

Strategies and Resources for Including Children with Visual Impairments into Physical Education and Sports

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Session Abstract: Children with visual impairments are being included into general physical education now more than ever before. Most physical education teachers have little or no experience teaching these children. The end results have been limited physical activity and sport experience for children with visual impairments. This presentation will provide participants with needed resources, products, equipment, videos, books, and programs both local to the northwest and across the country to assist teachers to successfully include these children.

Session Objectives: Provide participants with

- Needed resources (Q & A)
- Teaching strategies
- Products
- Equipment
- Videos
- Books
- Programs

Teaching Strategies:

- Pre-teaching
- Whole-part-whole Instruction
- Physical guidance
- Tactile modeling
- Co-active movement

VISION

The children we teach are the face of disability tomorrow

- What do we want for them as adults?
 - Independent
 - Confident
 - Achievement oriented
 - Leadership potential
 - Other?

Achievement is the Goal, NOT only Participation

Increase Fitness

- Guide running techniques
- Biking
- Swimming
- Talking Pedometers
- Fuel Bands
- Wii fit
- Dance Dance Revolution

Increase Motor Skills

- Assessments
- Opportunities
- Physical Guidance
- Tactile Modeling
- Peer tutoring
- Training Paraeducators for PE
- Training Intervenors for PE

Sport and Recreational Modifications:

Sport	Equipment Modifications	Environment Modifications
Track & Field/ XC	Tether, sound box, guide runner, guide wire, drone running	tactile track, different color markings on surface, quiet track area
Swimming	Tapper, sound box, noodles, guide swimmer, kick board, colored signs	braille markings, quiet pool area
Wrestling	Hand over hand start, constant contact	Quiet match, tactile mat
Tandem Biking	Tandem bike, side by side, recumbent bike, conference bike, duct tape, straps	Sounds box, radio, cones, flags, crash mats
Rock Climbing	Hand over hand, guide on the ground, bell at top	Softer attachments
Gymnastics	Guide, feel apparatus first	Tactile markings
Soccer	Beeper ball, ball with bell inside, blindfolds, sound boxes	Tactile field, cones, quiet playing field

Motor Development Practice

- Gross Motor Development Curriculum
- Motor Activities Training Program
- Count Me In-Motor Development in a Box
- Motor Development Video
 - Through APH

Quota Funds

- APH.org/Order through vision teacher
- Determined by single child or multiple children

Position Statements:

- Placement in Physical Education
- SHAPEamerica.org
- CEC Position Statement on Physical Education for Children with VI
- Division on Visual Impairment

Expanded Core Curriculum (See Below)

ECC Component	Strategies for Infusion
Compensatory or functional academic skills, including communication modes	<ul style="list-style-type: none"> • Provide instructions to activities in braille. ^B • Teach students a variety of guide-running technique options. ^B • Include movement games and activities using sound sources as signals. ^E • Provide a tactile map of floor seating. ^E • Teach all students sports that use sound sources and are inclusive. ^S • Provide access to rules of sports or activities using braille or computers instead of handouts. ^B • Teach strategies to access control panel of workout equipment including treadmills or ellipticals. ^S
Orientation and mobility	<ul style="list-style-type: none"> • Pre-teach the physical activity area and games prior to class beginning. ^B • Collaborate with O & M instructor to provide simulated environments for travel practice. ^B • Create an obstacle course that may allow all students to participate in activities to practice fundamental movement patterns (e.g., walk, run, gallop). ^E • Teach the dimensions of courts and fields. ^S • Teach the process of traveling to and from the pool. ^B • Promote body and spacial awareness with physical activities such as yoga or stretching. ^B
Social interaction skills	<ul style="list-style-type: none"> • Teach physical activities in which sighted peers can play with children with visual impairments by making simple modifications such as adding bells to a ball. ^B • Train peer tutors and paraeducators to facilitate social interactions during class. ^B • Teach team sports and highlight the importance of teamwork to achieve. ^S • Include teambuilding games and adventure-based learning units to facilitate positive communication among all students. ^B • Encourage students to participate in sport camps or recreational activities designed for individuals with visual impairments outside of school. ^B • Rotate roles (leader, team member) between all students within group. ^B

Independent living skills

- Emphasize health topics during their classes (appropriate sport attire, healthy snacks, and encourage a bath after participating in physical activities). B
- Teach dressing skills for activities like swimming, bowling, or ice skating. B
- Teach skills for community involvement such as bowling alleys, health clubs and skating rinks. B
- Discuss accommodations needed during fitness units. S
- If possible, take field trips to community recreation facilities to practice navigating and using various environments. S

Sensory efficiency skills

- Use music, sound, and other modalities that indicate a beginning or an ending of an activity. B
- Infuse games like goalball and beep baseball to promote the use of hearing to play the game for every player as each one is blindfolded. B
- For students with low vision, use brightly colored or neon tape to outline boundaries. B
- For target sports (such as archery), place a sound source behind the target to assist in localization. B
- In movement activities such as sprinting, sound can be the target for the student to move to. B

Self-determination

- Prepare students to be successful in different activities using sport as a medium. B
- Teach the same sports and units as their peers so they will have choices in the future. B
- Provide a variety of choices in terms of sports that may allow students to develop a sense of autonomy, competence, and at the same time allow them to relate to their peers and family members. B
- Include students in process of making accommodations or modifications of activities. B
- Allow students to make choices as to what accommodations they need to participate, do not assume based on previous students. B
- Keep track of personal bests and athletic goals. Beating these records can lead to higher self-confidence in sport and activity. B
- Teach lifelong activities that students can choose to participate in after graduation, including what modifications students may need to participate. S

Recreation and leisure skills	<ul style="list-style-type: none"> • Pre-teach sport skills in the classroom and facilitate participation in the community by contacting sport clubs or recreational facilities that students can visit. S • Teach how to navigate trails and bicycle paths in parks. S • Teach fundamental skills for all life-long leisure activities. S
Career education	<ul style="list-style-type: none"> • Introduce guest speakers who are visually impaired to talk about their career opportunities. B • Connect with individuals who are visually impaired with careers in sport and recreation via email or postage, create a pen-pal relationship with students. E • Perform internet searches of individuals who are visually impaired whom are athletes, coaches, or are involved in sport or recreation. B • Utilize the sport education model so students learn about careers in sport (coach, announcer, journalist, and statistician). S • Discuss how a higher level of physical fitness may increase an individual's marketability while job searching. S
Use of assistive technology	<ul style="list-style-type: none"> • Teach the use of exercise technology such as talking pedometers and talking heart rate monitors. B • Incorporate modified Wii or other exergames into the curriculum. B • Help children navigate the web for assignments on blind sport, role models or the history of a sport. B • Use sound sources or sound balls in common PE activities. B • Navigate the internet with students to find sport related opportunities such as camps for individuals with visual impairments (e.g. Camp Abilities) or sport organizations (e.g. USABA). B

Assessments

- Motor Skills Test of Gross Motor Development
 - Validated ages 3-10 (able bodied) 6-12 (children with VI)
 - Object Control
 - Locomotor
 - Norm referenced
 - Pro-Ed Publishers
- Assessment for Children with Severe Disabilities
- Health Related Fitness: Brockport Physical Fitness Test
 - Visual Impairments
 - Intellectual Disabilities
 - Cerebral Palsy
 - Spinal Cord Injury
 - Orthopedic Impairments (i.e. amputations)

- Talking Pedometers
 - The Centrios Talking Pedometer
 - Validity information available for adults and adolescents.
 - Can be used to:
 - Estimate physical activity levels (>10,000 steps)
 - Promote goal setting activities

What should we assess?

- | | |
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| <ul style="list-style-type: none"> ▪ Attention ▪ Communication ▪ Reflexes ▪ Reactions ▪ Stability ▪ Head Control ▪ Trunk Control | <ul style="list-style-type: none"> ▪ Range of Motion ▪ Ambulation ▪ Grasping ▪ Motor Skills ▪ Fitness ▪ Aquatics ▪ Other? |
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How do we measure these?

- Process-Skills
- Product-Number
 - Time
 - Distance
- Parameter-Environment
 - Physical Assistance
 - Demonstration

Placement in APE

- Inclusive PE
- Modified class
- Self contained class
- Combination
- Supports in each
 - Peer tutors
 - Paraeducators
 - Intervenors(Deafblind)

Basic Premises

- Every child can learn
- PE is for all
- Will learn at a slower rate
- No ceiling
- Use of 1:1 instruction is ideal
- Success-oriented program

Placement Decisions

- Motor skills
- Fitness
- Social needs
- Behavioral needs
- Sensory needs
- Ability to be in large groups
- Cognitive needs
- Other?

RESOURCES

- Paraprofessionals
 - Paraeducators in Physical Education-Lieberman, 2007
 - Staff training video-Perkins.org-Physical Education
- Peer Tutors
 - Strategies for Inclusion-Lieberman & Houston-Wilson, 2009- Training CD
- Volunteers
 - Parents
 - Grandparents
 - College Students

Sport Opportunities

- Community sports (See APH.org: sport videos)
- Intramural sports
- Interscholastic sports-Dear Colleague Letter
- Blind sports-United States Association for Blind Athletes (USABA.org)
- Paralympic Sports
- Olympics

Sport Adaptation DVDs/Videos

- Track and Field
<http://www.usaba.org/Pages/usabaheadlines/athletics/GuideRunnerVideoAnnounce.html>
- Judo: <http://www.usaba.org/Pages/movie/USABAJudo1.html>

The Story of USABA: http://www.usaba.org/Pages/movie/usaba_video.html

Mission Vision: Sports for Blind Military and Veterans:

http://www.usaba.org/Pages/movie/Mission_Vision_Video.html

Instructional Websites

- Project INSPIRE www.twu.edu/INSPIRE
- Camp Abilities www.campabilities.org
 - Video: Teaching children with VI, blindness, or deafblindness in physical education
- USABA www.usaba.org
- Texas School for the Blind (TSBVI.org)
- American Printing House for the Blind

APH.org-motor development video

- Perkins.org-staff training video

Equipment Resources

- Yoga Mat- <http://rousettus.com/products/?gclid=Cli0-dezpKECFddR2godSXZlvw>
- Yoga mat with braille and raised shapes with a DVD
- Exergaming
 - www.vifit.org
 - Wii tennis

- Wii bowling
 - Pet-N-Punch
 - Wii ski
- Beepkickball.com
 - Same rules as beep baseball
 - Beeping ball
- Goalballs
 - USABA
 - Sportime
 - Independent Living Aids
 - Goalball kits
 - Association for the Blind and Visually Impaired of Rochester and USABA
- Beep Baseball
 - Flaghouse
 - National Beep baseball association (Nbba.org)
- General Beeping Balls
 - American Printing House for the Blind
 - Target
 - Amazon
 - Flag House
 - Sportime
 - Independent Living Aids
 - Exceptional Teaching (Exceptional teaching.net)
 - Maxi Aids
- www.glowproducts.com – everything that glows including frisbees
- www.maxiaids.com – mini beeper
- www.Independentliving.com -beeping volleyballs, basketballs, and soccer balls
- www.exceptionalteaching.net – bell balls, sensory balls, beeping balls

Sport Court Touch and Play

- Will be available through APH
- 13 tactile sport courts with braille magnetized
 - 13 mini sport courts
 - 6 figures of two colors and 11 X's and O's
- Instructors manual

BOOKS

Hodge, S., Lieberman, L.J., & Murata, N. (2012). Essentials of Teaching Adapted Physical Education. Scottsdale, AZ: Holcomb Hathaway Publishers.

In J.P. Winnick (2011) Adapted Physical Education and Sport Human Kinetics, Publishers
www.humankinetics.com 1-800-747-4457

Physical Education and Sports for Individuals with VI or DB: Foundations of Instruction

Sports Camp Start up Manual: “Sports for Everyone” Perkins School for the Blind

Encyclopedia of Sports and Recreation for People with Visual Impairments; By: Andrew Leibs
Information Age Publishing

Run, Play, Move: A planning model to create physical education activities for individuals with disabilities (\$20.00 each) By: Matt LaCortiglia

- Perkins School for the Blind-Publications

Physical Activities: In the Wheelchair and Out by E. Ann Davis

Physical Activities for Young People with Severe Disabilities by Lindsay Canales & Rebecca Lytle

Everybody Plays! How Kids with Visual Impairments Play Sports

- Elementary age children's book
- Profiles of 16 sports and recreation activities with interviews of children who do them
- Forward by Erik Weihenmayer
- Advice from Elite Athletes by:
 - Tricia Zorn-Swimming
 - Jim Mastro-Judo
 - Marla Runyan-Running
 - Jen Armbruster-Goal ball
 - APH.org

Going PLACES: Transition Guidelines for Community Based Physical Activities for Students who have Visual Impairments, Blindness, or Deafblindness

- Transition guide to physical activity
- Youth 14-22
- Lieberman, Modell, & Ponchillia (2006)
- American Printing House for the Blind APH.org

Games, sports, recreation and aquatics for children with sensory impairments

- Includes modifications to all
- Lieberman & Cowart/ APH.org

PROGRAMS

Northwest Association for Blind Athletes (NWABA)

Camp Abilities

- A developmental sports camp for youth with visual impairments, blindness, and deafblindness
- Sports include: Track & field, swimming, tandem biking, goal ball, beep baseball, gymnastics, judo, fishing, canoeing, kayaking, rollerblading, horseback riding, rock climbing, basketball, dancing and more