A Teacher's Guide to Adapted Physical Education

Including Students with Disabilities in Sports and Recreation

Fourth Edition

by

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Contents

About the Author

Martin E. Block, Ph.D., is a professor with the Department of Kinesiology in the Curry School of Education at the University of Virginia. Dr. Block has been the director of the master's program in adapted physical education at the University of Virginia since 1993. During that time, he has supervised and graduated more than 120 master's students. Prior to returning to college to earn his Ph.D., Dr. Block served as an adapted physical education specialist in Virginia and Maryland, working with children with severe disabilities and learning and behavior problems. Dr. Block has been a consultant to Special Olympics, Inc., helping to create the *Motor Activities Training Program,* a sports program for athletes with severe disabilities. He has authored or coauthored 5 books, 20 chapters in books, and more than 75 peer-reviewed articles and has conducted more than 100 international and national presentations on various topics in adapted physical education. Dr. Block is the president of the International Federation of Adapted Physical Activity (2015–2019) and has served as president of the National Consortium for Physical Education and Recreation for Individuals with Disabilities and as chair of the Adapted Physical Activity Council within the American Alliance for Health, Physical Education, Recreation, and Dance. He also was named the Virginia College Professor of the Year in 2004 by the Virginia Association of Health, Physical Education, Recreation, and Dance.

Table 7.4. Comparison of traditional and adapted sports for curriculum consideration into general physical education classes

Traditional sport	Adapted sport
Basketball	Wheelchair basketball
Soccer	Indoor wheelchair soccer Power soccer
Volleyball	Sitting volleyball
Tennis	Wheelchair tennis

Four Key Steps to Including Adapted Sports in General Physical Education

1. Determine the sport to play and then cross-reference that sport to an adapted sport.
2. Learn about similarities and differences between traditional and adapted sports skills and rules.
3. Assess the performance of all students for the skills needed to successfully participate.
4. Implement and teach using the traditional and/or adapted sport.

Step 1: Determine the Traditional Sport and Cross-Reference with Adapted Sport

As you consider including adapted sports into your traditional sports curriculum, you must first be aware of the sports that are represented in both categories. Many of the traditional sports have an equal counterpart in adapted sports, which will help you expand and develop a more comprehensive curriculum as you move toward a more inclusive teaching environment (see Table 7.4).

There are also several adapted sports that do not have a traditional sports counterpart that would be appropriate for inclusion into your general physical education curriculum (see Table 7.5). Adapted sports supplemented into your traditional curriculum will help you deliver a more comprehensive program and develop student interaction (i.e., social) for all skill levels (Davis, 2011).

Table 7.5. Adapted sport supplements to traditional sport in general physical education

Adapted sport	Possible supplement to traditional sport
Goalball: played by blind and or visually impaired	Volleyball and basketball
Beep baseball: played by blind and or visually impaired	Softball
Slalom: wheelchair obstacle course	Track and field

Table 7.6. Skill similarities between traditional and adapted sport

Traditional sport	Adapted sport	Skills
Basketball	Wheelchair basketball	Pass, dribble, shoot, retrieve, transition
Soccer	Indoor wheelchair soccer	Pass, dribble, shoot, block, retrieve
Volleyball	Sitting volleyball	Pass, block, serve, rotation
Tennis	Wheelchair tennis	Serve, forehand, backhand, volley

Step 2: Learn About Similarities and Differences Between Traditional and Adapted Sports Skills and Rules

The next step you should consider is learning about the skill and rule similarities between selected traditional and adapted sports. Identifying similarities between the two categories of sports will help you implement an inclusive curriculum. Review Tables 7.6–7.8 and Figures 7.3–7.5 to identify similar skills and rules between traditional and adapted sports that apply to basketball, soccer, volleyball, and tennis.

Many of the adapted sports have similar rules to their traditional sports counterpart; however, the interpretation of rules often is not as similar and will require you to learn the differences. Keep in mind you have the choice of modifying rules of the sports to help address the needs of all your students. Rule modification is an acceptable way to address inclusion; remember your selected rule modifications must work for all students.

Step 3: Assess the Performance for All Students on the Skills Needed to Successfully Participate

When considering inclusion of students with and without disabilities in the same setting, assessment

Table 7.7. Sitting and traditional volleyball rule interpretations

	Rule for volleyball	Rule for sitting volleyball
Serving (underhand or overhand)	Both feet behind the serving line	Buttocks behind serving line, legs allowed on the court
Passing (overhand or underhand)	May pass using momentary jump or airborne movement	Must remain seated on the floor; no lifting of buttocks to gain an advantage
Setting	Same as Passing	Same as Passing
Blocking	Not allowed to block serve	Allowed to block serve

Table 7.8. Examples of traditional and adapted sports rules for basketball and soccer

	Rule	Traditional sports	Adapted sports
Basketball and wheelchair basketball	Traveling	One step with ball, must dribble before second step	Two consecutive touches to the handrim with ball possession; must dribble, pass, or shoot before third touch
	Lane violation	Three seconds without attempt to shoot	Four seconds without attempt to shoot
Soccer and wheelchair soccer	Throw-in	Two hands, overhead	Two hands, overhead
	Goalie-area violation	Offense or defense allowed inside	Offense or defense not allowed inside

is preeminent, as was discussed in Chapter 4. The students' interaction with the environment (authentic) is one of the first assessments that should take place. This assessment is predicated on student functional abilities and how those abilities to meet the demand of the tasks are presented in various environments. Presented here is a modification of Newell's model of the interactions among the student's skills, the environment, and the task (Newell, 1986). Rather than offer the interactions in the model identified by constraints (e.g., student age, body type, gender), this modification focuses on the complexity of the task and environment interaction and the student's functional ability using a four-quadrant model (Davis, 2011).

Davis's environmental interaction model (see Figure 7.5) is presented as a vertical axis representing the *performer's functional ability* and a horizontal axis representing the *difficulty of the task and environment.* These axes intersect to create a four-quadrant (Quad 4) model to demonstrate dynamic positive (+) or negative (–) environmental interactions. As you apply the Quad 4 model to activity selections, you should consider the potential for your students' success (+) or nonsuccess (–). Any task–environment interaction with a student's functional ability resulting in a negative experience should be changed. For example, a student with high functional ability should experience positive environment interactions, or Q1, with difficult or complex tasks. The same with a task considered simple for a lower functioning student such as Q3. Selecting a task that is simple for a high-functioning student or a difficult task for a low-functioning student could result in unsuccessful task–environment interactions and thus require adjustments. The quadrants are meant to be considered *starting* points (i.e., initial assessments between the students' functional ability and the environment/task interaction). Skill performance assessment can follow this initial task–environment assessment.

Figure 7.3. Shooting in wheelchair and traditional basketball.

Assessing Skill Performance Once you have assessed the task–environment interaction for the students in your class, one type of skill assessment that could be used to assess performance is a content-referenced or curriculum-embedded criteria assessment. Conducting this type of assessment for a student with a disability is the same process used with students without a disability.

When you commit to using the combination of a traditional and adapted sports curriculum, you will recognize the similarities rather than the differences. For example, the skills in traditional basketball are pass, dribble, shoot, rebound, ball movement, and ball retrieval. When you teach passing (e.g., chest pass), you might break down the teaching points in the following manner:

- Eyes on target
- Two hands on ball
- Elbows flexed in preparation
- Elbows extend at ball release
- Thumbs point downward
- Follow-through

Figure 7.4. Chest pass in wheelchair and traditional basketball chest pass.

These same teaching points could be used in teaching the chest pass from the adapted sport of wheelchair basketball. By transferring these criteria to an assessment checklist and adding a quantitative measure, you can develop your assessment instrument and apply these same teaching points to skill analysis for both traditional and adapted sports (see Figure 7.6, modified from Davis, 2011). For scoring, you could place an X if the student demonstrated the criterion, a slash (/) for attempting the criterion, or a zero (0) if the student could not perform the criterion. You could design similar assessments for the other basketball skills such as dribble, shooting, or ball movement. All students bring their own unique set of skill abilities; once you have assessed environmental interaction and skill performance, you are ready to plan your teaching by developing unit and lesson plans. In addition, you now have information that could contribute to a student's IEP (e.g., present-level statements, annual goals, and short-term objectives).

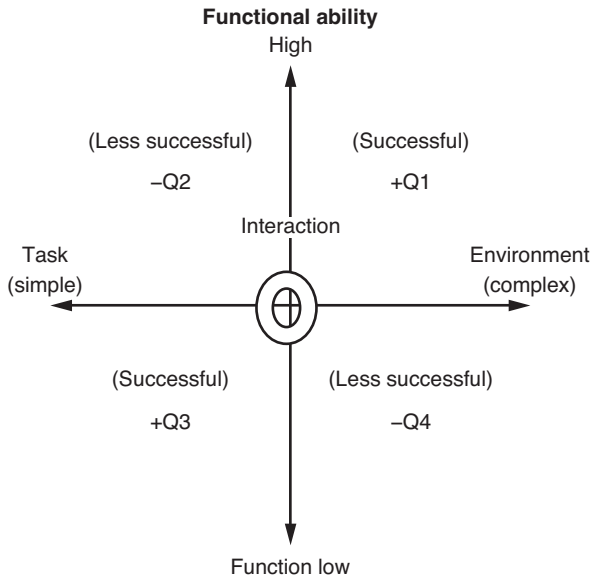

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Figure 7.5. Quad 4 environmental interaction model. (Adapted, with permission, from Davis, R.W. [2011]. *Teaching disability sport: A guide for physical educators* [2nd ed., p. 20]. Champaign, IL: Human Kinetics.)

Step 4: Implement and Teach Using Traditional and/or Adapted Sport

In order to implement and teach, you need to make sure you have planned for the following: the amount of time available, number of objectives to be mastered, equipment available, types and severity of disabilities in your class, opportunities to practice new skills outside the school setting, logistical concerns, and skills needed to be successful. As previously mentioned, when delivering the lesson in class, considerations must include teaching format, teaching style, and curriculum delivery. Whether you have decided to include one student with a disability in a traditional sport unit or to teach all students with and without disabilities an adapted sport, planning is the key ingredient. Figure 7.7 is offered as a general unit planning document that can help you implement your traditional sport curriculum with modifications for students with disabilities or include an entire adapted sport in your traditional curriculum. It shows a plan for teaching an entire adapted sport unit for all students, in this case sitting volleyball. This is a 45-minute class for 3 days per week using 1) 8 minutes of warm-up, 2) 5 minutes of instruction, 3) 25 minutes of activity, and 4) 7 minutes of cool-down.

Chest pass	Trials 1–5					Comments
Eyes on target	X	X	X			Needed verbal cues to keep eyes on target
Two hands on ball	X	X	X	/	/	Needed verbal and PA to hold the ball correctly
Elbows flexed in preparation	/	X	X	X	/	Needed PA to hold the ball correctly in prep
Elbows extend at ball release	0	+	/	/	/	Extension limited
Thumbs point downward	0	0	0	/	/	Extension limited
Follow through	/	/	/	/	/	Need reminders to follow through

Figure 7.6. Criterion assessment for chest pass in wheelchair basketball. (*Key:* X, accomplished; /, with assistance; 0, not accomplished; adapted, with permission, from Davis, R.W. [2011]. *Teaching disability sport: A guide for physical educators* [2nd ed., p. 18]. Champaign, IL: Human Kinetics.)