



Unit 1: The Athlete – Different Abilities and Challenges

Coaching Special Olympics Athletes begins with the athlete and continues to focus on the athlete throughout the course.

This section outlines how the psychological, physical, and social conditions of the Special Olympics athlete influence his or her participation in sport. Coaches need to be aware of these aspects to understand their athletes better and to design appropriate training programs that meet each athlete's needs. The emphasis is on what the athletes can do so that the coach can assist them in building upon their strengths.

1. Psychological Considerations Related to Learning

There are four psychological considerations related to an athlete's ability to learn.

- For challenges in **motivation**, *the goal is helping athletes gain and maintain interest.*
 - Attention span – keep drills short (8-10 minute guideline)
 - Short-term goals are more helpful because they are immediate.
 - Immediately provide positive reinforcement when desired behavior is demonstrated so that the athlete repeats it.
- For challenges in **perception**, *the goal is helping athletes process information about the sport.*
 - If there are impairments in sight or hearing, provide a cue or accommodation with what abilities they do have. For example, if the athlete is visually challenged when playing bocce, ring a bell over the pallina.
 - If there is difficulty in focusing attention because there is too much sensory stimulation, move the athlete to a quiet area or corner of the gymnasium where focus is heightened.
- For challenges in **comprehension**, *the goal is helping athletes understand the sport in which they are participating and perform requisite skills.*
 - Apply the appropriate level of instruction.
 - Utilize 1-2 part instructions when an athlete has difficulty in understanding multi-part actions.
 - Realize that frequent repetition and reinforcement over time will affect their learning curve.
 - Since some athletes have difficulty in generalizing skills, provide a progression of opportunities so that athletes can utilize the skills in appropriate situations.
- For challenges with **memory**, *the goal is helping athletes remember and perform skills at the appropriate time.*
 - Repeat previously learned skills frequently.
 - Provide a progression of situations in which the skills are applied.
 - Provide competition opportunities so that the athlete can apply them appropriately.



2. Medical Considerations

Down syndrome ... is a chromosomal abnormality.

- Persons with Down syndrome have 47 chromosomes rather than 46 causing abnormal fetal growth, which results in fewer body and brain cells than persons without Down syndrome.
- There is NOT a typical person with Down syndrome. Persons with DS vary enormously in:
 - personality
 - appearance
 - ability
 - intellectual functioning

RESULT: It is difficult to predict what coaching an athlete with DS will be like without knowing the athlete in person.

Behavioral Awareness:

Many athletes with Down syndrome:

- can communicate perfectly well using the spoken word
- may be extremely mature socially
- may have difficulty expressing themselves
- learn by mimicry
- can be extremely stubborn

Medical considerations include tendencies for:

- short stature
- poor muscle tone
- hypermobility of the joints (loose jointed)
- mild to moderate obesity
- underdeveloped respiratory and cardiovascular system
- short legs/arms in relation to torso
- broad hands/feet with stubby fingers/toes
- poor equilibrium (balance)
- perceptual difficulty (difficulty focusing attention on appropriate object or task)

Children with Down syndrome are increased risk for:

- certain breathing problems
- digestive problems
- childhood leukemia
- hearing loss
- infections
- vision disorders
- type 1 diabetes
- Alzheimer's

Atlanto-axial instability

- Atlanto-axial instability is an orthopedic condition found in approximately 12%-22% of individuals with Down syndrome.
- There is a misalignment of the 1st and 2nd cervical vertebrae which could cause permanent damage to the spinal cord during hyperflexion or hyperextension of the head and neck.
- Contraindicated activities and prohibited sports/events include:
 - Butterfly stroke in aquatics
 - Football (Soccer)
 - Alpine skiing
 - Artistic gymnastics
 - Pentathlon
 - Equestrian sports
 - Diving & diving starts

Obstacles to Gross Motor Development of an Individual with Down Syndrome:

Physical Problems/Characteristics

- Hypotonia: low muscle tone (floppy)
- Increased flexibility in joints (ligaments that hold the bones together have more slack than usual)
 - *Note:* As child gets older and gains strength in his arms, the shoulder joint will become more stable.



- Decreased muscular strength
 - *Note:* Strength can be greatly improved through repetition and practice.
- Short arms and legs relative to the length of their trunks.

Temperament (as defined as a person's characteristic manner of thinking, behaving & reacting)

a. *Motor Driven*

- Love to move from place to place and spend limited time in one position
- Tolerate new positions and movements and take risks
- Enjoy very brief periods of “rest” and then prefer to be moving
- Love to move fast
- Like motor skills involving “gymnastics-type” activity
- Initially resist stationary type activities involving standing/waiting, etc.

b. *Observers*

- Like to stay in one place and are content to watch, socialize ... need a reason to move ... motivation
- Are cautious, careful and tend to avoid new movements and/or positions
- Prefer to be involved slower moving activity so they can feel balanced and in control
- Initially resist fast moving activity or moving in and out of postures and/or positions needed to improve sports and athletic skill

Autism Spectrum Disorders

Definition ... the developmental disability significantly affecting verbal and nonverbal communication and social interactions that may adversely affect the “coach-ability” of the athlete:

- Engagement in repetitive activity
- Resistance to environmental change or change in routine
- Unusual response to sensory experiences
- May exhibit self-stimulatory behaviors (coach needs to become aware; control; may need to block this behavior.)
- May exhibit obsessive compulsive behaviors (coach needs to become aware; control or block; set up behavior support plan.)

Orthopedic Impairments

Definition ... is a group of permanent disabling symptoms resulting from damage to the motor control areas of the brain. Examples include, but are not limited to, the following:

- Abnormal reflex development
- Difficulty in coordinating and integrating basic movement patterns
- Intellectual disability
- Seizures
- Speech and language disorders
- Sensory impairments (visual motor control)

Attention Deficit Hyperactivity Disorder (ADHD)



Definition ... is a condition that describes athletes who display hyperactive behaviors, have difficulty attending to a task at hand and tend to be impulsive.

Characteristics:

- Inattention
- Poor listening skills
- Restlessness
- Impulsive
- Hyperactive
- Onset before age 7
- Excessive motor activity

ADHD

Definition . . . is characterized by a discrepancy between academic potential and achievement that is not caused by intellectual disability, emotional disturbance or environmental disadvantage.

- Distractibility
- Difficulty attending to and following directions
- Difficulty focusing and concentrating
- Inconsistent performance in learning
- Disorganization
- Inconsistent work habits
- Difficulty working independently
- High activity level, constant motion, fidgeting, squirming, restlessness
- Impulsiveness and lack of self-control

ADHD Characteristics:

- Impatient
- Intrusive or pushy
- Risk taking behavior leading to a high incidence of injury
- Difficulty with transitions
- Aggressive behavior
- Social immaturity
- Low self esteem and high frustration

Social/Emotional Considerations Associated with ADHD:

- Inappropriate responses to new or challenging social/emotional situations that they may not be prepared to handle
- Difficulty in selecting appropriate responses
- Inadequate pragmatic social skills
- May have limited social opportunities – athletics, clubs, exposure to extended family activities
- May lack financial resources for access/participation
- May lack transportation
- May avoid participation
- May be verbally disruptive
- May seek constant reassurance
- May exhibit tantrums

Intellectual Disability

Definition by the American Association on Intellectual and Developmental Disabilities (AAIDD): Intellectual disability is characterized by significant limitations both in intellectual functioning and adaptive behavior as expressed in conceptual, social, and practical skills. This disability originates before age 18.

Assumptions: Assumptions are an explicit part of the definition because they clarify the context from which the definition arises and indicate how the definition must be applied. Thus, the definition of intellectual disability cannot stand alone. The following five assumptions are essential to the application of the definition of intellectual disability:



- (1) Limitations in present functioning must be considered within the context of community environments typical of the individual's age peers and culture;
- (2) Valid assessment considers cultural and linguistic diversity as well as differences in communication, sensory, motor, and behavioral factors;
- (3) Within an individual, limitations often coexist with strengths;
- (4) An important purpose of describing limitations is to develop a profile of needed supports; and
- (5) With appropriate personalized supports over a sustained period, the life functioning of the person with intellectual disability generally will improve.

Relation of 2010 definition of intellectual disability to 2002 definition of mental retardation. The term intellectual disability covers the same population of individuals who were diagnosed previously with mental retardation in number, kind, level, type, and duration of the disability, and the need of people with this disability for individualized services and supports. Furthermore, every individual who is or was eligible for a diagnosis of mental retardation is eligible for a diagnosis of intellectual disability.

Characteristics of Intellectual Disability:

1. Cognitive Learning
 - Area where persons differ most
 - Learn at a slower rate
 - Achieve less academically
2. Social/Emotional/Physical
 - Frequently exhibit inappropriate responses to social/emotional situations
 - Do not fully comprehend what is expected of them in social situations
 - Have delayed development of motor skills
 - May be overweight because of low activity level
3. Characteristics Affecting Athlete Performance in Training and Competition:
 - Confidence level (low)
 - Communication barriers (overload)
 - Performance expectation (unrealistic)
 - View each learning experience a new one
 - Game Strategies: (lack appropriate ones to handle info and situations)
 - Response produced feedback (lack knowledge of when and how to use)
 - Attentive to too many cues (selective)
 - Expend too much unnecessary energy
 - Worry about too much about too many things
4. Observation of Athlete's Behavior During Training or Competition

When coaching, specific athlete behaviors are observed in order to determine coaching strategies and structure needed to deal with behaviors that may inhibit the athlete's participation, or the participation of other athletes in the training or competitive environment:

- a) Environmental entrance (behavior of the athlete when he/she comes to the training site or competition venue): Is the athlete in control?
- b) Environmental exit: (behavior of the athlete as he/she leaves the training or competition site): Is the athlete in control? (Calm – relaxed)
- c) Active participation: Is the athlete in control, attentive, focusing on the task, persistent in completing the task and handles feedback without incident.
- d) Non-active behavior (behavior that emerges as the athlete waits for a turn or needs to watch a demonstration): Is the athlete in control and able to inhibit negative impulse behavior?
- e) Competitive attitude: A negative mental position or feeling an athlete has regarding any activity that takes the form of being a "contest" between the individual athletes or team of athletes.
- f) Positive participation feedback: While engaged in a task or immediately following completion of a task the athlete exhibits positive feedback, i.e., smiling, expression of joy, laughter, cheering, high-fiving, etc.



- g) Negative participation feedback: While engaged in a task or immediately following completion of a task the athlete exhibits negative feedback, i.e., cries, screams, swears, tantrums, runs away, strikes out at a coach/official/another athlete/spectator, etc.
- h) Reinforced participation: Athlete performs satisfactorily when continually reinforced by the coach, another athlete, parent, etc. but performance is significantly affected negatively when reinforcement is not given.
- i) Intrinsic participation: The athlete performs tasks without reinforcement and appears to be self-motivated to perform.
- j) Social interaction with peers: Is either positive or negative.
- k) Social interaction with coach: Is either positive or negative.

Medications

- Side effects of various medications
- Knowing what medications athletes are taking

Seizures

- Seizure incidence
- Recommended procedures for coaches

Physical disabilities

- Physical strength, coordination, and muscle tone
- Special training considerations
- Special Olympics approved modifications

Fetal alcohol syndrome (FAS) and fetal alcohol effect (FAE)

- Birth defect caused by prenatal alcohol exposure
- Consistently functions better on concrete performance tasks
- Tend to have poor verbal comprehension skills and attention and memory deficits

3. Social Considerations

Typical social skills

- May lack social or adaptive skills due to lack of opportunity

Physical recreation at home

- May be very inactive in the home
- May not have been exposed to any type of recreation

Economic status

- May lack financial means
- May be unable to access to independent transportation