

Adapted Physical Education
(PHED 4800)
Student Handbook

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Progression Chart

Evaluation	Total Available Points	Points Earned
Quizzes	20	
Midterm	10	
Final	20	
Chapter presentation	10	
Organization Presentation	10	
IEP/Journal	10	
Field Placement	20	
<u>Total</u>	100	
Bonus	10	

Chapter 1

Introduction to Adapted Physical Education and Sport

Definition of Adapted Physical Education

- 1) an individualized program of developmental activities, exercises, games, rhythms, and sport designed to meet the unique physical education needs of individuals.
- 2) a sub discipline of PE or emerging field of studying
 - 1) designed to meet long term unique needs
 - 2) may take place in mainstream classes or segregated classes
 - 3) an *active* program rather than a *passive* one
 - 4) adapted or modified sport can be used in APE program
 - 5) adapted means to adjust and to fit
 - 6) service to 3-21 years old (IEP) and may include 0-2 (IFSP)

Conceptual Framework

APE emphasizes self-actualization – optimal personal development as Sherill (1998) defines that Humanism is a philosophy to helping people become fully human, thereby actualizing their potential for making the world the best possible place for all forms of life

Historical Background

(Role of those with disabilities in Society)

– Primitive societies:

Children born with defects generally perished at an early age as a consequence of their inability to withstand the rigor of primitive man's strenuous existence, 'the survivor the fittest'.

– Spartan, the early civilized society Greek:

Children with disabilities are left on hill to be perished.

– Athenians:

Permitted such babies to die of neglect.

– **Roman Empire:**

Babies born with birth defects suffered a like fate.

– **Middle ages:**

Those with disabilities were believed to have been caused by Satan. Hence they are sinful and evil and treated harshly and carefully avoided.

– **Renaissance:**

Gained understanding of their problems but did not extent to include treatment, care, and education.

– **1900s:**

Social awareness of the problems gained momentum in this country with the opening of schools for them and centers for treatment.

– **World War I and II**

Gave impetus to the development of treatment for injured veterans and even civilians with disabilities and to help them become useful and self-sufficient citizens.

– **Government Assistance**

- a) **1920**, First law providing vocational rehabilitation to the civilians injured in industrial accidents.
- b) **1943**, a law passed to provide for the rehabilitation of soldiers with war disabilities.
- c) **1940s**, Federal sponsored programs established for disabled individuals such as Institution for mentally ill and emotionally disturbed, schools for blind, deaf and mentally retarded.
- d) **1960s**, The Office of Special Education and Rehabilitation Services established
- e) **1973**, Rehabilitation Act, summarized by explaining that individuals may not be discriminated against because of their disabilities.
- f) **1975**, PL 94-142 The Education for All Handicapped Children Act. Special Education, specially designed instruction at no cost to the parents, to meet individual needs of a handicapped child, including classroom instruction, instruction in physical education, home instruction, and instruction in hospitals and institutions.
- g) **1985**, PL 99-457, amendment to PL 94-142, extends special education services to preschool students with disabilities and encourages states through a discretionary grant program to provide early prevention services to infants with disabilities, birth to age thirty-six months, and their family.
- h) **1990s**, PL 101-476 Individuals with Disabilities Education Act (IDEA)
- i) **1990s**, American Disability Act (ADA)

10. Evolution of Adapted Physical Education

- ✓ **3000 years ago**, in China depicting therapeutic use of gymnastics for individuals with disabilities.
- ✓ **1879**, corrective physical education established at Harvard for correcting certain pathological conditions.
- ✓ **WW I and II**, development of physical therapy and adapted sports
- ✓ **1940s**, fundamental changes were initiated in physical education in some universities, public schools, and special schools. Calisthenics, gymnastics, and corrective physical education supplanted in the course contents by game, sports, and rhythmic activities modified to meet the individual needs of the students.

Organizations promoting Adapted P.E. And Special Education

- **AAHPERD** - provides key professional services and leadership through the organization Adapted Physical Activity Council
- **NCPERID** - Promotes, stimulates and encourages professional preparation and research (National Council on Physical Education and Recreation for Individuals with Disabilities)
- **Council for Exceptional Children** - most special educators affiliated with
- **Office of Special Education and Rehabilitation Services** – funding and training purposes
- **The International Federation for Adapted Physical Activity (IFAPA)** – disseminating valuable knowledge throughout the world

Publications

Adapted Physical Education Quarterly, Palestra, Sports 'n Spokes, Journal of Visual Impairment, Journal of Learning Disabilities, American Annals of Deaf, Teaching Exceptional Children, Journal of Special Education, Clinical Kinesiology, Therapeutic Recreation Journal, Journal of Mental Deficiency, Research Quarterly for Exercise and Sport, etc.

Chapter 2

Program Organization and Management

A. Clearly Identify Programmatic and Curricular Direction

Integrate cognitive, psychomotor, and affective development of each person

- psychomotor development groups:
- physical fitness
- motor development and skill
- posture and body mechanics
- community and sport-related activities

B. Administrative Procedures

- 1) Who is qualified?
 - Needs extend 30 days
 - Screen all new and current students
- 2) Alternative instructional placements
 - see figure 2.1
 - special classes should not exceed 12
 - Unless 16 or older, avoid age differences of over three years
- 3) Approaches to scheduling and time
 - Integrate into regular class
 - Offer at the same time as regular PE
 - Length should be the same as regular PE
- 4) Sport participation
 - see figure 2.2
 - Integration is the key
- 5) Facilities
 - Clear of hazards
 - Proper indoor and out door surfaces
- 6) Water fountains with hand & foot controls
- 7) Swimming pool regulations
- 8) Guidelines for Instruction
 - same curriculum (the same as others)

- multilevel curriculum (the same curriculum with different objectives)
 - Curriculum overlap (the same lesson but different and modified activities)
 - Alternative Curriculum (alternate activities provided)
- 9) Inclusion and Mainstream
- Educate individual with disabilities in regular settings)
 - Not placing student in integrated settings without support services (refers to as “dumping”)

C. Key Personnel and Responsibilities

- 1) Director of Physical Education and Athletics
 - Funding
 - Employing qualified teachers
 - Providing support services
- 2) Adapted Physical Education and Sport Coordinator
 - Arrange and oversee sport events
 - Run the Adapted program
 - See figure 2.1
- 3) Physical Education Teacher
 - Screening
 - Help with short-term needs
 - Help with sport programs
 - Most important task: Referrals
- 4) Nurse and Physician
 - Screening
 - Medical Examinations
- 1) 5) Related Services
 - 2) Provide transportation to supportive services that are required to assist children with disabilities

D. Program Evaluation

- 1) Rating scale or checklist
- 2) Self-appraisal

Chapter Three Adapted Sport

1. Definition and Meaning of Adapted Sport

- Refers to sport modified or created to meet the unique needs of individuals with disabilities.
- Federal Legislation affirms the right of students with disabilities to have equal access and opportunities to physical education, intramural, and sport programs.
- Adapted sport implies that the athlete with a disability compete in a regular sport with
 - a. the aid of some assistive device (e.g., guide rail for bowling)
 - b. rule modification (smaller field, fewer participants)
 - c. or participating in specially designed sport for a particular disability (quad rugby, wheelchair basketball)

2. Integration Continuum

Least Restrictive

- Regular Sport (1)**
- Regular Sport with Accommodation (2)**
- Regular and Adapted Sport (3)**
- Adapted Sport Integrated (4)**
- Adapted Sport Segregated (5)**

Most Restrictive

- **figure 3.1-five level integration**
- **Golfer Casey Martin**

3. Sport Organizations

Multi-sport Organizations:

- USCPAA, US Cerebral Palsy Athletic Asso. , 10 sports for CP and traumatic brain injury
- DAAA, Dwarf Athletic Association of America
- DS/USA, Disable Sports USA
- SOI, Special Olympics Inc.
- USABA, US Association for Blind Athletes

- USADSF, USA Deaf Sport Federation
- WSUSA, Wheelchair Sport USA
- WGD, World Game for Deaf, etc.

Unisport Organizations

- NARHA, North American Riding for the Handicapped Association
- HSAI, Handicapped Scuba Association International
- USQRA, US Quad Rugby Association
- AASA, American Amputee Soccer Association
- NBBA, National Beep Baseball Association
- WBA, Wheelchair Basketball Association
- WTA, Wheelchair Tennis Association

4. The Olympic and Amateur Sport Act of PL 105-277

- ✓ Provide the catalyst for the explosion in adapted sport
- ✓ Includes athletes with disabilities in USOC, USOC responsible for Paralympics
- ✓ Encourage and provide assistance to amateur athletic programs and competition for amateur athletes with disabilities.
- ✓ Establish the committee on Sports for the Disabled.
 - Develop interest and participation throughout US
 - Work with USOC to carry out the mandates
 - Disseminate information on training, coaching, and equipment
 - Encourage and support more research
 - Guarantee the Olympic training facilities accessible
 - Seek appropriate fund

5. National governing Bodies (NGBs) and International Federations (Ifs)

- ✓ Have sub-committees under NGBs and Ifs
- ✓ Establish independent organization

6. School and Local Community Based Adapted Sport Programs

- ✓ Wheelchair bowl
- ✓ Special Olympics
- ✓ Wheelchair Basketball

7. Classification

- ✓ Medical classification, e.g., level of spinal cord injuries
- ✓ Functional classification, e.g., performance and medical information

8. Paralympics

- ✓ Paralympic games are the equivalent of the Olympic games and are primarily for athletes with physical disabilities and visual impairments.
- ✓ It began in 1948 and attributed to a doctor, Sir Ludwig Guttmann who included sport in rehabilitation for people with spinal cord injuries.
- ✓ It offers every four years and immediately follows after summer and winter Olympics,
- ✓ Disability Category: Amputee, Cerebral Palsy, Intellectual Disability, Wheelchair, and Les Autres,
- ✓ Summer events: archery, athletics, coxica, cycling, equestrian, fencing, goal ball, judo, power lifting, table tennis, wheelchair tennis, rugby, volleyball, etc.
- ✓ Winter: Alpine skiing, cross-country skiing, ice ledge hockey, and Wheelchair dance sport.

Chapter 4

Individualized Education Programs (IEP)

Definition

A written document that:

- 1) **Describes current conditions**
- 2) **Identifies goals and objectives**
- 3) **Lists educational services to be provided to meet goals**

It is developed by:

- 1) **Receiving a referral (in most cases)**
- 2) **Determining eligibility of student**
- 3) **Creating the most appropriate program**

Components - see figure 4.1

- 1) **Present Level of Performance (PLP)**
 - What the student CAN do
 - Continuum of Achievement
 - Immediately interpretable
 - Objectivity
 - Observable and measurable
 - Using standardized test, criterion referenced test, or self-designed test

- 2) **Annual Goals and Short-Term Objectives**
 - A reflection of PLP
 - General statement based on PLP (broad)
 - Short Term Objectives (STO) should relate to annual goals (specific)

- 3) **Statement of Services and Supplementary Aids**
 - Placement in the least restrictive environment
 - Additional services, such as a special education service (i.e. physical education), or a related service (i.e. physical therapy)
 - Special instructional materials

- 4) **Statement of Participation in Regular Settings**
 - percentage of time
 - Frequency, location, and duration of the services
 - What kind of activities will be provided

- 5) **Assessment Modifications**
 - test item modifications
 - test item substitution as necessary
- 6) **Schedule of Services**
 - The projected date of beginning of services
 - anticipated frequency, duration, and location of the services
- 7) **Transition Services**
 - Prepare student for other available options when they reach the age of 16 or younger
- 8) **Criteria, Procedures, and Schedule for Evaluation**
 - Regularly report to parents of child's progress
 - At least once a year

IEP Sequence and Due Process Procedures

Figure 4.3

504 Plan

- ✓ **Derived from section 504 of the Rehabilitation Act of 1973**
- ✓ **For individuals with HIV/AIDs, alcohol abuse, substance abuse, asthma, diabetes, ADD, mild LD, etc., not included in IDEA**
- ✓ **Does not have mandated components as an IEP**
- ✓ **Use multidisciplinary team to diagnose and assess the needs of the individuals**
- ✓ **A sample 504 plan (figure 4.4)**

NonDisabled Student's with Unique Needs

- 1) **They are not covered by IDEA**
- 3) **Special committee should address these needs**
- 2) **Recommended procedure - figure 4.5 (7 step approach)**
- 3) **For students recuperating from injuries or accidents, overweight, poor fitness level, low skill level**
- 4) **Establish a district CAPE to address the needs of the nondisabled students**

Chapter 5

MEASUREMENT AND ASSESSMENT

A. Types Of Tests

Standards for Assessment

- 1. Norm - Referenced Tests**
 - Compare with other results from a group
 - Percentiles, standard scores & age norms

- 2. Criterion - Referenced Tests**
 - continuum of achievement
 - Content related and teacher designed
 - Specific performance criteria
 - e.g., FITNESSGRAM and American Red Cross

Alternatives for Assessment

- ✓ **Rubrics (see Box 5.1)**
- ✓ **Task Analysis (Box 5.2)**
- ✓ **Portfolios**
- ✓ **Checklist and rating scales**

B. The Purpose Of Testing

- 1) Screening**
 - Referral level
 - Document the need/eligibility for Adapted PE
 - Formal testing vs. informal observation

- 2) Determining Unique Needs**
 - Must be long term unique needs
 - Goals and objectives written
 - Placement is decided
 - Integration is the most desirable

- 3) Instruction**
 - Task analysis = helps to monitor progress
 - May use skill checklists and final testing

C. Tests for Use in Adapted P.E.

1) Tests should have:

- economy
- validity
- reliability
- purpose

2) What to Test? (see overhead)

* Six general areas in PE

- **Reflexes and reactions: Milani-Comparetti Motor Development Screen Test for Infant and Young Children, birth to 24 months, 27 items (head control, body control, standing, 5 primitive reflexes – hand and foot grasp, asymmetrical tonic neck, moro, and symmetrical tonic neck)**
- **Rudimentary movements: Peabody Developmental Motor Scale, 249 test items, birth to 5, reflexes, stationary (balance), locomotion, object manipulation, grasping, and visual-motor integration.**
- **Fundamental movements: Test of Gross Motor Development, 3-10, Locomotor skills and object control skills.**
- **Specialized Movement: The Sports Skills Program Guide (Special Olympics, Inc.), 8 and over, 25 sports in three categories – special Olympic Summer Sports, Special Olympic Winter Sports, Nationally Popular Sports.**
- **Physical fitness: Brockport Physical Fitness Test, 10-17, 27 items, body composition, aerobic functioning, and musculoskeletal functioning.**
- **Measuring Physical Activity: ActivityGram, all ages, 6 categories – lifestyle activity, aerobics, sports, muscle fitness activity, flexibility exercises, rest and inactivity.**

Chapter 6

Instructional Styles and Strategies

A. Developing a Philosophy

- 1) **Humanism**
- 4) **development of self-concept, positive interpersonal relationships**
- 5) **meet the unique needs of each student through individualized instruction, intrinsic motivation and personal responsibility is emphasized**
- 2) **Behaviorism**
- 6) **systematic, planned organization of the environment to achieve desired behavior response attainment of skills for self-sufficiency**
- 7) **minimize incorrect behavioral responses**

B. Developing a Teaching Style

- 1) **Command Style**
 - **most common style in Adapted PE**
 - **teacher control**
 - **effective for large group, one on one, or when group will do same skill at once**
- 2) **Task Style**
 - **series of tasks progressing to an instructional objective**
 - **students can go at their own pace and ability level**
 - **increased individual instruction**
 - **enhances success, maximizes equipment**
- 3) **Guided Discover Style**
 - **teacher-designed challenges to help students attain a specific goal**
 - **encourages creativity**
 - **improves self-concept**
 - **requires more pre-class preparation**
- 4) **Problem Solving Style**
 - **development of multiple solutions**
 - **wide allowances for individual differences**

- cognitive process and creativity
- lack of structure and absolute outcomes

C. Motor Learning

- 1) **Whole Method**
 - used for simple skills with few parts
 - running, catching, striking, jumping
- 2) **Part-Whole Method**
 - practice one part at a time before doing the whole skill
 - task analysis; breaking down complete task into parts that can be accomplished
 - chaining; each part of the sequence
- 3) **Progressive-Part Method**
 - parts are taught in a progressive manner

D. Facilitating Skill Development

- 1) **Task analysis; break down skills**
- 2) **Activity Analysis; how the activity contributes to the learning**
- 8) **domains**
- 3) **Modify activity to the extent necessary**

E. Instructional Models

“I CAN”

- ✓ **Individualize instruction,**
- ✓ **Create social leisure competence,**
- ✓ **Associate all learning,**
- ✓ **Narrow the gap between theory and practice,**
- ✓ **useful for developmental delay, including mental, learning and social-emotional disabilities**

“Achievement-Based Curriculum (ABC)”

- **plan, assess, prescribe, teach & evaluate**

“Data Based Gymnasium (DBG)”

- **Cue, behavior, and consequence**

Chapter 6 Behavior Management

A. Behavior Modification Techniques

- 1) Proactive rather than reactive
 - 2) Positive and negative reinforcements
 - 9) physical, verbal, visual, edible and active, primary (unconditioned) reinforcers stimuli necessary for survival
 - secondary (conditioned) reinforcers
 - > learned stimuli: money, grades, etc.
 - Premack principle - positive consequences for non-favored activities
 - Vicarious - learn by watching
 - 3) Procedures for increasing behavior
 - reinforcement for taking steps toward desired behavior:
 - Shaping
 - Fading reinforcers leads to independence
 - develop sequences of desired behavior: chaining (forward and backward)
 - model desired behavior
 - token economy - extrinsic rewards
 - contingency management - contract
 - 4) Procedures for decreasing behavior
 - positive reinforcements=more success
 - > reinforcing incompatible, low response rates and other behaviors
 - removing positive stimuli- response cost
- ✓ punishment, time out

B. Behavior Modification Program

- 1) Identify the behavior
 - must be observable and measurable
- 2) Establish baseline
 - natural observation to determine frequency, intensity, and duration

- 3) Choose the reinforcer**
- 4) Schedule the reinforcer**
 - ratio schedule > variable**
 - interval schedule > variable**
 - longer delayed reinforcers = less of an effective response**

C. Approaches

- 1) Psychodynamic - counseling and therapy**
- 2) Psychoeducational - aware of behavior**
- 3) Ecological - accommodating environments**
- 4) Psychoneurological - drug therapy for hyperactivity, distractibility, impulsiveness, and emotional liability**
- 5) Humanistic - communication & self-concept**

Behavior Management

Chapter 7

A. Behavior Modification

Definition: a systematic process in which the environment is arranged to facilitate skill acquisition and/or shape social behavior.

Techniques:

- ✓ **Proactive rather than reactive**
- ✓ **Reinforcers:**
 - primary (unconditioned) reinforcers, stimuli necessary for survival
 - Secondary (conditioned) reinforcers, learned stimuli such as money, grades, etc.
 - Premack Principle, positive consequences for non-favored activities
 - Vicarious principle, learn by watching
- ✓ **Schedule of Reinforcement**
 - continuous reinforcers
 - ratio schedule (interval and fixed)
- ✓ **Procedures for Increase a Behavior**
 - shaping, reinforcement for taking steps towards a desired behavior
 - fading, reinforcers leads to independence
 - chaining, forward and backward develop sequences of a desired behavior
 - modeling, observe a desired behavior
 - token economy – extrinsic rewards
 - contingency management – a form of contract
- ✓ **Procedures for decreasing a behavior**
 - reinforcing other behavior
 - reinforcing incompatible positive behavior
 - reinforcing low response behavior
 - punishment (remove positive stimuli)
 - response cost
 - time out

B. Behavior Modification Program

- ✓ **Identify the behavior – must be observable and measurable**
- ✓ **Establish baseline – natural observation to determine frequency, intensity, and duration of the behavior**
- ✓ **Chose the reinforcer(s)**
- ✓ **Schedule the reinforcers**
 - **ratio vs variable**
 - **interval vs variable**
 - **longer delayed reinforcers, less effective**

C. Approaches

- ✓ **Psychodynamic – counseling and therapy**
- ✓ **Psychoeducational – aware of the behavior**
- ✓ **Ecological – accommodating and fitting into the environment**
- ✓ **Psychoneurological – drug therapy for hyperactivity, distractibility, impulsiveness, and emotional instability.**
- ✓ **Humanistic – communication & self-concept**

D. Developmentally Appropriate Behavior Management

I. Direct guidance – the use of physical and verbal skills to influence proximity and physical skills to influence children

A. Physical Guidance – non verbal behavior, the use of physical proximity and physical skills to influence children.

Eye Contact:

- **meet children at eye level**
- **Use spontaneous eye contact**
- **Looks directly at children while talking and listening**

Body Posture:

- **Body language confirms verbal messages**
- **Smile appropriately**
- **Turn body to face children while talking and listening**
- **Initiate appropriate touches to make contact and to provide comfort**

Vocal quality:

- **Use calm and controlled voice**
- **Varies pitch, tone, rhythm, loudness**
- **Quiets voice to get attention**

Proximity:

- **Speak children from appropriate distance**
- **Make physical contact with children before speaking**

B. Verbal Guidance – The use of words to influence children

- **Tells children what to do rather than what to stop doing**
- **Uses summary statements linking causes and effects**
- **Uses short and meaningful sentences with the action part first**
- **Uses open-ended questions effectively to engage discussion**
- **Models courtesy and social conventions**
- **Gives understandable explanation for rules and limitations**
- **Gives limited choices when appropriate – avoids posing rhetorical questions**

C. Affective Guidance – The use of physical and verbal skills that influence children’s abilities to deal with their emotions or those of other people.

- **Uses “I-messages” to effectively to explain adult’s feelings**
- **Uses descriptive feedback to acknowledge children’s behavior**
- **Acknowledge children’s feelings with judgement**
- **Reinforces appropriate behaviors by praising behaviors and not person**
- **Reflects children’s feelings and help children to express their feelings with words**

II. Indirect Guidance – The management of space, materials, people in the environment to influence children towards appropriate autonomous behavior.

- ✓ **Completes preparations for daily program before children arrive**
- ✓ **Arranges furniture to maintain separate and sufficient play spaces**
- ✓ **Provides appropriate numbers of materials for each activity**
- ✓ **Arranges materials attractively to invite participation**
- ✓ **Maintain safe and clean environment**
- ✓ **Maintain attractive, positive, supportive, relaxing classroom atmosphere**

Chapter 8

Mental Retardation

A. Definition

- 1) intelligence test score below 70 - 75**
- 2) significant limitations must exist in at least 2 adaptive skill areas:**
 - communication**
 - self-care**
 - home living**
 - social skills**
 - community use**
 - self-direction**
 - health and safety**
 - functional academics**
 - leisure and work**
- 3) mental retardation manifests before age 18**

B. Classification

- 1) Intermittent - short- term needs**
- 2) Limited - support on a regular basis for a short period of time**
- 3) Extensive - ongoing involvement: not time-limited**
- 4) Pervasive - constant and intense; potentially life-sustaining support**

C. Causes

- 1) Biomedical - genetic disorders or nutrition**
 - X-linked disorders are the most prevalent**
- 2) Social - social and family interaction: stimulation and adult responsiveness**
- 3) Behavioral - potentially causal behaviors**
 - Fetal alcohol syndrome is the most known**

- 4) Educational - availability of educational supports that promote the development of mental and adaptive skills

D. Cognitive Development

- 1) **Piaget's cognitive theory of development**
 - sensorimotor stage (ages 0 to 2)
 - preoperational stage (ages 2 to 7)
 - concrete operations stage (ages 7 to 11)
 - formal operations stage (11 to adulthood)
 - see figure 7.2
- 2) **Piaget and play**
 - ludic behaviors - to amuse and excite
 - ritualization - display mastered activities
 - egocentric - no rule, individual

E. Characteristics

- 1) **Cognitive: the area most differentiated**
 - learning rate of mild cases = 40-70% the rate of nonretarded children
 - Severe cases = often incapable of traditional schooling
- 2) **Social-emotional**
 - difficulty generalizing information
 - difficulty learning from past experiences
 - personal acceptance & development of proper social relationships are critical to independence
- 3) **Physical and motor: area of least difference**
 - many are hypotonic and overweight or suffer other conditions

F. Down Syndrome

- 1) Cause
 - chromosomal abnormalities
 - most common is trisomy 21 - extra #21 chromosome
- 2) Characteristics
 - see page 100 for a list, and fig. 7.3
 - age more rapidly

G. Organization and Instruction Methods

ORGANIZATION:

- 1) Learning stations
- 2) Peer instruction/cross-age tutoring - opportunity for role modeling
- 3) Community-Based - "real" environment
- 4) Partial participation - modify tasks for participation in an integrated setting

INSTRUCTION:

- 1) Concrete & multisensory - cues, modeling, physical prompting accompany verbal
- 2) Data-based - charting progress; motivational
- 3) Task Analysis - breaking down skills
- 4) Behavior management - cueing, reinforcing and punishing is critical for success
- 5) Move from familiar to unfamiliar - gradual
- 6) Consistency and predictability - less flexible in accepting and adapting to new routines
- 7) Choice Making - control in activity program
- 8) Activity Modifications - enable integration

Chapter 9

Learning Disabilities and Attention Deficits

A. Learning Disability Definition:

- 1) a discrepancy between academic potential and achievement that is caused by a disorder in one or more of the basic psychological processes involved in understanding or in using language**
- 2) not caused by mental retardation, emotional disturbance, or environmental disadvantage**
- 3) Includes conditions such as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia**
- 4) Does not include learning problems resulting from visual, hearing, or motor handicaps**
- 5) when behaviors typify, persist, and interfere with learning, they need special attention**
- 6) *specific* learning disabilities include areas of reading, speaking, calculating, etc.**

B. Attention Deficit Disorder (ADD)

- 1) may have ADD without hyperactivity**
- 2) difficulty focusing on tasks and activities**
- 3) may result in significant underachievement**
- 4) often cause feelings of inadequacy**
- 5) there are no cures and it is not outgrown, although it may change over time**

C. Attention Deficit Hyperactive Disorder (ADHD)

- 1) high activity level, constant motion**
- 2) difficulty with transitions**
- 3) social immaturity**
- 4) aggressive behavior**
- 5) low self-esteem and high frustration**

D. Incidence

- 1) ratio of learning disabilities among boys to girls is at least 3:1

✓ Causes

- 1) Neurological factors - brain damage (FAS)
- 2) Genetic factors - higher rate if in family
- 3) Environmental factors - nutrition, toxins

F. Information Processing in LD/ADD/ADHD

- 1) Information processing includes four steps:
 - sensory input
 - decision making
 - output (doing actual behavior)
 - using feedback for the evaluation
 - see figure 8.1
- 2) A disruption in any step can affect the third step, behavior
- 3) Only with attention, concentration, perception, organization, and self-control can information processing go smoothly

G. Behavior Characteristics

- 1) Dyslexia - inability to see words as written
- 2) Difficulties with motor behavior
 - dynamic balance, fine motor skills
 - extraneous movements
 - perseveration - difficulty stopping movement once it is started
 - arrythmical patterns
 - motor planning - planning before executing movement
 - misapplied force, premature or delayed response, and inappropriate response
 - variability of performance

H. General Approaches

- 1) **Cognitive behavior modification**
 - the way students think guides behavior
- 2) **Applied behavioral analysis**
 - identify behavior, obtain baseline data, analyze error patterns, apply interventions, and stop interventions when criteria is reached
- 3) **Multifaceted: eclectic approach**
 - behavior management
 - family and individual counseling
 - cognitive therapy
 - numerous school interventions
 - medical intervention
 - parent education
 - physical activity

I. Affective Teaching

- 1) **Focusing and maintaining attention**
 - highly structured and consistent
 - clarify expectations: instructional objectives should be shared
 - add novelty to tasks
 - verbal mediation - say steps to a plan out loud so to encourage motor planning
- 2) **Select appropriate curricula**
 - teach to enhance self-efficacy & concept
 - review previous skills before advancing
 - minimize highly competitive games
- 3) **Teach socialization and cooperation**
 - cooperative learning: teamwork
- 4) **Get support systems**
 - peer tutors: individualized instruction
 - work collaboratively with others
- 5) **Teachers must:**
 - be flexible, committed and willing to work on a personal level
 - respect students and avoid humiliation
 - cultivate administrative support

Chapter 10 Behavioral Disorders

A. Serious emotional disturbance

Definition:

Displaying one or more of the following characteristics over a long period of time and to a degree that adversely affects a child's educational performance

- inability to learn that cannot be explained by intellectual, sensory, or health factors
- cannot build or maintain interpersonal relationships with teachers or peers
- inappropriate types of behavior
- general pervasive mood of unhappiness
- a tendency to develop physical symptoms or fears associated with personal or school problems

B. Behavioral disabilities in public school settings

- 1) conduct disorder - attention seeking
- 2) socialized aggression - stealing, disrespect
- 3) attention problems-immaturity
- 4) anxiety-withdrawal - contrast to conduct disorders: involves depression, hypersensitivity, general fearfulness, and anxiety
- 5) psychotic behavior - saying things repeatedly and expressing farfetched ideas
- 6) motor excess - restlessness; can't relax

C. Causes

- biological factors - brain damage/dysfunction, nutritional deficiencies
 - family factors - broken homes, abuse, absence of mother or father, divorce, etc.
- j) 2 or more factors = increased probability of behavior disorders developing

- ✓ **school factors** - significant socializing factor
- ✓ **cultural factors** - social class, ethnicity, peer groups, urbanization and neighborhood

D. Approaches and Effective Communication

- 1) **Psychodynamic** - counseling & therapy
- 2) **Psychoeducational** - awareness of feelings
- 3) **Ecological** - changing environment to accommodate the individual
- 4) **Psychoneurological** - drug therapy
- 5) **Behavioral** - cognitive-behavior modification
- 6) **Active listening**
 - attending: eye contact, lean forward
 - listening: decoding information
 - responding: send back results of decoding
- 7) **Verbal mediation**
 - verbalizing association between their behavior and the consequences of it
- 8) **Conflict resolution**
 - make an assertive, confrontive statement
 - be aware of common reactions to confrontation
 - learn to deal effectively with reactions

E. Physical Education & Sports

- 1) exercise programs help decrease disruptive behavior - even 10 or 15 minutes of jogging daily produces significant reductions of unwanted behavior or relaxation will help reduce hyperactivity
- 2) physical education improves motor performance which in turn improves:
 - attention deficits, poor work habits
 - impulsivity, hyperactivity
 - feelings of inadequacy & aggressive behavior

F. Instructional Consideration:

To Mild Behavior Disabilities (Hellison's Approach)

- ✓ Awareness of the program's purpose
- ✓ Experience – cooperative games help facilitate learning of everyone
- ✓ Problem solving – discussion of what constitutes self control, it encourages students to think about the consequences and gives them opportunities to evaluate program
- ✓ Self-reflection – at end of every class student are given time to reflect on what have occurred and related to it
- ✓ Counseling time – discussion about specific problems, things that the teacher has observed, and general impressions of the program

To Sever Behavior Disabilities (John Dunn's Approach)

- 1) Self-indulgent – crying, screaming, temper tantruming, repetitive/irritating activities and noise. Instruction - ignore them until the behavior stops
- 5) Non-compliant – students say no when asked to do a task or fail to do what supposed to do. Instruction – lead student physically through the task
- 6) Aggressive behavior – hitting, fighting, pinching, biting, pushing, deliberately destroying someone's property. Instruction – verbal reprimand and remove them from activity
- 7) Self-stimulatory behavior – head banging, hand flapping, body rocking, and eye gouging. Instruction – formal behavior modification approach

✓ **Autism**

Definition: a developmental disability significantly affecting verbal and nonverbal communication and social interaction, generally evident before age , that adversely affects a child's educational performance.

Characteristics:

- 1) disturbances in the rate of appearance of physical, social, and language skills.
- 2) engagement in repetitive activities
- 3) resistant to environmental change
- 4) unusual responses to sensory experiences
- 5) it is the most severe form of pervasive developmental disorders
- 6) speech and language are absent or delayed

- 7) abnormal ways of relating to people, objects, and events
- ✓ **Motor clumsiness**
 - ✓ **Poor fine motor skills**
 - ✓ **Being mute to verbal**
 - ✓ **No affective response, resisting physical contact or clinging**
 - ✓ **Fail to respond or over respond**
 - ✓ **Having severe deficiency or possessing detailed knowledge in an area**

Instructing Children with Autism

- ✓ **Intensive behavior modification program**
- ✓ **Establish class routine with careful transition strategies**
- ✓ **Highly structured educational settings with predictable routines**
- ✓ **Consistence with use of term, equipment, and class organization**
- ✓ **Redirect inappropriate behavior**
- ✓ **Simplify tasks that cause of frustration**
- ✓ **Less stimulatory teaching environment**
- ✓ **Encourage student to communicate rather than act out**
- ✓ **Use skill analysis to teach basic motor components**
- ✓ **Teach functional skills to older students**
- ✓ **Frequent vigorous aerobic exercise**
- ✓ **Ascertain their primary sensory modality and tailor presentation to it**

Chapter 11

Visual Impairments and Hearing Losses

Visual Impairments:

A. Definition

- 1) partially sighted or blind
- 2) visual impairment adversely affects a child's educational performance

B. Classification

- 1) Partial sight – large print with/without magnification
- 10) 2) Blind – inability to read large print even with magnification
- k) Legal blindness – visual acuity of 20/200, less than 20 degree field vision
- l) Travel vision – 5-10/200
- m) Motion perception – 3-5/200, can't detect movement
- n) Light perception – less than 3/200, can't detect light
- o) Total blindness – can't recognize strong light into the eyes

C. Causes

- 1) most cases result from the effects of aging
- 2) congenital - before or at birth
- 3) adventitious - in childhood or later
- 4) disorders of the retina
 - retinitis pigmentosa: an inherited, progressive disease leading to tunnel vision & night blindness
 - retinal detachment: the separation of the layers of the retina
 - retinal vascular diseases: associated with sickle-cell anemia
 - also damaged by injury, drugs or poisons
- 5) Other disorders:
 - cataracts: an opaque instead of clear lens

- **Uveitis: inflammation of the uveal tract**
- **glaucoma: pressure from intraocular fluid build up - inability for eye to drain**
- **hyperopia (farsighted), myopia (nearsighted)**
- **retinopathy of prematurity: a form of blindness that can occur in infants before their eyes are fully formed**

C. Characteristics

- 1) **delays in perception and cognitive development**
- 2) **stereotypic behaviors - provide stimulation**
- 3) **common social behaviors: expressionless faces, seemingly insensitive because unable to respond to nonverbal cues, and may appear very talkative**
- 4) **physical developmental delays due to motor passivity and stereotypic behaviors**

D. Approaches to Teaching

- 1) **assess the student's current abilities**
- 2) **foster the student's independence**
- 3) **teach to the student's abilities: modify activities**
- 4) **develop support systems**

E. Teaching the Deaf-Blind

- 1) **most are hard-of-hearing and partially sighted**
 - **very rare to be like Helen Keller**
- 2) **provide opportunities for exploration, modeling, and immediate feedback**

F. Sports for the Visually Impaired

- 1) **USABA (United States Association for Blind Athletes) says, “If I can do this, I can do anything”**
goal ball, gymnastics, wrestling, track and field, swimming, tandem cycling, judo, skiing, weight lifting, road racing and archery
- 2) **Goal Ball - a sport unique to blind athletes**
- 3) **National Beep Baseball Association (NBBA)**

Hearing Losses:

A. Definition

- 1) **hearing is insufficient for comprehension of auditory information, with or without the use of a hearing aid.**
- 2) **hard-of-hearing refers to a hearing loss that makes understanding speech difficult but not impossible**

B. Causes

- 1) **conductive: sound is not transmitted to the inner ear. Can be corrected because nerves are undamaged**
- 2) **sensory-neural: affect fidelity as well as loudness**
- 3) **mixed loss: a combination of the two above**

C. Characteristics

- 1) **American Sign Language - shared identity and deaf culture**
- 2) **language delays**
- 3) **learning to read English is like a foreign language**
- deaf high school grad = hearing 9-10 yr old
- 4) **trouble with balancing because of vestibular damage. These cause motor delays.**

D. Approaches to Teaching

- 1) enhance communication: learn sign language**
- 2) promote social interaction**
 - incidental learning through listening is not available for deaf children. Teach neighborhood games to promote inclusion.**
- 3) employ specialized curricular, teaching strategies**

E. Deaf Sport

- 1) facilitates social identification**
- 2) includes sports such as skiing, hockey, speed skating, badminton, basketball, cycling, wrestling, shooting, soccer, swimming, tennis, handball, water polo, and volleyball.**

Chapter 12

Cerebral Palsy, Traumatic Brain Injury, Stroke, Amputations, Dwarfism, and Other Orthopedic Impairments

Cerebral Palsy:

A. Definition

- 1) a group of permanent disabling symptoms resulting from damage to the motor control areas of the brain.
- 2) a nonprogressive condition
- 3) may originate before, during, or after birth
- 4) manifests itself in a loss or impairment of control over voluntary musculature
- 5) severe = total inability to control bodily movements
- 6) mild = only a slight speech impairment
- 7) damage is usually not isolated in the brain. Other symptoms include:
 - mental retardation
 - seizures
 - speech and language disorders
 - sensory impairments

B. Classifications

- 1) Topographical - based on body segments
 - monoplegia: any one body part involved
 - diplegia: major or minor involvement of both upper limbs
 - hemiplegia: one complete side of the body
 - paraplegia: both lower limbs only
 - triplegia: any three limbs (very rare)
 - quadriplegia: total body involvement

- 2) Neuromotor
- 11) **spasticity: hyperactivity stretch reflex. Results from damage to motor areas of the cerebrum. Mental retardation, seizures, and perceptual disorders are more common in spasticity than in any other type of CP**
 - 12) **athetosis: results from damage to the basal ganglia (masses of grey matter made of up neurons deep within the cerebral hemispheres of the brain) which causes an overflow of motor impulses to the muscles. Slow, writhing movements that are uncoordinated and involuntary.**
 - 13) **ataxia: damage to the cerebellum, which normally regulates balance and muscle coordination. Wide-based gait is apparent.**
 - 14) **tremor: damage to the basal ganglia causes involuntary rhythmic movement. Will have better success with gross rather than fine movements.**
 - 15) **rigidity: diffuse damage to the brain, not damage to any specific area. A severe form of spasticity in which the stretch reflex is weak or absent. Severe mental retardation is common.**
 - 16) **mixed: when an individual possesses two or more of the above conditions in equal degrees, a rare mixed condition exists.**
- 3) Functional - individuals are categorized according to ability levels which has important implications for physical education and sport

Traumatic Brain Injury:

- 1) an insult to the brain that may produce a diminished or altered state of consciousness and that results in impairments or physical, cognitive, social, behavioral, and emotional functioning.
 - lack of coordination
 - planning and sequencing movements
 - muscle spasticity
 - headaches
 - speech disorders
 - paralysis and seizures
 - a variety of sensory impairments
- 2) classifications:
 - Open - may result from an accident, gunshot wound, or blow to the head by an object, resulting in a visible injury.
 - Closed - may be caused by severe shaking, lack of oxygen (anoxia), or cranial hemorrhages.
- 3) rehabilitation approaches
 - Focus on cognitive skills, speech therapy, activities of daily living (ADL), the relearning of social skills, etc.

Stroke:

- 1) brain tissue damage caused by faulty blood circulation.
- 2) causes:
 - hemorrhage - artery loses elasticity and ruptures, causing blood to flow into and around brain tissue
 - ischemia - lack of blood to brain tissue because of a blocked artery

Amputations:

- 1) refers to the loss of an entire limb or a specific limb segment
- 2) classified as:
 - **acquired:** results from disease, tumor, or trauma
 - **congenital:** results from failure of the fetus to properly develop during the first 3 months of gestation.

3) prosthetic device: compensates for functional loss of the limb as much as possible

Chapter 13

Amputations, Dwarfism, And Other Orthopedic Impairments

Dwarfism:

- 1) a person of short stature: five feet or less
- 2) causes:
 - failure of cartilage to form into bone = disproportionate dwarfism (a faulty gene)
 - pituitary irregularity (regulates growth) = proportionate dwarfism
- 3) besides their height, people with dwarfism are considered normal

Les Autres:

- 1) Muscular Dystrophy
 - muscle cells within the belly of the muscles degenerate and are replaced by adipose and connective tissue
 - secondary complications of muscle weakness predispose to respiratory & heart problems
 - muscular strength & endurance activities on a regular basis serve to counteract muscular atrophy
- 2) Juvenile Rheumatoid Arthritis
 - cause unknown: affects joint movement
 - joints should be exercised through full ROM and strength/endurance prevents muscle atrophy
- 3) Osteogenesis Imperfecta
 - inherited: bones are imperfectly formed
 - brittle bone disease
- 4) Arthrogryposis
 - multiple congenital contractures
 - stiff joints and weak muscles
- 5) Multiple Sclerosis
 - myelin sheath is destroyed and replaced by scar tissue
 - may result in total incapacitation

General Guidelines for Physical Education Programs:

- 1) all people with CP, TBI, stroke, amputations, dwarfism, or Les Autres conditions can benefit from physical education and sport**
- 2) Guidelines:**
 - safety: freedom to explore body movement without risk**
 - physical fitness: reduced fitness is common. Assess than design program**
 - motor development: process more than product: go back to the basics**
 - psychosocial development: increase self- confidence, motivational levels, and body image**
 - integrate sports into the program**

Chapter 14

Spinal Cord Disabilities

A. Definition

- 1) conditions resulting from injury or disease to the vertebrae and/or the nerves of the spinal column**
- 2) usually causes some degree of paralysis from damage to the spinal cord**
- 3) the actual impact is best understood in terms of:**
 - what muscles can still be used**
 - how strong these muscles are**
 - what can functionally be done, such as self-help skills, movement, vocational and physical education skills**

B. Conditions

- 1) Traumatic Quadriplegia and Paraplegia**
 - loss of movement and sensation**
 - Quad: four limbs, Para: lower limbs**
 - functional abilities depend on complete or partial neural damage to the spinal cord**
 - treatment: hospitalization, rehab and return to the home environment**
- 2) Poliomyelitis (polio)**
 - caused by a viral infection affecting motor cells in the spinal cord**
 - Salk vaccine: polio more rare in children now**
- 3) Spina Bifida**
 - congenital birth defect: neural tube fails to close completely in first 4 weeks of fetal life**
 - results in openings in the spinal column**
 - Three types: see figure 12.3 and 12.4**

4) Spondylolysis and Spondylolisthesis

- **spondylolysis: a congenital malformation of the neural arches of the 4 or 5 lumbar vertebra (5th is more common)**
- **spondylolisthesis: 5th lumbar vertebra slides forward. Can be congenital or result from trauma to the back.**
- **training and awareness of proper posture**

C. Implications for Physical Education

- 1) Assessment is the key to addressing needs**
- 2) Appropriate instruction for each individual**
- 3) Focus on flexibility and strength/endurance**
- 4) Do not create muscle imbalances**
- 5) Posture, body mechanics and weight control should also be concentrated on**
- 6) Involve in sports that promote physical fitness**

D. Orthotic Devices

- 1) orthoses - a variety of splints and braces to provide support, improve positioning, correct or prevent deformities, & reduce/alleviate pain.**
- 2) canes and walkers - assistive for ambulation**

Chapter 15

Other Health Impaired Students

A. Diabetes Mellitus

1) Definition

- a chronic disease
- insufficient insulin and disturbances of carbohydrate, protein, and fat metabolism

2) Approximately 11 million people are affected

- 10% of those are school-aged children
- will probably encounter such children in PE

3) Types

- Insulin-dependent (IDDM): juvenile diabetes
- non-insulin-dependent (NIDDM): maturity onset

4) Be aware of the symptoms and signs

- must keep exercise, insulin usage, and diet constant

B. Seizure Disorders

1) Definition

- erratic electrochemical brain discharges which cause seizure, convulsive and/or epilepsy disorders

2) Types

- partial: purposeless behavior, glassy stare, strange speech, and confusion
- generalized:
 - a. absence: brief change in consciousness
 - b. generalized tonic-clonic: most common. loss of consciousness, quivering and jerking, wild thrashing, heavy breathing and foaming at the mouth
- unclassified

3) All activities, including contact sports, are okay

- seizures must be controlled
- activities must be supervised

C. Asthma

1) Definition

- **an inflammatory condition making breathing difficult**
- **spasm of the muscular layer in the bronchial walls**
- **swollen mucous membranes**
- **mucous secretions in the airways**

2) 35 millions Americans are affected: about 50% of all cases begin under the age of 10

3) Causes:

- **allergic reactions: extrinsic asthma**
- **wheezing, shortness of breath, coughing to breathlessness, coloration of lips: dichotomy of causes**
- **80% of asthmatics experience *exercise-induced asthma* or *exercise-induced bronchospasm***

4) Physical education approaches

- **should engage in activity 4 or 5 times a week**
- **gradually increase intensity levels**
- **short-burst (anaerobic) is best**

D. Cancer

1) Definition

- **cancer cells differ in size and multiply more rapidly than normal cells**
- **rapid growth may spread to other locations**

2) Physical education approaches

- **exercise is very beneficial**
- **needs must be dealt with individually**
- **psychological well-being is important as well**
- **being mainstreamed may help self-image**

Chapter 16

Nondisabled Students and Adapted Physical Education

A. Activity Injuries

- 1) Most injuries occur during recreational time
- 2) steps for injury care:
 - Rest
 - Ice (20-minute interval)
 - Compression
 - Elevation
- 3) Common injuries
 - ankle: 85% of sprains are inversion but eversion is more serious
 - knee: medial collateral ligament is common
 - shoulder: many possible injuries due to its many joints

B. Long-Term Disorders

- 1) Fractures
 - Challenges: developing a program for someone in a cast and providing assistance to integrate the student after cast is removed
- 2) Osgood-Schlatter's Condition
 - not a disease
 - incomplete separation of the epiphysis of the tibial tubercle from the tibia
 - mostly affects boys ages 13 to 15
 - treatment varies from immobilization in a cast to restriction of explosive extension movements at the knee, such as jumping and kicking.
 - 60-75% of all cases are unilateral
- 3) Weight Control Problems
 - underweight -
 - a. anorexia nervosa - preoccupation with being thin that is manifested in willful self-starvation often accompanied by excessive exercise
 - * 90% of all cases are girls, ages 12 to 19

- * mortality rate ranges from 5-15%
 - b. bulimia - obsessive eating habits with ritualistic purging of ingested food by means of self-induced vomiting or laxatives**
 - * leads to impaired liver & kidney function
 - * also causes stomach rupture, tooth decay and esophagitis
 - c. low self-esteem, guilt & anxiety are causes**
 - d. have profile of being compliant high achievers**
- overweight -**
- a. 10% over appropriate weight**
 - b. obesity is 20% over appropriate weight**
 - c. 1 out of 4 children are overweight**
 - d. 10% of cases are caused by an endocrine disorder (hypothalamic, pituitary, and thyroid dysfunctions)**
 - e. emotional factors result**
 - f. females more likely than males to be obese**
 - g. physical education for the obese student:**
 - * must diet and exercise to lose weight
 - * distended abdomen, skeletal immaturity, fat rolls, edema, perspiration, fear of falling and postural faults will all affect program planning
 - * provide successful experiences through fast walking, bicycle riding, and swimming activities that reduce stress on joints

Chapter 17

Motor Development

A. Definition

- 1) **progressive change in movement behavior throughout the life cycle**
- 2) **studied as a process and product**
- 3) **a dynamic, "continuous-discontinuous" process which is nonlinear**

B. Categories of Movement

- 1) **stability - gaining and maintaining equilibrium in relation to the force of gravity**
 - **twist, bend, sit, stand on one foot, etc.**
- 2) **locomotion - change in location of the body**
 - **run, skip, jump, hop, leap, walk, etc.**
- 3) **manipulation - gross and fine motor skills**
 - **kicking, catching, striking, throwing, etc.**

C. The Phases of Motor Development

- 1) **Reflexive - involuntary movements**
 - **primitive: nourishment/protection/info seeking**
 - **postural: resemble later voluntary movements**
 - **Two stages:**
 1. **information encoding (gathering) stage**
 2. **information decoding (processing) stage**
 - **see tables 16.1 and 16.2**
- 2) **Rudimentary - voluntary movement**
 - **heavily influenced by heredity**
 - **birth to age 2**
 - **see table 16.4**
 - **Two stages**
 1. **reflex inhibition**

- 2. precontrol stage (more control at 1 yr)
- 3) **Fundamental Movement**
 - Three stages:
 - 1. initial - first attempts at a skill
 - 2. elementary - greater control
 - 3. mature - efficient and coordinated; this stage is usually reached by ages 5 or 6
- 4) **Specialized Movement**
 - Three stages:
 - 1. transitional - 7 or 8 yrs old.
 - p) Combine and apply fundamental skills in sport & recreational settings
 - 2. application - 10 to 13 yrs old.
 - Increased cognitive sophistication and more experience enables more learning & participation decisions
- 5) **lifelong utilization - 13 to adulthood.**
 - Use of acquired movement repertoire throughout life

D. Principles of Motor Development

- 1) **Developmental Direction**
 - head to feet (cephalocaudal)
 - center of body to periphery (proximodistal)
- 2) **Rate of Growth and Development**
 - follows a characteristic pattern
 - universal for all
 - resistant to external influence
- 3) **Differentiation and Integration**
 - gross to refined movement patterns
 - coordinate opposing muscle and sensory systems with each other
- 4) **Developmental Variability and Readiness**
 - each person's development is unique
 - conditions within the task, the individual, and the environment contribute to readiness
- 5) **Critical and Sensitive Learning Periods**
 - similar to readiness
 - when a person is more sensitive to certain kinds of stimulation
- 6) **Phylogeny and Ontogeny**

- **phylogenetic** - abilities that appear automatically in a sequential manner
- **ontogenetic** - abilities depending on learning and environmental opportunities

Chapter 18

Perceptual-Motor Development

A. Definition

- 1) the ability to receive, transmit, organize, integrate, and attach meaning to sensory information and to formulate appropriate responses
- 2) perception - the monitoring and interpretation of sensory data resulting from the interaction between sensory and CNS processes
- 3) all movement in physical education

B. Perceptual-Motor Process

- 1) sensory input
- 2) sensory integration
- 3) motor/behavioral output and feedback

C. Perceptual-Motor Deficits

- 1) a breakdown at any of the processes may result in any of the following:
 - poor spatial orientation
 - poor body awareness
 - immature body image
 - clumsiness or awkwardness
 - coordination deficits
 - poor balance

D. Visual Perceptual-Motor Development

- 1) figure-ground perception - ability to distinguish a figure from its background and give meaning to the forms
- 2) spatial relationships - locating objects in relation to oneself (egocentric localization)
- 3) visual perceptual constancy - ability to recognize objects despite variations in their presentation
- 4) visual-motor coordination - coordinate vision with body movements

E. Auditory Perceptual-Motor Development

- 1) **figure-ground perception** - ability to distinguish relevant auditory stimuli against a background of general auditory stimuli
- 2) **auditory discrimination** - distinguishing different frequencies, qualities, and amplitudes of sound
- 3) **sound localization** - ability to determine the source or direction of sounds in the environment
- 4) **temporal auditory perception** - ability to recognize and discriminate among variations of auditory stimuli presented in time
- 5) **auditory-motor coordination** - coordinate auditory stimuli with body movements

F. Proprioception

- those perceptual motor abilities that respond to stimuli arising within the organism

- 1) **kinesthetic perception** - the awareness and memory of movement and position
- 2) **body awareness** - includes all the following:
 - *body schema*: helps the individual know where the body ends and external space begins
 - *body image*: feelings about one's own body
 - *body concept*: the verbalized knowledge one has about one's body
- 3) **laterality** - internal awareness of the sides of the body and their differences
- 4) **verticality** - internal awareness of up & down
- 5) **balance** - the vestibular apparatus provides the individual with information about the body's relationship to gravitational pull and thus serves as the basis for balance

G. Tactual Perception

- 1) the ability to interpret sensations from the cutaneous surfaces of the body.
- 2) **externally related**: responds to touch, feel, and manipulation

Chapter 19 and 20

Infants, Toddlers, and Preschoolers

Public Laws

- 1)PL 94-142 as an impetus**
- 2)PL 99-457 amendment to PL 94-142, extent services to Preschoolers**
- 3)PL 101-476 IDEA comprehensive one**

- 4)Systematic Intervention for disabled children (3-5), early intervention program**
- 5)The bill authorizes funding for the children who are at risk and established risk**

**Multidisciplinary process
(Interdisciplinary and transdisciplinary approaches)**

Individualized Family Service Plan (IFSP)

Meaningful Curriculum Framework

Assessment
Goals and Objectives
Select Activities
(motor behavior taxonomy, play and functional based)
Teaching
Monitoring
Implementing

Program Planning Recommendations

- 1) **teach the *whole* child**
developmental domains include: motor, cognitive, and communication skills should be functionally based - immediate usefulness for the child- see table 19.1
- 3) **teach skill in the context of common activity**
activity-based instruction (ABI)
- 4) **select appropriate activities and modify**
- see table 19.2
- 9) **exploration for achieving tasks must take place: there is no right or wrong way**
- 6) **vary task difficulty for individuals**
- 7) **promote social interaction with peers**
 - a) **prompt initial social contact with peers**
- provide positive reinforcement
- 8) **structure activities for required social interaction: perform activities in pairs**
- 9) **prompt/reinforce normal children to interact with disabled children**

Chapter 21 Physical Fitness

A. Definition and Components

- 1) physical state of well-being ability to perform daily activities with vigor
- 2) reduced risk of health problems related to lack of exercise
- 3) establish a fitness base for participation in a variety of physical activities
- 4) physical fitness components:
 - body composition (degree of fat vs. lean)
 - muscular strength and endurance
 - * strength: high intensity, short time
 - * endurance: moderate intensity, long time (such as sit-ups)
 - flexibility (ability of full range of motion)
 - aerobic capacity (the highest rate oxygen can be taken up & utilized in exercise)
- 5) development of skill-related components

B. Principles for Development

- 1) Frequency - "how often:" number of times per week to exercise
- 2) Intensity - "how much:" degree of effort
- 3) Time (duration) - "how long:" length of time
- 4) Type (mode) - "what kind:" describes exercise

F I T T !!!

C. Personalizing Physical Fitness

- 1) Fitness objectives are based on:
 - present level of fitness
 - functional motor abilities
 - physical maturity
 - age
 - nature of the disability
 - student interests and/or activity preferences
 - availability of equipment and facilities
- 2) Things for the teacher to decide:

- the highest priority needs
- which components should be targeted
- what areas of the body to be trained
- which tests to use in measuring physical fitness and which standards will be used to evaluate the outcome

D. Physical Fitness for Unique Needs

- 1) limited intensity followed by gradual progression
- 2) rating of perceived exertion (RPE) - a useful alternative to monitoring intensity via heart rate
 - 220-age isn't always accurate
 - may not be able to monitor pulse
- 3) modify methodology to achieve results

BODY COMPOSITION AND AEROBIC CAPACITY:

- * sedentary lifestyles cause a need for increased aerobic capacity
- * many have higher percent fat and reduced cardiac output and oxygen consumption
- * continuous aerobic training program:
 - wheelchair training
 - swimming
 - bicycling activities
 - "mat activities" - pull body along a mat

MUSCULAR STRENGTH AND ENDURANCE:

- * active exercise - independently work muscle through range of motion with gravity pulling
- * assistive exercise - help through R.O.M.
- * passive exercise - not recommended because no muscle action is involved

FLEXIBILITY

- * for severe restrictions:
 - at least 3 times per day
 - 30 - 45 minutes per session
- * PNF techniques serve as a basis for training
 - rhythmic stabilization
 - contract - relax
 - hold - relax

Health Related Physical Fitness Test Items for Physical and Mental Disabilities (Brockport Test)

Aerobic Functioning

- 1) 20 meter pacer or 16 meter pacer for 10-12**
- 2) Target Aerobic Movement Test (15 min, 70-85% of MHT)**
- 3) One Mile Run/Walk**

Body Composition

- 4) Skin Fold (triceps, subscapular, and calf)**
- 5) Body Mass Index (height and weight appropriateness)**

Muscular Strength and Endurance

- a) Bench Press**
- b) Curl-Up**
- c) Modified Curl-Up**
- d) Dumbbell Press**
- e) Flexed Arm Hang**
- f) Dominant Grip Strength**
- g) Isometric Push-up**
- h) Push-up**
- i) Seated Push-up**
- j) Pull-up**
- k) Modified Pull-up**
- l) 40 meter Push/Walk**
- m) Reverse Curl**
- n) Trunk Lift**
- o) Wheelchair Ramp Test**

Flexibility/Range of Motion

- Modified Apley Test (opposite scapular, top of head, mouth)**
- Back-Saver Sit and Reach**
- Shoulder Stretch**
- Modified Thomas Test**
 - Target Stretch Test (Elbow, shoulder extension/abduction/external rotation, forearm supination, forearm pronation, Knee extension)**

Midterm Review Questions

1. Describe and discuss the P.L. 94-142 of 1975 and its contributions to development of special education and adapted physical education (ch 1).
2. Discuss the doctrine of the least restrictive environment and list five functional adaptations that will permit disabled students to immediately participate in age-appropriate activities selected to enhance specific skills (ch. 1).
3. List and then describe all components of IEP plan, identify members of IEP committee, and describe the roles of each member plays (ch. 3).
4. Compare the advantages and disadvantages between norm-referenced test and criterion-referenced test and give an example of each test which is used and/or applied in the field of APE (ch 4).
5. Illustrate information process model and utilize the model to explain how a perceptual-motor deficit occurs.(Ch. 8).
6. List one goal and four short-term objectives and make sure that the objectives are sequentially arranged for the completion of the goals for a child with MR (ch. 3).
7. Illustrate the continuum of the least restrictive physical education environment and identify an appropriate placement for a blind child in the continuum (ch. 1).
8. Illustrate adapted physical education skeletal curricular framework for the individuals with disabilities (ch. 2 and lecture).
9. Distinguish between skill, task, and activity analysis and give an example of each (lecture). Make sure to answer why is important for an adapted physical educator possess the tool.
10. Illustrate and/or describe contributing factors in managing an adapted physical education class and list at least five techniques to eliminate disruptive behavior (ch. 5 & lecture).
11. Define Mental Retardation (MR) and compare the major differences between IQ classification and new classification. Discuss the implications in teaching physical education (ch 7).
12. Define Learning Disability (LD) and List the characteristics of a child with ADHD (ch. 8).
13. Define Emotional Disability (ED) and discuss the classification based on John Dune's Rule of Thumb and the instructional approaches to manage the individuals with ED (ch. 9).
14. Define legally blind and discuss classification of visually impairment and List five instructional strategies of teaching children with VI (ch. 10).
15. Define Auditory Impairment (AI) and discuss its classification and methods of communication. List five instructional approaches of teaching the students with AI (ch. 10).
16. Describe all factors and teaching effectiveness principles that enable you to become an effective adapted physical education specialist.

Final Review Questions

- ✓ Discuss the key concepts of P.L. 94-142 of 1975 and IDEA of 1990 and how they have contributed to development of special education and adapted physical education (ch 1).
- ✓ Discuss the contents of Adapted Physical Education in terms of what we teach ideally in public school (ch. 2 and lecture).
- ✓ List and then describe all components of IEP plan and identify members of IEP committee (ch. 3).
- ✓ List one goal and four short-term objectives and make sure that the objectives are sequentially arranged for the completion of the goals for a child with MD (ch.3)
- ✓ Describe TGMD and discuss how it can be used for norm-referenced test and criterion-referenced test (ch 4).
- ✓ Illustrate and/or describe contributing factors in managing an adapted physical education class and list at least five techniques to eliminate disruptive behavior (ch. 5 & lecture).
- ✓ Define teaching effectiveness and list 10 quality factors that enable one to become an effective adapted physical education specialist (Ch. 6 and lecture).
- ✓ Define Mental Retardation (MR) and compare the major differences between IQ classification and new classification. Discuss the implications in teaching physical education (ch 7).
- ✓ Define Learning Disability (LD) and List the characteristics of a child with ADHD (ch. 8).
- ✓ Define Emotional Disability (ED) and discuss the classification based on John Dune's Rule of Thumb and the instructional approaches to manage the individuals with ED (ch. 9).
- ✓ Define legally blind and discuss the classification of visually impairment and illustrate/discuss the causes of it. List five instructional strategies of teaching children with VI (ch. 10) or Define Auditory Impairment (AI) and discuss its classification and methods of communication. List five instructional approaches of teaching the students with AI (ch. 10).
- ✓ Define Cerebral Palsy (CP) and discuss one of three classifications, topographical, neuro-motor, and functional classifications and its application to teach physical education(ch. 11).
- ✓ Discuss the causes of plegia and paralysis of spinal cord injuries, its characteristics, and the terms, "catherterization", "shunt", and "orthoses" (ch. 12).
- ✓ Define diabetes mellitus identify its clinical Symptoms and its classifications, and discuss three factors to manage diabetes (ch. 13).
- ✓ Discuss why we have to offer non-disabled students in a specially designed class such as Adapted Physical Education (Ch. 14).
- ✓ Identify five ways to implement a fitness program for an individual with disability (Ch. 15).
- ✓ Discuss Dave Gallahue's "Dynamic Theory" model and explain how it relates to learning for students with disabilities (Ch16).

- ✓ Illustrate information process model and utilize the model to explain how a perceptual-motor deficit occurs.(Ch. 17).
- 8) Illustrate the meaning curriculum framework for infants and toddlers at risk and briefly explain the framework (ch. 18).
- 9) List 10 typical activities for preschool-aged children and make modification for each activity to accommodate children with wheelchair bound (ch. 19).
- 10) Distinguish between skill, task, and activity analysis and give an example of each (lecture). Make sure to answer why is important for an adapted physical educator posses the tool.
- 11) Summarize the key points of Adapted Physical Education National Standard and identify at least its five standards out of 15 standard knowledge areas for a qualified APE specialist (presentation).
- 12) List five National Sports Organizations for individual with disabilities and select one organization to describe its structure, goals, services, and activities.
- 13) What have you learned in this class in respects of personal attitude towards individuals with disabilities, factual information on the disables, and field experiences with school age children who have special needs.

Adapted Physical Education Practicum
Turlock School District
 (Corine Meyer & Lisa Avrelt)
SAMPLE

School	Date	Time	No	Student(s)
Turlock H.S.	Mon	8-9am	2	(2)
Turlock H.S.	Tue	8-9am	2	(2) Brian Turner
Turlock H.S.	Wed	8-9am	2	(2)
Turlock H.S.	Thu	8-9am	2	(2)
Turlock H.S.	Fri	8-9am	2	(2)
Dutcher	Fri	9:30-10:15		(2)
Earl	Tue	2:00-2:30		(2) Greg Davis
Earl	Fri	2:00-2:30		(2)
Crowell	Tue	11:15-12:00		(2) Off Track
Crowell	Tue	12:50-1:30		(2) 10/3
Crowell	Thu	11:15-12:00		(2) to
Crowell	Thu	12:50-1:30		(2) 10/29
Osborn	Tue	1:00-1:30		(3)
Osborn	Fri	1:00-1:30		(3) Jennifer, Petra, Mike, Bridgette
Julien	Mon	9:15-9:45		(2)
Julien	Thu	9:15-9:45		(2) Tim Wilkinson
Cunningham	Tue	10:45-11:30		(2)
Cunningham	Fri	10:45-11:30		(2) Josh Huizer, Jason I.
Crane	Tue	12:15-12:45		(1) Off Track
Crane	Fri	12:15-12:45		(1) 11/1 – 11/29
Brown	Tue	9:30-10:15		(1) Off track 11/1 – 29
Wake	Mon/Thu	2:00-2:30		(1) Off track 11/1 - 29

1. Corine Meyer's voice Mail - 548-1130 Call her if you are missing the class

2. Holidays: Nov. 11 and Nov. 23 & 24

3. THS 1600 E. Canal, meet at Tennis court by Girl's Gym off Colorado Ave.

a. Earl Elementary, 4091 N. Olive

b. Osborn Ele. 201 N. Soderquist

c. Wakefield, 400 South Ave.

d. Crowell, 118 North Ave.

e. Cunningham, 324m W. Lindwood

f. Julien, 1514 E. Cannel

g. Brown, 1400 Georgetown h. Crane, 1100 Cahill i. Dutcher, Colorado-Hawkeye

DISABILITY PRESENTATION
SIGN-UP SHEET

<u>CHAPTER</u>	<u>SUBJECT</u>	<u>NAME</u>	<u>WEEK</u>
8	MR	_____	4
9	LD	_____	5
10	BD	_____	6
11	VI/HI	_____	7
12	OI	_____	9
13	Les Autres	_____	10
14	SCI	_____	11
15	Others	_____	13
16	ND	_____	13

Presentation on Sport Organizations for Disabled

Sign-up Sheet

Day 1

Name

1. Special Olympics

2. ParaOlympics

3. Disabled Sports USA

4. Adapted PE Council (AAHPERD)

5. International Physical Activities

6. Others

7. Others

Day 2

1. Wheelchair Sports

2. Wheelchair Basketball

3. Wheelchair Tennis Association

4. US Association of the Blind (beep baseball)

5. American Athletic Association of the Deaf

6. Others

7. Others

Day 3

1. Adapted PE National Standards

2. California CTC in APE

3. US Swimming for the Disabled

4. Wheelchair Rugby

5. US CP Athletic Association

7. Others

7. Others
