

Motivation and Establishing a Learning Environment



PRE-READING REFLECTION

1. Have you ever played a game (such as racquetball, tennis, or 1v1 basketball) against an opponent who was so much better or so much worse than you that it wasn't a good game? Did you or your opponent simply run up the score and go home early, or did you or your opponent modify your game (such as by serving only returnable serves, eliminating kill shots, or winning points only by using drops, drives, or passing shots)? What is your opinion about what players should do in these situations?
2. When you play softball at a family picnic or other mixed-age social gathering and a small child comes up to bat, do you pitch the ball fast or slow so the little kid can get a hit? Why?

OBJECTIVES

Students will learn:

1. Research has shown that some students find physical education alienating and humiliating.
2. Two "Hall of Shame" practices that lead to a negative environment are putting children on display and having captains publicly pick their teams.
3. Helping children develop a mastery orientation and growth mindset, believe they can be successful, and develop perceptions of competence and autonomy contributes to a positive learning environment.
4. Students with a mastery orientation are most concerned about mastering the content and self-improvement. They embrace challenging tasks and persist when faced with difficult problems.
5. Students with an ego orientation focus most on how their performance compares to others and seek to have others perceive that they are smart and have high abilities.

6. Students with a growth mindset believe that they can improve their abilities and intellect through hard work. For these students, success is due to effort.
7. Students with a fixed mindset believe that success is due to ability, rather than to working hard or making a good effort.
8. Teachers can teach a mastery orientation and a growth mindset and increase student achievement, satisfaction, and enjoyment in physical education.
9. Teachers contribute to a positive learning environment when they create opportunities for student autonomy and ensure students are challenged but can be successful.

KEY TERMS

Autonomy
Ego orientation
Fixed mindset
Growth mindset
Hall of Shame practices
Mastery orientation
Perceived competence

CONNECTION TO STANDARDS

Broadly speaking, this chapter discusses motivation for learning. Consequently, it addresses all National Standards for Physical Education (National Standards) and Common Core and other State Standards (CCSS). In particular, we describe principles of learning motor skills that are included under National Standard 2 and the value of challenge included under National Standard 5. Research on motivation for learning motor skills mirrors research on learning cognitive knowledge, and both fields address related social and affective dimensions of learning. The principles and suggestions for teaching derived from research on motivation provide powerful teaching strategies for meeting the National Standards and CCSS.

Introduction

Our goal in this chapter is to describe how to create a positive learning environment. A positive learning environment is one in which students are motivated to learn, think positively about their abilities to learn and succeed, work hard and persistently, and embrace challenging tasks. We will start with what research has shown to be negative aspects of some physical education environments and discuss two teaching practices to avoid. Just like the Hippocratic Oath taken by physicians, we start with this imperative for teachers: “First, do no harm.”

Next, we briefly summarize the large body of research on motivation that shows how teachers can create a positive learning environment. We end with examples demonstrating how you can easily apply these research findings in your classes.

Alienation in Physical Education

Physical education can be frightening for children in relation to both their emotional safety and their physical safety. Recall that children enter physical education with prior knowledge and experiences. Unfortunately, for some children these experiences may have been negative—even humiliating and embarrassing—and physical education can sometimes be an alienating place, especially for low-skilled children (Carlson, 1995; Dyson, 2006; Portman, 1995; Spencer-Cavaliere & Rintoul, 2012).

In one study, low-skilled, alienated students reported feeling powerless, frustrated, uninterested, and embarrassed. They did not enjoy physical education and withdrew from

participation (Spencer-Cavaliere & Rintoul, 2012). In another study, boys who had masculinities that were not the dominant masculinity and were taunted and mocked by students and teachers resisted physical education by finding clever ways to appear as if they were participating without actually doing so. The boys enjoyed physical activities outside of school where the purpose was play oriented and not winning in a highly competitive environment. In physical education programs, however, their body language (e.g., guarded, making their bodies small, curling into a ball with head down, avoiding eye contact, not smiling at teachers’ jokes) expressed their anxiety and fear. The researchers asked, “Why do certain students wear so much anguish in physical education?” (Tischler & McCaughtry, 2011, p. 47).

Although, in general, young children like physical education, believe that they are competent, and are motivated to learn (Lee, Carter, & Xiang, 1995; Xiang, Lee, & Williamson, 2001; Xiang, McBride, & Guan, 2004; Xiang, McBride, Guan, & Solmon, 2003), by the end of elementary school, more and more have become alienated. As physical education teachers, it is our job to turn this attitude around.

Hall of Shame Practices that Alienate Students and Harm the Learning Environment

One reason that the physical education environment can be embarrassing and alienating to children is that everyone can see their bodies and performance. Consequently, everyone knows who is highly skilled and who is not. You might do poorly on

a math test, but only the teacher will know. By comparison, the whole class can see if you miss the ball in physical education.

Hall of Shame practices are inappropriate teaching behaviors that do not meet professional standards of practice because they alienate students and harm the learning environment. Neil Williams (1992, 1994, 1996) nominated a number of common teaching practices and games for the “The Physical Education Hall of Shame.” Here we highlight two common teaching practices that he included in the “Hall of Shame” because of their negative impact on the learning environment. The National Association of Sport and Physical Education (NASPE), which is now called the Society of Health and Physical Educators (SHAPE), has also identified these practices as inappropriate (NASPE, 2009).

Putting Children on Display

As Williams (1996) states, having one child perform while all the other children watch can be a devastating experience for low-skilled and average-skilled children. This situation may arise in elimination games such as dodgeball in which the less skilled children are singled out and eliminated first, relay races in which the entire class watches to see who caused a team to finish last or lose the race, whole-class games like kickball in which only one child is performing at a time, and gymnastics or other classes when children stand on line waiting their turn.

Try to put yourself in the children’s shoes: Would you want to have your high school and college grades posted on the classroom wall? One way to eliminate these situations is simply to have all children work individually or in small groups at the same time. If everyone is concentrating on their own work, no one will be put on display.

Having Captains Publicly Pick Their Teams

Most physical education majors were among the highly skilled students in their elementary schools and consequently did not experience the humiliation of being among the last children picked to be on a team. As we all know, captains pick friends and the best players first, while the less skilled children stand

uncomfortably on display, feeling not only incompetent but also disliked.

You might think picking teams is simply part of childhood rituals with no impact later in life; however, the evidence suggests the contrary. In one study, 31% of participants reported they had been picked last for a team, and these participants were significantly less physically active as adults than adults who had not experienced being picked last (Cardinal, Yan, & Cardinal, 2013). In another study, 93.4% of teachers surveyed knew that having captains pick teams was an inappropriate professional practice, but only 71.4% never used this team selection practice (Strand & Bender, 2011). Researchers Cardinal, Yan, and Cardinal have this to say about the practice:

The practice of choosing sides or teams using a pecking-order approach must be stopped. It has the exact opposite effect of what is ultimately desired in physical education. It causes real and long-lasting harm to people’s psyches and their physical activity participation levels. It is a humiliating experience that only serves to marginalize and disadvantage those left standing on the line waiting and wondering when their name will be called, hoping they will not be called last (2013, p. 53).

Some teachers think having captains pick teams is the only way to ensure fair teams. In reality, students are rarely accurate judges of their peers’ abilities. There are many ways to select fair teams. We suggest you do it yourself and focus on assigning children to groups in ways that facilitate learning.

Remember that the goal of physical education is learning and establishing lifelong motivation to participate in physical activity, not in setting up “fair” competitions where the emphasis is on winning.

You might also consider that the national organization that represents physical education in the United States, SHAPE America, states that the practice of having captains publicly pick their teams is inappropriate. Highly competitive environments that publicly privilege those who are highly skilled are

SAFETY AND LIABILITY 9.1

Increasing Safety and Decreasing Risk of Liability: Guidelines Relevant to Content in this Chapter

In this box, we discuss specific guidelines built on information discussed throughout this text on professional standards of practice, negligence, and liability. The goals of these guidelines are to increase children’s safety and decrease teachers’ risk of negligence and liability.

- To decrease risk of liability, teachers follow professional standards of practice that are published by professional organizations.
- Developing autonomy by giving children choices about task difficulty is one way to differentiate instruction, which is a characteristic of professional practice promoted by SHAPE.
- For safety reasons, it is important in educational gymnastics to teach a mastery orientation, not a competitive ego orientation. You will always have some children who take gymnastics lessons. The skills they can perform are fun, and other children want to learn them. If the learning environment is ego oriented, some children might attempt to perform skills they are not ready to learn or perform safely and become seriously injured.

damaging. If a child gets hurt or parents complain and you are using practices that the national organization representing physical education educators states are inappropriate, you are vulnerable to charges that your actions were unprofessional, negligent, and caused emotional harm.

■ Motivation and a Positive Learning Environment

To create a positive learning environment, you must do more than simply eliminate harmful practices. In this section, we discuss research on ways to improve student motivation and create positive learning environments.

A large body of compelling research on motivation in education, physical education, and sport settings emphasizes the importance of children having

- A mastery orientation
- A growth mindset
- Perceived competence and autonomy
- Positive perceptions of and intrinsic interest in lesson content

Mastery Orientation Versus Ego Orientation

Students who have a **mastery orientation** are most concerned about learning the content, mastering the task or skill, and accomplishing their own self-improvement (Ames, 1992; Solmon, 1996; Treasure & Roberts, 2001). Children with mastery orientations embrace challenging tasks, don't give up when the going gets tough, and persist in working hard even when they encounter difficulties in learning the content. The priority for students with a mastery orientation is what they learn, rather than which grades they receive or how they compare to others. They enjoy mastering new skills (see **Figure 9.1**).



Figure 9.1 Focusing on mastery

Courtesy of John Dolly

Experienced Teachers Talk

Picking Teams

In one school we know, the teachers successfully eliminated the practice of having captains publicly pick their teams whenever children were on school property, including at recess, before and after school, and on weekends. The teachers simply banded together, taught the children why this practice was harmful, and gave them alternative ways to select teams. When children would say, "We played this really cool game," the teachers would ask, "How did you pick teams?" Most children admitted the truth, and eventually the culture of the playground changed.

In contrast, students who have what researchers call an **ego orientation** (or performance orientation) focus most on how their performance compares to the performance of others (Ames, 1992; Solmon, 1996; Treasure & Roberts, 2001). Their goals are high grades and high rankings compared to peers. They are very concerned with looking good and having others perceive that they are smart and highly skilled. They don't like challenging tasks because they are afraid they will fail and

What the Research Says

Mastery Orientation

In physical education, when students have mastery orientations, their skill development, engagement, and expectations of success are greater, and they perceive physical education as interesting, important, and useful (Treasure & Roberts, 1995; Xiang et al., 2003; Xiang et al., 2004).

In addition, teachers can create a mastery-oriented climate, thereby having a positive impact on students' motivation. Teachers who structure mastery-oriented climates have been found to significantly increase student achievement, satisfaction, beliefs that success is based on effort, the number of times students practiced a skill, students' persistence, and the difficulty level of the tasks they chose to practice (Ames, 1992; Parish & Treasure, 2003; Solmon, 1996; Treasure & Roberts, 1995). By comparison, in an ego-oriented climate, students did not prefer challenging tasks or taking risks and were less motivated or lacked motivation to engage in physical activity (Parish & Treasure, 2003; Treasure & Roberts, 2001).

When physical educators provide tasks at an appropriate developmental level and allow children to choose the difficulty level (see **Figure 9.2**), they are more likely to develop a mastery orientation, which involves practicing more, exerting more effort, and trying more challenging tasks (Byra & Jenkins, 1998; Solmon, 1996, 2006; Solmon & Boone, 1993). When children are engaged in lesson activities and motivated, they have more positive attitudes (Subramaniam & Silverman, 2000, 2002)—a goal worthy of all physical education teachers.



Figure 9.2 Children choosing the difficulty level

Courtesy of John Dolly

appear inept. This attitude, in turn, has a negative impact on learning, because such individuals will be reluctant to attempt skills they have not already mastered. An example in physical education is students who focus only on winning games and don't mind playing games where there is no challenge because they are much better than their opponents. They don't want to risk losing. They like having all the good players on their team.

Attributing Success to Effort Versus Ability: Growth and Fixed Mindsets

Another component of motivation is students' theories about whether intelligence and abilities can grow or are fixed. Dweck (2007) labels these attitudes a **growth mindset** and a **fixed mindset**, respectively. (The technical terms, which you might have learned in educational or sport psychology courses, are an entity implicit theory of ability for a fixed mindset and an incremental implicit theory for a growth mindset.)

Students with a growth mindset believe that they can develop their abilities (Dweck, 2007). They attribute success to effort and hard work, rather than to innate abilities. They believe that if they work hard they will become more skilled and more intelligent, and consequently will perform better. If they make mistakes or fail at a task, they view the setback as simply a sign that they need to work harder or find a different way to tackle the task. No better example of this attitude can be cited than the Olympic athletes who, when asked about their success, discuss how pleased they are that all of their hard work paid off.

Students with a fixed mindset believe that either you are athletic or not, intelligent or not, good at mathematics or not, good at reading and writing or not—and there is nothing you can do to change your abilities, because they are fixed traits. Students with fixed mindsets attribute success to ability, rather than to effort and hard work (Dweck, 2007). When they make mistakes or fail at a task, they believe this result shows that they lack ability, are not smart, and that working harder will not make any difference. Because they attribute success to ability, such individuals believe that smart, talented, and athletic students don't have to work hard; they equate working hard to what students who are not smart, talented, or athletic must do.

When students attribute their success to their abilities, they can be devastated when, as inevitably occurs, they are assigned

more difficult tasks in which they are less successful, because they assume this outcome means they are no longer smart, talented, or athletic. When faced with challenging tasks, they can become anxious and afraid to take risks. These students think they have no control over their success or failure because the outcome is due to their ability; in turn, when tasks are difficult, they demonstrate an attitude of helplessness.

Benefits of a Mastery Orientation and a Growth Mindset

The benefits of having a mastery orientation and a growth mindset are many, including increased achievement, higher levels of effort, more persistence, greater skill development, and higher levels of engagement in learning tasks. When students believe that through hard work, effort, and persistence they can become smarter and more skilled, they actually do so, and they deal better with any difficulties or obstacles they face during the learning process.

The best athletes are excellent examples of the benefits of having a mastery orientation and a growth mindset. Although they are performance oriented during games or meets (because of the nature of competition), they look for and expect critiques of their performance so that they can improve through hard work and effort. They don't assume they will get better simply because of their ability; they know the necessity of engaging in hard work and facing challenges.

Students' Beliefs About Their Potential for Success, Perceived Competence, and Autonomy

When children enter a classroom believing that they can be successful and competent in the content being taught, then they are, in fact, more successful (Solmon, 2006). In addition, if children believe they will be competent, they are more willing to engage in practice, concentrate, pay attention, and work hard (Solmon & Lee, 1996). The reverse also has been shown. When low-ability students don't believe they can be successful, they become less successful and have difficulty figuring out how to improve (Solmon & Lee, 1996).

What the Research Says

Growth and Fixed Mindsets

Research in physical education has shown that a growth mindset leads to more skill development, greater enjoyment of physical activities, and increased satisfaction in physical education, whereas a fixed mindset leads to increased anxiety, lack of motivation, lack of interest, less enjoyment, less effort, and less skill development (Biddle, Wang, Chatzisarantis, & Spray, 2003; Li, Lee, & Solmon, 2005; Ommundsen, 2001, 2003). In addition, when students have a growth mindset, they demonstrate increased intrinsic motivation (i.e., motivation to engage in an activity for its own sake, personal enjoyment, and meaning), persistence, and improved performance (Li et al., 2005). Research has also shown that an ego-oriented class climate can contribute to a fixed mindset, whereas a mastery-oriented climate can contribute to a growth mindset (Xiang & Lee, 1998; Xiang et al., 2001).



Figure 9.3 “You’ve worked hard! Now you’ve got it.”

Courtesy of John Dolly

Competence and autonomy are basic human needs (Deci & Ryan, 2002). Research in physical education has shown that higher levels of perceived competence have many benefits, including increased intrinsic motivation, engagement, and physical activity levels (Bryan & Solmon, 2007). **Perceived competence** occurs when children enter a classroom believing that they can be successful and competent in the content being taught.

Autonomy is the extent to which you have choices and control your behaviors. Student autonomy leads to increased engagement, self-sufficiency, and enjoyment (Standage, Duda, & Ntoumanis, 2003; Treasure & Roberts, 1995). When students perceive that they are competent and have autonomy in physical education, they increase effort, concentration, and persistence (Zhang, Solmon, & Gu, 2012) (see **Figure 9.3**).

Teachers can enhance motivation and learning when they support student autonomy in the following ways:

- Respecting and supporting students’ capabilities to make decisions
- Respecting and accommodating individual differences among students
- Offering choices among activities
- Offering choices in skill test item difficulty
- Offering choices in task difficulty (Bryan & Solmon, 2007; Johnson, Prusak, Pennington, & Wilkinson, 2011; Koka & Hagger, 2010; Prusak, Treasure, Darst, & Pangrazi, 2004; Shen, McCaughtry, Martin, & Fahlman, 2009)

Students’ Perceptions of the Value of Physical Activities

Research in physical education has shown that the extent to which students appreciate the value (i.e., usefulness, importance, and intrinsic interest) of physical activities can contribute to their motivation to learn and participate in physical activities (Chen, Martin, Ennis, & Sun, 2008; Xiang et al., 2003; Xiang et al., 2004). For children, interest appears to be the most significant influence on student motivation (Xiang, Chen, & Bruene, 2005), whereas the value of the task appears to motivate cognitive learning (Ding, Sun, & Chen, 2013). Thus, teachers should teach children the usefulness and importance of what they are learning so as to pique their interest and increase their motivation (Chen et al., 2008).

Strategies to Establish a Mastery-Oriented Climate, Teach a Growth Mindset, and Promote Autonomy

It might seem that having a mastery orientation, attributing success to effort, and maintaining perceptions of competence would simply be part of students’ personalities or result from their past experiences with a particular content area, such that teachers can do little to change students’ basic mindsets. The good news is that this isn’t so. Research conducted on students ranging from elementary through college age clearly shows that teachers can teach students a growth mindset, which in turn will result in increased achievement, effort, persistence in the face of difficulties, and choice of challenging tasks (Dweck, 1999; Dweck & Molden, 2005). More importantly, teachers can

Sport Slogans Emphasizing a Mastery Orientation and Attributing Success to Effort

Many coaches and athletes have promoted a mastery orientation through a focus on effort and hard work. Common locker room slogans and clichés reflect this orientation:

- The only place where success comes before work is in the dictionary.
- When the going gets tough, the tough get going.
- Winners never quit, and quitters never win.
- If you think you are green, you’ll ripen. If you think you’re good, you’ll rot.
- When you’re through improving, you’re through.
- If you have done your best, you have won.
- The person who wants to do something finds a way; the other kind finds an excuse.
- Often the roughest road may be the best way to where you want to go.
- “A lifetime of training for just 10 seconds!” (Jesse Owens, Olympic gold medalist sprinter)
- “Every single day I wake up and commit to myself to becoming a better player.” (Mia Hamm, professional soccer player)
- The glory is not in never failing, but in rising every time you fall.
- “It does not matter how many times you get knocked down; it matters how many times you get up.” (Vince Lombardi, NFL football coach)

What the Research Says

Is Providing Tasks that Ensure Success Enough?

Carol Dweck (1999) and her graduate students and colleagues have conducted many studies on having a growth mindset versus a fixed mindset. In one set of studies, they tested whether having a history of success (such as bright girls with excellent grades in math in elementary school) would contribute to confidence and ensure continued success as tasks became more difficult in middle school. This is a commonly held belief among teachers—that success breeds success and that self-confidence supports students' willingness to attempt more challenging work.

What the researchers found was surprising. Students who had fixed mindsets (that is, they believed they succeeded because of their abilities and that their abilities were a fixed trait) did not fare well when they faced difficult and challenging tasks. This was especially true for bright girls. Instead, their performance decreased. When students with a fixed mindset were given the choice of tasks, they chose tasks that were easy so that they would not make mistakes. They were afraid of failure, because to them failure meant they were not smart. In contrast, students with growth mindsets (who believed intelligence could be developed through effort and hard work) were resilient when they faced difficult work and continued to improve.

The researchers then focused on the students with fixed mindsets who blamed their failures on their ability

and responded to challenging tasks with helplessness. Half of these students were given training that included only tasks in which they succeeded. The other half was trained to reinterpret their failures. Instead of blaming mistakes on their ability, they were taught that when they made mistakes, it meant they needed to try harder. In other words, these fixed-mindset students were taught to have growth mindsets.

After the training sessions, the students who experienced success the entire time showed no difference in their performance when faced with challenging tasks; the performance of some even decreased. The students who were taught to take a growth mindset and view mistakes as meaning they had to try harder performed much better on difficult tasks. In addition, they began to show greater persistence by working longer on difficult tasks rather than giving up.

The researchers concluded that when students have a fixed mindset, ensuring success and confidence is not enough to encourage them to tackle difficult tasks or to respond to failure with resilience. However, you can teach such students to have a growth mindset and change a helpless attitude into one that encourages children to persist and work harder when they face difficult and challenging tasks.

establish a mastery-oriented climate that promotes a growth mindset, effort, competence, and embracing challenges, and supports student autonomy.

In the remainder of this chapter, we describe instructional strategies for applying motivation concepts in your lessons. We summarize this information in **Table 9.1** and align each instructional strategy with the three levels of games and gymnastics content and the two levels of dance content. Table 9.1 and our descriptions and illustrations will help you select skills and concepts that you can include in lessons to meet both the National Standards and CCSS.

Teacher Beliefs and Reflection

A. Have a Growth Mindset and Believe Physical Education Is About Mastering Skills

The very first step is to start with your mindset. You need to believe that your students are capable of increasing their motor, cognitive, affective, and social capabilities. Studies have found that teachers who demonstrated fixed mindsets did not produce as much achievement as those who had growth mindsets (Dweck & Molden, 2005). One reason for this difference was that teachers with fixed mindsets made quick judgments about what students could achieve. Teachers with growth mindsets, in contrast, viewed students as capable of changing; they both recognized growth and viewed students' current abilities as simply an assessment of where they were at that moment in time. A growth mindset is the same as taking a developmental

perspective. You also need to believe that physical education is about learning, not about playing games to determine a winner.

B. Reflect on Your Teaching in Relation to Motivation Principles

The most important way to maintain a mastery orientation and a growth mindset is to hold these attitudes and then act accordingly. Many times an ego orientation arises because children and teachers simply accept the attitudes and behaviors that seem appropriate and predominant in professional, collegiate, and interscholastic high school sports. You need to step back from the games and reflect on what you observe. Ask yourself the following questions:

- Do you emphasize the information that children have learned, the enjoyment of the game, and the value of effort?
- Do you or the children accept negative, hurtful behaviors as simply “part of the game”?
- Does any child feel incapable? Alienated? Humiliated?
- Do the children feel good about their performance and effort in a well-played game regardless of the score?
- Do the children value the challenge of working hard against a good opponent?
- If the children won but played poorly, didn't improve, and didn't try hard, did they gloat and claim they were successful?
- Have you taught children the tactics and tactical skills needed for the game (e.g., how to throw a lead pass, defend a receiver, and develop game tactics)?

Table 9.1 Motivation, Higher-Order Thinking Skills, and Social Responsibility Concepts

Game Content	
Level 1: Developing fundamental game skills	Level 2: Developing fundamental skills into tactical game skills
Level 3: Learning to use tactical game skills in modified gameplay	
Gymnastics Content	
Level 1: Developing foundational skills	Level 2: Combining skills; using movement concepts from the Laban framework to extend movement variety, partner work
Level 3: Group work and more difficult themes	
Dance Content	
Level 1: Body, effort, space, relationships	Level 2: More complex body, more complex effort, more complex space, more complex relationships
Motivation: Meets National Standards 1 and 2 for concepts and principles related to learning. Meets National Standard 5 for concepts related to challenge.	
Teacher Beliefs and Reflection	
A. Have a growth mindset about your students and believe that physical education is about mastery and learning, not competing in games to determine a winner. <i>Example:</i> View students as capable of changing, and view students' current abilities as simply an assessment of where they are at this moment in time.	B. Reflect on your teaching in relation to motivation principles. <i>Example:</i> Are you emphasizing what children have learned, the enjoyment of the game, and the value of effort? Do the children feel good about their performance and effort in a well-played game regardless of the score?
Challenge and Success	
A. Ensure tasks are developmentally appropriate and children are challenged and can experience success. <i>Example:</i> Set developmentally appropriate tasks with the appropriate balance between challenge and success.	C. Teach children to make decisions about the level of task difficulty so they are challenged and successful. <i>Example:</i> Practice jump, land, and roll. You can choose to jump from the single-level trapezoid or the double-level. You can make a shape in the air. You can roll in any way you choose. The key is to make choices so you are challenged but also successful.
B. Differentiate instruction. <i>Example:</i> Dribble while traveling as fast as you can without losing control of the ball. This will be a different speed for everyone in the class.	D. In partner work, teach children how to modify tasks to ensure challenge and success for both children. <i>Example:</i> Were you both successful with the skills you put in your jump rope routine?
	E. Teach children to modify game-like experiences and games to ensure challenge and success for teammates and opponents during modified gameplay. <i>Sample Feedback:</i> "Is your game allowing for the success of both teams, or is one team always on defense and never getting the opportunity to score?"

(continues)

Table 9.1 Motivation, Higher-Order Thinking Skills, and Social Responsibility Concepts (continued)

<p>Autonomy</p>	<p>A. Begin to develop autonomy: Have children choose equipment to practice game skills and skills for sequences of locomotion and body actions in gymnastics and dance.</p> <p>B. Continue to develop student autonomy by having them make decisions alone and with a partner about equipment and tasks based on the criteria of what will help them improve.</p> <p><i>Example:</i> Select the ball that will help you to improve the most.</p> <p><i>Example:</i> Select movements for your partner sequence that you both will enjoy and can learn successfully.</p>	<p>C. Continue to develop autonomy by having students design their own games, dances, and gymnastics sequences in small groups.</p>
<p>Growth Mindset</p>	<p>A. Directly teach a growth mindset.</p> <p><i>Example:</i> The single most important thing I can teach you is that you do not have to be “athletic” to learn motor skills. All you have to do is practice and work hard.</p> <p>B. Praise students for their effort, not their abilities.</p> <p><i>Example:</i> You tried so hard to stay tight when you held that balance. Good for you!</p> <p><i>Example:</i> We did challenging activities today, and I am so proud of how hard you worked.</p> <p>C. Teach children that making mistakes is part of learning motor skills and that it doesn't mean they're not good at sports or dance. Help them develop the grit not to give up when tasks are difficult and they make mistakes. Tell them that mistakes simply mean they need to try harder and practice more.</p> <p><i>Example:</i> How long will it take before you master dribbling? [Years of practice.]</p> <p>D. Explicitly teach children about the importance of persistence and effort, and encourage resilience on challenging tasks.</p> <p><i>Example:</i> Skills are hard to learn; you just have to keep trying.</p> <p><i>Example:</i> Challenging tasks are fun to practice and will help you improve.</p>	<p>E. Set challenging tasks and have children practice until perfected.</p> <p><i>Example:</i> With a partner or small group, design a game, dance, or gymnastics sequence that is challenging and practice it until you have it perfected and are proud of your work.</p>
<p>Mastery Orientation</p>	<p>A. Teach children the gym is a learning place—a place to master skills, not a stage for performing.</p> <p><i>Example:</i> You're working hard to improve your throwing and catching. This lets me know you appreciate the gym as a learning place for all students.</p> <p>B. Teach children to value self-improvement, not how they compare to other children: De-emphasize an ego orientation.</p> <p><i>Example:</i> I thought you really improved today. Give yourself a pat on the back.</p> <p>C. Base assessments on self-improvement rather than on a comparison with classmates' performances.</p> <p><i>Example:</i> Did your score improve from the start of the unit to now?</p>	<p>D. Teach children game play is not about winning or showing you are better than your opponent; it is about everyone improving.</p> <p>E. Teach children how to design, critique, and modify small-sided games to create a positive learning environment for all group members.</p> <p><i>Sample Task:</i> “Within your teams, discuss which tactics you used to score successfully. Then have a whole-group discussion and tell the other team which tactics they need to use to stop you from scoring. Play again. Notice if the other team has improved, and compliment them if they have.”</p>

If you don't observe mastery orientations and growth mindsets in your students, then change the task, have a class discussion, or give children individual feedback on their perspectives. If you are persistent, you can change the motivation climate of the class, even during competitive games.

Challenge and Success

A. Ensure Tasks are Developmentally Appropriate and Children Are Challenged and Can Experience Success

For children to develop mastery orientations and growth mindsets, teachers must design tasks that are developmentally appropriate and thus balance challenge and success (Treasure & Roberts, 1995). Children need to be challenged to learn more difficult skills and understand increasingly complex concepts. However, putting children in situations that are too challenging can result in children withdrawing effort because they don't believe they have any chance of succeeding (Solmon, 2006). Tasks are developmentally appropriate when children both are challenged and can succeed (see **Figure 9.4**).

B. Differentiate Instruction

Because students enter class with a wide range of skill levels, it is important to differentiate instruction so that all students can work at an appropriate developmental level. Research conducted on motivation supports the importance of differentiating instruction (Treasure & Roberts, 1995). In studies in which low-skilled students were given a progression of tasks that began with and built on their ability level, they had more success and greater perceptions of competence (Hebert, Landin, & Solmon, 2000; Solmon, 2006). If you differentiate your instruction and plan developmentally appropriate tasks, you can convince students that they can succeed and become competent.



Figure 9.4 Learning to slide is challenging for kindergarteners, but they can succeed.

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C. Teach Children to Make Decisions About the Level of Task Difficulty So They Are Challenged and Successful

You can help children develop a mastery orientation and a growth mindset by teaching them how to modify a task to make it harder or easier so they are challenged but also can succeed. Recall that you can modify tasks to make them either more difficult (MD) or easier (ME). When you present a task, you can explain how the children can modify it or ask them for suggestions for making the task easier or more difficult. What is critical is to teach children that the criterion for the task is to work at a level that is challenging enough to help them improve but not so difficult that they feel frustrated, helpless, or unable to succeed.

Sample Feedback

- “Is this center too easy?”
- “Is this station challenging you?”
- “After working at your center, if your center is boring and too easy, change the arrangement of the equipment and apparatus to make it more challenging. If your center is frustrating and too difficult, change the equipment and apparatus to allow you to succeed.”

Sample Messages to Teach

- “You won't improve without trying difficult tasks.”
- “Challenging yourself with difficult tasks is very important to learning.”
- “Isn't it fun to try challenging tasks?”

Sample Objective

- By the end of the lesson, children will know how to modify the centers to make them easier or more difficult and appropriately choose the level of difficulty that is best for their self-improvement.”

D. In Partner Work, Teach Children to Modify Tasks to Ensure Challenge and Success for Both Children

In level 2 content, children often work with a partner, and they must make decisions to ensure challenge and success for both partners. For example, when they design a challenge course for practicing a skill, a jump rope routine, or dance and gymnastics sequences, or play follow-the-leader, they must respond to the developmental level of their partner so both children are challenged to improve, but also both capable of success.

Example

- “Were you both successful with the skills you put in your jump rope routine?”

E. Teach Children to Modify Game-Like Experiences and Games to Ensure Challenge and Success for Teammates and Opponents During Modified Gameplay

In level 2 game-like experiences and level 3 game play, children will need to design and modify games to be learning environments so that children of all abilities can be successful and challenged within the game. This means partners and children within groups might practice using different equipment, rules, or boundaries. In addition, in invasion games, children will need to modify the intensity level of the defense.



Figure 9.5 “Set boundaries, and select the net and balls that are right for you.”

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Sample Modifications

- In striking games, have a smaller boundary on the side of the less skilled child, thereby creating more of a challenge for the more highly skilled child (see **Figure 9.5**).
- In striking games, have each child use a racket that is developmentally appropriate for her or him.
- In striking games, have each child hit the ball directly to the opponent if the opponent has problems keeping a rally going or hit the ball to the open space if the partner is more skilled.
- In batting games, pitch more slowly to less skilled batters and faster to more highly skilled batters.
- Have uneven numbers of players on teams—for example, 2v1 in a racket striking game or 4v2 in a volleyball-type striking game.
- Modify the level of defense for each individual player if necessary. We teach five levels of defense for invasion games, including dribbling games, keep-away games, and passing games:
 1. Feet still, arms still
 2. Feet still, arms wave and move
 3. Feet move, can't touch the ball
 4. Soft guarding (feet and arms can move, but defenders put gentle pressure on the offense)
 5. Full guarding

Sample Objective

- By the end of the lesson, students will understand that helping their partner requires them to find a level of defense that matches their opponent's abilities.
- By the end of the lesson, students will have created a 2v2 dribbling game with rules ensuring everyone can be successful when they play.

Sample Feedback

- “How did you challenge your partner but also help your partner succeed?”

- “This game seems to be one-sided. Dave has not scored at all, while Juanita scores every time. What changes can you make in this game to make it fair and fun for both of you?”
- “I noticed that Shelia and Shakita are not receiving their fair share of passes. Figure out why. Is there something Shelia and Shakita are doing or not doing that makes you not pass them the ball? Can you modify your game so everyone gets the same opportunities to improve?”
- “Is your game allowing for success for both teams, or is one team always on defense and never getting the opportunity to score?”

Autonomy

A. Begin to Develop Autonomy in Level 1 Content

You can begin to develop autonomy even in the youngest grades by offering children choices. When children are working on fundamental skills, offer them choices of balls to catch and have them explore the differences. Have them choose their shapes, locomotor skills, and body actions in dance and gymnastics. For example, “Design a dance that starts in a shape you find interesting, do one locomotor skill you enjoy performing, and end in another shape you like.”

B. Continue to Develop Autonomy in Level 2 Content

In level 2 content, continue to develop autonomy by giving children choices about equipment and tasks. Teach them to choose equipment based on the criteria of what is best for their learning. For example, you can provide several different appropriate balls (e.g., playground balls and basketballs or playground balls and foam balls). Then explain that they need to select the ball that will most help them improve at this point in time (see **Figure 9.6**). Provide a variety of tasks in centers or in different sections of the physical education space. Then teach children to select the task that will best help them improve.



Figure 9.6 “Select the ball that's best for you.”

Courtesy of John Dolly.

Sample Discussion

- “Today you get to choose which ball you will use to dribble. How do the balls differ?” [Answers: The yellow balls are larger, the red balls are smaller, and the basketballs are in between.] “You have used these balls in the past; what other differences do you remember?” [The yellow balls bounce higher and are easier to make contact with. The small, red balls are harder to bounce, but you can get your hand around them and direct them more easily. The basketballs are harder to bounce and harder to control.] “On what criteria do you base your choice of ball?” [The ball that will most help me improve.]
- “Today your team gets to choose which ball to use in your passing game. Those who love action might prefer the ball that travels the fastest. Those who like to plan their tactics as the ball moves might prefer the ball that travels more slowly. Some people like the smaller ball because of how it feels in their hand. Some like the big ball because of how they can make it move where they want it to go. As a group, select the ball that is best for all of you to improve your passing and tactics.”

Sample Experiment

- “Today you will get to select your practice ball. When I say ‘Go,’ you will have one minute to experiment with each ball. Then we will compare and contrast the value of using each ball, and you can select the ball that will best help you improve. This section of the class is group A, and they will start with the yellow balls. This section is group B, and they will start with the red balls. This section is group C, and they will start with the basketballs. I will tell you when to switch balls. Go.”

C. Continue to Develop Autonomy in Level 3 Content

In level 3 when children work in small groups, continue to develop autonomy by having them design their own games, dances, and gymnastics sequences.

A Growth Mindset

Some of the most interesting experiments are those in which researchers have instilled a fixed or growth mindset in comparable groups of students. The fixed-mindset group was told that success in learning the skill would be related to their innate ability; the growth-mindset group was told that success in learning the skill would be related to how hard they worked and how much effort they demonstrated. The growth-mindset groups outperformed the fixed-mindset groups—a result indicating that teachers can instill a growth mindset and increase achievement. Moreover, many studies have tested the impact of workshops designed to teach a growth mindset to low-achieving students. Studies consistently report that students can change their mindset, with their effort and achievement in school subsequently improving (Dweck, 2007).

A. Directly Teach a Growth Mindset**Sample Messages to Teach**

- “Everyone can learn skills if they work hard.”
- “The single most important thing I can teach you is that you do not have to be ‘athletic’ to learn motor skills. All you have to do is practice and work hard.”

- “Being highly skilled results from practice and hard work, not natural ability.”
- “Learning motor skills takes lots of time and practice.”
- “When you see an athlete on television, do you think he or she practiced hard for many, many years? Yes. To become an elite athlete takes years of practice.”
- “Did you know that Michael Jordan, who many people think is the greatest basketball player ever, did not make his varsity high school basketball team as a sophomore because he was not good enough? What he did was work hard and improve until he was the best in the world.”

B. Praise Students for Their Effort, Not Their Abilities

As Dweck (2007) explains, praising ability can backfire. In the short term, the child feels good. In the long term, however, such feedback leads to students avoiding effort and being afraid to work on challenging tasks for fear it will prove they are inept. Praising effort and attributing successes to their hard work will develop a growth mindset (see **Figure 9.7**).

Sample Feedback

- “You tried so hard to stay tight when you held that balance. Good for you!”
- “You all worked so hard today on swinging your arms when you jumped.”
- “I am so proud of how much work you put into creating your dance sequence.”
- “You selected the most difficult task to practice, and you practiced hard. That’s great!”
- “Did you work hard today? [Yes.] I noticed.”

C. Teach Children that Mistakes Are Part of Learning Motor Skills and to Develop the Grit Not to Give Up When Tasks Are Difficult and They Make Mistakes

Mistakes are part of learning motor skills and do not mean that a child is not good at sports or dance. Emphasize that mistakes



Figure 9.7 “You’ve worked so hard! Give yourselves a cheer.”

Courtesy of John Dolly

simply mean you need to try harder and practice more. Encourage students to approach difficult tasks with a positive spirit and the grit to not give up if they make a mistake (Goodwin & Miller, 2013). Help them assume the attitude that mistakes are simply opportunities to learn.

Sample Stories to Tell and Messages to Teach

- “Suppose I brought 10 cars to your repair shop, and you could fix only four. A few days later, I brought you 10 more cars, and you could still fix only four. Do you think you would be in business very long if you could fix only a few cars out of the total number brought in for repair? But if you were a baseball player and you had hits four out of every 10 times you came to bat, you would be a millionaire and in the Hall of Fame. Sport is a place you will often fail more than you will succeed, and that’s okay. Rickey Henderson used to hold the record for the most stolen bases. He also held the record for the most put-outs trying to steal a base. He was the best and the worst at the same time. Could someone be the best overall math student in your class and be the worst at the same time? No. Sports are different from other subjects.”
- “Sometimes you will be trying very hard to catch a fly ball and you will miss it. That does *not* mean you are not good at catching. It simply means you need more appropriate practice. Think about your performance technique: reach and give and try, try again.”
- “Don’t let mistakes get you discouraged. All beginners make mistakes when they are learning new skills.”
- “It’s okay to be a beginner” (Rink, 2004).

Sample Objective

- At the end of this lesson, children will understand that mastering motor skills takes years and years of practice.

Sample Questions

- “How long will it take before you master dribbling?” [Lots of practice in a variety of situations; years of practice.]
- “What do you need to do to improve your dribbling?” [Practice a lot.]

D. Explicitly Teach Children About the Importance of Persistence and Effort, and Encourage Resilience on Challenging Tasks

As with other aspects of a growth mindset and mastery orientation, you can directly teach children to value persistence, effort, and hard work, especially when tasks are challenging. Reinforce the idea that to learn, you must challenge yourself with difficult tasks, and highlight the importance of being resilient and not giving up when you have difficulties when initially performing a task. Encourage risk taking. Explain to the children that they need to take risks and work at the edge of their developmental level. Teach them that challenging themselves is fun and that they should approach challenging tasks with a willing, positive spirit. Provide, as options, tasks that are challenging, fun, and captivating.

It can help if you teach children what effort feels like. One suggestion is to have children rate their effort on a scale from 1 to 10 (Jacobson, 2013). When children complain that they can’t do something and it is too hard, ask them to rate their effort. Most children will respond with an honest self-evaluation, and you can reinforce the message that motor skills are difficult to learn and take lots of practice to master.

Experienced Teachers Talk

Keeping Score

I always offer children the choice of whether to keep score or not or to play a cooperative game. My kids are used to these choices. I chuckled one day as I listened to a group [of two teams] design their game and one team announced, “We don’t want to keep score. You can keep score if you want, but don’t tell us.”

Sample Feedback and Messages

- “Don’t give up. It’s hard to get free from the defender.”
- “Skills are hard to learn, but you’ve got to keep trying.”
- “Those of you who were successful, please share some tips.”
- “You can’t improve if you play it safe and only do what you already know how to do.”

E. Set Challenging Tasks and Have Children Practice Until Perfected

Succeeding at a challenging task and knowing this was due to your hard work can reinforce a growth mindset. Set a challenging task. Tell children the task is challenging and if they persist, work hard, and support each other, they can succeed. Give them the time to practice, structure their practice to help them stay focused, insist they aim to do the best job they can do, and help them critique their work so they know what they need to do to improve.

Sample Task

- With a partner or small group, design a game, dance, or gymnastics sequence that is challenging, and practice it until you have it perfected and are proud of your work.

Mastery Orientation

A. Teach the Children that the Gym Is a Learning Place—A Place to Work on Mastering Skills, Not a Stage for Performing

Teach children the important message that the gym is a learning place, that is, a place to work on mastering skills, not a stage for performing or showing off. You need to reinforce frequently that the physical education lessons are for all children to improve their skills. For young children, you also need to teach that physical education is not recess. Remember, for most kids, doing physical activities means play time. At recess, they play games for fun. Because our subject matter is fun for children, you will need to teach children that physical education class is about learning movement and that learning is fun. With

Parents and Youth Sports Leagues

What is the first question parents typically ask their children when they come home from a youth sports league game? The answer: “Did you win?” We hear this question even from parents and other adults who really don’t care whether the child won, but rather whether the child is having fun, being physically active, and learning skills. The first questions parents should ask are these: “Did you have fun? Did you try your best? How did you play today?”

young children, in particular, you need to reinforce frequently that physical education is their chance to practice and improve and have fun while doing so.

Sample Feedback

- “You’re working hard to improve your throwing and catching. This lets me know you appreciate the gym as a learning place.”
- “You did a great job today improving your striking skills. Isn’t it fun to learn new skills?”
- “Did you improve from the start of the lesson to the end?”
- “You did some very interesting and unusual balances today. You’re getting better and better at making your balances creative.”
- “Remember, the gym is a learning place and what matters is that you improve your skills.”

B. Teach Children to Value Self-Improvement, Not Comparisons to Other Children: De-Emphasize an Ego Orientation

You can teach children directly that what really matters is how much they improve, not whether they are better than their classmates. Explain that some children have older brothers or sisters and parents who teach them skills after school or during holidays. Other children might take private lessons or be members of a youth sports team and have had many more opportunities to practice. The amount of practice and effort determines your skill level.

If you value and reinforce self-improvement, the children will hear your message. In games lessons, avoid making comparisons, focusing on winning and losing, constructing class rankings, and posting scores. Instead, focus on how hard the children tried and how their effort led to improved play and skills (see **Figure 9.8**).

For safety reasons, it is equally important in educational gymnastics to teach and emphasize explicitly and repeatedly a mastery orientation, not a competitive ego orientation. Many



Figure 9.8 “I’m so proud of how hard you’re working!”

Courtesy of John Dolly

classes will include some children who have learned gymnastics skills outside of school and are more skilled than their classmates. If the learning environment in gymnastics becomes competitive and children take on ego orientations, some might attempt to perform skills they are not ready to learn or perform safely. This behavior could lead to serious injury. Others will give up and never try at all.

Sample Feedback and Messages

- “Today your goal is to improve your own performance. If you caught five balls in a row yesterday, try to improve on your record today.”
- “Remember, there are always some people who are more and less skilled than you are. What really matters is whether you improve your own performance.”
- “I thought you really improved today. Give yourself a pat on the back.”

Sample Teacher Behaviors and Attitudes

- In gymnastics, emphasize the quality of sequences rather than the difficulty of the skills.
- In gymnastics, be just as enthusiastic about the quality of the less difficult sequence as you are about the spectacular, difficult performance.
- In dance and gymnastics, recognize and celebrate children for the variety of ways they perform movements in a theme and for their ability to find inventive, creative movement solutions to exploration tasks.

Sample Objective

- By the end of the lesson, students will have learned to select skills and movements for their gymnastics sequences that they can perform safely, confidently, and successfully.

C. Base Assessments on Self-Improvement Rather than a Comparison with Classmates’ Performances

To set a mastery-oriented climate, base assessments on improvement (Treasure & Roberts, 1995). In addition to teacher assessments, you can have children and peers assess their own and each other’s improvement.

Sample Objective

- By the end of the lesson, students will know how to assess their improvement without comparing their performance to their partner’s.

Sample Feedback

- “Did you do better the second time?”
- “Did your score improve from the start of the unit to now?”

D. Teach Children Game Play Is Not About Winning or Showing You Are Better than Your Opponent—It Is About Everyone Improving

Games and game-like situations must be opportunities for all children to improve their skills and tactics. Competition, by definition, is a social comparison. Although we can easily eliminate or de-emphasize competition in dance, gymnastics, motor skills learning, and cooperative games, we cannot and should not eliminate or even avoid competition in physical education. Competition is the structure of gameplay and one of our most important content areas.

Nevertheless, teachers can do much to encourage a mastery orientation rather than an ego orientation during competitive

tasks and games. First, we can offer children choices as to whether to play a competitive game, a cooperative game, or a competitive game without keeping score. Second, we can teach children that the purpose of competitive games within physical education is for all children to improve their tactics and skills—that is, to develop a mastery orientation. Third, we can explicitly highlight the link between working hard, learning, and winning games—reminding students that learning is permanent, but winning a game is only a temporary occurrence.

It is not difficult to convince children that school and physical education are places where all children should get equal opportunities to learn and to improve. Unfortunately, it can be difficult to teach them how to maintain a mastery orientation during competitive games because the sports models they see on television all appear to be about winning, not learning. There is a difference between the ethic of competition in high school interscholastic, intercollegiate, and professional sports (which are focused on winning) and the ethic of competition in an educational setting or in sports for children younger than 13 years old (which is focused on learning and development for all children).

The problem isn't competition per se (it can be either beneficial or harmful), but rather the way in which children interpret competition and the learning environment established by the teacher. If the teacher doesn't talk about the winner, children don't focus on winning. If the teacher focuses on learning, so will the children.

Throughout games units, you need to teach and reinforce the message that although children compete against one another, the primary goal is not winning, but rather helping yourself and your classmates improve. In your feedback and conclusion to each lesson, you can emphasize the points the children have learned, the enjoyment of the game, and the value of effort. If children have acquired a mastery orientation over several units or years, they will be able to maintain a mastery orientation even during the most competitive games.

Sample Messages to Teach

- “In sports, you can play well and win. You can also play well and lose. You can play poorly and still win, and you can play poorly and lose. What matters is doing your best and improving every day.” (If students look at “losses” and “wins” in this way, they are more likely to focus on learning rather than the score.)
- “What is the purpose of physical education?” [To learn and improve.]
- “What did you learn today in your game?”
- “Compare and contrast the play of the different partners you played with today. What did each one do to be successful?”
- “You are screaming every time you score. What’s going on? What’s important in PE? Right, whether you and your classmates learn and improve.”
- “What did you learn about tactics in the past three minutes?”

E. Teach Children How to Design, Critique, and Modify Small-Sided Games to Ensure a Learning Environment for All Group Members

In level 3 games content, children learn to design games. They need to learn to recognize when the game is not a learning

environment for all children and to modify it to solve the problem. A game is not an equitable learning environment when

- Children are eliminated from the game
- Some children never get the ball
- Some children or one team is always on defense
- Some children or one team never gets the chance to score
- The score is lopsided

For a game to be a learning environment for all children,

- No child can be excluded from play by teammates refusing to pass that child the ball
- Children experience playing all positions for equal amounts of time (no one is stuck far away behind everyone in “out” outfield)
- Everyone has opportunities to score
- Time spent on offense and defense is roughly equal
- Neither the offense nor the defense overpowers the other
- Neither team overpowers the other

To make games equitable learning experiences, you will need to teach children to design rules and consequences for breaking rules that do not exclude children from practice or send children out of bounds to do exercise as punishment, as these practices will not contribute to learning.

Children also need to be sensitive to children who never get the ball or the chance to score and insist teammates treat each other fairly, or, if the problem is that the child does not know how to get into an open position to receive a pass, then teammates or their opponents need to help them learn how to do so. To solve the problem of one team overpowering the other, children can design an uneven scoring rule. For example, you could say, “When one team is six points ahead, two players must switch teams, and the entire group must discuss how to improve play to make the game more challenging.” The change-of-possession rule is often the problem when time spent on offense and defense is not equal. This rule can be modified to rectify the situation, such as by having the ball change possession if the offense drops the ball or if the defense touches the ball. Issues such as the lack of opportunity to play offense or the defense overpowering the offense can occur because at the elementary level, children's defensive abilities tend to be stronger than their offensive abilities, as they do not have to control the ball on defense. You can solve this problem by playing with fewer defenders, such as 3v2 or 3v1, and you can teach children how to limit their defensive intensity based on the capabilities of their opponents. We show you how to teach children to limit the defense in the games chapters.

Sample Feedback

- “Is everyone getting a fair chance to score? If not, find a way to solve this problem.”
- “Is everyone receiving passes? If not, what can you do to solve this problem?”
- “What is your change-of-possession rule? Is it working to give both teams equal time on offense and defense?”
- “Within your teams, discuss which tactics you used to score successfully. Then have a whole-group discussion, and tell the other team which tactics they need to use to stop you from scoring. Play again. Notice if the other team has improved, and compliment them if they have.”

Summary

Although we want physical education to be a positive learning environment for all students, some children may find physical education alienating and humiliating due to teachers' and peers' behaviors and attitudes. For example, putting children on display and having captains publicly pick their teams are harmful practices.

A large body of research in education and physical education indicates that teachers can create a mastery-oriented learning environment and teach children to have a mastery orientation and growth mindset, believe they can be successful, and have perceptions of competence and autonomy. This process contributes to student achievement, satisfaction, and enjoyment in physical education.

Review Questions

1. What are two “Hall of Shame” (Williams, 1996) practices that contribute to a negative learning environment?
2. Why do you think some teachers continue to use “Hall of Shame” practices?
3. Describe a mastery orientation and its effects on students' actions and attitudes.
4. Describe an ego orientation and its effects on students' actions and attitudes.
5. Describe a growth mindset and its effects on students' actions and attitudes.
6. Describe a fixed mindset and its effects on students' actions and attitudes.
7. Why do you, as a teacher, need to have a growth mindset about your students?
8. Why is it important for students to have perceptions of competence and autonomy?
9. Describe how to teach children to modify tasks to ensure challenge and success for all children during gameplay.
10. Describe how you can develop (a) a growth mindset and (b) a mastery orientation in your students. Give examples of feedback or messages to teach for each.

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