Thinking About K-12 Physical Education Curriculum

John Richardson, Richard Bowman, Tyler Roehl, Brad Strand
North Dakota State University

Keeping or eliminating physical education from the schools has been debated for years. Although some suggest that physical education be eliminated from schools, the National Association for Sports and Physical Education (NASPE, 2004) suggests that reducing or eliminating physical education programs is counterproductive to student health and learning as well as to our nation’s top economic health issues.

One reason why some educators support the elimination of physical education programs is they believe that these programs compromise the academic performance of students. However, evidence fails to support this line of reasoning. Educators opposed to the elimination of physical education programs argue that in order to raise well-balanced children, those children must have physical activity as part of their daily lives. The ability to move and be active has shown to quicken accurate decision making in class (Madigan, 2011).

Educational research suggests that about 85% of school age students are predominantly kinesthetic learners (Madigan, 2011). If this evidence is accurate, most students learn best by moving and being active, which is a valid reason for including physical education in a school’s total curriculum. Ratey and Hagerman (2008), authors of Spark, explained how physical activity sparks biological changes that encourage brain cells to bind to one another and reflect the brain’s fundamental ability to adapt to challenges. They call it “MiracleGro” for the brain.

Although there are many variables to consider regarding physical education in a school system, the remainder of this paper will explore the necessity for physical education in the school, student attitudes toward physical education, curriculum models, evaluating curriculum models, and thoughts on how physical education might evolve by the year 2020.

Necessity for Physical Education

According to the U.S. Department of Health Human Services (2010), eight studies that focused on the relationship of physical education and academic performance were 59% positive. In addition, all eight studies reported that recess was closely related to improving student’s attention, concentration, and on-task classroom behavior. According to Viadero (2008) there is no way to say for sure that activity improves learning capacity for kids, but it certainly seems to correlate to that. However, further investigation showed that the cognitive and academic benefits of exercise seemed to have a dose-response relationship. Viadero (2008) showed that cognitive and academic benefits increased with the dose of activity.

Elementary students in Denver, CO, took part in a physical activity program for 40 minutes a day, five days a week. It was found that the state test scores increased from 55 to 68 percent (United Press International, 2011). A term commonly used in the past was “sitness” not “fitness”. Students were expected to sit for extended periods of time with no movement. By encouraging exercise and promoting it the right away, at a young age to grade school students, those students will be propelled to a healthy lifestyle and life for the future. Childhood obesity and diabetes are growing concerns and national epidemics that must be addressed. Physical activity in a fun, exciting atmosphere will promote a healthy lifestyle that teaches healthy habits, improved motor skills, enjoyment in exercise, and knowledge of one’s body.

Student Attitudes Towards Physical Education

Through participation in physical education, it is intended that students gain knowledge and fundamentals towards participation in lifelong health and physical activities. Stimulating the body physically and mentally can be very enjoyable for many students, but may not be enjoyable for others. Physical educators need to find a happy medium with all students; those who enjoy physical activity and those who do not enjoy physical activity. According to Scantling, Strand, Lackey, and McAleese, (1995) there are five problems that foster negative attitudes towards physical activity.
These include pressures teachers/coaches go through to coach with little expectations for quality teaching of physical education, administrators who tolerate or excuse poor non-existent physical education, the perceived need to increase time for "academic subjects", physical education classes that are viewed as glorified recess, and outcomes for students of physical education that are problematic and questionable.

Motivation is a key component related to student interest in physical education. Motivation can come from other teachers, students, and administrators of the school. Physical educators can use their teaching strategies, presentation of curriculum, and structure to intrigue the students and administrators about the class (Subramaniam, 2005). Each individual has his or her own perception and feelings’ regarding physical education, but it is the job of the educator to stimulate the appeal of the environment, curriculum, and activities to the student. Being able to provide students with instant gratification in physical education will correlate to a future of continued health.

Chepko and Coughlin (2007) attempted to determine why middle school and high school students liked to participate in physical activity. Most students reported that they like to get out and move, they liked competitive team sports, that physical education class made them healthier, and they had fun. However, one of their findings identified that repetition in the curriculum did negatively affect student attitudes in participating in a physical education. Repetition of activities can easily cause boredom among students and discourage them from wanting to participate in physical education. Students are bored with doing the same units of activity over and over; therefore, educators need to be more innovative in creating and implementing different methods that allow students to experience fun and stay engaged.

Curriculum Models

Integrating contemporary curriculum models into a physical education curriculum is a key component for students to learn and grow as individuals and to gain valuable knowledge about sports. Four curriculum models; Sport Education, Fitness Education, Social Responsibility, and Teaching Games for Understanding, are a huge part of the learning process for young students. Having the opportunity to participate in all of the curriculum models can result in encouraging and fruitful actions.

Sport Education is a curriculum model that supports students with ten sport specific objectives aimed at providing students more complete and authentic sport experiences. Students will be introduced to competency, literacy, and enthusiasm in sport (Van de Mars & Tannehill, 2010). Teaching the rules, fundamental skills, and strategies provide an overall knowledge of each sport. Allowing the students to be involved with each and every step of sport and sport education allows them to make rational decisions and gain knowledge from self-participation.

Fitness Education can be intricately implemented into each and every lesson of the physical education curriculum. The direct goal should not be getting kids “fit”, but should be directed at developing lifetime physical activity habits (McConnell, 2010). First, students need the opportunity to engage in lifetime physical activities of sufficient intensity and duration necessary to help maximize health benefits. Second, students need to learn why it is important to develop and maintain adequate levels of physical activity and fitness. Finally, students must develop the knowledge base and skills necessary to plan and execute personal activity programs throughout their lives. Physical educators can provide students with an opportunity to develop healthy habits while gaining a value and appreciation of its importance throughout their lives.

Teaching Games for Understanding (TGFU) was developed primarily for secondary school physical education providing a model with six stages. The stages include game play, dictating the way the game must be played, tactics within the game, what to do and how to do it when problems arise, game skills and/or movements, and the degree to which performance is improved as a result of skill practice (Mitchell & Oslin, 2010). Providing more time for game play allows for a more motivational and enjoyable experience for students. TGRU forces students to see the link between the skills they practice and the application of those skills in the games.

Social Responsibility is providing students with a positive environment rather than the messages they are exposed to on a daily basis (news, music, TV, film, friends). Students are exposed to their conduct concerning others, their surroundings, and themselves (Parker & Stiehl, 2010). This model helps students reaffirm their own worth, their sense of belonging, their awareness of place and confirms that they are the source of their thoughts, choices, language, and actions. Within the social responsibility model certain decisions are gradually shifted from the teacher to the students. Teachers must be accepting of the students’ decisions and willing to permit students to learn from their mistakes. Providing school-aged children with a
framework and grounding in personal and social responsibility in physical education encourages them to grow in other areas of their life.

**Evaluating Curriculum Models**

Evaluating a physical education curriculum is not an easy process. To properly proceed, one should meet the district, state, or national standards. When an evaluation is performed correctly, the information that is collected must be properly examined. Involving stakeholders when planning an evaluation will provide valuable interest from an unbiased perspective and help provide a clear picture of the curricula. A good way to gain this information is by questioning stakeholders who are familiar with the program. This task will provide instructors with a clear picture of their program.

Depending on the purpose of the evaluations, they could be done at various times during a school year. Preformative, formative, and summative evaluations are perfect examples of choosing various times to evaluate (Lund, 2010). Preformative evaluations are done prior to beginning a project process and determine a starting point for an individual. Formative evaluations take place while the activity is occurring. This evaluation is primarily used to evaluate the current status of a curriculum and where it is headed. Summative evaluation is conducted at the end of the project; and is one way to measure the success of a project or a plan to determine what has been accomplished.

Another way to review or modify a curriculum is by implementing a four-phase curriculum review model. The four steps to this review model are needs, assessment, philosophy, curriculum product, and implement or evaluate (Lacursia, 2010). This systematic approach involves many people including the stakeholders and allows teachers to have some freedom.

The purpose of the needs assessment, which is phase one, is to explore the factors that not only affect physical education but health as well. These valuable connections can be with students, parents, and colleagues. Phase two which is philosophy, is developed from the completion of phase one. To compliment he philosophy the department develops belief statements, teacher goals, student outcome, curriculum strands, and essential understanding. The curriculum product is phase three during which time the course content is examined to determine whether it is current and reflects the department philosophy. This phase relies on motivated teachers, course leaders, and supportive administrators. Phase four is implement/evaluate and this will determine if the curriculum was successful.

By using the four-phase curriculum review model one could take a practical approach to revising a curriculum. Completing this process, publishing a department curriculum guide, and assembling course curriculum guides will have a positive impact on students, teachers, parents, along with administrators.

**Physical Education in the Future**

The future of physical education is bright, exciting, and hopeful. With the continued increase of obesity in adults and children, it is essential that educators reach all children and youth to ensure they get started in, and continue with, living a healthy lifestyle.

With the rapid changes and advances in technology, teachers must find a way to use technology to its full advantage within health and physical education programs, and also incorporate that same technology into classrooms. While race/ethnicity and social economic status are demographic variables that may influence one’s fitness performance, educators can directly influence those students with technology that they may never experience on their own (Bloom, 2010).

Through the use of smart boards, sound systems, automatic equipment set up, smart phones, and analysis systems, teachers will become more efficient and classes more exciting. The use of technology in classrooms will resonate with, and provide excitement and enjoyment to, youngsters who are using more advanced technology daily.

Incorporating technology into classrooms is important, but it is also important to incorporate physical education activities with community physical activity programs. Increasing the importance of community activity programs and having them available to all students will expose students to more options for activity. These community activity programs must have qualified instructors, be available during all seasons and times of the day, be open to all ages, and if possible, be offered in the physical education curriculum to show students that the activities are safe and fun. In addition, by having community forums and meetings, parents/guardians and children can attend together to learn what is available and to discuss the pros and cons about particular activities.
**Conclusion**

Physical education has components that can appeal to student, or be detrimental. It a physical educator’s responsibility to construct a curriculum that is enjoyable yet contains great knowledge. Not everyone is going to be entertained with physical education, but to empower all students with future interest in health is a key goal. Common problems such as boredom, bad attitudes, and lack of participation can be minimized by inviting students to be more involved in expressing what it is they are looking for from a physical education class and by sharing their expectations of what they want from their physical education instructors. In addition, if all educators could be convinced of the value of physical education in relation to academic achievement, the importance of physical education would grow.

Close evaluation of a physical education curriculum is a key component. Ensuring that all academic standards are addressed and evaluated can be the difference between a beneficial and a non-beneficial curriculum. All schools and educators should remember that it is about student's first. If students are satisfied and see a value in what they are doing, they will be willing to try new activities, be open to new ideas, be trusting of their instructors, and enjoy their physical education programs.

**References**


Bloom, L. (2010). Associations between health-related physical fitness, academic achievement and selected academic behaviors of elementary and middle school students in the state of Mississippi. *Journal of Research in Health, Physical Education, Recreation, Sport and Dance, 19*(8), 22-35.


John Richardson, Richard Bowman, and Tyler Roehl are graduate students and Brad Strand is a professor in the Department of Health, Nutrition and Exercise Sciences at North Dakota State University, Fargo, ND.