Creating Equitable Physical Education Learning Experiences with Adaptive Sports

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Think about it...

What inspired your initial sport experiences?
Presentation Objectives

1. Identify curricular entry points for the inclusion of adaptive sports in physical education.
2. Recognize and enhance the positive outcomes of including adaptive sports in the general physical education curriculum.
3. Discuss the challenges of including adaptive sports in physical education that produces negative outcomes on attitudes towards adaptive athletes.
Introduction

- Most general physical education programs fail to include adaptive sports in their curriculums causing an equitable learning experience for students with physical disabilities.

- Children with disabilities are given modifications to best match the outcomes of skills and tasks related to traditional sports.
**Infusion Model of Adaptive Sports**

Systematic approach to integrate knowledge and understanding of disability and disability issues throughout the curriculum.

<table>
<thead>
<tr>
<th>Level</th>
<th>Approach</th>
<th>Content Level</th>
<th>Participant Commitment</th>
<th>Learning Experiences</th>
<th>Value Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Additive</td>
<td>Comprehension</td>
<td>Limited or None</td>
<td>Single Isolated Unrelated Passive</td>
<td>Exposure Initial awareness</td>
</tr>
<tr>
<td>II</td>
<td>Inclusion</td>
<td>Application Analysis</td>
<td>Partial</td>
<td>Related Multiple Reflective</td>
<td>Enrichment Partial understanding</td>
</tr>
<tr>
<td>III</td>
<td>Infusion</td>
<td>Analysis Synthesis Evaluation</td>
<td>Strong</td>
<td>Integral Integrated Active</td>
<td>Enrichment Ownership Understanding</td>
</tr>
</tbody>
</table>

Objective 1

Identify curricular entry points for the inclusion of adaptive sports in physical education.
# Inclusion Index of Adaptive Sports

<table>
<thead>
<tr>
<th>Traditional Sports</th>
<th>Adaptive Sports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Invasion Games: Basketball, Soccer, Handball</td>
<td>Wheelchair Basketball, Blind Soccer, Goalball</td>
</tr>
<tr>
<td>Net Games: Volleyball, [Table] Tennis</td>
<td>Sitting Volleyball, Wheelchair Tennis, Showdown</td>
</tr>
<tr>
<td>Target Games: Bowling, Archery</td>
<td>Boccia, Adaptive Archery</td>
</tr>
</tbody>
</table>

Traditional Sports Skills and Adaptive Sports

Invasion Games
- Basketball/ WC BB
  - Passing
  - Dribbling
  - Shooting
  - Ball Movement

Target Games
- Handball/ Goalball
  - Passing [Rolling]
  - Throwing [In]
  - Blocking

Net Games
- Boccia
  - Throwing
- Volleyball/ Sitting VB
  - Serving
  - Bumping/ Passing
  - Setting
  - Blocking
- Tennis/ WC Tennis
  - Forehand
  - Backhand
  - Serve
Establishing Student Functional Profiles for Participation in Adaptive Sports [Wheelchair Basketball]

**Student Profile:** Jackson is a seventh-grade student with a spinal cord injury resulting in limited motor function of the lower extremities. He self-ambulates his wheelchair with moderate to high function. Jackson has focused on gaining strength in his upper body to ambulate for longer periods of time through a variety of fitness programs. As he prepares for high school, he wants to focus more on sports and competition. His local community recreation center has a wheelchair basketball league for players in ninth-grade and up. Jackson wants to play in that league when he enters the tenth grade.

**Present Level of Performance:** Jackson can pass a regulation ball with both hands with his eyes on the target while performing a chest pass from his wheelchair in three out of five trials and attempts full arm extension on release and follow-through.

**Annual Goal Statement:** Jackson will improve his chest pass in wheelchair basketball by keeping his eyes on the target, bending his elbows in preparation, and fully extending his arms during release and follow-through in five out of five trials.
## Wheelchair Basketball Skills

### Examples of Grade-Level Outcomes:

<table>
<thead>
<tr>
<th>S1.M6 Games and sports Invasion games</th>
<th>S1.M8 Games and sports Invasion games</th>
<th>S1.M4 Games and sports Invasion games</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Offensive skills</strong></td>
<td><strong>Dribbling and ball control</strong></td>
<td><strong>Passing and receiving</strong></td>
</tr>
<tr>
<td>Executes at least 1 of the following designed to create open space during small-sided game play: pivots, fakes, jab steps. (S1.M6.7)</td>
<td>Dribbles with dominant hand using a change of speed and direction in a variety of practice tasks. (S1.M8.6)</td>
<td>Passes and receives with hands in combination with locomotor patterns of running and change of direction &amp; speed with competency in invasion games such as basketball, flag football, speedball or team handball. (S1.M4.6)</td>
</tr>
</tbody>
</table>

### Tasks and Activities by Skill Levels for Moderate- to High-Functioning Students

**Wheelchair Skills:** Forward, backward, pivots [stationary and moving].

**Passing:** Chest pass, bounce pass, hook pass

**Dribbling:** Stationary and continuous

**Shooting:** Two-handed shot, one-handed shot

**Ball Movement:** Bounce stop, bounce spin, ball retrieval
Establishing Student Functional Profiles for Participation in Adaptive Sports [Sitting Volleyball]

Student Profile: MacKenzie is an 8th grade student with Cerebral Palsy [diplegia] with moderate to high function in her upper body. She uses a manual gait trainer for ambulation. She is active in community recreational activities [ie. swimming and basketball]. Her focus in physical education is more on sports and competition. She recently participated in a sitting volleyball clinic at a local adaptive sports program. She would like to play in the competitive league offered by the same program by the time she reaches 9th grade.

Present Level of Performance: MacKenzie can pass a regulation ball [volley lite] with both hands with her eyes on the target while performing a forearm and overhead pass from her wheelchair in three out of five trials and attempts full arm extension on each follow-through.

Annual Goal: MacKenzie will improve her forearm and overhead passes from a seated [floor] position by establishing proper hand position, extending her arms [forward and upward], making contact with the ball, and fully extending her arms on the follow-through in four out of five trials.
Sitting Volleyball

Examples of Grade-Level Outcomes:

<table>
<thead>
<tr>
<th>Skill: Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One-on-One:</strong> Volley Pass</td>
</tr>
<tr>
<td><strong>Small Group:</strong> Up and Over I</td>
</tr>
<tr>
<td><strong>Larger Group:</strong> Up and Over II</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skill: Blocking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Small Group:</strong> The Wall</td>
</tr>
</tbody>
</table>

### Assessment Template [Forearm Pass]

<table>
<thead>
<tr>
<th>Forearm Pass</th>
<th>Trials 1-5</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hands clasped/palms upward</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arms extended</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make contact with the ball</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arms follow through in upward motion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(X = \text{accomplished}\)  \(/ = \text{with assistance}\)  \(0 = \text{not accomplished}\)
Establishing Student Functional Profiles for Participation in Adaptive Sports [Goalball]

Student Profile: Elaine is a 10th grade student with low vision as a result of damage to the eye structure [both eyes] as a child. She has minimal light perception in both eyes and has the ability to recognize the shape of her hand. Her focus in physical education is on enhanced fitness, sports, and competition. She recently participated in a goalball event at a local school for the blind. She wants to join a goalball camp this summer and play on a team the following school year.

Present Level of Performance: Elaine can follow and field a beeper or bell ball that is rolled to her with both hands. She can roll and pass a beeper or bell ball to its intended direction using a mature underhand throwing pattern in three out of five trials.

Annual Goal: Elaine will improve her passing and receiving of a goalball trainer [or equivalent] in goalball lead up games by tracking and receiving the ball with both hands and releasing the ball with a mature underhand throwing pattern with force towards a goal in five out five trials.
## Goalball

### Examples of Grade-Level Outcomes:

<table>
<thead>
<tr>
<th>S2.M5 Games and sports Invasion games</th>
<th>Reduces open space by not allowing the catch (denial) or by allowing the catch but not the return pass. (S2.M5.6)</th>
<th>Reduces open space by not allowing the catch (denial) or anticipating the speed of the object and person for the purpose of interception or deflection. (S2.M5.7)</th>
<th>Reduces open space by not allowing the catch (denial) and anticipating the speed of the object and person for the purpose of interception or deflection. (S2.M5.8)</th>
</tr>
</thead>
</table>

### Tasks and Activities by Skill Levels for Moderate- to High-Functioning Students

**Skill: Blocking**

**One on One:**  **Don’t Go There 1**

**Small Group:**  **Block It**

**Large Group:**  **3 v. 3**

# Assessment Template [Goalball Throw/Roll]

<table>
<thead>
<tr>
<th>Throw/Roll</th>
<th>Trials 1-5</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facing opponents target</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arm back</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forward step</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low release</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ten seconds or less</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

X = accomplished  / = with assistance  0 = not accomplished
Assessment Template [Block]

<table>
<thead>
<tr>
<th>Block</th>
<th>Trials 1-5</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ready position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initial floor contact with hands and arms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Side-lying position, arms legs fully</td>
<td></td>
<td></td>
</tr>
<tr>
<td>extended</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Face protected</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

X = accomplished  / = with assistance  0 = not accomplished
Establishing Student Functional Profiles for Participation in Adaptive Sports [Boccia]

**Student Profile:** Caesar is a 6th grade student with Spina Bifida and moderate function in his upper body. He uses a manual wheelchair for ambulation. He actively participates in games and activities with his family. His focus in physical education to improve his upper-body strength to increase speed and mobility and sports and competition. He recently participated in boccia activities with friends at a community facility. He would like to play in the competitive league offered by a local adaptive sports program within the next year.

**Present Level of Performance:** Caesar can throw multiple objects of different sizes and weights with varying force at large targets from his wheelchair in three out of five trials and attempts full arm extension on each follow-through.

**Annual Goal:** Caesar will improve his underhand and overhand throwing [including distance and accuracy] from a seated position by establishing proper grip, extending his arms back and then forward on the swing phase, and fully extending his arm on the follow-through in four out five trials.
### Boccia

#### Examples of Grade-Level Outcomes:

<table>
<thead>
<tr>
<th>Skill</th>
<th>One on One</th>
<th>Small Group</th>
<th>Large Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throwing</td>
<td>Zone Attack I</td>
<td>Circle Attack</td>
<td>Modified Game Play</td>
</tr>
</tbody>
</table>

#### Tasks and Activities by Skill Levels for Moderate- to High-Functioning Students

**Skill: Throwing**

**One on One:** [Zone Attack I](#)

**Small Group:** [Circle Attack](#)

**Large Group:** [Modified Game Play](#)

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<table>
<thead>
<tr>
<th>Throw/Roll</th>
<th>Trials 1-5</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grips and holds ball in throwing hand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Established balanced position [seated]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extends throwing arm backward</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swings throwing arm forward</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Releases ball in forward motion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

X = accomplished  / = with assistance  0 = not accomplished
Early sport experiences can be attributed to exposure in a physical education setting.

Adapted physical education specialists can be catalyst for the inclusion of adaptive sports for children with physical disabilities.

Adaptive sports involve the enhancement of critical skills that meet grade level outcomes.

Tasks can progress from one-on-one to small and large group activities.

Integrating adaptive sports into the general PE curriculum can begin slowly and work towards school-wide infusion.
Infusing Adaptive Sports into the General Physical Curriculum

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