

## **Standards-Based Instruction in Physical Education**

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### **Abstract**

School-based physical education in the United States continues to be seen as secondary to core curriculum. Therefore, limited resources (i.e. time, professional learning, funding, etc.) make it difficult to have quality physical education programs. This includes the number of students placed in each class, limited space for instruction, and teachers who are not always provided with the knowledge to instruct students based on 21<sup>st</sup> Century Skills (life and career skills; learning and innovation skills; and information, media, and technology skills). This paper links the standards-based movement for what has been accomplished in North Carolina for K-12 physical education programs, based on 21<sup>st</sup> Century Skills and the five standards used for pre-service teachers in the state. In-service teachers, pre-service teachers, supervisors and mentors, and physical education teacher education (PETE) programs can all benefit from the content presented, as they aim to be more effective in promoting quality physical education programs in the state of North Carolina.

As our nation continues to remain focused on high educational standards in the 21<sup>st</sup> Century, physical education programs must also foster growth and development among students, provide effective instruction, and hold students accountable for learning, while maintaining an atmosphere that is meaningful, safe, and enjoyable for all participants.

### **Standards-Based Instruction in Physical Education**

School-based physical education in the United States continues to be seen as secondary to core curriculum. Therefore, limited resources (i.e. time, professional learning, funding, etc.) make it difficult to have quality physical education programs. This includes the number of students placed in each class, limited space for instruction, and teachers who are not always provided with the knowledge to instruct students based on 21<sup>st</sup> Century Skills (life and career skills; learning and innovation skills; and information, media, and technology skills).

Teachers in the 21<sup>st</sup> century are expected to produce evidence of student learning and achievement in the core academic content areas (social studies, math, science, language). Students should also be provided with the skills necessary to be successful in their future endeavors for life beyond K-12 education. Therefore, the preparation of all teachers is critical to the success of our future students. The literature base on effective teaching sets the foundation for teaching and instruction in K-12 education, but what is considered "good" has changed over the years. Educators must have student learning as their primary goal of teaching, which means that assessment and accountability measures must be in place for teachers; and for this reason, schools and institutes of learning must focus on teaching

to the standards, often written precisely for a specific content area or domain.

The National Association for Sport and Physical Education (NASPE) has identified six national standards that can be used by teachers, schools, districts, and states to guide the development of physical education programs in curriculum, instruction, and assessment (NASPE, 2004). The standards identify what a student should “know and be able to do” after a quality K-12 physical education program. In addition to the National Standards for K-12 physical education programs, NASPE has also identified six “Beginning Teacher Standards” (NASPE, 2008b) developed for physical education teacher candidates as they prepare to enter the field (See Table 1). While the NASPE Physical Education Standards “provide a basis for instruction, student assessment, and evaluation of programs at national, state, and local levels” (NASPE, 2004), the NASPE Content Standards are aligned with the National Standards for Physical Education, reflect best practices of teacher education, and identify measureable and achievable outcomes in an initial physical education teacher education program (NASPE, 2008b). Many states adopt the NASPE Standards to guide curriculum and instruction in physical education in their schools/districts. Several years ago the North Carolina Department of Education developed a task force to write the standards by which teacher candidates would be evaluated in all areas of teacher preparation in North Carolina. Teacher preparation programs can use the standards developed to hold teacher candidates accountable in a variety of ways.

The purpose of this paper is to link the standards-based movement for what has been accomplished in North Carolina for K-12 physical education programs, based on 21<sup>st</sup> Century Skills and the five standards

used for pre-service teachers in the state. In-service and pre-service teachers, supervisors and mentors, and physical education teacher education (PETE) programs can all benefit from the content presented, as they aim to be more effective in promoting quality physical education programs in the state of North Carolina. Each of the five standards for in-service and pre-service teachers is described below with the specific emphasis on effective teaching.

### **Standard 1: Teachers demonstrate leadership**

The environment in which a physical education teacher provides instruction is very complex (Rink, 2010); therefore, physical education teachers must be leaders in their classrooms. In addition, because of the impact that physical activity has on academic learning, disease prevention, and many other positive outcomes, physical education teachers must be leaders in their schools.

NASPE supports First Lady Michelle Obama’s *Let’s Move!* Campaign and provides a framework for a Comprehensive School Physical Activity Program (CSPAP). The CSPAP framework includes five components with quality physical education as the foundation. Each component is briefly described below, paying specific attention to how physical education teachers can be effective leaders.

#### *Physical Education.*

Quality physical education provides standards-based instruction on motor and movement knowledge and skills, physical activity and fitness knowledge and skills, personal and social responsibility, and valuing physical activity for its many benefits. The difference between physical education and physical activity is clearly articulated. “The purpose of a good physical

education program is to educate students for a physically active lifestyle. The purpose of a good physical activity program is to provide students with their daily needs for physical activity” (Rink, Hall, & Williams, 2010, p. 16).

Quality physical education provides learning opportunities, appropriate instruction, meaningful and challenging content, and conducts student and program assessment (NASPE, 2004). A quality program improves physical skills and abilities, physical fitness, readiness and enthusiasm for learning, academic performance, mental alertness, and overall student health.

Teachers can demonstrate leadership in the physical education program by leading in their classrooms, with particular emphasis on establishing a safe, orderly environment, and creating a culture that empowers students to collaborate and become lifelong learners.

#### *Physical Activity During the School Day.*

There are typically four major areas to consider when providing additional amounts of physical activity for students during the school day, outside of regularly scheduled physical education class. These include recess, classroom-based physical activity breaks, physical activity integrated into classroom lessons, and drop-in physical activity opportunities

([www.aahperd.org/naspe](http://www.aahperd.org/naspe)). Most occasions do not take an extensive amount of time or preparation, but over time, can significantly increase the amount of physical activity in which a student is engaged over the course of a school day. Since many students do not participate in physical activity once they leave the school grounds, it is imperative that students are engaged in physical activity during the school day (Hooper & Heidorn, 2012).

Physical education teachers can demonstrate leadership by developing organizational and training materials for classroom teachers to promote physical activity with their students. They can also assist classroom teachers as needed with special events, teach new physical activity concepts and ways to integrate academics, and support active recess or other physical activity opportunities during the school day.

#### *Physical Activity Before and After School.*

Opportunities before and after school can significantly increase the amount of physical activity in which a student engages throughout the day (Beighle & Moore, 2012). It helps meet the goal of a minimum of 60 minutes per day of physical activity. Content and skills practiced and learned in physical education classes can be put to use in “before and/or after school” physical activity environments. Students will benefit from the additional experience and practice time and their skills will most likely improve. Before and after school programs may include walking or biking to school, providing supervised physical activity time in school facilities for staff and student use before and after school, and organizing clubs and intramural sports to encourage participation by students of all abilities. Physical education teachers can demonstrate leadership by collaborating with others in the school, working towards increasing the amount of physical activity opportunities for students outside of the normal school hours. This may require some additional planning and staffing, but will provide numerous benefits in a variety of ways.

#### *Staff Involvement.*

When faculty and staff members are physically active and healthy, schools benefit in many ways (Heidorn & Centeio, 2012). Schools can increase faculty/staff

wellness by “conducting a staff needs assessment to identify health-related needs; holding walk and talk meetings with colleagues; organizing and managing a staff wellness program; continuing to provide professional development that focuses on health and wellness; providing opportunities and encouraging faculty/staff to participate in physical activity with students; providing extra physical activity opportunities (with possible incentives) for staff; developing and teaching nutrition education; incorporating brain breaks during staff meetings; offering group fitness classes (Zumba, Pilates, dance, boot camp, Weight Watchers, etc.); and providing opportunities for blood pressure checks, CPR training, and other healthy initiatives” (Hooper and Heidorn, 2012).

The physical education teacher is often admired by many students and parents within the school community. He/she may also be a coach in the athletic program or recreation facility near the school. Physical education teachers have a unique opportunity to provide leadership in the school by being a physical activity role model for students. Because the physical education environment often provides opportunities for students to be involved socially, in ways not always possible in the typical classroom, teachers can demonstrate and teach students how to react and respond in certain situations. They can also assist students and/or faculty and staff with their individual health needs. Research identifies the needs for increased amounts of physical activity (Centers for Disease Control and Prevention, 2010; Powers, Conway, McKenzie, Sallis, & Marshall, 2002; Strong, et.al., 2005; Tappe & Burgeson, 2004; USDHHS, 1996), and physical educators can demonstrate leadership in the school by sharing accurate information with their classes and colleagues.

### *Family and Community Involvement.*

Beyond the “during the school day opportunities, family and community involvement in school-based physical activity provides additional benefits (Hooper & Heidorn, 2012). Examples of ways schools can increase the physical activity levels of community members include “promoting programs and facilities where people work, learn, live, play and worship (i.e., workplace, public, private, and non-profit recreational sites) to provide easy access to safe and affordable physical activity opportunities; developing partnerships with other sectors for the purpose of linking youth with physical activity opportunities in schools and communities; and providing access to and opportunities for physical activity before and after school” (National Physical Activity Plan, 2010).

Physical education teachers can demonstrate leadership among students’ family members and others within the community by increasing health-enhancing physical activities and volunteer opportunities within the school and community. They can also provide leadership to other teachers in the school and district, or even at the state and national levels by getting involved in the state and national associations (e.g., NCAHPERD/AAHPERD), disseminating new information or useful methods of instruction to others through local and national journals, or by getting involved with local clinics, speaking at workshops and conferences, or working with other programs that promote physical activity. Working to establish positive relationships in the school and local community, promoting professional growth opportunities to improve the profession, and advocating for the school and students can be extremely beneficial.

**Standard 2: Teachers establish a respectful environment for a diverse population of students**

The American Alliance for Health, Physical Education, Recreation and Dance (AAHPERD) published two position statements titled, "What Constitutes a Highly Qualified Physical Education Teacher" (2007), and "Highly Qualified Adapted Physical Education Teachers" (2010). Each document gives a description of the guidelines teachers should follow to ensure a quality physical education program at all levels. The documents include standards for maintaining a positive, culturally appropriate environment for all students. Careful examination of each document will provide additional insight into teaching physical education for a diverse group of learners.

Physical education teachers must determine their curriculum, unit, and lesson objectives based on the needs and interests of their students, but also modify instruction to better accommodate the differing ability levels of individual learners. Providing adaptations for high- and low-skilled learners makes the content more meaningful, provides additional motivation, and ensures that all students have the opportunity to be successful (Rink, 2010). For example, when teaching a lesson on striking with a racket, some students will need additional or more difficult tasks because of their current ability level, while others may need the task to be simplified so they too can experience enjoyment and success.

The Individuals with Disabilities Education Improvement Act (IDEIA, 2004) mandates that physical education must be made available to all students with disabilities who qualify for special education services (United States Department of Education, 2005). Physical education teachers must recognize the importance of the physical,

emotional, and cognitive development of each child in their program. This may range in the delivery of regular physical education classes to a specially designed class for students with moderate-to-severe disabilities. Just as physical education teachers should be experts in teaching a general physical education class, the same standard should apply when teaching students with disabilities. This includes teachers' competence in understanding of a variety of disabilities and special education law; assessment methods; instructional design; report writing; individual teaching and learning styles; advocacy; inclusion practices; and community and family resources (Kelly, 2006).

When designing curriculum, teachers should consider integrating the sport or activity content with cultural traditions of the world. For example, if a soccer unit is introduced, discussion of the key role soccer plays in countries all over the globe may enhance the unit. Teachers should also "branch out", not only teaching traditional sports (i.e. basketball, football, etc.), but find ways to include content that may engage and enhance the physical activity levels of all students (not just athletes). As an example, some students may not be interested in dance or gymnastics; however, teaching these activities not only enhances students' abilities in a variety of other physical activities, but can motivate students to become active in that content during class, in after-school programs, and in their local community. Research indicates that gender bias is often found in teacher-student interactions, to whom the instructor is focused, and the selection of content taught in the curriculum. This gender bias is a product of attempts made by both teachers and students, often unknowingly (Lynn, Castelli, Werner, & Cone, 2007). Specific attempts should be made to ensure that all

students receive adequate attention and participation opportunities. This contributes to an environment in which all students can feel important, and may also increase student interest and levels of physical activity.

### **Standard 3: Teachers know the content they teach**

Following the North Carolina Standard Course of Study is certainly a minimal criterion for appropriate instruction in the state. Physical education teachers should also follow the six national standards for K-12 physical education (NASPE, 2004). Many states have designed curricula for physical education, emphasizing the content to be learned in K-12 programs. These guidelines for curricula can often be found on state education websites or through school district offices. Following the recommended state and national standards is the first step teachers should take toward teaching for effectiveness in physical education.

The content in physical education should be very specific, and should progress from simple to complex in a variety of different activities (Rink, 2010). The ultimate goal of physical education is to participate in physical activity for a lifetime. Ideally, the student who has become competent in more than just a few selected activities may be more likely to be physically active. Therefore, it is important that physical education teachers know the content they teach. It is not appropriate to only know the content at a basic or minimal level, but all teachers should be competent, or even proficient in many different content areas (i.e., team sports, individual/dual sports, outdoor/leisure sports, dance/rhythmic activities, etc.). This competence in the sport-related content will more easily

transfer to effective teaching, assuming other methods of instruction have also been learned. Becoming competent or proficient in a variety of different activities might, and probably will require that the physical education teacher spends additional time outside of physical education class learning, practicing, or refreshing the skills learned in the past (Siedentop, 2002). Many times physical education teachers are also called upon to be the health, nutrition, and safety experts in the school. Therefore, teachers must also continue in their professional development with the most recent information related to health and safety.

### **Standard 4: Teachers facilitate learning for the students**

Physical education teachers can effectively teach physical skills and activities in the curriculum (psychomotor), while also focusing on the cognitive and affective domains. Teachers should provide students with an appropriate amount of practice time on each task. Students will have more opportunity to develop skills if they are provided maximal practice time (limited standing around). Further, appropriate feedback can be used once students have had the opportunity to practice. Providing students maximal practice time and specific feedback increases the likelihood that students become successful learners (Rink, 2010).

Collaboration with other professionals in the field is important for continued success in the program. Teachers can consult with other colleagues in the school or community and/or district, and access professional journals (e.g., JOPERD) and internet resources (e.g., [www.pecentral.org](http://www.pecentral.org)). Teachers can facilitate learning for their students by engaging in reflection. The practice takes time and effort, but will enhance instruction and student learning in

the future. Reflection “requires that physical education teachers modify their instruction and adjust to the needs of their students and adjust to the needs of their students (Lynn, et al., 2007) (See Standard 5 below).

It is important that teachers vary their instructional methods to better accommodate the needs and interests of all of their students. Designing learning experiences may be enhanced by adding interactive teaching, station teaching, peer teaching, cooperative learning, self-instructional strategies, cognitive strategies, and team teaching (Rink, 2010). When large numbers of students are taking physical education at one time, station teaching and team teaching are commonly used strategies.

The use of technology continues to grow in schools, and clearly has the ability to increase student learning (Mohnsen, 2010). There are several creative and interactive ways to use technology in physical education to enhance student learning and increase physical activity. Teachers can create computer generated slides and visual aids for demonstrations, use digital cameras for skill analysis, provide activities by using interactive gaming (e.g., Nintendo Wii, various forms of virtual reality, DDR, Webquests, etc.), and increase motivation for activity through the use of heart rate monitors and pedometers. While many students may be physically active without the use of technology, some students might become especially motivated to be physically active while participating in technology-enhanced activities on their own.

Assessment and accountability have increasingly become more important in school settings. Physical education as a whole has increasingly focused on formal assessment strategies to demonstrate learning and achievement. While formal

skill testing and cognitive assignments have been used in the past and continue to be used in many programs today, these assessments typically do not demonstrate student abilities to “play the game”. A shift toward implementing authentic assessment in physical education has become more popular. These assessment strategies focus on student abilities to perform skills in game-like settings. Resources are now available for physical educators to hold students accountable in all three learning domains.

#### **Standard 5: Teachers reflect on their practice**

When students are participating in class, effective teachers know how to view student performance, and provide specific feedback related to individual needs. Analyzing the skills of students and assisting them by making corrections on technique, or motivating them to reach their goals is regularly practiced in quality physical education programs. For this reason, physical education teachers should be very familiar with effective performance and technique in a variety of motor skills and movement patterns, to provide students with proper analysis and feedback needed for success. If teachers are not comfortable with the skills themselves, they may not be able to assist students with their performance. In addition, after individual lessons and units, teachers should reflect on the content that was taught, the objectives planned for and achieved by the students, and student assessment data, to make decisions on ways to improve instruction in the future. On reflection, Siedentop (1988) said, “For reflection to be useful, the teacher must be able to think about events within some context which helps to decipher the sometimes complex interrelationships between teachers and students, the events of

teaching and the events of learning” (p. 122).

In addition, all teachers should have professional goals to improve their teaching, to better assist students with specific needs, and to make more of an impact among their students. Teaching the same content in the same way for consecutive years may never truly impact students. The teacher who is focused on continual growth and development may be more successful at creating an environment in which students can participate in an enjoyable, learning-based atmosphere. Like classroom teachers, physical educators have the opportunity to become involved in professional development training. Teachers can become continuous learners through independent, group, and graduate studies; by supervising and mentoring pre-service or in-service teachers; through participation in in-service programs; and by systematically reflecting on practice (Lynne, et. Al., 2007). In addition, physical education teachers can become involved in one of the national organizations that offer developmental opportunities and “give teachers a political voice during policy creation that affects you and your students, educate the public about

the teaching profession, and are committed to providing members with ‘best practice’ resources through journals, conventions, workshops, and newsletters” (pp. 90-91).

### Conclusion

While all quality programs are not identical in nature, many similarities can be found, based on sound, educational research and practice. As our nation continues to remain focused on high educational standards in the 21<sup>st</sup> Century, physical education must also foster growth and development among students, provide effective instruction, and hold students accountable for learning, while maintaining an atmosphere that is meaningful, safe, and enjoyable for all participants. The ultimate goal of any physical education program should be to promote a lifetime of physical activity for health and well-being. Following the recommendations from state and national organizations, the guidelines set forth in the 21<sup>st</sup> Century Skills, the standards identified for each school/district, and continuing to be involved in professional learning opportunities will provide successful ways for all physical education teachers to provide quality physical education to all students in their programs.

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