The least restrictive environment (LRE) doctrine in the Individual with Disabilities Education Act (IDEA) mandates that students with disabilities be educated together with students without disabilities. Placing students with disabilities into a separate adapted physical education program should occur only when the students are clearly not successful in general physical education (GPE) or when they pose a clear safety risk to others or to themselves (Wright & Wright, 2005). This LRE doctrine has been interpreted to suggest that most students with disabilities should start out in GPE with supplemental aids and supports as needed to ensure success. If the student is not successful even with these supports, then the student can be placed in an alternative setting (Block, 1996, 2007). Unfortunately, in practice, students with more severe disabilities never have the opportunity to try GPE. These students are directly placed in an alternative setting because the student’s IEP team (including the GPE teacher) believes that the student will not be safe or successful in GPE, will not benefit from GPE activities, or may require so many accommodations that his or her participation will detract from the experience of peers without disabilities. While these are all valid concerns, many students with severe disabilities can safely, successfully, and meaningfully participate in GPE programs at all age levels with careful planning and proper support (Block, Zeman, & Henning, 1997; Obrusnikova, Block, & Valkova, 2003; Vogler, Koranda, & Romance, 2000).

The purpose of this article is to detail specific strategies that allow a student with severe, multiple disabilities (SMD) to be included in GPE. These strategies revolve around three major themes: (1) identifying and selecting appropriate goals and objectives for the student with disabilities and then finding ways to help the student achieve these goals and objectives while in GPE, (2) making the GPE setting safe for the student with SMD, and (3) facilitating social interaction between students with and without SMD. Specific examples of simple modifications that allow the student with SMD to be safely and meaningfully involved in GPE will be presented throughout.
Who Are Students with SMD?

Students with SMD have a combination of two or more impairments such as movement difficulties (e.g., cerebral palsy), intellectual disabilities, sensory losses (e.g., vision or hearing loss), and/or behavioral learning difficulties (Orlove, Sobsey, & Silberman, 2004). These impairments are of a severe nature requiring systematic, long-term curricular, instructional, and environmental accommodations and support. Monica, for example, had prenatal trauma that led to problems with normal brain development. This resulted in multiple disabilities including cerebral palsy affecting movement in all four limbs as well as her speech, serious intellectual disabilities, a severe visual impairment, and a seizure disorder. Monica needs support in all aspects of her daily life, including moving from place to place, communicating, feeding, dressing, and bathing.

Selecting Goals for Students with SMD

Goals for students with SMD should be selected with three key points in mind: (1) access to the general physical education curriculum and peers without disabilities, (2) individually prescribed lifetime leisure goals, and (3) therapeutic goals. These three areas often overlap. For example, physical fitness is a part of most GPE programs, so the GPE teacher should attempt to allow a student like Monica to access physical fitness activities in GPE. At the same time, physical fitness is part of Monica's adapted physical education (APE) and physical therapy plan since she needs to work on stretching her tight muscles and strengthening her weak muscles. The teacher's task is to find ways to help Monica work on these therapeutic goals while participating with peers when they are working on physical fitness in GPE.

Access to the GPE Curriculum

Providing access to the general education curriculum (including GPE) has been supported by the most recent amendment to IDEA (2004). This requires the individualized education program (IEP) to include meaningful instruction and planning that focuses on students' participation within general education standards (Wright & Wright, 2005). In other words, part of the education program for all students with disabilities (including students with severe disabilities) should include curricular content and activities that are available to students without disabilities. The GPE content needs to be analyzed to determine whether it is appropriate for a student with SMD, since some GPE content might be appropriate with modifications. For example, while soccer in middle school GPE would seem inappropriate for Monica, there are ways she can participate in several parts of a soccer unit.

General physical education teachers often start the class with warm-up activities, and this is a good place for Monica to work on her therapeutic goals of stretching and strengthening. For example, Monica can do her stretches and strengthening activities at least once a day to help with muscle tone, prevent deformities, and assist with functioning (e.g., being able to reach farther and with more precision or sit with less support; Szczepanski, 2004). For example, Monica’s routine consists of practicing various stretches and positions at least once a day to help with muscle tone, strength, functioning, and comfort. Monica's TA can perform these stretches and positions with Monica during the warm-up.

To further facilitate Monica's inclusion in class, her peers are encouraged to interact with her during warm-ups. When the students work on skills such as passing and trapping, Monica can practice her lifetime leisure skill of bowling by pushing a ball down a ramp. A peer could trap the ball passed by Monica, then pass it back to another peer who traps the ball, picks it up, and places it back on the ramp for Monica. During game play Monica can continue to work on her therapeutic goal of keeping her head up (strengthening neck muscles) as well as her lifetime leisure goal of pushing the ball down the ramp. Monica's TA could push her back and forth along the sideline during a soccer game encouraging Monica to keep her head up and listen to the voices of her peers (remember, Monica has limited vision). When the ball goes out of bounds, Monica's TA could pick up the ball, place it on her bowling ramp, and assist Monica in pushing the ball down the ramp back into play. This way Monica is safely practicing her skills while being a part of the activity without requiring the GPE teacher to make drastic changes to the game for the students without disabilities.

Lifetime Leisure Goals

Most students with SMD will take a long time to learn even simple motor, sport, and leisure skills. While students without disabilities can be exposed to a variety of sport and leisure skills, students with SMD need to focus on only two or three lifetime leisure skills in order to have a chance to reach mastery before they graduate from school (Block, 1992; Brown et al., 1979). Therefore, it is necessary to carefully select skills that the student will be able to learn and master and that will be meaningful to the student both in school and in the future during community-based recreation. Such lifetime leisure skills can include bowling, golf, tennis, swimming, bike riding, hiking or walking, and shooting baskets. The specific lifetime leisure skills selected, along with modifications on how they are presented, will depend on the student's abilities and disabilities. As noted earlier, Monica has a lifetime leisure skill in GPE while her peers work on different activities.

Therapeutic Goals

A final consideration in creating goals and objectives for students with SMD is the implementation of therapeutic goals. These are often created by the student's physical and occupational therapists and are designed to improve muscle tone, prevent deformities, and assist with functioning (e.g., being able to reach farther and with more precision or sit with less support; Szczepanski, 2004). For example, Monica’s routine consists of practicing various stretches and positions at least once a day to help with muscle tone, strength, functioning, and comfort. Monica's TA can perform these stretches and positions with Monica during the warm-up.
session in GPE class. After this series of exercises Monica is usually able to do a better job of keeping her head upright, relaxing her body more, and pushing a ball down a ramp with more force.

Safety

Safety concerns are often the greatest obstacle to including a student with SMD into GPE. Many GPE teachers and IEP team members are concerned that a student with SMD will not be able to protect himself or herself or keep up with larger, faster, stronger peers. How could someone like Monica participate safely in a flag football or basketball unit? Safety should always be the first consideration when the IEP team discusses placement for physical education, and in many cases the student may need to be pulled off to the side or in the hallway for part or all of physical education (Block & Horton, 1996). However, some GPE activities are safe and others can be modified to be safe enough for the successful participation of a student with SMD. As noted earlier, a student like Monica can participate in the warm-up routine with her peers in GPE. There is no real danger of a student with SMD like Monica getting hurt during this activity if she is supported by her TA, APE specialist, or physical therapist. Peers can be trained to assist Monica or simply talk to her during warm-ups to promote social interactions (you will find more information on promoting social interactions below).

Other activities in GPE will require more extensive modifications to equipment and rules. For example, in a volleyball unit, one group of students can rotate over to play volleyball with Monica, hitting a beach ball over a lower net and staying in a designated area rather than moving about freely. This activity would be safe for Monica, and for Monica's peers it would be a fun diversion from regulation volleyball (which can be difficult and frustrating for many middle school students).

The GPE teacher and TA should also provide constant reminders to students without disabilities not to bump into a peer with SMD who uses a wheelchair or a gait trainer (a supporting device that enables its user to walk forward). They can also take precautions such as setting up a safe area or boundaries where only the child with SMD can move. Again, a TA, APE specialist, and even a peer tutor can monitor classmates and keep them from running into the student with SMD. In the event that an activity is deemed unsafe for a student with SMD, pulling the student off to the side or into the hallway is certainly a reasonable option. However, pulling a few peers to play with, assist, and interact with the student with SMD allows this option to still be inclusive and promote social interactions. Many of Monica's peers actually enjoy taking a break from their flag football or speedball game to bowl with Monica on the side of the field.

Social Interactions

Developing social skills is one of the major reasons to include students with SMD in GPE (Block & Brady, 1999). Inclusive settings offer students with SMD opportunities to interact and play with their peers in an active, fun setting. General physical education also provides a more stimulating environment (music playing, students moving about) than the quiet structure of the classroom. However, peers without disabilities might be a little hesitant to interact with and assist a peer with SMD who may appear very fragile, may be strapped into a wheelchair, or may not be able to speak or make eye contact. Many GPE teachers do not know how to promote social interactions between students with and without disabilities either. Fortunately, promoting social interactions between students with and without SMD is not as daunting a task as it might seem. For example, the GPE teacher can simply ask students to assist, play with, and include peers with SMD in as many GPE activities as possible. Not all children in GPE will feel comfortable interacting with peers with SMD, but there will always be some who will be happy to help by pushing them from station to station, being their partner, talking to them during down time or during warm-up activities, playing in a modified game with adapted equipment, or even going off to the side and practicing bowling or other activities with them.

General physical education teachers (with support from the TA, special education teacher, and/or APE specialist) can also train specific students to assist peers with SMD on a regular basis. Having trained peer tutors provide assistance to students with SMD will foster more frequent interactions among all students. Research has demonstrated that students can be trained to be effective peer tutors and to provide appropriate support and on-going interaction for their peers with mild to moderate disabilities (Halle, Gabler-Halle, McKee, Bane, & Boyer, 1991; Houston-Wilson, Dunn, van der Mars, & McCubbin, 1997; Lieberman, Newcomer, McCubbin, & Dalrymple, 1997; Lieberman, Dunn, van der Mars, & McCubbin, 2000). For example, Carl is a second grader with severe cerebral palsy, limited speech, and mild intellectual disabilities. Carl moves around in the gym using his gait trainer. Carl has trouble steering his gait trainer, and he cannot move quickly enough to protect himself from peers or balls. One popular warm-up in Carl's class is a ball-tagging activity with lots of movement and lots of flying yarn and Nerf balls. Carl loves this game, and a peer guides him in his gait trainer as he moves around the gym. Carl kicks a beach ball while he walks in his gait trainer, and any child who gets hit by Carl's beach ball is considered "tagged." Carl's peer (pretty much every child in the class takes a turn assisting Carl during the course of the week) helps Carl to steer and makes sure Carl and the peers moving near Carl are safe.

Something else a GPE teacher can do is to add some co-
operative activities to the curriculum that teach all students how to work together and cooperate. Cooperative challenges can become even more interesting with a student who is in a wheelchair and who has limited mobility and coordination. For example in the cooperative game of “Knots,” students are divided into groups of five to seven. All the students in a group place their hands in the middle of a circle, and each student randomly takes one hand from one peer and another hand from another peer. Then the task is to slowly unwind without letting go of anyone’s hand until the group is holding hands in a circle (basically undo the knot they created at the beginning). Usually students climb over each other, squat down, and pull each other’s arms to slowly untangle the knot. This task is much more challenging with a student who cannot move, cannot have his or her arms yanked, and who adds a large wheelchair to the mix.

Summary

Students with SMD are often excluded from general physical education, because the GPE content and activities are deemed inappropriate, of no benefit, or unsafe. In addition, most GPE teachers would argue that they are ill-equipped to make accommodations for students with such severe, multiple disabilities (Block & Rizzo, 1995). However, students with severe disabilities are safely, successfully, and meaningfully included in GPE programs across the United States every day. It can be done with the support of IEP team members such as teacher assistants, special educators, adapted physical educators, therapists, and parents. The key is to get the IEP team to help the GPE teacher carefully plan the inclusive program by (1) determining goals for the student with SMD, (2) analyzing safety concerns to determine in which activities the student can be fully or partially included with minor or major modifications, and (3) considering ways to get students without disabilities to talk to, play with, and assist peers with SMD. It is imperative for GPE teachers and the IEP team to determine the most appropriate place for a student with SMD to receive physical education services. In is hoped that more GPE teachers and IEP teams will conclude that general physical education might actually be that place.

References

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Martin E. Block (e.meb7u@virginia.edu) is an associate professor in the Kinesiology Department at the University of Virginia in Charlottesville, VA 22904. Aija Klavina is the president of the Latvian Disabled Children’s and Youth Sports Federation in Riga, Latvia. Wayne Flint is a general physical education teacher at an Albemarle County public school in Charlottesville, VA 22904.