

AN OUTSIDE-OF-SCHOOL *Physical Activity Requirement* FOR PHYSICAL EDUCATION

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The need to improve health through participation in regular physical activity has received much attention in recent years. The evidence supporting physical activity for health is indisputable (Cardinal, 2016). It is well known that greater participation in moderate and vigorous physical activity will provide benefits for both personal and public health. For many years, research has recommended that every adult should accumulate at least 30 minutes of moderate-intensity physical activity on most — preferably all — days of the week (Blair, LaMonte, & Nichaman, 2004; Centers for Disease Control and Prevention [CDC], 2013; Cooper et al., 2016; Pate et al., 1995). To increase physical activity levels and the health of adults, it is important to establish patterns of physical activity in youth. Although young people are often considered to be the most active population in our society, they often do not get the recommended levels of physical activity (CDC, 2013).



Similar to adults, it is also recommended that “adolescents engage in three or more sessions per week of activities that last at least 20 minutes and are performed at moderate-to-vigorous levels of exertion” (Powers, Conway, McKenzie, Sallis, & Marshall, 2002). Some research goes even further and suggests that adolescents should participate in moderate-to-vigorous physical activity for 60 minutes or more every day (Sallis, Prochaska, & Taylor, 2000; Strong et al., 2005; U.S. Department of Health and Human Services, 2008).

Adolescents often establish behavior patterns that are difficult to change as they reach adulthood (McKenzie, 2001; Nahas, Goldfine, & Collins, 2003). There is a lot of competition for their time and energy, including part-time jobs, spending time with friends, schoolwork and other responsibilities. Participation in physical activities in which individuals were once engaged often decline as they age (Felton et al., 2005; Sallis et al., 2000; Troiano et al., 2008). The decline in participation among adolescents may ultimately lead to a continued lack of physical activity when they become adults. This decline in participation can have negative effects on national health.

As previously mentioned, there is much agreement that we need to increase the physical activity levels of today’s youth. It has been proposed that physical education programs in schools must play a key role in that change (Tappe & Burgeson, 2004). The rise of comprehensive school physical activity programs (CSPAPs) has seemingly facilitated much of that change. The purpose of this article is to describe the concept of an outside-of-school physical activity requirement for physical education and provide suggestions for its implementation. This purpose closely aligns with the CSPAP model (CDC, 2015), which includes the following four components, in addition to physical education: 1) physical activity during the school day, 2) physical activity before and after school, 3) staff involvement, and 4) family and community engagement. Prior to specific content related to a requirement for physical activity outside of school, two building blocks for such a requirement will be described first: self-efficacy and school reform.

Social-Cognitive Theory

Several theories have been used to explain participation in physical activity or the lack of it. Some of the most common are social-cognitive theory and the constructs of self-efficacy theory (Martin & Kulinna, 2004). Self-efficacy means that one is confident enough in his or her abilities in a certain task or skill to continue to perform that particular task or skill. It is the “belief in one’s capabilities to organize and execute the courses of action required to produce given levels of attainments” (Bandura, 2001, p. 3). Self-efficacy is a construct derived from social-cognitive theory commonly used in approaches to increase physical activity, and it is one of the strongest predictors of future activity, including the prediction of physical activity among adolescents (Nahas et al., 2003).

Self-efficacy is directly related to an individual’s ability to control his or her thought processes, motivation and actions (Bandura, 1998). More specifically, “It may entail regulating

one’s own motivation, thought processes, affective states and behavior patterns, or changing environmental conditions, depending on which aspects of life one seeks to manage” (Bandura, 2001, p. 3). As the previous definition shows, self-efficacy can be used to explain how people attempt to become or remain healthy through self-management of health habits. This connection between an individual’s self-efficacy and their efforts to improve their healthy-behavior self-management is used in this article as one of the theoretical bases for understanding participation in physical activity.

School Reform

If physical education programs are to influence the activity levels of today’s youth, then they will need to change. Change and stability in the school curriculum have been the subject of an ongoing dialogue in education at the school, district, state and national levels. Some avenues for these needed changes are discussed in an article by Cuban (1990). In his article, he offered a framework for understanding change in schools and discussed factors that account for change and stability in districts, schools and classrooms. In addition, he provided explanations for both change and stability, including external and internal factors and influential groups and individuals (Cuban, 1990).

To truly conceptualize reform, effective leaders are needed who know how to use their position to implement their vision, who understand the big picture, and who participate in two-way communication for shared ownership and commitment (Fullan, Bertani, & Quinn, 2004). Additionally, teams of leadership groups (a coalition) and external support are needed to continually meet new challenges. These leadership teams will foster a community of learners working toward their goals, and develop strategies to bring about new ideas and skills to maintain a shared commitment to further development. The leadership teams should include individuals at all levels within the educational system including teachers, administrators, other staff members, students and parents. For continued improvement in schools, stronger approaches are needed, including supporting collaborative cultures with additional funding and resources, continued investment in leadership, improvements in teaching conditions, and time. In many ways, the promotion of increased levels of physical activity as a direct result of school-based physical activity programs has begun to bring about school change (Brusseu & Kulinna, 2014).

Promoting Physical Activity in and outside of Schools

Promoting physical activity with self-efficacy in mind and being committed to school change through effective leadership and collaboration is a good start. However, because many students are not participating in the recommended amounts of daily physical activity, schools need to take additional steps to increase time in physical activity during the school day, in addition to finding ways to promote physical activity outside of school.

Motivating students to get involved in school and/or community sports, discussing the physical activity requirement often, bringing in guest speakers, and having students set goals are ways in which teachers can demonstrate their enthusiasm for physical activity.

Intervention studies and research on different programs designed to increase physical activity indicate that to increase the physical activity levels of adolescents on a consistent basis, out-of-school physical activity must be promoted (McKenzie, 2001; Sallis et al., 1997; Tappe & Burgeson, 2004). If the youth of today are to be lifelong movers and increase or continue physical activity for years to come, they must develop habitual patterns of physical activity outside of the school day. "As students move through their P-12 education and turn into young adults, how, when and where they engage in physical activity likely will change. To aid this transition, it's imperative that students are equipped with the knowledge and understanding of how to navigate physical activity options in their community" (American Alliance for Health, Physical Education, Recreation and Dance [AAHPERD], 2013, p. 8). This transition requires students to make the decision to be physically active in leisure-time and recreation pursuits and to live healthy, active lives. "Comprehensive approaches that integrate school-based health programs with familial and community efforts are more successful in promoting health than if schools try to do it alone" (Bandura, 1997, p. 31).

Providing students with opportunities to be physically active may increase participation. Evidence has indicated that

encouraging students to participate in physical activity outside of class can produce positive results (Blais, 2008). Research has examined strategies used by physical education teachers to hold students accountable for outside-of-class physical activity participation with a physical activity requirement (Heidorn, 2007, 2009; Heidorn & Johnson, 2009; Johnson, Heidorn, Mosier, & Harvey, 2011). Although the effectiveness of this idea should be studied further, increasing physical activity levels among students via a physical activity requirement outside of physical education, especially for middle and high school programs, may be a viable solution.

Promoting Physical Activity with a Requirement

Students who are enrolled in a physical education class can be "encouraged" to participate in a physical activity requirement outside of physical education class and can be held accountable for that requirement. Teachers who implemented this strategy successfully kept students accountable, required weekly logs, discussed the requirement daily, made consistent contact with parents, required weekly parent signatures, pointed out community options, discussed both short- and long-term health benefits, and encouraged physical activity with family and friends (Heidorn, 2007).

As mentioned previously, there is evidence showing that requiring students to participate in physical activity outside of school may increase current levels of physical activity and facilitate the transition as they move into adulthood. "Ideally, by the time that students graduate from high school, they are familiar with community options that interest them and have begun to develop lifestyle habits that will keep them physically active in places near their homes and/or work" (AAHPERD, 2013, p. 8). Considering several strategies, potential barriers and common themes may assist teachers when implementing this initiative.

Suggestions for implementing a physical activity requirement

An outside-of-school physical activity requirement can begin within a physical education class. Current physical educators might consider adhering to the following guidelines developed in the state of South Carolina (South Carolina Physical Education Assessment Program [SCPEAP], 2007): "Participate regularly (3 days per week) in health enhancing physical activity (20 to 30 minutes per day), outside the physical education class for a minimum of 6 weeks" (p. 119). Here are the basic steps suggested (SCPEAP, 2007, p. 118) when requiring physical activity outside of class:

- The teacher develops a contract for each student to complete, including at least six weeks of out-of-class participation for a minimum of 20 minutes at a time.
- The teacher asks each student to fill out the contract based on each student's choice for outside-of-school physical activity, approved by the teacher.

- The teacher signs the contract to verify acceptance of the contract.
- At the end of the minimum of six weeks, the teacher confirms the outside-of-school physical activity for each student by contacting an identified adult on the contract who can verify student participation.

To put the requirement in place, teachers should consider the following questions:

- Are there adequate school facilities?
- Would I have parental support?
- Do students have time/skills/confidence to participate?
- Have I explored opportunities for outside-of-school physical activity in the community?
- Are there adequate opportunities in the community?
- Do students have access to community opportunities?
- Am I familiar with strategies to increase student participation in outside-of-school physical activity?
- How will I grade or hold students accountable for the physical activity requirement?

Potential barriers to implementing a physical activity requirement

The two greatest potential barriers for promoting physical activity outside of school include a lack of intramural sports and the fact that students often do not have access to school facilities for physical activity outside of the school day. Intramural sports are not common in many high schools, and research has demonstrated that 70% of physical education programs do not open facilities for students (who are not on athletic teams) outside of the school day (Heidorn, 2007). Therefore, when implementing an outside-of-school physical activity requirement, teachers should consider the following questions:

- Are intramural opportunities available at the school?
- Are school facilities available for the requirement?
- Does the community surrounding the school have physical activity options?

Themes when implementing a physical activity requirement

Results from previous research indicate that most teachers believed that physical activity outside of physical education class should be required for students, though it is difficult to keep students accountable. Furthermore, teachers perceived that a physical activity requirement outside of school contributed to students being more physically active and more physically fit. Many teachers also believed that a requirement for physical activity helped students' overall FITNESSGRAM® scores and that students were able to meet the requirement through a wide variety of physical activities (Heidorn, 2007). It is recommended, however, that if teachers do employ a physical activity requirement outside of school, they should adhere to the following themes/concepts:

- **Accountability:** Teachers should consistently hold students accountable by collecting activity logs and/or monitoring technological devices, making contact with parents, and letting the students know the requirement is graded.
- **Choice:** Teachers should help their students to find activities they would enjoy, and they should provide students with written or verbal lists of activities they could participate in for the requirement.
- **Convenience:** Teachers can use the requirement as part of a fitness unit, in a team or individual/dual sports unit, or in another unit they are teaching.
- **Enthusiasm:** Effective teachers are enthusiastic about promoting physical activity. Motivating students to get involved in school and/or community sports, discussing the physical activity requirement often, bringing in guest speakers, and having students set goals are ways in which teachers can demonstrate their enthusiasm for physical activity.
- **Health:** Teachers should often discuss health in association with the physical activity requirement. Students can be informed of the short- and long-term health benefits, and teachers can address the physical activity requirement along with the five health-related fitness components (i.e., cardiovascular endurance, muscular strength, muscular endurance, flexibility and body composition). Teachers can also motivate students by encouraging them to choose an activity that would improve their scores on the Fitnessgram.

Discussion

Adolescents are often the target of health and physical activity promotion programs because they are the adults of the future and their health, or lack of health, will have a tremendous impact on society. Requiring students to be physically active outside of physical education class may be a viable strategy for increasing the physical activity levels of adolescents. Other strategies include maintaining quality physical education programs; providing students with time for physical activity before, during and after the school day; promoting walking or cycling to school; and encouraging participation in extracurricular activities. Requiring students to be physically active outside of physical education class, however, is a relatively new curriculum initiative and deserves consideration among professionals.

To understand the efficacy of any requirement for physical activity participation, it is essential to understand what students actually do to comply and their perspective on the requirement. Research has shown that students enjoy requirements, which leads one to believe that a requirement for physical activity outside of school could be just what some students need to begin the habit of participating in physical activity for a lifetime, especially if the students participate in activities they enjoy (Heidorn, 2009). Requiring all students to participate in the same activities is not recommended, as it may not help students develop patterns of physical activity that will continue in the

Table 1. Sample Activities for a Physical Activity Requirement outside of Physical Education Class

Aerobics	Hiking and/or power walking	Tennis
Badminton	Jog/run	Ultimate
Basketball	Kayak/canoe/outdoor sport	Volleyball
Dance (all forms)	Pilates	Walking
Elliptical trainer	Soccer	Weight training
Football	Softball/baseball	Yoga
Gardening/landscaping	Stationary cycle/spinning/road cycling	Other
Golf (walking only)	Swimming	

future (Jorgenson & George, 2001). Teachers should, therefore, help students find activities they enjoy for the requirement. Table 1 includes multiple examples of activities that can be used to meet the requirement.

It is likely that many of the students will select fitness activities to fulfill the out-of-class requirement. Their choice for these activities will probably be based on convenience or the fact that teachers often stress health, physical fitness and solid performances on the Fitnessgram. In addition, many students may also select individual/dual sports. If teachers want students to be physically active for a lifetime, they should be encouraging students to participate in activities to which they are likely to have access and in which they are likely to participate in the future. Teachers should continue to promote fitness activities but also encourage students to become involved in other sport-related activities. Encouragement in these non-fitness-related activities can probably be addressed through effective instruction in physical education programs and by increasing opportunities for intramural sports.

Requiring weekly logs with parent/adult signatures or monitoring technological devices may help teachers in confirming student participation and ensuring that parents are aware of the requirement. This concept is similar to research conducted with young students in physical education that showed that involving adults helped keep students on task with their physical activity work outside of school (Blais, 2008).

Conclusion

A requirement for participation in physical activity outside of class (i.e., homework) is a viable option for physical education teachers to promote healthy, physically active lifestyles (Mitchell, Barton, & Stanne, 2000). The identification of strategies used by effective teachers to promote physical activity may help present and future physical education teachers in their school settings. Short-term modifications in student levels of

physical activity are likely, and students often become motivated to continue participation. Additional research is needed to examine any long-term effects on physical activity levels as a result of a requirement to participate in outside-of-class physical activity, as well as the potential effect of a continuous requirement throughout the high school years. Also, considerations for physical education teacher education (PETE) programs include the following:

- Future teachers must recognize that students are not achieving the recommended levels of physical activity and that physical education class alone is not providing the amount of activity students need. Teacher educators must clearly discuss with teacher candidates the importance of promoting physical activity outside of physical education class.
- PETE programs must provide their teacher candidates with knowledge related to promoting physical activity outside of physical education class. This knowledge includes identifying knowledge of fitness concepts, effective strategies for promoting physical activity, and identifying the barriers that hinder participation in physical activity.
- PETE program instructors can discuss with teacher candidates how a requirement for physical activity outside of physical education class is a viable option for increasing the physical activity levels of high school students from both a student and teacher perspective.

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