

# Moving and Learning in Physical Education: An Interdisciplinary Approach



## Creating a Motivational Climate to Foster Engagement in Physical Education

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*Five elements in a lesson will motivate students to become and remain engaged in learning.*

Research in sport and exercise psychology offers several practical implications for teaching in physical education. Many theories of motivation have been used to guide teachers and researchers in their efforts to provide effective instruction in physical education. In fact, according to Roberts (2001), there are at least 32 distinct theories of motivation, so narrowing that volume of information into a concise but meaningful message is a challenge. Perhaps the best way to organize information from sport and exercise psychology that can be applied in physical education is to focus on how to structure the instructional climate in ways that will encourage all children to be actively engaged in learning the lesson content. From that perspective, five key points emerge that physical education teachers can consider as they think about their teaching and the ways they can meet their students' needs. The following paragraphs outline these key points and provide some background information to support them. These elements do not operate in isolation from one another, but form an interrelated network of factors that can serve as a foundation for effective teaching and learning.

### Value

First, teachers must ensure that students see some value in the content that is the focus of the lesson. Sometimes teachers mistakenly assume that students see a reason to engage in the learning activities, when their students actually do not see a purpose in the task at hand. According to the expectancy-value model (Wigfield & Eccles, 2001), individuals are unlikely to engage in an activity if it has no value to them. Individuals can value a task or activity in several different ways. Eccles (2005) explains that there are four components of value. Attainment value refers to the importance of doing well on the task, or how important it is to an individual to do well in the activity. Intrinsic or interest value is the inherent enjoyment associated with an activity. Utility value pertains to the usefulness of the task. Even when the task itself is not important or enjoyable, it can still be valued if it is a step toward an important goal or a means to achieve a desired outcome. Perceived cost, the fourth component, is defined as what has to be given up in order to engage in the activity. Attainment and intrinsic value are probably the two most powerful components of value in physical education. What is important to physical educators, however, is that students must see some sort of value in the activity, or have a reason to engage actively, if they are to be motivated to learn.

## Potential for Success

Once students have been convinced that the content has value and there is a reason to engage in the learning activity, they must believe that they have the potential to be successful in the activity. Even when students see value in a task, if they do not believe that they can be successful, then they are unlikely to exert effort (Wigfield & Eccles, 2001). We assume that individuals enter achievement settings with the goal of demonstrating competence (Duda, 1992). If individuals do not believe they can be competent, or successful, then they are likely to withhold, or withdraw effort. For this reason, it is very important for teachers to structure the learning environment so that students are able to experience some level of success. This can be done by making sure that the activities are developmentally appropriate and that students can begin at a difficulty level that is challenging, but where they can succeed. Then, as skills improve, task progressions that are increasingly challenging can follow.

## Teacher Caring

A third key element in creating an optimal instructional climate in physical education centers on teacher caring. It is important for teachers to communicate to their students that they care about them as individuals (Noddings, 1992) and that they care whether or not their students learn the content (Wentzel, 1997). Owens and Ennis (2005) make a convincing argument that Noddings's ethic of care is a fundamental component of effective teaching in physical education. They conclude that teacher caring is a critical component in student success and that it is essential for teachers to establish a caring environment for learning.

## A Mastery Climate

A focus on learning and improvement, often referred to as a mastery (Ames, 1992) or task-involved (Duda, 1992) climate, is a fourth key consideration in creating an optimal instructional climate. Many studies conducted in a wide variety of physical activity settings support the idea that a focus on personal improvement and mastery of tasks, rather than on outperforming others, provides an environment that promotes learning for all children (Biddle, 2001). This is closely tied to ensuring that students believe they can be successful in an activity. When teachers encourage students to work to improve their skills, and define success as either meeting a criterion standard or achieving personal goals, then all children in a class can be successful. If teachers emphasize outperforming others, defining success only in terms of being an elite performer in the class, only a very few children can be successful by that standard. This is not to say that competition in classes is bad, but that competition should be used carefully. Competition is motivating for many individuals, and it can be used effectively in an instructional situation. But it is very important for physical educators to use competition in ways that encourage all students to work to improve. An overemphasis on winning may motivate children who are already skillful, but it can serve to alienate

those who are most in need of quality instruction and opportunities to practice and improve.

## Intrinsic Motivation

The final, and perhaps most important, theme from the sport and exercise psychology literature that has a powerful application in physical education is to foster intrinsic motivation. Motivation for an activity can be categorized as either extrinsic, that is, engaging in a behavior to attain an outcome, or intrinsic, defined as engaging in a behavior for the pleasure and satisfaction of the participation itself (Vallerand, 2001). When students complete tasks in class to earn a grade, they are extrinsically motivated, but when they engage in an activity because of interest or enjoyment, they are intrinsically motivated. One important goal of physical education programs is to encourage children to develop the skills and dispositions that provide a foundation for an active lifestyle. We are more likely to engage in an activity or behavior over the course of a lifetime if we are acting of our own volition (i.e., because we *want* to rather than because we *have* to). Self-determination theory (Ryan & Deci, 2000) explains how individuals can move through levels of motivation, moving from extrinsic reasons to intrinsic motives, accompanied by increasing levels of choice and self-regulation. If teachers create a controlling environment where students are forced primarily to comply with their mandates (i.e., only because they *have* to), their students will most likely decline to engage in similar activities when they are no longer under the teacher's control. Creating an environment that supports autonomy—by emphasizing elements of interest and enjoyment and allowing students to take part in decision-making processes to give them an active role in their own learning—will help students learn to value physical activity and foster intrinsic motivation. Consequently, children will be more likely to engage in physical activities outside of class, which will have a positive effect on their long-term health.

## Summary

When teachers are able to create an instructional environment in which their students value the content, believe that they can be successful at the task, know the teacher cares about their learning, focus on learning and improvement, and are intrinsically motivated, the stage is set for their students to actively engage in learning activities. An instructional climate that sets this stage is a critical component in effective teaching, because other pedagogical principles can be applied only when students are motivated to exert effort on learning tasks.

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- Use homework—assign background reading and quizzes.

Physical education programming at a district level is very important in this regard. With a comprehensive and coherent approach to incorporating exercise physiology principles and health—and skill-related fitness—into lessons, most of the examples listed above will become reminders, reinforcing prior learning rather than teaching new concepts.

### Alternative Approaches for this Lesson

Lessons such as this, which place students in groups at stations where they work on a skill, can be modified to include more content, higher levels of involvement, and higher levels of activity for all students. For example, after running the pattern and returning to the line, the receiver could do a different fitness drill each time before rotating to quarterback, performing shoulder stretches, pushups, hamstring/quad stretches, or an agility drill. This modification keeps the time on task the same, but replaces down time with strength, agility, and flexibility exercise.

The lesson could be made more active without adding the fitness stations. The lesson involved groups of five or six students, in the four corners of a gym, which had a line of volleyball nets across the center. Alternatively, the teacher candidate could have used groups of three to four students and had them throwing from the volleyball net outwards. This would have allowed five to seven groups of students. The students would have been more active with this arrangement (receiver catches, tosses ball back to the passer, jogs back, and by that time is required to become the new quarterback). Also, there would have been more stations, and thus the students would have learned more pass patterns.

### Conclusion

Some of the observations and recommendations described above may seem a lot to expect from an experienced teacher, let alone a beginning teacher. However, in view of the critical issues regarding children's health and the need for physical educators to demonstrate that they are improving that health and helping children become physically educated and fit adults, the authors believe it is time to set high expectations for our teacher candidates and for our role in their education and professional preparation.

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