

Incorporating PACER into an Inclusive Basketball Unit

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All students can succeed and gain confidence in cooperative-learning settings.

What is PACER? Many individuals have heard of cooperative learning and what it can do for a physical education setting, but PACER (Performer and Coach Earn Rewards) is a relatively new way to incorporate cooperative learning in the gymnasium. The purpose of this article is to introduce PACER as an alternative to the traditional, whole-group methods of teaching physical education and to provide examples of how it can be implemented in a basketball unit and then modified to fit the needs of individuals with visual impairments within that basketball unit.

Cooperative learning is an instructional method designed to teach students to work together in small, structured, heterogeneous teams to achieve a common goal (Dyson, 2001). PACER consists of six components: teams, teacher workshop, practice time with task cards, peer assessment, teacher assessment, and team rewards (Barrett, 2005). PACER can be used with students of any age or grade; however, the success of PACER will depend on the students' ability to perform the role of coach, so it may be more appropriate for middle or high school students because they are more mature and have a better understanding of the sports and skills being discussed. PACER can be a great way of introducing new skills or refining and improving learned skills, because it allows the teacher to move throughout the gymnasium and provide assistance as needed. Each component is critical to the success of any lesson in physical education. The teacher may modify each component to fit the goals of the lesson and the needs of the students, keeping in mind that each component is a necessary part of the whole package of PACER.

Teams. The first component is to place the students into teams of three to four individuals. These teams should always be small and heterogeneous (i.e., high- and low-skilled students, boys and girls, and students of different ethnicities) to encourage interaction among all students on the team.

Teacher Workshop. The second component is similar to the coaches' meeting in the sport education curricular model (Siedentop, Hastie, & Van der Mars, 2004). In this component, the teacher provides the coaches with demonstrations, cues, and explanations of each activity, tactic, and skill or technique before the beginning of each lesson. During the teacher workshop, all students are gathered in front of or

around the teacher while the teacher demonstrates each skill. No coaches are selected at this time; each student will have the opportunity to be both coach and performer. Although there are no criteria for students to be coaches, since all students will have the opportunity to be coach, it is important that the teacher train and demonstrate to all students how to complete the role of the coach. If the teacher does not teach the necessary skills and how to give specific feedback, the students will not be able to complete their role as coach successfully. This is why the teacher workshop is one of the most important components of PACER. When a teacher is first introducing PACER to a class, he or she may spend most of the lesson on the teacher workshop to make sure all students understand their responsibility and that they are trained properly to provide feedback based on the skill performances they observe.

Practice Time with Task Cards. This third component gives students the opportunities to practice various tasks (Barrett, 2005). Researchers have found a positive, moderate-to-high relationship between correct trials and achievement in physical education (Ashy, Lee, & Landin, 1988; Buck, Harrison, & Bryce, 1991; Silverman, 1985; Solmon & Lee, 1996). Recognizing this correlation, one of the goals of PACER is to create an environment in which students can perform a high percentage of correct trials. Therefore, the PACER task cards need to be designed with correct performance in mind. Moreover, PACER, like many cooperative-learning strategies, has individual and team accountability built into the structure, which promotes engagement by giving students opportunities to respond. As Doyle (1979) pointed out, without accountability, there is no task.

The task cards ensure that the students complete each task and give students a template to follow as they work together as a team. Each team is told how many task cards it must complete before it can move on. As the teams begin completing the tasks, the fourth component is put into action

Peer Assessment. When pairs work together on the task cards within their teams, one individual is the coach and one is the performer. While the performer completes the tasks on the task card, the coach provides the demonstrations, cues, and feedback that were given to them during the teacher workshop. The cues and feedback are also prompted by the task cards. This makes the nature of the task cards (i.e., how the teacher designs them) critically important. The teacher can design the task cards any way he or she desires and can modify them as needed to meet the needs of the individuals in the class; modifications for individuals with visual impairments will be discussed later in this article.

Teacher Assessment. Once the set number of task cards has been completed by each team member and after each student has played the role of performer and coach, they move to this fifth component. In this component, the teacher randomly

picks one of the task-card assignments and asks each student on the team to perform the assignment for the teacher to observe whether he or she is correctly completing the task. If the entire team passes the teacher assessment, the team moves to the team rewards component. If one or more team members are unable to pass the teacher assessment, the team goes back to practice together until the team member(s) who did not pass can complete the tasks at an acceptable level determined by the teacher and stated by the teacher before practice. The teacher could also write down the acceptable performance levels on the task cards as a reference for students.

Team Rewards. Once all the team members have passed the teacher assessment, the team can participate in game play. While some of the teams are participating in game play, the teacher can help the teams that have not passed the assessment portion of the lesson to become successful and earn the reward for the day (Barrett, 2005).

It is important for the teacher to realize that the ability to include all six components in one class session will depend on the amount of time devoted to the class, students' ability to complete the task cards, and students' performance and mastery of PACER. If some components are not achieved in one class, then students can continue working on them during the next lesson. The continued use of PACER with the students will increase their ability to achieve all six components in a more efficient manner.

Teaching Basketball Using PACER

Table 1 illustrates how the six essential elements of PACER are incorporated into a middle or high school basketball unit. The class is divided into teams of four and each team can work at a separate basket or in a separate area of the gym. If the gym has only two baskets, the teams can rotate and take turns while practicing the drills. To avoid waiting, teams that are not using the baskets can work on skills they need to improve using the same task card. The teacher can also assign tasks to teams that are waiting to use the baskets, so they will spend time on practicing skills rather than doing nothing.

Each pair in the team shares a basketball, and while one student performs the role of the coach, the other student performs the tasks on the task card with the other performer on his or her team. Each team is composed of four students: two performers and two coaches who provide feedback. One coach and one performer will form a pair within the same team, and after a task has been completed, coaches and performers switch roles; in this way each student will have the opportunity of being both a coach and a performer for each task card. Each pair practices to achieve the goals the teacher has set for them (e.g., to complete five task cards, 20 trials for each task card, 80 percent correct during the lesson).

The task cards ensure that the students complete each task and give students a template to follow as they work together as a team.

Table 1. PACER Components and Modifications for Students with Visual Impairments

Teams

Use a teammate acting as a sighted guide or aide to the student with a visual impairment as needed.

Teacher Workshop

For individuals with visual impairments, the teacher explanation needs to be very explicit. The teacher should explain in detail so the individual can create a mental picture of what is happening. The teacher can also let the student feel the teacher's body movements throughout the demonstration. Task cards should be adapted to fit the needs of the individual (e.g., if he or she needs them written in large print or Braille).

Team Practice

The teacher should modify the task cards and activities based on the ability level and needs of the student with the visual impairment. The task cards should be in a format the individual can read. Skills and tasks should also be modified; for example, use a ball with bells inside so the individual knows where the ball is, and place a device that makes a sound or tap the hoop with a cane to let the individual know where the hoop is when shooting. Team members should be encouraged to call the student's name when passing to him or her, and clap so the student knows where to pass the ball. The other team members should also be trained to perform as physical guides for the individual so he or she can learn the proper critical elements of the skills.

Peer Assessment

Specific feedback, praise, and encouragement are extremely important for individuals with visual impairments. The feedback should be very explicit, and physical guidance can be used as needed. When the individual with the visual impairment needs assistance when serving as coach, a sighted team member should watch the skill performance and give a detailed explanation of the exact movements of the performer so the coach can give feedback to the performer.

Teacher Assessment

Goals for the individual should be based on ability and should be challenging. For example, the teacher can assess the individual based on performance of the skill, as with any other student, not only on whether the student makes the basket or not. A teacher can assess process as well as product and level of independence, but these tests should be realistic and can be designed in collaboration with the individual to ensure they are realistic for that individual. (Lieberman, 2005).

Team Reward

Game rules and activities should be modified as needed to ensure the success of all individuals in the class.

Figure 1 gives examples of four task cards for the overhead pass. Four task cards are used for this skill to minimize the complexity of asking the coach to attend to eight critical elements for one performance of the skill. Each task card asks the performer to complete the same task, but with different critical elements as the focus.

Basketball is challenging and can be modified for different levels of experience and class grades. Modifying the ball size, the basket height, and the number of players can make the game attractive to young children as well as high school students. The team reward of playing in teams of two or three can motivate the students to improve their performance and to be accountable for team success by working hard to achieve the goal the teacher assigned. Teaching PACER during a basketball unit in physical education lessons is a fun and exciting activity in which everyone can be successful.

Including Students with Visual Impairments Through PACER

Well-planned and carefully designed cooperative-learning strategies like PACER can be excellent tools for physical educators to foster and promote an environment that is conducive to learning and success for all students regardless of their ability level or degree of disability. Many individuals with visual impairments experience developmental delays, and this is not solely due to their disability, but rather from a lack of a wide range of opportunities to participate in physical activity (Lieberman & Houston-Wilson, 1999; Schneekloth, 1989).

When adapting the components of PACER for individuals with visual impairments (table 1), it is important to consider first the needs of the individual and to understand the extent of the child's visual impairment. Not every student with a

Figure 1. Task Card Examples for Overhead Pass

Task Card #1: Overhead Pass

Performer name _____

Coach name _____

	Performer	Coach
Task	Perform 10 tries of the overhead pass to your teammate following the cues given.	Give your teammate specific feedback.
Cues*	1. Look at partner. 2. Ball above forehead.	
Feedback		1. Position the ball high; remember it should be just above your forehead. 2. Remember to keep your eyes on your partner.
Number of Correct Trials		

Task Card #3: Overhead Pass

Performer name _____

Coach name _____

	Performer	Coach
Task	Perform 10 tries of the overhead pass to your teammate following the cues given.	Give your teammate specific feedback.
Cues*	1. Step in direction of the pass. 2. Release ball off first and second fingers.	
Feedback		1. You do not step toward the target; step to where you are passing. 2. Extend your legs, back, and arms.
Number of Correct Trials		

Task Card #2: Overhead Pass

Performer name _____

Coach name _____

	Performer	Coach
Task	Perform 10 tries of the overhead pass to your teammate following the cues given.	Give your teammate specific feedback.
Cues*	1. Elbows in. 2. Knees bent.	
Feedback		1. Remember to keep your elbows in. 2. Make sure your knees are bent.
Number of Correct Trials		

Task Card #4: Overhead Pass

Performer name _____

Coach name _____

	Performer	Coach
Task	Perform 10 tries of the overhead pass to your teammate following the cues given.	Give your teammate specific feedback.
Cues*	1. Point to target. 2. Follow through.	
Feedback		1. The pass will go where your fingers direct them; point at the target. 2. Good follow-through to the target.
Number of Correct Trials		

**You can modify the cues by the age and skill level of your students.*

visual impairment is totally blind; also, some may have been born with blindness and others may have acquired the impairment (Lieberman, 2005). This information is relevant as the physical educator establishes the student's present level of performance and then decides which teaching methods and modifications are most appropriate to maximize the child's potential (National Education Steering Committee of the Moving to Inclusion Initiative, 1994). However, this information on the extent of the child's disability should be used to guide the program, but never to limit the child's potential. Modifications will vary depending on the extent of the child's visual impairment. For example, a student who is totally blind may need a peer to work with him or her to observe the performer and describe the performance, so that the student who is blind will then be able to provide feedback to the performer. The GPE teacher should remember that visual demonstrations do not always provide enough information about how a skill should be done. The teacher should also give explicit verbal descriptions of each activity or movement as it is demonstrated. In some cases, it is necessary to use alternative means of instruction, such as physical guidance or tactile modeling, to help provide the student with a mental picture of what is expected and of what the skill should feel or look like as it is performed. For students with residual vision or partial sight, physical guidance may not be necessary, but it is still the job of the GPE teacher to communicate with the student to determine how best to demonstrate the skill or activity.

It is also important to encourage independence within the PACER teams (Lieberman & Cowart, 1996). Students with visual impairments are often overprotected by parents and teachers (Lieberman & Houston-Wilson, 1999; Sherrill, 1998; Skaggs & Hopper, 1996), which robs them of the opportunity to become leaders within their physical education classes and limits their chances to try new skills and activities. By using the PACER strategy, individuals with visual impairments will have the opportunity to be both a performer and a coach, which will allow them to try new things and to have the experience of being a leader in the physical education class.

When teaching a basketball unit to students with visual impairments, modifications to rules, task cards, or equipment may be needed to ensure success. For example, when teaching an individual who is blind, it may be necessary to tap the hoop with a cane or place a beeper on the hoop to alert the individual to where the hoop is located. Techniques such as calling the student's name or clapping will let the student know where to pass the ball, or where his or her teammates are located on the court. It may also be necessary to tape rope onto the floor so the student will have landmarks for the dimensions of the court and will know where he or she is located on the court. Ball modification may also be needed, such as using a ball with bells inside or a ball that is softer than a regulation basketball, to reduce the risk of injury and so the individual is aware of where the ball is traveling on the court (Williams, 2003). Finally, rule modifications may

also be warranted to ensure the success of the individual. It is important to remember that even with game or rule modifications, the game should be challenging for all individuals in the class. All these modifications should be made with the needs and abilities of the individual in mind and with the purpose of helping him or her gain the needed skills and confidence to participate in basketball outside school within the community as a lifetime recreational activity.

Conclusion

Children with disabilities will continue to be included in general physical education classes (Block, 2000; DePauw & Doll-Tepper, 2000; Hutzler, Fliess, Chacham, & Van den Auweele, 2002; Place & Hodge, 2001), but in order for it to be a successful process it needs to be well planned and highly influenced by the positive environment created by the teacher (Lieberman, James, & Ludwa, 2004). Using PACER is an excellent way for teachers to successfully include all learners by creating a positive environment in which students gain confidence in themselves through task cards and peer assessment, confidence in their class through the formation of teams, and confidence in their teacher through the teacher workshop, teacher assessments, and team rewards. Through PACER, the teacher can foster confidence, self-growth, and cooperation within the entire class, as well as ensure that each individual reaches his or her potential in physical education.

Through empirical assessment, PACER has been shown to improve student performance (Barrett, 2005). The authors hope the example presented in this article will help physical education teachers to incorporate PACER in their units and successfully include students with disabilities in their classes.

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