

# Include Safety in Physical Education: Do not Exclude Students with Disabilities

Martin E. Block and Mel L. Horton

As more and more students with disabilities are included in regular physical education, an immediate concern to both regular and adapted physical educators is safety. Of greatest concern is the safety to students with disabilities who often do not have the same level of speed, strength, stamina, balance, or coordination as their peers without disabilities. In addition, many students with disabilities have cognitive and perceptual problems that can add to the child's confusion and inability to react to situations as quickly as their peers. Such discrepancies can lead to injuries. For example, in a dodging/fleeing activity a child with cerebral palsy who is very unstable in standing could easily be knocked down by all the movement. Similarly, a child who has mental retardation may not know that he/she is standing too close to the batter during a softball game. The student could be in danger of getting hit by the ball or the bat.

Including students with disabilities in regular physical education also can pose dangers to students without disabilities. For example, a student who uses a wheelchair may be involved in a game of tag. During the excitement of the game a child without a disability could easily run into the child's wheelchair. Similarly, a child with crutches could accidentally hit or trip another student during a soccer game, and a child with an artificial arm could accidentally bump into and hurt a peer during movement exploration activities.

While safety is certainly a concern for students with disabilities, safety concerns should not be used as an excuse to place students with disabilities into separate physical education programs. By law, efforts need to be made via supplementary aids and services to make sure that students with disabilities receive a safe, appropriate, individualized physical education program within the regular setting. Only when the setting is deemed unsafe or inappropriate *after attempts at making it safe and appropriate through supplementary aids and supports* can the student be placed in a separate setting (IDEA, 1412(5)(B); *Oberti v. Board of Education of the Borough of Clementon School District*, 1993).

The purpose of this paper is to share strategies that can be used to make regular physical education settings and activities safe for all students including students with disabilities. Five key aspects of making inclusive settings safe will be discussed including: (a) the student with disabilities, (b) the general environment, (c) the equipment, (d) class organization, and (e) content. It is understood that some students in some activities and environments may not be able to participate safely and thus should receive physical education in an alternative setting. However, most students with disabilities, including those with more severe disabilities, can be safely accommodated within regular physical education.

## The Student with Disabilities

Many students with disabilities have visible problems that present an immediate concern to the physical educator (e.g., students who use wheelchairs or students who are blind). Others have hidden disabilities

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that may not be immediately recognized by simply observing the student (e.g., seizure disorder, asthma, diabetes, HIV/AIDS). This latter situation is particularly dangerous since special educators and parents often forget to inform physical education staff about conditions that can result in injury. Being unaware of a student's health/medical problems can lead to participation in unsafe activities in unsafe ways and possible law suits. Ultimately, you as the physical educator are responsible for the safety of all the students you serve (Dougherty, 1987). Thus, it is imperative that you learn as much as possible about all students with disabilities before determining how to deal with safety concerns.

### *Know Your Students*

The first step is to simply identify children with health problems and/or specific disabilities. This can be done by carefully reviewing the medical records of all the students you serve (Pangrazi & Dauer, 1995). An easier way is to review the emergency cards on file in the main office. These cards usually highlight children with special health problems such as asthma, diabetes, allergies, medications taken, etc. . . In addition, you can go to the school nurse or to each classroom teacher and ask them to identify students with special health problems or disabilities.

Once you have identified students with health problems and/or disabilities, you should examine their more detailed medical records and cumulative folders which also should be available in the main office. If for some reason detailed records are outdated or not available, contact each child's parents to obtain more information. A relatively simple way to get information about children with special health problems or disabilities is to send home a checklist that the parents and/or physician can fill out (see Table 1 for an example). Some school districts actually require such forms to be sent

home and filled out before a child with a disability can participate in physical education (Fairfax County Public Schools, 1994). Information on each child with special health problems or disabilities can then be placed in a data-base on your computer or on file in the physical education office and updated yearly. For example, a data-base can be sorted to print-out all students who have asthma. Proper precautions (e.g., having an inhaler or other medicine available, not doing strenuous exercise in the fall during heavy pollen season) could then be planned for these students.

While this may seem like a tremendous task, it is critical that you know as much as possible about each child with special health problems or disabilities in order to insure safe participation in regular physical education. For example, children with Down syndrome are susceptible to atlanto axial instability (AAI) which can cause paralysis if the child hyperflexes his/her neck. Some children with cerebral palsy are prone to hip dislocations if lifted or positioned improperly. Heat and humidity can trigger seizures in some children with epilepsy. Many children with spina bifida have shunts placed in their head to drain fluid from their brain, and most physicians recommend some restrictions in physical education activities. Children with exercise-induced asthma are particularly sensitive to continuous exercise. A physical educator who is not aware of these and other conditions could put a child into dangerous situations.

### *Participate in IEP Meetings*

Another way to get this and other information is to participate in the Individual Education Program (IEP) meeting. All critical team members including parents attend this meeting and share information about the child with disabilities. This meeting also is a great place to educate IEP members about your program and what you know about the child. You can share information

**Table 1**  
**Physical Education Information Form\***

**I. STUDENT INFORMATION** (to be filled out by parent)

Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_  
 Parent/Guardian: \_\_\_\_\_ Telephone: \_\_\_\_\_

**II. MEDICAL INFORMATION** (to be filled out by parent and/or doctor)

**PART A: Nature of Disability** (if your child does not have a disability, skip to part B):

1. What type of disability(ies) does the child have:

\_\_\_\_\_

2. Please describe in more detail the characteristics of the child's disability(ies):

\_\_\_\_\_

3. Is there anything I should be particularly be aware of in physical education (e.g., latex sensitivity, allergies)?

\_\_\_\_\_

**PART B: Specific Health Problems** (if your child does not have any health problems, skip to part C):

**ASTHMA:**                    \_\_\_ yes \_\_\_ no

1. If you answered yes, is there an inhaler at school? \_\_\_ yes \_\_\_ no

2. If you answered yes, where is it located? (e.g., in office, classroom, etc...) \_\_\_\_\_

**BEE STING ALLERGIES:**    \_\_\_ yes \_\_\_ no

1. If you answered yes, is there a bee sting kit at school? \_\_\_ yes \_\_\_ no

2. If you answered yes, where is it located (e.g., in office, classroom, etc...) \_\_\_\_\_

**DIABETES:**                    \_\_\_ yes \_\_\_ no

1. If you answered yes, does your child take insulin? \_\_\_ yes \_\_\_ no

2. If you answered yes, where is it located (e.g., in office, classroom, etc...) \_\_\_\_\_

**HEART PROBLEMS:**        \_\_\_ yes \_\_\_ no

1. If you answered yes, please explain in more detail:

\_\_\_\_\_

\* adapted from Kelly, L., & Wessel, J.A. (1986). Achievement-based curriculum development in physical education. Philadelphia: Lea & Febiger; Fairfax County Public Schools (1994). Fairfax County Public Schools: Physician Referral Form - Physical Education. Fairfax, VA: Author; and Markos, N, & Jenkins, D. Medical Information Form - Broadus Woods Elementary School, Earlysville, VA.

OTHER HEALTH PROBLEMS: (please explain):

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PART C: Medications:

1. Does the child take any medications? \_\_\_ yes \_\_\_ no
2. If you answered yes, what is the name of the medication, and what is it used for?  

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3. When and how is it administered?  

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4. Any effect on physical/motor performance?  

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5. Any specific concerns regarding medications that I should be aware of in physical education including any activities the child should not do (see list on following page for more detail)?  

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such as the child's fitness level, gross motor skills, perceptual motor abilities, skills in specific activities, and general motivation and behavior during physical education. Once team members begin to understand your program, the unique aspect of the physical education environment, and the gross motor/fitness skills of the student, they can provide more specific suggestions to make your program safe. In addition, team members might become more sympathetic to your request for extra support such as the use of peer tutors and teacher assistants, consultation with specialists, and adapted equipment.

*Determine Each Student's Abilities*

While medical and health information is extremely important, there is other information that will help you determine how to make safety adjustments for children with

disabilities. Most importantly, you will want to know about each child's physical fitness level, body and space awareness, balance, eye-hand coordination, and other motor abilities and how they might impact safe participation in physical education. For example, if a child has problems with eye-hand coordination, you could plan accommodations during dodging, catching, rebounding, and striking activities. A relatively simple modification is to allow the student to use a foam ball so that if he/she does miss, there is a reduced risk of injury. Similarly, you could allow children who have balance problems, including children who use walkers or canes, to move in a special zone so that they will not get bumped or knocked down during chasing and fleeing activities. Table 2 provides a list of questions that should be asked regarding a child's fitness level and gross motor abilities.

## MIDDLE/HIGH SCHOOL

<u>Lead-up Team Sports</u>	<u>Individual Sports</u>	<u>Gymnastics</u>	<u>Dance</u>
<input type="checkbox"/> basketball	<input type="checkbox"/> golf	<input type="checkbox"/> rings	<input type="checkbox"/> aerobic
<input type="checkbox"/> softball	<input type="checkbox"/> tennis	<input type="checkbox"/> high bar	<input type="checkbox"/> square
<input type="checkbox"/> volleyball	<input type="checkbox"/> archery	<input type="checkbox"/> parallel bars	<input type="checkbox"/> folk
<input type="checkbox"/> soccer	<input type="checkbox"/> bowling	<input type="checkbox"/> vault	<input type="checkbox"/> modern
<input type="checkbox"/> flag football	<input type="checkbox"/> badminton	<input type="checkbox"/> floor exercise	
<input type="checkbox"/> floor hockey	<input type="checkbox"/> wrestling		
<input type="checkbox"/> lacrosse			

Comments on activities that you have concerns with for this student: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name of person who filled out form/relationship to child \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### III. P.E. ACTIVITIES THAT MAY BE INAPPROPRIATE (filled out by parent, PT or doctor)

Some activities can be dangerous for children with particular disabilities. Please place an "X" next to any activity that you have concerns with for this student? Please comment on an activity that you marked with an "X" (e.g., note the types of supervision/modifications that would allow this student to participate safely in the activity).

#### ELEMENTARY (K through 5)

<u>Locomotor Skills</u>	<u>Manipulative Skills</u>	<u>Body management</u>	<u>Fitness</u>
<input type="checkbox"/> running	<input type="checkbox"/> throwing	<input type="checkbox"/> twisting	<input type="checkbox"/> continuous running
<input type="checkbox"/> jumping	<input type="checkbox"/> catching	<input type="checkbox"/> turning	<input type="checkbox"/> sprinting
<input type="checkbox"/> galloping	<input type="checkbox"/> striking	<input type="checkbox"/> stretching	<input type="checkbox"/> stretching
<input type="checkbox"/> hopping	<input type="checkbox"/> kicking		<input type="checkbox"/> push ups/pull ups
<input type="checkbox"/> skipping	<input type="checkbox"/> dribbling (feet)		<input type="checkbox"/> sit-ups
<input type="checkbox"/> bouncing			<input type="checkbox"/> rope climbing
			<input type="checkbox"/> aerobic dance
			<input type="checkbox"/> weight lifting
			<input type="checkbox"/> stationary bike

<u>Tumbling</u>	<u>Games</u>	<u>Aquatics</u>
<input type="checkbox"/> balance beam	<input type="checkbox"/> chasing/fleeing	<input type="checkbox"/> getting wet
<input type="checkbox"/> log roll	<input type="checkbox"/> dodging	<input type="checkbox"/> standing in water
<input type="checkbox"/> forward roll	<input type="checkbox"/> tag	<input type="checkbox"/> floating
<input type="checkbox"/> backward roll	<input type="checkbox"/> racing	<input type="checkbox"/> basic strokes
<input type="checkbox"/> head/hand stand	<input type="checkbox"/> team sports	<input type="checkbox"/> lap swimming
<input type="checkbox"/> vaulting	<input type="checkbox"/> skating	<input type="checkbox"/> diving
<input type="checkbox"/> pyramids	<input type="checkbox"/> jumping rope	
<input type="checkbox"/> rope climbing		

**Table 2**  
**Questions to Ask Yourself or Physical Therapist About Safety**

<u>Questions</u>	<u>Activities that are effected</u>	<u>Possible Solutions</u>
Does the child have specific problems with space awareness?  ___ yes ___ no	1. 2. 3. 4.	
Does the child have specific problems with body awareness?  ___ yes ___ no	1. 2. 3. 4.	
Does the child have specific problems with upper body strength?  ___ yes ___ no	1. 2. 3. 4.	
Does the child have specific problems with lower body strength?  ___ yes ___ no	1. 2. 3. 4.	
Does the child have specific problems with endurance?  ___ yes ___ no	1. 2. 3. 4.	
Does the child have specific problems with flexibility?  ___ yes ___ no	1. 2. 3. 4.	
Does the child have specific problems with speed?  ___ yes ___ no	1. 2. 3. 4.	
Does the child have specific problems with eye-hand coord.?  ___ yes ___ no	1. 2. 3. 4.	
Does the child have specific problems with balance?  ___ yes ___ no	1. 2. 3. 4.	

Finally, you will want to find out about the child's communication skills and behavior problems. Again, you can get much of this information at the IEP meeting by listening to and talking to parents, regular and special education teachers, therapists, and teacher assistants. These key people can provide you with specific information to help you make the program safer for the student with disabilities. For example, the regular and special educator can note behaviors that could create safety problems (e.g., aggressive behaviors or running away), and the speech therapist can note how much verbal information the child understands. The checklist in Table 3 provides a list of questions that can guide you when meeting with these professionals. As with Tables 1 and 2 above, this form can be placed on file in your office for future reference.

## Teaching Environment

### *Space*

Making the general physical education environment safe for students without disabilities is very similar to best practices in making physical education safe for all students. First and foremost, the regular physical educator should consider the amount of teaching space available. The area students will be working in should allow for movements that are free from restrictions (Graham, Holt/Hale, & Parker, 1993). This is particularly true for students with mental retardation or learning disabilities who may not be as aware of their personal space. For example, if a student with mental retardation is working on striking with a bat, there should be enough space to freely swing the bat without being hazardous to peers. If a child who uses a wheelchair is involved in a warm-up activity such as a chasing/fleeing type game, extra space may be needed to ensure safety. The teacher also should remind students without disabilities to be extra careful when moving near students who use wheelchairs or students with visual im-

pairments. Maintaining good self space is important for everyone at all times regardless of abilities or disabilities.

### *Boundaries and Equipment Set-up*

The teaching environment also should have set boundaries that separate activity and hazardous areas. You may need to highlight boundaries for children with low vision, perceptual motor concerns, or attention deficit hyperactive disorder (ADHD). Students with visual impairments might benefit from brightly colored cones or tape markings used to designate activity areas from storage space as well as marking off boundaries on playing fields. Peers can provide extra physical assistance and verbal cues to students with autism or ADHD who may not be aware of safe boundaries.

In addition, the teaching environment should be organized to ensure safe participation. One of the easiest yet most effective safety measures is to keep extraneous equipment away from the activity area. Large equipment such as volleyball standards and gymnastics equipment should be padded and placed off to the side. Smaller equipment that you plan on using that day should be kept compact and out of the way until needed. This is particularly important when you have children with visual impairments, ADHD, or children who use wheelchairs or walkers. For example, during a warm-up activity in which students are moving in general space to music, a child with ADHD who is impulsive and hyperactive might fall over balls that have been scattered around the play area for the next activity. A safer set-up would be to have the balls placed inside several hula hoops off to the side until warm-ups are completed. While this may be a little inconvenient, it will make the environment much safer for all children.

### *Unique Environment Considerations*

Some students present unique concerns in terms of creating a safe environment. For

Table 3

Other Important Information About the Child (to be filled out by parent, teacher, and/or therapist)

Communication skills:

1. Does the child understand simple verbal directions? \_\_\_ yes \_\_\_ no
2. If you answered no, do you have suggestions to facilitate communication?  
\_\_\_\_\_  
\_\_\_\_\_
3. Can the student convey his wishes/needs to me? \_\_\_ yes \_\_\_ no
4. If you answered no, do you have suggestions regarding how I might know what the student wants or needs?  
\_\_\_\_\_  
\_\_\_\_\_

Behaviors:

1. Do you think the child understands simple rules of games? \_\_\_ yes \_\_\_ no
2. If you answered no, then do you have any suggestions so that the student can play safely?  
\_\_\_\_\_  
\_\_\_\_\_
3. How does the child handle conflict such as being on the losing team?  
\_\_\_\_\_  
\_\_\_\_\_
4. Does the child ever get aggressive? If so, what do you do when this happens?  
\_\_\_\_\_  
\_\_\_\_\_
5. Does the child have a hard time paying attention and staying on task. If so, what do you do when this happens?  
\_\_\_\_\_  
\_\_\_\_\_

Reinforcers

1. What activities, objects, and/or people does the child like?  
\_\_\_\_\_  
\_\_\_\_\_
2. What activities, objects, and/or people does the child dislike?  
\_\_\_\_\_  
\_\_\_\_\_

example, it will be necessary to familiarize students who have visual impairments with the surroundings. This includes identifying where equipment is set up, where boundaries are, and where extraneous equipment is placed such as chairs, tables, water fountain, steps, and ramps. Similarly, it will be necessary for students who use walkers or wheelchairs to have an uncluttered environment through which to move (Auxter, Pyfer, & Huettig, 1993). As noted above, extraneous equipment should be off to the side until needed. In addition, peers without disabilities need to be sensitized to the fact that students who use walkers or wheelchairs might move at different speeds.

For students with asthma or other respiratory disorders, the teaching environment should be well ventilated and the temperature should be set at comfortable levels. Additionally, the gym should be as dust-free as possible. This can be difficult, but you can request to have duct work and support beams cleaned annually along with daily dusting of all floors. Finally, you may need to allow students who are sensitive to pollen to participate inside with other physical education classes during days when the pollen count is particularly high. In extreme cases, the student can be allowed to sit out for a day or two rather than risking a severe asthma attack. Such policy should be reviewed daily until the student can participate safely.

### *Accessibility*

Establishing a safe environment also involves accessibility (Auxter, Pyfer, & Huettig, 1993; Grosse, 1990). Questions that should be addressed include: Is the activity area accessible for students who use walkers, wheelchairs, or crutches? Is the set up of equipment done in such a manner that students with ambulatory problems can easily maneuver around the playing area free of restrictions? If transfers or lifts are necessary, is the area freely accessible so that

such techniques are administered with ease? If you have children with visual impairments, have they been oriented to the environment so that they can move freely without the fear of bumping into equipment? Environments that are not accessible can create dangerous situations such as attempting to carry a student using a wheelchair down a flight of stairs because a ramp is not available. If you find that your physical education environment is not accessible, contact the principal immediately to share your concerns and to discuss ways to remedy the situation.

### **Equipment Safety**

#### *Keeping Equipment in Good Repair*

Equipment safety is critical for all students. The inclusion of students with disabilities should only heighten your awareness to carefully select and inspect all equipment. Inspections should be conducted periodically for worn-out, damaged, or broken equipment. Pay particular attention to equipment or standards that have been modified such as bats with built-up grips and home-made equipment such as basketball standards and panty-hose racquets. In addition, inspect adapted equipment that the student might bring into your activity area. This includes wheelchairs, walkers, beep balls, ramps, switches, helmets, and bolsters. If you are not sure how the child is supposed to use special equipment, if special equipment is fitted properly, or if special equipment is in good repair, consult with the child's physical/occupational therapist or special education teacher or parent (CIRA/CAHPER, 1994).

#### *Adapted Equipment*

Equipment should accommodate the unique movement needs of each mover. This can be accomplished by varying the size, weight, and texture of catching and throwing objects, striking implements, and other manipulative equipment. For ex-

ample, a catching station should have balls ranging in size from small to large, from light to heavy, and from foam to rubber. At a striking station, balloons may be more appropriate for children with limited object control skills while beep balls would assist children who are blind. Such equipment accommodations ensure that students with problems like those mentioned above will be able to perform skills of catching and striking without feeling threatened by a hard object traveling rapidly towards them. In addition, peers need to be sensitive to the motor skills of classmates with disabilities by varying such components as speed, distance, and force. For example, when tossing a ball to a partner with mental retardation and limited catching skills, students should use light force and stand closer to the catcher.

When adapting equipment, it also is important to consider the developmental level of the student with disabilities. Just like it would be unsafe for kindergartners to practice the skill of striking using regulation size tennis racquets, it would be unsafe for a student with Down syndrome who has small hands to use a regulation size softball bat when striking. Instead, they should strike with their hand and then progress to small, lighter foam paddles that can easily be controlled by small hands. Grips of such implements may also need to be altered for children with limited grasping skills. As mentioned previously, some situations require special equipment such as beep balls for students who have visual impairments or a bowling ball with a quick release handle for students with cerebral palsy who may have limited strength and gripping ability.

#### *Teaching How to Use Equipment Properly*

Perhaps the greatest concern for students with disabilities, particularly students with mental retardation and emotional disturbances, is teaching safe and appropriate use of equipment. For example, some children

with mental retardation may not be aware of safe ways to use physical education equipment such as not looking around before swinging a golf club or racquet. Children with behavior problems may exhibit inappropriate behavior with equipment such as using improper force when throwing balls to peers. Children with ADHD may be so impulsive with equipment that they do not take the time to think of the consequences of their action. In all of the above cases, it is important to teach these students how to use equipment safely.

### **Safe Teaching Techniques**

#### *Establish Safety Rules*

Quality physical education presumes that general techniques regarding safety are common practice among physical educators. Teachers have a responsibility for providing appropriate instruction, proper supervision, and generally conducting activities in a safe manner (Nichols, 1990). The first safe teaching technique is to establish and review safety rules with the class. Focus special attention on students with mental retardation, ADHD, or emotional disturbances who may not understand or who tend to forget or ignore these rules. Additionally, it is important to constantly remind students without disabilities to move cautiously around students who use wheelchairs, walkers, or who are blind.

#### *Supervision*

As noted earlier, physical educators are legally responsible for everything that goes on in the physical education setting. Thus, it is imperative that physical education teachers are able to observe all that is going on in the class, particularly when students with disabilities are included. Always be aware of children who have impulsive tendencies, children who can be aggressive, and children who wander away from the group as they need extra supervision. When possible,

place students with such characteristics close to you. If this is not possible, utilizing peers is always an option. For example, a peer can be assigned to make sure a child with autism does not run away from the group. For more extreme situations, utilize teacher aides. Note that when opting to utilize peers or aides, you should provide them with information about the child including specific precautions and their responsibilities in assisting the child.

### *Delivery of Instructional Cues*

The delivery of instructional cues should be provided in such a manner that everyone understands directions and safety cues. Do not assume that all students in your class will understand verbal cues. For example, children who have hearing impairments may need visual aides such as demonstrations, written material, or pictures to understand complex directions. Children with mental retardation, autism, or children who are blind may need physical assistance to understand how to move. Even children with relatively mild disabilities such as specific learning disabilities may benefit from extra demonstrations. If students do not understand directions and safety cues such as only having one person on the mat at a time during tumbling activities, there is a greater chance of injury.

Another factor in the delivery of instructional cues involves positioning children. Children with visual impairments who have some residual vision might benefit from demonstrations if they are positioned at the front of the class. Similarly, children with hearing impairments should be positioned so that they can read lips and have a better vantage point for picking up visual cues. Finally, children with ADHD, emotional disturbances, or autism should be positioned away from distractors including antagonizing peers, extraneous equipment, and markings on the floor.

### *Warm-up*

One of the most important safe teaching techniques is preparing students for activity through participation in some type of warm-up activity before actual skill instruction. For students with disabilities, this is particularly important. For example, a student with cerebral palsy needs to stretch hamstrings and groin muscles prior to walking with a walker during a movement exploration activity. Similarly, children with autism often need to experience repetition in warm-ups before they can be expected to participate in new activities.

While most students with disabilities can participate in the same warm-up activities as their peers, some students might need special warm-up activities. In the example above, the student with cerebral palsy might need to work on special leg stretches designed by the physical therapist and carried out by a teacher assistant while peers work on different stretches. Similarly, children with limited strength can be allowed to do modified sit-ups and push-ups, and children with asthma can be allowed to alternate between walking and running laps.

### *Activities*

Not only is warming up a safe practice, but it is important to plan activities that are progressive in nature. When activities are progressive, injuries can be avoided that could occur when prerequisite skills have not been taught or that are beyond the readiness of the student (CIRA/CAHPER, 1994). To illustrate, consider a student with low muscle tone who is working at a station that focuses on the handstand. This student could receive a serious injury because he or she is not ready to support total body weight on his/her hands. Instead, there should be various levels of weight transfer at this station that eventually lead to a handstand. This student may simply need to work

on transferring weight from feet to hands before focusing on an actual handstand.

Many unsafe practices can be avoided with careful planning that allows for the foreseeability of accidents (Gray, 1995; Grosse, 1990). When planning activities that can be high-risk for accidents such as gymnastics, aquatics, or the rope climb, extra precautions should be taken from the start. While important for all students, this is especially essential for students with disabilities who may be lacking in motor ability, cognitive awareness, or who may have other physical limitations. For example, during an aquatics session, the teacher can arrange for peers to assist students who use walkers and might need extra help walking around the pool area. At the same time, a student with a seizure disorder may need a "buddy system" in case the student has a seizure while in the water. In tumbling or gymnastics, students with ADHD, autism, or mental retardation may not be aware of the inherent risks of using the equipment without supervision. With these types of students you should constantly review safety rules, assign peers to assist in preventing them from inappropriate use of the equipment, and in extreme cases assign a teacher assistant to the student (CIRA/CAHPER, 1994).

### *Attitude*

Finally, safe teaching techniques include having a positive attitude towards teaching children with disabilities. This involves serving as a role model for students without disabilities on how to interact with, assist, and befriend students with disabilities (Block, 1994). Peers can be a tremendous resource in terms of making the environment safe, but peers will not know what to do unless you show them by example. Demonstrating safe practices for students with disabilities begins with the teacher. While safety should be of utmost concern, care should be taken to not be overly protective. All students should be allowed certain experiences with-

out the hindrance of exorbitant safety concerns (CIRA/CAHPER, 1994). For example, children who use wheelchairs often are excluded from team sports such as basketball and soccer. While participation in such activities can pose a risk to the student in the wheelchair as well as peers, with proper modifications and careful review of safety rules, many of these children can participate safely in team sports. An excellent way to illustrate how modifications to team sports might work is to invite an athlete from the community who participates in wheelchair sports such as wheelchair basketball.

### **Content**

One of the biggest misconceptions with inclusion is that students with disabilities have to follow the same content at the same level as their peers without disabilities. Actually, all students should be presented with physical activities that are individualized to meet their unique needs. In some cases these needs can be met by following the regular curriculum with simple modifications, while in other cases an alternative curriculum will need to be followed. In either case, forcing a child with or without a disability to participate in an activity that he/she is not physically, mentally, and/or emotionally ready for can lead to injury. Therefore, it is important to (a) determine if the content that you present is appropriate for the student's abilities, and (b) if not appropriate, determine what adjustments (or alternatives) will be needed to ensure safe participation in physical education.

### *Multilevel curricular selection*

In most cases, children with disabilities can follow the same content as their peers without disabilities. However, the difficulty level of the skill as well as how you present information may need to be adjusted. Presenting the same content but at different levels for children with disabilities is known as multilevel curricular selection (Block &

Vogler, 1994; Giangreco & Putnum, 1991). In multilevel curricular selection, all children work on the same content but at different levels matched to their physical, mental, and emotional abilities. This can best be facilitated by organizing the content in a generally progressive sequence of difficulty (Block, Provis, & Nelson, 1994; CIRA/CAHPER, 1994). For example, a child with a learning disability and related motor delays might hit a ball off a tee using a plastic bat, others hit a ball off a tee using a wooden bat, and still others hit pitched balls using a wooden bat. Similarly, a child with significant mental retardation might work on shooting a nerf basketball into a 6' basket during a game of "HORSE" with peers who shoot at an 8' or 10' basket from 5, 7, 9, or 11 feet away using a nerf basketball, rubber playground ball, or junior-size basketball.

### *Curricular Overlapping*

While many students with disabilities can follow the same content as their peers without disabilities, students with more severe disabilities may need to work on completely different curricular goals. Presenting alternative curricular goals within the same activity is known as curricular overlapping (Block & Vogler, 1994; Giangreco & Putnum, 1991). For example, a third grade basketball activity has partners taking turns dribbling across the gym. A child with cerebral palsy who uses a walker is working on improving her walking skills, and it would be inappropriate and unsafe to have her try to walk while dribbling a basketball. Rather, when it is her turn she walks with her walker back and forth across the gym (a shorter distance). Similarly, a high school student with Down syndrome has a goal of improving cardiovascular endurance. However, the class is in a soccer unit. This child plays a wing position and is encouraged by peers to continually run up and down the field. While this student works on cardiovascular endurance within the context of a soccer

game, his peers work on soccer skills and strategies.

### *Alternative Curriculum*

In extreme cases, a child with a disability might need to work on goals that cannot be incorporated into regular physical education activities. In such cases the child with a disability should be allowed to work on activities that are more appropriate and safe. For example, a 10th grader with severe cerebral palsy and mental retardation is in regular physical education during the week of a basketball unit. The class is now playing full court basketball games, and it would be extremely inappropriate and unsafe to attempt to alter the game to accommodate this student. This student needs opportunities to work on his individual goals which include bowling (using a ramp) and swimming at the local YMCA. The student goes swimming at the YMCA during regular physical education 2 times per week with two peers. During the other three days of physical education this student works on bowling in the corner of the gym with peers who rotate out of the basketball game to bowl with the student.

### **Summary**

Safety is one of the most important parts of quality physical education programming. Physical educators should follow safety procedures and conduct safe physical education programs for all children who enter their gymnasium. Inclusion of children with disabilities heightens awareness of safety issues, but rarely does it result in major changes to physical education programs. However, there are some things that should be examined to insure the safety of children with disabilities in regular physical education. When children with disabilities are included in regular physical education, find out as much as possible about the child including medical and health information, motor and fitness skills, and learning and

**Table 4**

**Have You Done Everything Possible to Ensure the Safe Inclusion of Students with Disabilities?**

1. **Have you taken the time to get to know the student with disabilities?**
  - Have you identified specific health/medical problems
  - Have you learned about each child's specific disability and learning characteristics as they relate to safety in physical education?
  - Have you talked with each child's parents?
  
2. **Have you gotten involved in the IEP process?**
  - Have you attended IEP meetings?
  - Have you shared your concerns for physical education with team members?
  - Have you provided specific information about your program to team members?
  - Have you helped write the IEP for physical education
  - Have you talked with specialist who work with the child?
  
3. **Have you determined each student's abilities through formal and informal assessment?**
  - Have you observed the child in regular physical education?
  - Have you noted the child's behavior as it relates to potential safety concerns?
  - Have you determined child's fitness as it relates to potential safety concerns?
  - Have you determined motor abilities as it relates to potential safety concerns?
  
4. **Have you examined the teaching environment for safety concerns?**
  - Have you examined the environment for adequate movement space for all children?
  - Have you established clear boundaries that all children can recognize?
  - Have you set up equipment in a safe manner for all children?
  - Have you examined accessibility of your environment including lockers and playing fields?
  
5. **Have you examined all of your equipment for safety concerns?**
  - Have you recently checked equipment for adequate repair?
  - Do you have necessary adapted equipment for children with disabilities?
  - Do all children know the proper use of equipment?
  
6. **Have you utilized safe teaching techniques?**
  - Have you established safety rules, and have you made sure all children understand these rules?
  - Can you adequately supervise all areas, especially areas where children with disabilities are moving.
  - Have you modified instruction so that all children understand directions?
  - Have you provided adequate time for all children to participate in a sufficient warm-up?
  - Have you planned activities that are progressive so that children are not participating in activities beyond their abilities?
  
7. **Have you considered modifications to content to ensure safety?**
  - Have you examined the need for multilevel curricular selection to ensure safety?
  - Have you examined the need for curricular overlapping to ensure safety?
  - Have you examined the need for an alternative curriculum to ensure safety?

behavioral characteristics. Carefully examine the physical education environment as well as the equipment that you use to make sure it safely meets the needs of students with disabilities. Finally, critique your classroom management techniques, teaching practices, and content that you plan on presenting to the class to insure that they match the learning style and individualized goals of students with disabilities (see Table 4 for checklist). Safety concerns should be addressed, and necessary modifications including the use of support personnel should be implemented. However, safety should not be the sole reason for excluding students with disabilities from regular physical education.

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