

## 專 題 探 討 SPECIAL COMMUNICATION . . . .

**Developing the Physically Educated Students:  
A 21<sup>st</sup> Century Challenge for Physical Educators**  
**對體育教育工作者的新挑戰：  
讓學童受惠於體育課**

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### Overview

The 21<sup>st</sup> Century brings great hope, optimism and promise for the work of physical educators and the advancement of school physical education programs. Great accomplishments during the past century promoted great awareness for the need of enhancing fitness and the well-being of individuals through physical activities within our society. Physical educators can point to pride with the expansion of programs as well as efforts aimed toward promoting gender equity, inclusion, and the development of a student centered (rather than content centered) curriculum. However, during the last decades of the 20<sup>th</sup> Century physical education programs faced many challenges at schools. In fact, one could argue that physical education programs are in an era of decline.

At a time when physical education programs are greatly needed within the school systems worldwide, such programs are assigned the lowest level of educational priority. For example, children living in the United States are at their lowest levels of fitness in many decades. Overweight and obesity have reached epidemic proportions. According to the latest Surgeon General Report (2001) 61% of adults, 13% of children ages 6-13 and 14% of adolescents ages 12-19 are overweight or obese. Further, Katherine Flegal at the October 1996 meeting of the North American Association for the Study of Obesity reported researchers have determined that 49% of women and 59% of men in the United States have a body mass index (BMI) of over 27, which classify more than half of Americans as overweight. Although the United States is at one of its highest levels of prosperity, we also have the highest ever level of health risk population. Seemingly, physical educators have failed to make a difference for the school age students who are the future adult population. In fact, it could be argued that physical educators are at the lowest level of professional status when compared to other educators. The dream of developing physically educated students who will become an active, healthy adult population no longer seems a realistic expectation or vision to emerge from our schools.

Despite tremendous scientific advancement, contemporary physical education programs have a major drawback: they do not fully meet the needs of young children in today's progressive and ever changing society. As Philip Ward (1999) stated "...the conditions that characterize much of physical education in school are ill-suited to the needs of today's children...." It is well documented that children's levels of physical activity have decreased dramatically. Children spend more time than ever watching television, playing video games, and surfing the internet. The improved comfort level of life and increased use of

transportation further contribute to a sedentary lifestyle of children. Grayson (2000) reported that excessive television watching plays a critical role in children's obesity. There has been a 40% decrease in walking and bicycling in children 5 to 15 from 1977 to 1995 in the United States (NPTS, 1997). Such decrease in children's physical activity level is not surprising. Parents drive children to school and back even if a school is within a short walking distance. Only 31% of trips one mile or less to schools are made by walking (NPTS, 1995). More than one-third of young people in grades 9-12 do not participate in vigorous activity three or more days a week (CDC, 1998). The lifestyle changes have resulted in the emergence of a new major health issue – childhood obesity. Grayson (2000) states that "...our schools' physical education programs only amount for a short amount of school time, these students are exercising very little at all."

It has been well-documented in the literature that childhood obesity is likely to persist into adulthood and result in development of many chronic diseases including heart disease, elevated blood lipids, hypertension, sleep apnea, arthritis, and some types of cancer (Whitaker et al., 1997). James O. Hill and Fredrick L. Trowbridge in a recent research article entitled "Childhood Obesity: Future Directions and Research Priorities" stated that "...all recent indications are that the current generation of children will grow into the most obese generation of adults in US history....Despite the recognition of the severe health and psychological damage done by childhood obesity, it remains low on the public agenda. Perhaps this is because the most serious health effect of obesity in today's children will not be seen for several decades" The percent of overweight children and adolescents has tripled since the 1980 (DHHS, 2001). Obesity does not develop overnight; however, even a small imbalance between calorie intake and energy expenditure, in a long run, will result in unwanted weight gain. Therefore, it takes a life long commitment to a healthy lifestyle including a fair amount of exercise to prevent unwanted weight gain.

Development of a positive attitude toward a healthy lifestyle is a process that should begin in early childhood. Any physical education program should be a significant part of this process and must be designed to facilitate the formation of healthy habits and encourage long-term physical health maintenance. Physical educators are responsible for children's physical well-being and development of positive attitudes toward physical activity. In theory, the current objectives of physical education programs are soundly written based on the science of physical education and serve as curriculum guidelines. In practice, physical education programs have been proven to be ineffective in helping children reach an optimal state of physical health (Blair & Connelly, 1996). Moderate to vigorous physical activity (MVPA) is necessary to enhance growth, increase bone and muscle mass, and improve cardiovascular function. Simons-Morton et al. (1994) reported that only an average of 8.6 percent of physical education classes included MVPA. An earlier study showed that less than five percent of physical education classes at the elementary school involved children doing MVPA (Siedentop, 1983).

At the present time, it is unreasonable to expect physical education to address newly emerged health issues and provide desirable outcomes because physical education has lost its importance and has little support from school administrators, parents, communities, and policymakers. Without question physical education is a potentially effective tool for promoting health-related matters directed toward the physical and overall development of a child. The findings of long-term studies in which one-third of a school-day was devoted to physical education showed that children with strong and healthy bodies tended to do very well academically (Albinson & Andrews, 1976). Shepherd (1997) has cited nine other studies suggesting a positive link between physical activity and academic success.

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## Promoting Greater Well-Being

It is well established that wellness and well-being are enhanced through proper nutrition and adequate exercise. In theory, physical education programs are an important element contributing to one's well being. Developing an orientation to lead a healthy and productive life is an essential ingredient for seeking happiness in today's society. Increasingly, schools have become responsible for the cognitive, social and moral

development of children. Schools, despite their shortcomings, are the main conduit for the transmission of our society values and culture, with the seeming negligence of concerns related to health, fitness and ones well-being. In a sense, the recent program and staff cuts in physical education is an indication that society seems to have lost faith in the physical education profession to deal with its fitness problems. In turn, physical educators blame the lack of resources, time, interest, and support for the inefficiency.

Today, there is a need for greater involvement and a more effective presentation of viable solutions to the call for greater health, fitness and physical well-being. Physical educators must cease spinning their wheels and acknowledge the challenge. We must accept the blame that, while focused on the advancement of the science of the disciplines, we ignored the responsibilities of developing innovative, vibrant, and meaningful physical education curricula and programs to deal with students' health, fitness and physical well being. Traditional approaches aimed at providing physical education programs within the school system alone do not embrace 21<sup>st</sup> century needs or assumptions.

School systems have as their underlying and most significant goal, that of fostering an educated population. Our educational system, one that has become increasingly job embedded and specialized, is not adequately preparing individuals to live their lives in a holistic fashion. The challenge of preparing an educated person is one of fostering in individuals the love of continuous learning and the seeking of life enhancement for self, family, and the society. Can we define an "educated person" disregarding the physical well-being of that person? In this light, physical education has an important role to play in the process of developing an educated population. Physical educators have the are challenge and the opportunity to foster a more physically educated student, who will contribute to a healthier, more fit and perhaps even more productive and happier society in the 21<sup>st</sup> Century.

### Call for a Change of Focus

The lack of harmony between a physical educator's preparation and the actual needs of students has produced an off-course focus. Currently, physical educators perceive themselves as experts of human movement. They have assumed the task of tutoring students to move gracefully, efficiently, and fluently. However, the lack of well-defined objectives to assist students in their quest to lead a physically healthy life has resulted in product outcomes that do not meet the expectations of the public.

Interestingly, the public is very supportive of sport and athletic programs. They know and understand the mission of such programs. The public is able to observe the involvement, participation, dedication and the improvement of athletes. The outcomes of athletic endeavors are public; displayed for everyone to witness. The public testifies to the fact that such programs are successful in working with individuals and producing skillful and fit athletes. Physical education programs need to change their focus in order to produce desirable outcomes. Curricula

should be designed and implemented with a clear understanding of the student outcomes to be produced. The key issue here is one of responsibility and accountability. Such curriculum efforts should be in harmony with the health and welfare needs of society. Since physical education in the elementary school has the special role of starting children toward optimal physical well-being and assisting them to develop committed attitudes, the focus of this paper is toward that age group.

Humans have inherited a unique and complex body. The body of human beings, from birth to death, requires constant caring in order to function properly and enhance life. Four (4) basic elements are essential corner stones of the physical education program in order to promote the proper care and function of the human body. They are:

**Physical Growth.** A physical education program should provide activities that enhance the growth process of elementary age children;

**Valuing Ones Physical Well-Being.** A physical education program should introduce activities that improve the physical limits and maintain an acceptable level of health-related fitness of children attained by their committed attitude;

**Skillful Performance.** A physical education program should provide activities that contribute to skillful performance, hence promoting extended participation; and

**Pursuit of Joyful Living.** A physical education program should provide children with an extended opportunity to obtain satisfaction from physically active involvement and practice their self-responsibility of initiating and participating active leisure.

These corner stones are displayed in Figure 1. These in turn suggest five major principles upon which physical education curriculum can be developed. The objectives can be used as a focal point for any physical education program and are stated below in simple, clear and direct form. These new objectives can positively influence a child's entire physical growth and development. Accompanying developments such as social, emotional, and intellectual, though a concern of physical education, will be set as secondary objectives and should be a responsibility of teachers of all disciplines. A physical educator focusing on the physical well-being of a child will attend to other stated developments as well, but not as the primary objectives. This is done to prevent diversion of the attention away from the primary task of developing a healthy and well functioning body.

These elements should be the cornerstone of the physical education program in order to promote a higher standard of health, fitness and physical well-being. A lack of knowledge and skill for caring for the physique, as is the current status, results in challenges that hinders us living a high quality of life. The above-mentioned elements can serve as guidelines for organizing educational programs aimed at developing the physically educated person. It is the responsibility of physical educators to aggressively seek innovating solutions to the problems faced by children as a result of their lack of physical preparedness.

Quality education programs must be built on principles and guidelines that allow for clear direction and consistency. Such principles and guidelines provide standards that can influence the creation of curriculum strategies. They provide individual physical educators with a fundamental underpinning or motivating force to guide their actions. We believe such principles and guidelines are essential in making judgments that influence the course of action they will take in building a vibrant and responsible physical education program.

We believe there are five fundamental principles upon which elementary physical education programs should be built. The first is the notation that elementary physical education programs must be *developmentally appropriate*. This means that activities should be appropriate at the level commensurate with the child. Second, the concept of *physical best*; meaning that elementary physical education programs should provide students with an opportunity to reach their full potential. Next, is the principle of *enjoyment, commitment and empowerment*. This implies that individuals should derive enjoyment, gratification and intrinsic satisfaction from participating in physical activities and that they should be empowered to take ownership for their own physical health. The fourth principle is that of *total well-being and community participation*. Programs should seek to provide information about nutrition, relaxation, sleep and other behaviors central to one's physical well-being. Further, programs should be extended into the community taking advantage of before-and-after-school programs and other opportunities to enhance participation. The fifth principle is that of *accountability*. This implies that physical educators and school administrators should be held accountable for the physical education program afforded the children. The principles and guidelines are presented in Table 1.

## Winning Public Support

Physical educators must become more proactive. It is important to seek and propose solutions to the vexing problems of a physically uneducated population. It is time to aggressively take charge by promoting a more workable program aimed at creating a physically educated population and welcome the challenge of being accountable for the outcomes of our efforts. We must *win public support* for our efforts.

Armed with the clarion call of *winning public support*, physical educators cannot accept the status quo. New and dynamic program offerings must be sought. Accountability must be accepted. Physical educators must insist on physical education programs that operate throughout the duration of the school week. Programs that meet five (5) days a week should be sought as the minimum with multiple daily opportunities in mind. Such programs should be devoted to assist the student growth and development as well as to assist them in developing and maintaining their physical quality throughout their lives. Like coaches, physical educators should be able to showcase their product to the public. Also, physical education programs should promote the acquisition of moving gracefully, efficiently and performing skillfully. Further, physical education programs should assist individuals in developing life long leisure knowledge, skills and attitudes.

Linkage with community resources is essential. Outsourcing is an innovative concept that can assist students in making the transition from school-based activities to ones offered in community settings during the final phase of their school curriculum. This can assist in the goal of developing individuals to be self-sufficient throughout their lives in fulfilling their responsibilities of living in a healthy, skillful and efficient body. Minimally, physical education programs should link effectively with before and after school care programs in order to build continuity between program offerings. Before and after school programs provide a rich avenue for pursuing the objectives identified.

## Concluding Comments

Winning public support is a worthy goal for physical educators. We must accept responsibility for the disillusionment of physical education programs within the population as a whole. We must accept the responsibility for being more accountable for our efforts. It may be that we have not marketed our physical education programs well enough to win the support of administrators, public and parents. As

professional physical educators we must lead, promote and market our worth as a viable and important element of any educational system. It is essential that we re-engage our emphasis for those who we serve in ways that are meaningful, relevant, and important in promoting greater individual health, fitness and well-being. In theory, physical educators are the legitimate educators to effectively contribute in the remedial effort of saving our physically damaged population.

In an advance society, taking physical activity out of an individual's life cannot be remedied by merely addressing dietary issues or applying singularly other individual scientific concepts. Rather, we have to encourage more physical activity in the lives of individuals in an ongoing basis. Such activities cannot be limited only to the school, but must include wide ranges of venues throughout the entire lifespan. Simplistically thinking that including only half an hour a day of physical activity as part of a school's program to remedy the weight and obesity problems is pure folly. What must be encouraged

is the need for a comprehensive program that embraces many opportunities for physically active experiences.

Let's start by aligning the profession with basic concepts suitable to meet the challenges of the 21<sup>st</sup> Century. It is paramount to develop a new approach and plan to aggressively promote and market our new mission for the improved physical education of the future. Let us put our best effort forward to win public support and establish the role of the physical education programs by contributing positively to the definition of an educated person. Let us prove that a society neither be fully educated nor reach its full potential without sound physical education programs.

**Are we ready to enhance our profession's image and vision? Are we ready to accept the challenges of the 21<sup>st</sup> Century? Are we ready to hold ourselves accountable? Are we ready and willing to take back our schools? The time to act is now!**

**Table 1. Principles and Guidelines for Elementary Physical Education Programs.**

<b>Principles and Guidelines for Elementary Physical Education Programs</b>
<i>The Principle of Developmentally Appropriate</i>
Physical activities should be challenging at a level commensurate with the ability of children. Guidelines for this principle are as follows:
<ul style="list-style-type: none"> <li>• Children are young and small but not fragile.</li> <li>• All activity experiences in physical education can be appropriately challenging.</li> <li>• Areas, equipment and expectations should match the child's size and level of maturity of each individual.</li> <li>• Physical limits and health related fitness must be improved, challenged and maintained during physical education program.</li> <li>• All activities within the physical education program should provide opportunities for meaningful success for all participants.</li> <li>• Success from a challenging task will have lasting affect.</li> <li>• Successful experiences will be repeated.</li> </ul>
<i>The Principle of Physical Best</i>
A quality physical education program should provide individuals with an opportunity to reach their potential and approach their own "physical best". Guidelines are as follows:
<ul style="list-style-type: none"> <li>• Children should be given the opportunity to reach their potential and approach their own "physical best."</li> <li>• Fostering children's potential through high-level function and activity related skills must be the outcome of physical education programs.</li> <li>• Provision for plenty of opportunities to experience purposeful repetition is the key to skillful performance.</li> </ul>
<i>The Principle of Enjoyment, Commitment and Empowerment</i>
Physical educators should seek to build on the principle of commitment and the empowerment of individuals. Guidelines are as follows:
<ul style="list-style-type: none"> <li>• Physical education programs should develop responsible attitudes and personal commitment.</li> <li>• Enjoyment and gratification gained from participation in physical activities should be intrinsic in nature and have prominence when compared to the "fun morality".</li> <li>• Children should learn to take ownership of their own physical health.</li> </ul>
<i>The Principle of Total Well-Being and Community Participation</i>
Physical educators should pursue the total well-being of the individual, including insuring that the entire resources of a community are embraced as a part of the curriculum. Guidelines are:
<ul style="list-style-type: none"> <li>• Information about proper nutrition, relaxation, sleep and safe behavior as a complementary influence on physical well-being should be a part of the instructional program.</li> <li>• Opportunities to be physically active should be extended beyond school programs.</li> <li>• Linkage with community resources is essential, as programs should transition from school-based activities to ones offered in the community.</li> </ul>
<i>The Principle of Accountability</i>
Physical educators and school administrators should be accountable for the outcomes of a physical education program. Guidelines are as follows:
<ul style="list-style-type: none"> <li>• Every child must have a physical education progress file throughout the entire elementary years.</li> <li>• Children should be evaluated against their own limits and capabilities.</li> <li>• School administrators are responsible for the establishment of quality physical education programs in their respective schools.</li> <li>• Physical educators are responsible for the outcomes of all activities they introduce and all experiences they produce.</li> <li>• Schools should promote active lifestyle through extended daily multiple opportunities.</li> </ul>

## References

- Alibinson, J.G., & Andrews, G. (1976). *Personalized learning in physical education*. Reston, VA.
- Blair, S.N. & Connelly, J.C. (1996). How much physical activity should we do? The case for moderate amounts and intensities of physical activity. *Research Quarterly for Exercise and Sport*, 67(2), 193-205.
- Center for Disease Control and Prevention. (1998). *Surveillance Summaries 1998*.
- Center for Disease Control and Prevention. (1997). Guidelines for school health programs to promote lifelong physical activity among young people. *Morbidity and Mortality Weekly Reports*, 46(RR-6), 1-36.
- Council for Physical Education for Children of the National Association for Sport and Physical Education (NASPE). (1999). *Physical Activity for Children A Statement of Guidelines*.
- Epstein, L.H., & Goldfield, G.S. (1999). Physical activity in the treatment of childhood overweight and obesity: Current evidence and research issues. *Medicine & Science in Sports & Exercise*, (Supplement), S553-59. <http://www.msse.org>.
- Flegal, K.M., & Troiano, R.P. (2000). Changes in the distribution of body mass index of adults and children in the US population. *International Journal of Obesity*, 24, 807-18.
- Flegal, K.M., Carroll, M.D., Kuzmarsi, R.J., & Johnson, C. L. (1998). Overweight and Obesity in the United States: Prevalence and Trends 1960-1994. *International Journal Obesity Disorder Metabolic Disorder*, 22, 39-47.
- Fontanarosa, P.B. (1998). Health Promotion and obesity research. *JAMA*, 280(21).
- Hill, O. James & Trowbridge, Fredrick. (1998). Childhood obesity: Future directions and research priorities. *Pediatrics*, 101(3), 570-74.
- Grayson, C. (December, 2000). "Who becomes obese or overweight?" *Well-connected Report: Weight and Diet*. <http://www.well-connected.com>
- Kirschner, G., & Fishburne, G.J. (1998). *Physical Education for elementary School Children (10<sup>th</sup> ed.)*. WCB/McGraw-Hill.
- Pate, R.R., Pratt, M. Blair, S.N, et al. (1995). Physical activity and public health: A recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. *JAMA*, 273(5),402-7.
- Pratt, M., Macera, C.A., & Blanton, C. (1999). Levels of physical activity and inactivity in children and adults in the United States: Current evidence and research issues. *Medicine & Science in Sports & Exercise*(Supplement), S526-33. <http://www.msse.org>.
- Sallis, J.F., Prochaska, J.J., & Taylor, W.C. (2000). A review of correlates of physical activity of children and adolescents. *Medicine & Science in Sports Exercise*, 963-75. <http://www.msse.org>.
- U.S. Department of Health and Human Services. (2001). Surgeon General's Call to Action to Prevent and Decrease Disease Overweight and Obesity.
- Trojano, R.P., Flegal, K.M., & Kuzmarsi, R.J., et. al. (1995). Overweight prevalence and trends for children and adolescents. *Arch. Pediatric Adolescent Medical*, 149, 1085-1091.
- Shepherd, Roy. (1997). Physical education and academic performance. *Pediatric Exercise Science*, 9, 113-126.
- Siedentop, D. (1983). *Developing teaching skills in physical education*. Palo Alto, CA: Mayfield.
- Simmons-Morton, B.G., Taylor, W.C., Snider, S.A., Huang, I.W., & Fulton, J.E. (1994). Observed levels of elementary and middle school children's physical activity during physical education classes. *Preventive Medicine*, 23,437-41.

U.S. Department of Health and Human Services Centers for Disease Control and Prevention. (1996). *Physical activity and health: A report of the surgeon general*. Atlanta, GA.

U.S. Department of Health and Human Services, Public Health Service, Office of Disease Prevention and Health promotion. (April 26, 1995). *Health People 2000 Progress Report for Physical Activity and Fitness*. Washington, DC.

National Personal Transportation Survey. (1997). U.S. Department of Transportation.

National Personal Transportation Survey. (1995). U.S. Department of Transportation.

Ward, P. (1999). An Introduction to the Suber-Tooth Project. *Journal of Teaching in Physical Education*, 18(4),379-489.

Whitaker, R.C., Wright, J.A., Pepe, M.S., Seidel, K.D., & Dietz. (1997). W.H. Predicting obesity in young adulthood from childhood and parental obesity. *New England Journal of Medicine*, 337,869-73.

**Figure 1. Basic Elements in Physical Education Programs.**

