physical Education and Active Lifestyle 2
- 2 Celebrating Individual Differences and Promoting Positive Attitudes 22
- 3 Getting Started: Settings, Resources, Adaptation, and Creativity 48
- 4 Advocacy, the Law, and the IEP 75
- 5 Goal Setting and Age-Appropriate Programming 99
- 6 Humanism, Self-Concept, and Motivation: Philosophy and Pedagogy 126
- 7 Assessment: The Key to Individualizing and Adapting 154
- 8 Service Delivery: Placements and Job Functions 181
- 9 Adapting Instruction and Behavior Management 206

## P A R T II

### GENERIC SERVICE DELIVERY\* 228

---

- 10 Motor Learning, Sensorimotor Integration, and Reflexes 229
- 11 Motor Performance: Assessment and Instruction 271

- 12 Perceptual-Motor Learning: An Ecological Approach 305
- 13 Fitness and Healthy Lifestyle 332
- 14 Postures, Appearance, and Muscle Imbalance 365
- 15 Relaxation and Reduction of Hyperactivity 393
- 16 Adapted Dance and Dance Therapy 400
- 17 Adapted Aquatics 412

## P A R T III

### INDIVIDUAL DIFFERENCES, WITH EMPHASIS ON SPORT 433

---

- 18 Infants, Toddlers, and Young Children: The New Emphasis 434
- 19 Other Health Impaired Conditions 453
- 20 Learning Disabilities, Attention Deficits, and Hyperactivity 501
- 21 Mental Retardation and Special Olympics 516
- 22 Serious Emotional Disturbance and Autism 543
- 23 Wheelchair Sports and Orthopedic Impairments 555
- 24 Les Autres Conditions and Amputations 588
- 25 Cerebral Palsy, Stroke, and Traumatic Brain Injury 619
- 26 Deaf and Hard-of-Hearing Conditions 642
- 27 Blindness and Visual Impairments 661

\*Sport is highlighted in Part 3.



# C O N T E N T S

Foreword: Reflections on the New Title xviii

Preface xix

Acknowledgments xxii

Competencies xxiii

## P A R T I

### FOUNDATIONS 1

- 1 Quality Physical Education and Active Lifestyle 2
  - Chapter Objectives 3
  - Good Teaching Is Adapting 3
  - What Is Physical Education? 3
  - Purpose of Physical Education 4
  - A Model Physical Education Program 4
  - Poor Teaching Practices 5
  - The Challenge to Change 5
  - What Is Adapted Physical Activity? 5
    - Believing Component 6
    - Doing Component 6
    - Knowing Component and Core Areas of Knowledge 7
  - Theories, Principles, and Models 8
    - Medical Model 8
    - Educational Model 9
  - Philosophy and Practices 9
  - Individual Differences: The Unifying Theme 9
  - How Does *Adapted* Differ From *Adaptive*? 9
  - Adapted Physical Activity Services 11
    - Planning 11
    - Assessment 11
    - Prescription/Placement 11
    - Teaching/Counseling/Coaching 12
    - Evaluation 12
    - Coordination of Resources 12
    - Advocacy 12
  - Adapted Physical Activity Competencies 12
  - Roles or Job Functions 12
  - Philosophy of Adapted Physical Activity 13
    - Purpose and Goals 13
    - Nature of the Student 14
    - Basic Beliefs 15
  - Characteristics of Adapted Physical Education 15
    - F—Federally Mandated Legislative Base 15
    - A—Assessment 16
    - M—Multidisciplinary/Crossdisciplinary 16
    - I—Inclusive of Infancy and Postsecondary Ages 16
    - L—Low or Different Psychomotor Performance 17
    - Y—Yes, Sport Training and Competition 17
    - S—Services Emphasis 17
    - E—Ecological Orientation 17
    - A—Accountability 17
    - Z—Zero Reject and Zero Fail 17

FAMILY SEAZ: A Mnemonic Device 17

History of Adapted Physical Activity 17

Stage 1, Medical Gymnastics: Before 1900 18

Stage 2, Transition to Sports: 1900–1930 18

Stage 3, Corrective Physical Education:

1930–1950 19

Stage 4, Adapted Physical Education:

1950–1970 19

Stage 5, Adapted Physical Activity:

1970–Present 19

Issues and Trends 20

References 20

### 2 Celebrating Individual Differences and Promoting Positive Attitudes 22

Chapter Objectives 23

Case Studies and Anecdotes 23

Asthma and Health Problems 23

Clumsiness 24

Learning Disabilities 25

Mild Mental Retardation 26

Severe Mental Retardation 26

Cerebral Palsy 27

Traumatic Spinal-Cord Injury 27

Deafness 29

Ideas to Consider 30

Guidelines for Interacting 30

Semantics and Definitions 32

World Health Organization Definitions 32

Analysis of Meanings 32

Labeling 33

Categorizing 33

Guidelines for Speaking and Writing 33

Individual Differences and Social Psychology 34

Attitude Theory 35

Problems in Being Different 35

Prejudice and Discrimination 35

Stigmatization 36

Stereotyping 36

Assessment of Attitudes and Planning for Change 36

Contact Theory 36

Persuasive Communication Theory 38

Assessment of Opinions 38

Variables in Attitude Change 40

Social Cognitive Theory 41

Field or Ecological Theory 42

Socially Based Needs 42

Perceptions and Interpersonal Relations 42

Locus of Control 43

Behaviorism 43

Interactionism 43

Theory of Reasoned Action 44

Summary of Attitude Theories 46

References 46

<b>3</b>	<b>Getting Started: Settings, Resources, Adaptation, and Creativity 48</b>	<b>4</b>	<b>Advocacy, the Law, and the IEP 75</b>
	<b>Chapter Objectives 49</b>		<b>Chapter Objectives 76</b>
	<b>Settings for Practice and Employment 49</b>		<b>The Physical Education Requirement 76</b>
	<i>The Regular School Setting 49</i>		<b>Advocacy Behaviors—The Five Ls 77</b>
	Least Restrictive Environment Principle 49		<i>Look at Me—Individual Action 77</i>
	Integrated Placements 49		<i>Leverage—Group Action 77</i>
	Separate and Combined Placements 50		<i>Literature 77</i>
	<i>The Separate School Setting 51</i>		<i>Legislation 77</i>
	<i>Recreation, Sport, and Camp Settings 51</i>		<i>Litigation 77</i>
	<i>Hospitals and Rehabilitation Centers 51</i>		<i>Advocacy, a Way of Life 78</i>
	<i>Infant and Early Childhood Settings 52</i>		<b>The Human Rights Movement 78</b>
	<i>Sport Organization Programs 52</i>		<i>Blacks 78</i>
	Sports for Deaf Persons 52		<i>Women 78</i>
	Sports for Persons with Physical Disabilities 53		<i>Persons With Disabilities 78</i>
	Sports for Persons with Mental Handicaps 54		<i>The Disadvantaged or Poor 79</i>
	Disability-Specific Organizations 54		<b>Landmark Laws of the 1970s 80</b>
	Disability-General or Combined Organizations 54		<i>PL 93-112: The Rehabilitation Amendments 80</i>
	Integrated Sports Programs 54		<i>PL 94-142: The Education for All Handicapped Children Act 80</i>
	<b>Human Resources for Learning 54</b>		<i>PL 95-606: The Amateur Sports Act 81</i>
	<i>Athletes with Disabilities 55</i>		<b>Basic Concepts and Resources of Advocacy 82</b>
	<i>Adapted Physical Education Specialists 56</i>		<i>The Numbering of Laws and Bills 82</i>
	<i>Regular Physical Educators 56</i>		<b>Authorization and Appropriation 82</b>
	<i>Special Educators 56</i>		<i>Enactment of Laws 82</i>
	<i>Related Services Personnel 57</i>		<i>Rules and Regulations 83</i>
	Therapeutic Recreation Specialists 57		<i>Obtaining Copies of Laws and Bills 83</i>
	Occupational Therapists 58		<i>Enforcement of Laws 84</i>
	Physical Therapists 58		<i>Finding Your Congresspersons 84</i>
	Corrective Therapists 59		<i>Annual Report to Congress 84</i>
	Arts Educators and Therapists 59		<b>Current RA, ADA, and DDA Legislation 85</b>
	Crossdisciplinary Teamwork 60		<i>The Rehabilitation Act 86</i>
	<i>Parents and Family Members 60</i>		<i>Americans With Disabilities Act 86</i>
	<b>Adaptation Theory 60</b>		<i>Developmental Disabilities Assistance and Bill of Rights Act 86</i>
	<i>Interacting Variables 62</i>		<b>IDEA Legislation 86</b>
	<i>Ecological Task Analysis 64</i>		<i>Age Range Covered by IDEA 86</i>
	<i>Variable Practice Conditions 65</i>		<i>Definitions 86</i>
	<b>Adaptation and Service Delivery 65</b>		Special Education Definition 87
	<i>Planning 65</i>		Definitions of Disabilities 87
	<i>Assessment 66</i>		IEP Definition 87
	<i>Prescription/Placement 66</i>		Free Appropriate Public Education Definition 89
	<i>Teaching/Counseling/Coaching 67</i>		<i>Physical Education Mentions in IDEA 89</i>
	<i>Evaluation 68</i>		Physical Education Definition 89
	<i>Coordination of Resources and Advocacy 68</i>		Physical Education Requirement 89
	<b>Considerations in Adapting 68</b>		Integration in Regular Physical Education 89
	<i>Affordances and Constraints 68</i>		Special Physical Education 89
	<i>Adapting in Different Domains 68</i>		Role in Transitional Services 91
	<i>Cooperative, Reciprocal Process 68</i>		<b>The IEP Process 91</b>
	<i>Normalization 68</i>		<i>Five Phases of the IEP Process 91</i>
	<i>Use of Social Criteria 68</i>		<i>Regulations Relating to Dates 92</i>
	<i>Sport Classification Systems 69</i>		<i>IEP Meeting and the Adapted Physical Education Specialist 92</i>
	<b>Principles of Adapting 69</b>		<b>IEP Principles and Practices 92</b>
	<b>Creativity Theory 69</b>		<b>Services for Infants and Toddlers 92</b>
	<b>Cognitive Creative Behaviors 70</b>		<b>Due Process and Education 93</b>
	<i>Fluency 70</i>		<b>A Continuum of Services and Least Restrictive Environment 93</b>
	<i>Flexibility 70</i>		<i>Mainstreaming 93</i>
	<i>Originality 71</i>		<i>Least Restrictive Environment 93</i>
	<i>Elaboration 71</i>		<b>The Regular Education Initiative 94</b>
	<b>Affective Creative Behaviors 71</b>		<b>Evaluation Procedures in IDEA 95</b>
	<i>Acceptance 71</i>		<b>Funding of Adapted Physical Education 95</b>
	<i>Imagination 72</i>		<b>The State Plan and Adapted Physical Education 96</b>
	<i>Curiosity 72</i>		<b>Need for State Laws 96</b>
	<i>Caring 72</i>		<b>Advocacy for Needed Legislation 96</b>
	<i>Courage 72</i>		<b>References 98</b>
	<b>Indicators of Effective Teaching 72</b>		
	<b>Human Variables and Change 73</b>		
	<b>References 73</b>		

<b>5</b>	<b>Goal Setting and Age-Appropriate Programming 99</b>	
	<b>Chapter Objectives 100</b>	
	<b>Utilizing Goals in Adapted Physical Activity 100</b>	
	<i>Model to Guide Instructional Planning 100</i>	
	<i>Three Aspects of a Goal 102</i>	
	<i>Prioritizing Goals 102</i>	
	<i>Writing Objectives 107</i>	
	<b>Frames of Reference 107</b>	
	<i>Functional Frame of Reference 108</i>	
	<i>Developmental Frame of Reference 108</i>	
	<i>Interactional Frame of Reference 109</i>	
	<b>Age and Disability 109</b>	
	<b>Life Stages 109</b>	
	<b>Programming for Adults 111</b>	
	<b>Observation in Natural Environments 111</b>	
	<b>Model to Guide Observation and Programming 112</b>	
	<b>Cognitive Development and Function 114</b>	
	<i>Sensorimotor (Ages 0 to 2) 114</i>	
	<i>Preoperational (Ages 2 to 7) 114</i>	
	<i>Concrete Mental Operations (Ages 7 to 11) 116</i>	
	<i>Formal Mental Operations (Ages 11 and Up) 116</i>	
	<i>Implications of Cognitive Development for Moral, Social, and Motor Function 116</i>	
	<b>Moral Development and Function 116</b>	
	<i>Simple Game Rules 117</i>	
	<i>Conventional Morality 117</i>	
	<i>Good Sportsmanship 118</i>	
	<b>Social Development and Function 118</b>	
	<i>Levels of Social Play 118</i>	
	<i>Sport Socialization 120</i>	
	<i>Social Comparison and Competition 121</i>	
	<i>Attributions Analysis 122</i>	
	<i>Personal-Best Analysis 122</i>	
	<b>Motor Development and Function 122</b>	
	<b>Responsivity Problems 123</b>	
	<b>Synthesizing Observational Data 123</b>	
	<b>References 123</b>	
<b>6</b>	<b>Humanism, Self-Concept, and Motivation: Philosophy and Pedagogy 126</b>	
	<b>Chapter Objectives 127</b>	
	<b>Humanistic Philosophy 127</b>	
	<b>Humanism and Religion 128</b>	
	<b>Theoretical Basis of Humanism 128</b>	
	<i>Self-Actualization Theory 129</i>	
	<i>Fully Functioning Self Theory 130</i>	
	<i>Ecological or Field Theory 130</i>	
	<i>Normalization Theory 131</i>	
	<i>Personal Meaning Theory 132</i>	
	<i>Social Cognitive Theory 133</i>	
	<i>Self-Efficacy Theory 133</i>	
	<i>Self-Determination Theory 134</i>	
	<b>Self-Concept Theory 135</b>	
	<i>Self-Concept Terminology 136</i>	
	<i>Development of Self-Concept 136</i>	
	<i>Principles of Self-Concept Formation 136</i>	
	<i>Self-Concept Issues 137</i>	
	<i>Profiling 138</i>	
	<i>Pedagogical Implications 138</i>	
	<b>Descriptions of Major Self-Concept Instruments 140</b>	
	<i>Piers-Harris Children's Self-Concept Scale 140</i>	
	<i>Cratty Self-Concept Scale 140</i>	
	<i>Martinek-Zaichowsky Self-Concept Scale 140</i>	
	<i>Harter Self-Perception Instruments 141</i>	
	<i>Ulrich Pictorial Perceived Physical Competence Scale 141</i>	
	<i>Self-Description Questionnaire I, II, III 144</i>	
	<i>Physical Self-Perception Profile 144</i>	
	<b>Low Self-Concept and Physical Education 144</b>	
	<i>Pedagogy in Relation to Low Self-Concept 144</i>	
	<i>Competence Motivation Theory 147</i>	
	<i>Griffin-Keogh Movement Confidence Model 147</i>	
	<b>Motivation Theories 148</b>	
	<i>Teacher Expectancy Theory 148</i>	
	<i>Locus of Control or Perceived Control 150</i>	
	<i>Learned Helplessness 150</i>	
	<i>Attribution Theory and Training 150</i>	
	<b>References 152</b>	
<b>7</b>	<b>Assessment: The Key to Individualizing and Adapting 154</b>	
	<b>Chapter Objectives 155</b>	
	<b>Four Purposes of Assessment 155</b>	
	<i>Screening 155</i>	
	<i>Diagnosis and Placement 157</i>	
	<i>Instruction and Student Progress 157</i>	
	<i>Sport and Activity Classification 157</i>	
	<b>Six Types of Assessment 157</b>	
	<i>Formal versus Informal 157</i>	
	<i>Product versus Process 157</i>	
	<i>Norm versus Criterion Tests 158</i>	
	<i>Norm-Referenced Tests 158</i>	
	<i>Criterion-Referenced Tests 159</i>	
	<i>Standardized versus Content-Referenced Tests 160</i>	
	<i>Tests versus Instruments 160</i>	
	<i>Self versus Other 160</i>	
	<b>Planning Procedures 160</b>	
	<i>Relating Assessment to Goals 160</i>	
	<i>Criteria for Selection of Instruments 160</i>	
	<i>Reviewing Available Instruments 161</i>	
	<i>Selecting Instruments 161</i>	
	<i>Determining the Setting 161</i>	
	<i>Determining Environmental Factors 161</i>	
	<b>Recommended Instruments for Beginners 162</b>	
	<i>Denver II 162</i>	
	<i>Bruininks-Oseretsky Test of Motor Proficiency 163</i>	
	<i>Tests of Motor Skills and Fitness 166</i>	
	<b>Other Instruments to Match Goal Areas 166</b>	
	<i>Assessing Social Competency 166</i>	
	<i>Assessing Motor Creativity 166</i>	
	<b>Interpretation of Data 168</b>	
	<b>Normal Curve Theory 168</b>	
	<i>Mean, Median, and Mode 169</i>	
	<i>Standard Deviations 170</i>	
	<i>Applications 170</i>	
	<i>Standard Scores 171</i>	
	<i>Norms 173</i>	
	<i>Placement and Awards 173</i>	
	<b>Personal-Best Theory 174</b>	
	<i>Interval Goal-Setting Model 174</i>	
	<i>Criterion- and Content-Referenced Tests 175</i>	
	<b>Sport Classification Theory 175</b>	
	<i>Issues 175</i>	
	<i>Principles Underlying Classification 176</i>	
	<i>Point System in Team Sports 176</i>	
	<i>Medical Classification System 176</i>	
	<i>Functional Classification System 177</i>	
	<b>Assessing Students With Severe Disabilities 178</b>	
	<b>References 179</b>	

<b>8</b>	<b>Service Delivery: Placements and Job Functions 181</b>
	<b>Chapter Objectives 182</b>
	<b>Planning at the School District Level 182</b>
	<i>Least Restrictive Environment Approach 182</i>
	<i>Regular Education Initiative Approach 183</i>
	<i>Support Services 183</i>
	<i>A Continuum of Placements 184</i>
	<b>Mainstream Variables to Be Considered Prior to Placement 185</b>
	<i>Regular Class Size 185</i>
	<i>Teaching Style 185</i>
	<i>Skill Level of Regular Education Students 186</i>
	<i>Competition, Cooperation, or Individualistic Orientation 186</i>
	<i>Content to Be Taught 186</i>
	<i>Teacher Attitudes and Training 188</i>
	<i>Overall Program Quality 188</i>
	<b>Service Delivery for Regular Education Students 188</b>
	<b>Planning Instruction for the Year 188</b>
	<i>Calculating Instructional Time 188</i>
	<i>Planning Use of Time 188</i>
	<i>Developing Instructional Units 188</i>
	<i>Other Decision Making 190</i>
	<b>Prescribing/Placing 190</b>
	<i>Transitional Mainstream Models 190</i>
	Reverse Mainstreaming 190
	Peer and Crossage Tutors 190
	Unified Sports 191
	Integrated Cooperative Sports 191
	<i>Inclusive Regular Physical Education Models 192</i>
	Games Design Model 192
	Cooperative or New Games 193
	Adventure Activities 193
	Movement Education 193
	Other Models 193
	<b>Prescription in the IEP 196</b>
	<b>Prescription in Lesson Plans 196</b>
	<b>Teaching/Counseling/Coaching 197</b>
	<b>Evaluation 200</b>
	<b>Checklist for Evaluating School District Adapted Physical Education 200</b>
	<b>References 204</b>
<b>9</b>	<b>Adapting Instruction and Behavior Management 206</b>
	<b>Chapter Objectives 207</b>
	<b>Creativity 207</b>
	<b>Fluency and Flexibility 208</b>
	<b>Individualization 209</b>
	<i>Learning Stations 209</i>
	<i>Task Cards and Learning Materials 210</i>
	<b>Developmental Sequences 210</b>
	<b>Forward and Backward Chaining 212</b>
	<b>Levels of Assistance 212</b>
	<b>Generalization 213</b>
	<b>Activity Analysis 213</b>
	<b>Teaching Styles 214</b>
	<b>Behavior Management 216</b>
	<i>General Procedures 216</i>
	<i>Cues and Consequences 216</i>
	<i>Specific Behavior Management Techniques 218</i>
	<b>Academic Learning Time 218</b>
	<b>Principles of Motor Learning/Teaching 218</b>
	<b>Student-Teacher Interaction Analysis 221</b>
	<b>Scientific Foundations of Adapting Activity 221</b>
	<i>Problems of Strength and Endurance 221</i>
	<i>Problems of Balance and Agility 223</i>
	<i>Problems of Coordination and Accuracy 223</i>

<b>Exercise Physiology Principles in Adaptation 224</b>
<b>Biomechanical Principles in Adaptation 224</b>
<i>Leverage 224</i>
<i>Principles of Force Production 224</i>
<i>Principles of Stability 224</i>
<i>Laws of Motion 225</i>
Law of Inertia 225
Law of Acceleration 226
Law of Reaction 226
<b>Cooperative Planning 226</b>
<b>Variables to Be Manipulated 226</b>
<b>References 227</b>

## P A R T II

---

### GENERIC SERVICE DELIVERY 228

---

<b>10</b>	<b>Motor Learning, Sensorimotor Integration, and Reflexes 229</b>
	<b>Chapter Objectives 230</b>
	<b>Pedagogical Challenges in Adapted Physical Activity 230</b>
	<b>Motor-Learning Models 231</b>
	<b>Sensorimotor Integration 232</b>
	<b>Development of Sensory Systems 232</b>
	<b>Tactile System 232</b>
	<i>Tactile Craving and Defensiveness 233</i>
	<i>Using Tactile Stimulation 233</i>
	<b>Kinesthetic System 233</b>
	<b>Vestibular System 234</b>
	<i>Static and Dynamic Balance 236</i>
	<i>Enhancing Vestibular Development 236</i>
	<i>Nystagmus and Motion Sickness 237</i>
	<b>Visual System 237</b>
	<i>Refractive Vision (Acuity) 237</i>
	<i>Orthoptic Vision (Coordination) 237</i>
	<i>Enhancing Vision 238</i>
	<b>Intersensory Integration 238</b>
	<b>Motor Output or Action 238</b>
	<b>Reflexes 238</b>
	<b>Reflex Integration in Teaching 239</b>
	<i>Principles of Reflex Integration 245</i>
	<i>Overflow (Associated Movements) 246</i>
	<i>Four Most Troublesome Reflexes 246</i>
	<b>Reactions 247</b>
	<i>Righting Reactions 248</i>
	Head-in-Space 248
	Optical Righting 248
	Landau 249
	Body Derotative and Rotative 249
	<i>Parachute or Propping Reactions 250</i>
	<i>Equilibrium or Tilting Reactions 250</i>
	<b>Balance Assessment and Remediation 251</b>
	<b>Milani-Comparetti Assessment System 254</b>
	<i>Motor Milestones on MC Chart 254</i>
	Head Control 254
	Body Control 254
	Active Movement 254
	<i>Application to a 9-Year-Old 254</i>
	<b>Pedagogy in Relation to Reflexes and Reactions 257</b>
	<b>Neurological Bases of Motor Development 257</b>
	<i>Organization of the Nervous System 259</i>
	<i>Nerve Cells 259</i>
	<i>Myelination 259</i>



	<ul style="list-style-type: none"> <li><i>The Human Brain</i> 261</li> <li><i>Development of the Central Nervous System</i> 261</li> <li><i>Parts of the Central Nervous System</i> 261</li> <li><b>Pyramidal and Extrapyramidal Systems</b> 263 <ul style="list-style-type: none"> <li><i>Reciprocal Innervation and Muscle Tone</i> 264</li> <li><i>Upper and Lower Motor Neuron Disorders</i> 264</li> </ul> </li> <li><b>Neurological Bases of Clumsiness</b> 264 <ul style="list-style-type: none"> <li><i>Systems or Distributed Control Models</i> 265</li> <li><i>Disorders of Muscle Tone</i> 265</li> <li><i>Disorders of Praxis (Apraxia, Dyspraxia)</i> 266</li> </ul> </li> <li><b>Theories That Guide Practices</b> 266 <ul style="list-style-type: none"> <li><i>Maturation Theory</i> 266</li> <li><i>Theories Based on Levels of Function</i> 266 <ul style="list-style-type: none"> <li>Neurodevelopmental/Neurophysiological 267</li> <li>Sensorimotor/Sensory Integration 267</li> </ul> </li> <li><i>Theories Based on Systems or Distributed Control Models</i> 268 <ul style="list-style-type: none"> <li>Dynamic Action Theory 268</li> <li>Inborn Motor Pattern Generators 269</li> </ul> </li> </ul> </li> <li><b>References</b> 269</li> </ul>
<b>11</b>	<ul style="list-style-type: none"> <li><b>Motor Performance: Assessment and Instruction</b> 271 <ul style="list-style-type: none"> <li><b>Chapter Objectives</b> 272</li> <li><b>Basic Questions in Assessing and Teaching Motor Skills</b> 272 <ul style="list-style-type: none"> <li><i>Performance</i> 273</li> <li><i>Functional Competence</i> 273</li> <li><i>Performance Standards</i> 273</li> <li><i>Constraints</i> 275</li> <li><i>Developmental Level</i> 275</li> </ul> </li> <li><b>Writing Goals and Objectives</b> 276</li> <li><b>Biomechanical Analysis of a Movement Pattern</b> 276</li> <li><b>Walking: The Foundation Skill</b> 276</li> <li><b>Individual Differences in Gaits</b> 278</li> <li><b>Developmental Levels in Walking</b> 281</li> <li><b>Teaching the Run</b> 282 <ul style="list-style-type: none"> <li><i>Leg Action</i> 283</li> <li><i>Arm Movements</i> 283</li> <li><i>Assessment Ideas</i> 284</li> <li><i>Pedagogy</i> 286</li> <li><i>Types of Runs</i> 286</li> </ul> </li> <li><b>Teaching Stair Skills</b> 287</li> <li><b>Jump, Hop, Leap</b> 289</li> <li><b>Teaching the Jump</b> 289</li> <li><b>Developmental Sport Training</b> 290 <ul style="list-style-type: none"> <li><i>Jump Used as a Dismount</i> 290</li> <li><i>Vault</i> 290</li> <li><i>Movement Patterns for Jumping on Springboard or Beatboard</i> 291</li> <li><i>Jump Used as a Mount</i> 293</li> <li><i>Jumping on a Trampoline</i> 293</li> </ul> </li> <li><b>Teaching the Hop</b> 293</li> <li><b>Teaching the Leap</b> 294</li> <li><b>Teaching Rhythmic, Two-Part Motion</b> 294 <ul style="list-style-type: none"> <li><i>Gallop</i> 294</li> <li><i>Skip</i> 294</li> <li><i>Slide</i> 295</li> </ul> </li> <li><b>Teaching Object Control Skills</b> 295 <ul style="list-style-type: none"> <li><i>Adaptations When Grasp Is Absent or Weak</i> 295</li> <li><i>Adaptations When Release Is Difficult</i> 295</li> <li><i>Adaptations for Slow Learners</i> 297</li> <li><i>Adaptations for Throws While Seated</i> 297</li> </ul> </li> <li><b>Teaching Rolling or Bowling</b> 297</li> <li><b>Teaching Throwing</b> 297</li> <li><b>Teaching Catching</b> 299</li> <li><b>Teaching Stationary Bounce/Dribble</b> 299</li> </ul> </li> </ul>
<b>12</b>	<ul style="list-style-type: none"> <li><b>Perceptual-Motor Learning: An Ecological Approach</b> 305 <ul style="list-style-type: none"> <li><b>Chapter Objectives</b> 306</li> <li><b>Ecological Perceptual-Motor Theory</b> 306 <ul style="list-style-type: none"> <li><i>Sensation</i> 306</li> <li><i>Perception</i> 307</li> <li><i>Action</i> 308</li> </ul> </li> <li><b>Perceptual-Motor Assessment Model</b> 308 <ul style="list-style-type: none"> <li><i>Attention Processes</i> 308</li> <li><i>Memory Processes</i> 308</li> <li><i>Cognitive Processes</i> 310</li> <li><i>Motor Processes: Subcortical and Cortical</i> 310</li> </ul> </li> <li><b>Perceptual-Motor Screening</b> 310</li> <li><b>Learning or Performance Breakdowns</b> 310</li> <li><b>Sensorimotor Integration Disorders</b> 312 <ul style="list-style-type: none"> <li><i>Tactile Integration</i> 312</li> <li><i>Postural or Bilateral Integration</i> 313</li> <li><i>Crosslateral and Midline Problems</i> 314</li> </ul> </li> <li><b>Perceptual Disorders</b> 315 <ul style="list-style-type: none"> <li><i>Visual and Auditory Perception</i> 315</li> <li><i>Body Awareness</i> 315</li> <li><i>Bilateral and Directional Awareness</i> 315</li> <li><i>Spatial and Object Awareness</i> 315</li> <li><i>Temporal Awareness</i> 315</li> <li><i>Tactile Awareness</i> 316</li> <li><i>Agnosias</i> 316</li> <li><i>Activities for Remediation</i> 316</li> </ul> </li> <li><b>Perceptual-Motor Disorders</b> 316 <ul style="list-style-type: none"> <li><i>Balance</i> 316</li> <li><i>Coordination</i> 317</li> <li><i>Motor Planning (Praxis)</i> 318</li> <li><i>Imitation</i> 319</li> <li><i>Following Instructions</i> 319</li> </ul> </li> <li><b>Ataxia, Apraxia, and Aphasia</b> 319</li> <li><b>Perceptual-Motor Training: Past and Present</b> 319 <ul style="list-style-type: none"> <li><i>Contributions of Kephart</i> 320</li> <li><i>Contributions of Cratty</i> 321</li> <li><i>The New Perceptual-Motor Emphasis</i> 321</li> </ul> </li> <li><b>Comprehensive Perceptual-Motor Testing</b> 322</li> <li><b>Ideas for Lesson Plans</b> 322</li> <li><b>Teaching Game Formations</b> 322 <ul style="list-style-type: none"> <li><i>Easy to Hard Formations</i> 327</li> <li><i>Two-Deep: Beginning Partner Work</i> 327</li> <li><i>Counterclockwise Direction Dominates</i> 327</li> <li><i>Novel Floor Patterns</i> 328</li> <li><i>Activities for Form Perception</i> 328</li> </ul> </li> <li><b>Perception Learned in Volleyball</b> 328</li> <li><b>Visual Pursuit and Space Perception</b> 329</li> <li><b>Perception Learned in Softball</b> 329</li> <li><b>References</b> 330</li> </ul> </li></ul>
<b>13</b>	<ul style="list-style-type: none"> <li><b>Fitness and Healthy Lifestyle</b> 332 <ul style="list-style-type: none"> <li><b>Chapter Objectives</b> 333</li> <li><b>Definitions of Physical Fitness</b> 333</li> <li><b>Lifestyle Problems</b> 333</li> <li><b>Fitness and Disability</b> 335</li> <li><b>Types of Fitness: Physical and Motor</b> 335</li> <li><b>Trends and Issues in Fitness</b> 335 <ul style="list-style-type: none"> <li><i>AAHPERD Tests</i> 336</li> <li><i>Other Tests</i> 336</li> <li><i>Testing and Disability</i> 336</li> <li><i>Holistic Approaches</i> 336</li> </ul> </li> </ul> </li> </ul>