



The Benefits of Implementing Disability Sports in Physical Education: A Model for Success

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The growing appeal and acceptance of disability sports within the general population makes them an attractive addition for any physical education program (Davis, 2011). While many sports, such as goalball and sledge hockey, are unique to the disabled population, others, such as wheelchair basketball and sitting volleyball are modifications of their traditional counterparts. When included in a general physical education (GPE) program, these sports provide complementary skills to students while delivering a powerful message about what it means to be an athlete with a disability. Disability sports provide an avenue for teaching *all* students the skills connected with the affective, psychomotor, and cognitive domains. This article presents a case study of the implementation of a disability sports curriculum in an elementary physical education program and its benefits. Suggestions are also provided on skill development, game modifications, and targeted learning outcomes that make disability sports accessible and beneficial to all students.

A Unique Curriculum

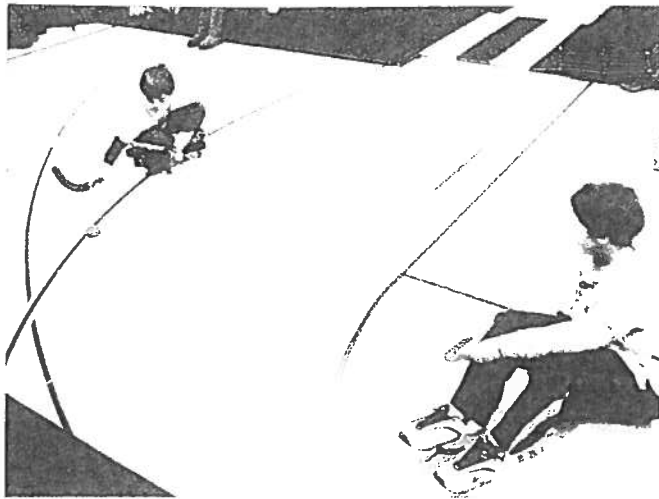
Contrary to what many people think, teaching disability sports is not about simulating activities intended to make individuals without disabilities understand the experience of having a disability. While simulations are thought to provide insight into the experience of being disabled, they fall short of making people more aware of what it means to be disabled because they expose the *limitations* rather than the *abilities* of people with disabilities (French, 1992). Alternatively, the implementation of a disability sport program in physical education provides a means for exploring some of the issues associated with what it means to have a disability. However, it is recommended that disability sports not be measured against the traditional way of playing a sport, nor should they be presented as activities only for individuals with disabilities (Barton, 2009).

The Players

Swanzy School in southern New England enrolls 400 students in kindergarten through fifth grade. Two physical education teachers undertook the project of implementing a disability sport unit during their students' physical education class. Their motivation was two-fold: (1) to educate fifth-grade students about the Paralympic Games and (2) to determine whether a disability sport unit in physical education would make a difference in how the students think about individuals with disabilities.

The Planning Process

The development of the unit coincided with the winter Paralympic Games of 2010. Criteria for the selected sports included optimal activity time, ease of skill devel-



To play sledge hockey, students use scooters and modified sticks.

opment, availability of teaching space, and the ability to transition quickly from skill development to game play. Less emphasis was placed on replicating the disability sport itself and more on the ability to make modifications aligned with the students' skill level and abilities. Over a five-week period, four disability sports were introduced during the students' 45-minute class period: wheelchair basketball, goalball, sitting volleyball, and sledge hockey. Specially designed equipment was used for each disability sport with the exception of sledge hockey. Weeks one through four focused on one sport each, and in week five, students were allowed to choose a sport. All classes elected to play sledge hockey.

Modifying the Sports

Because the goal was to educate students about the Paralympic Games and the sports associated with them, both teachers felt it was essential for students to have success playing the game. As in any teaching situation, particularly at the elementary level, adaptations were an integral part of the planning process. Throughout the unit, attention was also directed at developing progressions that enabled the students to experience a game situation with a high level of intensity.

Each lesson began with a brief video clip of athletes playing the selected sport. This gave the students a "picture" of the game and how it was played. Key movement concepts were identified, as well as the skills needed for participation. Students then transitioned into activities that allowed them to explore the equipment while acclimating themselves to the sport. Once students achieved the desired skills individually, they progressed to partner work and then to participation in small-sided games. During goalball week, for example, each student received several opportunities to get a feel for the texture and weight of the ball. Goalball is a game traditionally played by those with a visual impairment or who are blind, and all players wear eyeshades. The game is played in a simple 3 vs. 3 formation on a volleyball-size court. The ball has bells inside, which allow players to locate it as it approaches their court so they can block a throw to prevent a goal. Initially,

students were able to use their sight when practicing the skills of rolling and stopping the ball. After a short practice period, students were then asked to wear eyeshades while attempting the same activity. A sighted coach was included as an additional player on each team during the small-sided games. The coach provided specific instructions for where to move to secure the ball and for which direction to throw the ball. This enabled the non-sighted team members to be more successful at passing and blocking the ball.

Sitting volleyball was played in a similar fashion. Initially, students practiced their volleying skills in a standing position, and then progressed to kneeling or sitting on mats while they negotiated the challenge of adjusting their body without the added mobility of standing. A variety of balls, including beach balls and oversized volleyballs, were used to help students to get used to the adjustments, core strength, and communication skills required to play in a seated position. The teachers found that students were more successful when placed in teams of 8 to 10 students. More players meant more touches when passing between team members, particularly when a minimum of three touches per side was applied to the game (examples of sitting volleyball activities are presented in table 1).

During sledge hockey week, the students played on scooters with shortened sticks. A zone system was used, requiring students to remain in a specified section of the gymnasium. Five students per team played on the floor, and the remaining four or five students substituted "on the fly." Throughout the activity, students rotated through the zones so they would have a chance to play offense, defense, and goalie. Also, multiple soft balls, rather than pucks, were used so that students had multiple chances to score a goal. Wheelchair basketball was played with lowered nets (i.e., 6–8 ft.), depending on the students' age, in teams of six players each. Student size and chair skills enabled more players to be on the court during the games.

Discussion Questions

The classes concluded each week with questions designed to elicit higher-order thinking (table 2). This was an essential component for understanding students' thought processes and for making connections between skill competence and disability. Students would sit at the center circle to discuss what they had learned and how they felt about playing the sport. These debriefings allowed the students to share their initial thoughts of and reactions to the sport, as well as connect the sport with the athletes they had watched on the video at the beginning of class. It was also a time for students to reflect on the challenging nature of disability sports and the skills required for participation. Based on the students' feedback and participation level in the disability sports, the teachers felt that the Paralympic unit was beneficial.

Learning Outcomes

When initially asked about the Paralympics, most students stated that they did not know what the Paralympic Games

Table 1. Activities for Sitting Volleyball

Focus Area	Sitting Volleyball
Total Duration	45 minutes
Equipment	Large volleyball trainers, lowered volleyball nets
Activity 1	<i>Self-Passing</i>
Duration	8 minutes
Organization & Objective	First from a standing, then a sitting position, students demonstrate the ability to pass and set a large volleyball without dropping it.
Teaching Cues	<ul style="list-style-type: none"> • Keep eyes on the ball. • Make underhand pass using two hands folded one on top of the other. • Move feet to get under the ball to pass it continuously.
Activity 2	<i>Circle Passing</i>
Duration	8 minutes
Organization & Objective	Students are distributed into three small groups. Students demonstrate the ability to pass and set a volleyball trainer to different members of their group while standing, then while sitting, without allowing the ball to drop.
Teaching Cues	<ul style="list-style-type: none"> • Apply skills learned in previous activity regarding passing and setting the ball. • First while standing, then while sitting, attempt to pass the ball to each member of the group without letting the ball drop more than once. • Attempt to set the ball to each member of the group without letting the ball drop more than once.
Activity 3	<i>Partner Volley Challenge</i>
Duration	14 minutes
Organization & Objective	Students are distributed into two teams, positioned in two rows of 3 players per row. Students demonstrate the ability to pass the ball back and forth over the net 10 or more times without catching the ball or letting it bounce more than once while standing. After students complete this challenge, students repeat the task sitting across from one another with a lowered net between them as a team.
Teaching Cues	<ul style="list-style-type: none"> • Apply previously learned skills regarding passing and setting the ball. • Use upper body to move to the appropriate place to volley the ball back when in the seated position. • Keep buttocks in contact with the floor when doing this activity in the seated position. • Use hands and feet to move body from side to side and back and forth to get under the ball. • Stay in the zone and let team member closest to the ball make the play. • Communicate with the group about who is getting the ball.
Activity 4	<i>3 Small-Sided Games</i>
Duration	12 minutes
Organization & Objective	Students are distributed into six teams, two teams on each court. Each team attempts to volley the ball to all group members on their side of the net, and then pass/set the ball to the other team. Each team attempts to get as many volleys in their group as possible. If the ball drops, pick up where the group left off, then pass/set the ball to the other team. Students demonstrate the ability to play the game of sitting volleyball by applying previously learned skills.

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Table 1. Activities for Sitting Volleyball (Continued)

Teaching Cues	<ul style="list-style-type: none"> • Buttocks must remain in contact with the floor at all times and hands are used to move into position to pass the ball. • Rotate clockwise after all group members volleyed the ball and pass the ball to the other team. • Two players are positioned in the front row and one player is positioned in the back row in the center of the court. This can be modified based on the number of students per team.
Evaluation	Students demonstrated the ability to play the game of sitting volleyball by applying passing and setting skills, moving body to the appropriate place to pass the ball, rotating after successfully volleying the ball to all team members, and remaining in the sitting position.

Table 2. Essential Questions Following Disability Sport Activities

Sport	Discussion Questions
All	<ol style="list-style-type: none"> 1. What are your thoughts on the sport of [sitting volleyball, goalball, sledge hockey, wheelchair basketball]? 2. What challenges and/or accomplishments did you experience when practicing the skills and playing the game?
Sitting Volleyball	<ol style="list-style-type: none"> 3. What did you notice or feel about the sport when sitting and scooting to pass the ball versus kneeling or standing?
Goalball	<ol style="list-style-type: none"> 3. What did you notice or feel about the sport when you wore eyeshades? When you could see?
Sledge Hockey	<ol style="list-style-type: none"> 3. What did you notice or feel about the sport when using your feet to move versus a scooter and push poles? Small-sided game versus large-zone game?
Wheelchair Basketball	<ol style="list-style-type: none"> 3. What did you notice or feel about the sport when using the wheelchair to move about and your hands to propel it?

were and frequently drew comparisons to Special Olympics. Seeing the sports and playing the games helped them understand better the differences between the Olympic Games, the Paralympic Games, and the Special Olympics. A few student comments illustrated the learning that took place. One student said, "We played a bunch of Paralympic sports, and I think they were as fun if not more fun than regular sports." Another student stated his knowledge of the events, "Paralympics are basically for countries to show how well disabled people can play. I think it is kind of inspiring for the disabled people to see" (Grenier, Collins, Wright, Kearns, in review).

The students' families also benefited from their children's experiences: "I had to explain to my mom what the Paralympics were because she didn't know what they were. I sort of taught my parents about what it meant, and I told them some of the sports." Most importantly, the teachers found that students came to value the attributes of being an athlete with a disability: "I think people with disabilities can be as good as regular people without disabilities.... Being good at

a sport is like the same for all people, depending on what sport you play."

Coincidentally, during the final week of the unit, a short YouTube video clip (located at <http://www.youtube.com/watch?v=VhY-t88dTel>) was played that showed members of the 2010 USA gold-medal Paralympic sledge hockey team discussing their disabilities and what led them to play the sport. For the young student-athletes in the class, this was a defining moment that helped them understand just how similar they were to the Paralympic athletes. "I used to think people with disabilities were a little bit disadvantaged, but now that I have played some of the sports, I think they are just like you and me." Practice and performance were directly proportional to positive outcomes. One student stated, "It is just called practice; you play like you practice, and practice like you play, and doing that leads to being a more skilled athlete." In the end, students were able to articulate that being disabled did not preclude anyone from being an athlete. As one fifth grader stated, "I definitely think they can participate in sports, but they just play the sports differently than we do."



Students participate in a follow-up discussion with the teacher.

Conclusion

What initially began as a project to expand students' knowledge of Paralympic sports evolved into a school-wide experience that provided students with new insights into the term "disability" and into disability sports. Overall, students gained more knowledge of the Paralympic Games through their participation in the sports, which helped them appreciate the work and dedication needed to be a Paralympian.

A disability sport unit is one way to develop a more inclusive physical education program that can affect student learning and potentially reduce the stigma often associated with having a disability (Krahe & Altwasser, 2006). Schools in the United States and abroad should take advantage of the opportunity to use sport as a means for promoting social inclusion and equal opportunity in ways that celebrate ability rather than disability. As with disability sport, the overall commitment is towards removing or changing barriers while providing opportunities for physical activity and social interaction for students of all abilities.

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Paralympic Games can improve students' knowledge in many curricular areas, as well as increase disability awareness. Disability awareness can help students accept and understand individuals with disabilities and their potential to excel. With some careful thought, creativity, and collaboration with colleagues from other disciplines, this dynamic unit can be added to any program.

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