

Shifts in Teaching and Learning: Physical Education

The [*National Standards and Grade-Level Outcomes for K-12 Physical Education*](#) (SHAPE America, 2014) provide the guidance for the teaching and learning process in physical education. The underlying premise is that student learning is the essence of high-quality physical education. The standards and outcomes cannot be attained without student learning, and student learning cannot occur without effective lessons, learning experiences, and assessments. In the development of the national standards and grade-level outcomes in K-12 physical education, the SHAPE America Curriculum Framework Task Force identified several areas of guiding research as critical to the direction and development of the grade-level outcomes, resulting in the shifts of the new Minnesota standards and grade-level benchmarks. These include:

- physical literacy
- student motor skill competency
- perceived competency
- student engagement and intrinsic motivation
- development of a mastery instructional climate with considerations given to student skill level, impact of competition and gender differences
- physical fitness and lifetime physical activity approach
- motor development

Key shifts called for by Minnesota's Physical Education Standards:

Physical literacy

Physical Education has gone through a transformation in rigor and focus over the past two decades towards "physical literacy." Physical literacy is the ability to move with competence and confidence in a wide variety of physical activities in multiple environments that benefit the healthy development of the whole person (SHAPE America, 2014). It supports the holistic development of students by encompassing all three domains of physical education (psychomotor, cognitive and affective), parallels terminology used in other content areas, such as health literacy and math literacy, and puts physical education in step with other subjects common core state standards. It includes not only physical competence and knowledge, but also the attitudes, motivation and social and psychological skills needed for participation. Without instruction and learning, physical education diverges from the core mission of schools and is too easily marginalized. Many factors influence student learning and the subsequent development of physical literacy. Understanding how this shift towards physical literacy differs from previous standards is important because it provides the foundation for all essential components of physical education.

Motor skill competency

A growing body of evidence indicates that motor skill competency is essential for participation in physical activity and for health-enhancing fitness. Motor skill competency is the underlying mechanism that promotes general engagement in physical activity and adequate health-related fitness through adulthood. Proficiency in motor skills leads to increased skillfulness in middle school, resulting in more options for physical activity participation and higher levels of health-related physical fitness and activity. Elementary physical educators play the most critical role in ensuring that all students develop motor skill competency through effective planning and teaching.

Perceived Competency

Perceived competence has also been found to positively predict physical activity levels. Perceived competence is associated with higher levels of enjoyment of physical activity. Students who perceive themselves as less competent are less likely to be interested in participating physical activity during physical education class or outside of class. Emphasizing skill development in physical education as a strategy to promote physical activity participation and fitness through age-appropriate, progressive, mastery-oriented tasks is essential. The SHAPE Curriculum Task Force noted that physical education is uniquely positioned within schools to foster motor skill competence.

Student engagement and intrinsic motivation

To create a learning environment that fosters engagement, researchers have identified the need to address factors that influence it. These factors include intrinsic motivation such as autonomy (choice of activity), relatedness (authentic social connectedness with others), cognitive demand and social comparison. Providing choice in the instructional experience is essential to attracting and maintaining student interest. Students with opportunities to choose their activity or variation of a learning task increase their feelings of autonomy which leads to higher motivational levels. Students who experience higher levels of relatedness through social support and encouragement are more likely to be engaged than those who do not. Ensuring that learning tasks have challenging cognitive demands can also increase student engagement and situational interests. Situations in which social evaluation or comparisons are readily made by peers diminishes both engagement and motivation, particularly for adolescents.

Mastery instructional climate with considerations of student skill level, impact of competition and gender differences

A mastery instructional climate is task-centered and focuses on self-improvement through student engagement and development of motor skill competence. Researchers have found that student engagement was enhanced by a mastery climate and that skill development within a lesson can increase engagement among students with lower perceived competence. A mastery climate promotes the development of skill competency while enabling less-skilled students to be successful in physical education class. In this environment, students focus on self-

improvement and practice skills in dynamic environments, and engage in small-sided games which facilitate maximal practice opportunities and skill acquisition.

Most students prefer to engage in physical education when the instructional environment is inclusive and feels supportive. To be inclusive, the learning experiences should be welcoming to students of all ability levels (through differentiated instruction) and should accommodate a variety of student interests. Often, especially for less-skilled students, a curriculum that is oriented toward competition team sports does not feel inclusive or supportive. A competitive instructional environment allows highly skilled students to dominate, reducing practice opportunities for other students and increasing their chances of being embarrassed.

Beginning in adolescence, gender differences become an important consideration for inclusiveness. Substantial evidence suggests that adolescent girls are dissatisfied with the traditional physical education curriculum. With the exception of highly skilled girls, as young girls' age, their preferences shift from competitive and organized activities to activities such as dance, fitness and cooperative games. Other gender studies indicate the same is true for some boys. Attending to gender differences and planning for positive learning experiences, such as a de-emphasis on full-sided games and competitive activities in the curriculum, go a long way in ensuring an inclusive and engaging instructional climate.

Physical fitness and lifetime physical activity approach

There is strong support for a health-enhancing and lifetime physical activity approach in physical education. Corbin et al (1994) argued that the Lifetime Physical Activity Model, focused on lifetime activities with enough energy expenditure to attain health benefits, was more appropriate for children and adolescents than the exercise prescription model adopted by adults and athletes. Since that time, many researchers have argued that physical education should focus on health-promoting physical activity practices and a curriculum that teaches lifelong activities. When students learn skills they can use across the lifespan, have personal or cultural meaning, and can be performed alone or with a partner (instead of a group or a team), it's more likely that they will continue physical activity through adulthood.

Standards-based accountability

Implementing a mastery-oriented instructional climate isn't possible without assessment. Both formal and informal assessments are necessary to measure student growth and mastery of content. Assessments should be integrated throughout the learning experiences to measure progress within and between lessons (formative) as well as cumulative learning at the end of the lesson series (summative). In a mastery environment, it's important to engage in a cycle of assessing, analyzing the results, and applying analysis through corrective feedback or modification of learning experiences.

Assessment in physical education comes with a unique set of challenges. Often physical educators will interact with as many as 600 children a week. That makes collecting, analyzing, and tracking assessment data demanding and a daunting task. Advances in software and technology have made assessing, collecting data and tracking students' progress easier and more doable. No matter what the challenges, standard-based learning requires continual assessment.

Motor development

Research in motor development provided the foundation for the development of the grade-level outcomes. Motor development is a dynamic process that is affected by the individual, the movement tasks and the environmental context. Key factors in the process of motor development are the opportunities for practice, encouragement, instruction, and environmental context. The decision about when to provide practice, encouragement, and instruction is based on identified stages of motor development, just as these stages form the framework for grade-level outcomes. These stages are identified in the SHAPE America scope and sequence that accompanied the release of the *2014 National Standards & Grade-Level Outcomes for K-12 Physical Education* and were adapted for the Minnesota K-12 Academic Standards in Physical Education:

- **Emerging** – Learners are in the beginning stages of developing movement skills and knowledge. Skill competency emerges through participation in deliberately planned educational games, educational dance, education gymnastics, and/or practice tasks.
- **Maturing** – Learners consistently, efficiently and effectively performing the critical elements of the fundamental movement skills.
- **Applying** – Learners can perform skills or apply the knowledge components of the grade-level benchmarks in a variety of physical activity environments. Apply is the ability to take what was learned in one environment, context or situation, and use it in a new yet similar environment, which requires an ability to adapt the skill or knowledge to the specific characteristics of the new environment.

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