

Physical Literacy for Educators

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On January 18th, 2002, the United Nations (2002) General Assembly passed resolution 56/116: United Nations Literacy Decade: Education for All. The foundation of this resolution was based upon the collective conviction that:

literacy is crucial to the acquisition, by every child, youth and adult, of essential life skills that enable them to address the challenges they can face in life, and represents an essential step in basic education, which is an indispensable means for effective participation in the societies and economies of the twenty-first century.

Based upon this definition, literacy is not restricted merely to reading and writing. According to the United Nations Education, Scientific, and Cultural Organization (UNESCO; 2003), literacy is concerned with how we communicate in society. It is about the social practices and relationship and the social practices and relationships, about knowledge, language and culture. It is broader than just the acquisition of knowledge and understanding of content. It requires that the student assumes both a personal and social responsibility to use the attained knowledge in ethical and just ways. Being "literate" includes the use of critical and creative thinking skills and/or processes, conveying information through various forms of communication and applying knowledge and skills to make connections within and between various contexts. In

other words, the life skills that are formed through the lens of literacy provide a critical feature of what it means to be literate. In an era where literacy programs have become a priority for provincial Ministries of Education, it is vital for our profession to be a strong advocate in helping to foster strong literacy skills for students today and into the future. The following summary provides background information on physical literacy through the lens of an educator. The paper concludes with a proposed working definition of physical literacy for consideration by educators across Canada.

Physical Literacy

What does it mean to be literate within the realm of physical activities, sport, and physical education (PE)? The Canadian Sport Centre's (2006) Long Term Athlete

Development Plan (LTAD) recognizes physical literacy as the foundation for developing the skills, knowledge, and attitudes needed for Canadians to lead healthy active lives.

The definition of physical literacy provided by the Canadian Sport Centre (Higgs, Balyi, Way, Cardinal, Norris, & Bluehardt, 2008) is: "...the development of fundamental movement skills and fundamental sport skills that permit a child to move confidently and with control, in a wide range of physical activity, rhythmic (dance) and sport situations. Physical literacy also includes the ability to 'read' what is going on around them in an activity setting and react appropriately to those events" (p. 5). The definition that UK Sport (2002) adopted of physical literacy is the development of agility, balance, coordination, and skill across a wide range of activities. In both of these cases, the definitions of physical literacy are specific to the development of a wide variety of physical skills. Within educational settings, the role of PE is to move beyond the physical development of students. Current curricular goals in PE are built around the "whole child" (i.e., physical, cognitive, and affective domains). The current definitions and understanding of physical literacy within Canada

Physical literacy serves an important foundation for sport (e.g., LTAD) and education (e.g., provincial PE curriculum) policies in Canada. This paper provides an overview of physical literacy through the lens of an educator and attempts to bridge a significant gap between sport and physical education. The working definition that is provided examines physical literacy from the perspective of a quality physical education program and the role that such programs play in the development of the whole child.

Le savoir-faire physique constitue un solide fondement à l'appui des politiques sur le sport (p. ex, le DLTA) et sur l'éducation (p. ex., les programmes-cadres d'éducation physique des provinces) au Canada. Cet article explique le concept du savoir-faire physique du point de vue d'un éducateur et il tente de combler l'écart entre le sport et l'éducation physique. La définition provisoire situe le savoir-faire physique dans le contexte d'un programme d'éducation physique de qualité et confirme son rôle dans le développement global de l'enfant.

have emerged primarily through the sport system. Although sport and PE are closely related, they do not always share the same goals or serve the same individuals. Hence, a definition of physical literacy that is relevant to and representative of the educational environment within Canada is warranted. Schools, and in particular the subject of PE within schools, are ideally positioned to foster students' development of physical literacy given its mandate to provide equal and equitable access to the development of the skills, knowledge, and attitudes needed to become physically literate. At the same time, it is critical to ensure that the development of physical literacy within PE mutually supports the development of physical literacy within sport. As a result, the development of physically literate individuals is a priority that both education and the sport system share.

Physical Literacy for Physical Educators

The concept of literacy within an educational setting goes well beyond the acquisition of knowledge and understanding (c.f., Fernandez Balboa, 1997). It is the application of foundational knowledge and understanding in ethical and proficient ways across a wide range of environments, tasks, and situations that makes an individual truly literate. Imagine if we only taught children the alphabet from A to M and stopped there! Narrowing the aim of PE to the development of skill while ignoring other significant dimensions would be similarly unreasonable. Consequently, physical literacy is based upon a solid foundation where children and youth develop the skills, knowledge and attitudes across a wide variety of activities so that they might engage with poise and confidence (Whitehead, 2007). In other words, physically literate youngsters "should be creative, imaginative, and clear in expressive movement, competent and efficient in utilitarian movement and inventive, versatile, and skillful in objective movement" (Morrison as cited in Wall & Murray, 1994, p. 5).

Margaret Whitehead (2007) has been credited as being one of the leading

education experts in physical literacy. Her most recent definition of physical literacy is: the motivation, confidence, physical competence, understanding and knowledge to maintain physical activity at an individually appropriate level, throughout life. This definition of physical literacy is based upon several characteristics that are summarized in Table 1 and is consistent with other scholars who stress the importance of the interaction of an individual's physical abilities within the social and cultural contexts of movement (Penny & Chandler, 2000; Wright & Burrows, 2006).

In an international survey, Hayden-Davies (2008) asked 12 experts from around the world: "What is physical literacy?" Based on the responses, the core principle of physical literacy is "the ability to capitalize on the interaction between physical competence and affective characteristics" (p. 19). Thus, what is critical is the ability to respond effectively across a wide variety of situations which embrace both lifelong participation and the development of life skills. Hayden-Davies (2008) suggests that the development of these characteristics is "developed through an interaction and interplay between an individual, environments and others" and that "any expression of physical literacy will be linked to the individual's unique capacities and the individual's culture" (p. 19).

It is clear, therefore, that physically literate individuals not only move efficiently, but they also move creatively, competently, ethically, enthusiastically, and in socially responsible ways (Penny & Chandler, 2000). Hence, individuals who are physically literate have the knowledge, skills, and attitudes to lead healthy lifestyles for themselves, and also assist others in acquiring these skills as well.

A Definition of Physical Literacy for Canadian Physical Educators

The following is a proposed working definition of physical literacy that is

intended to resonate with physical educators from across Canada in order to bridge a gap that has traditionally existed between sport and PE:

Individuals who are physically literate move with competence in a wide variety of physical activities that benefit the development of the whole person.

Physically literate individuals consistently develop the motivation and ability to understand, communicate, apply, and analyze different forms of movement. They are able to demonstrate a variety of movements confidently, competently, creatively and strategically across a wide range of health-related physical activities. These skills enable individuals to make healthy, active choices throughout their life span that are both beneficial to and respectful of themselves, others, and their environment.

Justification for the Definition

Overall, the definition is intended to bridge the sport and educational sectors and situates physical literacy as a priority that both sectors share. This definition is unique to educators in that it is harmonious with current educational notions of literacy which is critical for those in the educational sector. The first sentence provides an opportunity for a short, concise definition of physical literacy. The term 'competence' should be interpreted as inclusive, implying that it is unique to each individual rather than being based upon norms for skills acquisition. In other words, competence is defined on an individual-by-individual basis based upon various skills and is not based on population norms. It is also intended to incorporate the application of a variety of skills at a proficient level (i.e., competence) across numerous different physical activities (e.g., games, dance, fitness, gymnastics, outdoor). The first sentence provides the rationale regarding 'why' it is important to be physically literate; in that, it benefits the whole person (physical, cognitive, affective, etc). Thus, the working definition is intended to

Table 1: Whitehead's (2007) characteristics of physical literacy.

1. Physical literacy can be described as the ability and motivation to capitalise on our movement potential to make a significant contribution to the quality of life.
2. As humans we all exhibit this potential, however its specific expression will be particular to the culture in which we live and the movement capacities with which we are endowed.
3. An individual who is physically literate moves with poise, economy and confidence in a wide variety of physically challenging situations.
4. The individual is perceptive in 'reading' all aspects of the physical environment, anticipating movement needs or possibilities and responding appropriately to these, with intelligence and imagination.
5. A physically literate individual has a well established sense of self as embodied in the world. This, together with an articulate interaction with the environment, engenders positive self-esteem and self confidence.
6. Sensitivity to, and awareness of, our embodied capacities leads to fluent self expression through non-verbal communication and to perceptive and empathetic interaction with others.
7. In addition the individual has the ability to identify and articulate the essential qualities that influence the effectiveness of his/her own movement performance, and has an understanding of the principles of embodied health, with respect to basic aspects such as exercise, sleep and nutrition.

highlight the importance of physical activity to benefit physical (e.g., fitness and motor skills), cognitive (e.g., thinking, understanding, problem solving skills), social (e.g., positive peer interactions, communication, teamwork, cooperation) and affective (e.g., emotional, spiritual, and motivational) development. Finally, the term, wide variety of physical activities is consistent with Sport Canada's vision of physical literacy and is also consistent with current definitions of physical literacy. The reader is encouraged to think very broadly with regard to 'wide variety'; far broader than just popular sports but also to lifelong physical activities.

The definition then describes in more detail the specific characteristics related to the process of becoming and being physically literate.

- Motivation is often used to highlight the importance of the affective domain and to reinforce ongoing development.
- Understanding, communication, application and analysis are commonly used frameworks for educational rubrics and are consistently embedded within the literacy literature. As a result, educators will gain a richer under-

standing and perspective of the role of PE to foster student learning.

- Diverse forms of movement encourages variety across different forms of movement such as dance, fitness, games, gymnastics, individual activities, outdoor pursuits, etc. This helps to reinforce that students should develop competence across a number of different activities.
- Confidence and competence denote both the role of self-esteem on the development of skills at proficient levels (e.g., mature form of a skill). It is also important to note that it is not simply the acquisition of skills that is important, but rather the application of skills within and across various contexts that is essential for the development of physical literacy. The performance of a fundamental skill with a mature pattern does not necessarily guarantee successful transfer of knowledge. For example, performing the overhand throw at a mature level does not ensure that that same individual will be able to transfer his/her knowledge and understanding of this skill into a game context when faced with pressure from a defender.

Hence, the terms 'confidence' and 'competence' assume that true skill is applied and within authentic movement contexts.

- Creativity denotes the ability to apply skills in new and novel ways and also provides a link to expressive forms of movement (e.g., dance, gymnastics, fitness). Being able to apply skills (i.e., physical, cognitive, and affective skills) creatively is critical in the development of physical literacy because it demonstrates versatility and promotes the development of new and innovative solutions to movement challenges.
- Strategically is used to link the concept of strategic thinking and the ability to read various situations within different types of physical activities. This is consistent with the LTAD's definition of physical literacy. Strategic thinking is critical not only in games but in all movement forms. For example, knowing when to adjust the amount of force in a creative dance can demonstrate different forms of expressive movement. Knowing how to conserve energy in activities such as cross country skiing or distance swimming is an important strategy in order to have a strong finish. Strategic thinking enables individuals to make decisions about when and how to apply their skills.
- Health-related precedes physical activities to ensure that fitness is an outcome and to reinforce that physical activities do in fact help to improve health as outlined in Canada's Fitness Guides. Health-related fitness refers to the development of flexibility, strength, and endurance. These health-related components are critical in order to assist individuals to apply their skills as proficiently as possible.
- Healthy active choices is a common phrase in most Canadian PE curricula and is consistent with Health Promoting School initiatives. It also provides an important link to differentiated learning by outlining the importance of individual choice.
- Lifespan reminds individuals that the role of educators is to educate individ-

uals to make healthy active choices for a lifetime, and that physical activity is not confined to a school subject or merely when students attend school.

- Beneficial to and Respectful of themselves, others, and their environment is a link to health concepts and highlights that the benefits reaped through physical activity should be considered through the lens of personal and social responsibility. For example, even though someone possesses a high level of skill and fitness and is able to respond strategically, confidently, and competently in various movement situations, it does not guarantee that he/she will do so ethically, justly, or holistically. This final part of the description of physical literacy stresses that the way in which we communicate and apply our skills, knowledge and understandings is equally important. It also highlights our need to acknowledge and care for each dimension of human well-being (mind, body, spirit).

Overall, this definition is consistent with PHE Canada's (n.d) criteria for a Quality Daily Physical Education program (see Table 2). Through a Quality (and hopefully daily) PE program, individuals become physically educated which in turn enables them to demonstrate physical literacy throughout their lifespan. The concept of physical literacy is that through quality PE, individuals become physically

literate which they can not only apply in physical activities, but also in other aspects of life.

Conclusion

Physical Literacy is now a reality for educators across Canada. Many provincial PE curricula in Canada (i.e., British Columbia, Saskatchewan, Ontario, Newfoundland and Labrador) currently stress that students should become physically literate as a result of achieving grade specific standards, expectations, or outcomes. As an example, the Ontario Ministry of Education is set to launch a new Health and PE Curriculum in 2009 that envisions a generation of physically literate students. Many other provincial curricula also have strong characteristics consistent with physical literacy.

The working definition of physical literacy presented in this paper is intended to assist teachers to implement quality PE programs linked to provincial curricular outcomes designed to foster the development of physically literate students. It is also intended to bridge a significant gap that often exists between sport and PE. The working definition attempts to do this by considering the role that a quality PE program can play not only in the development of physically literate participants in sport programs, but also physically literate individuals for life. By fostering physical literacy through quality PE programs, the students of

today not only are better prepared to lead healthy active lives, but they are better prepared to do so in a way that assist others, are respectful of the environment, and which are creative in ways that have the potential to generate new and innovative ideas. ■

REFERENCES

- Fernandez- Balboa, J. (1997). Physical education teacher preparation in the postmodern era: Toward a critical pedagogy. Chapter in *Critical postmodernism in human movement, physical education, and sport* (pp. 121-138). Albany, NY: Suny Press.
- Hayden-Davies, D. (2008, September). *So what is physical literacy (and what use is it?)*. Paper presented at British Educational Research Association annual conference (September 4th). University of Edinburgh.
- Higgs, C., Balyi, I., Way, R., Cardinal, C., Norris, S., Bluchardt, M. (2008). *Developing physical literacy: A guide for parents of children ages 0 to 12.* : Vancouver, BC: Canadian Sport Centres
- Penney, D., & Chandler, T. (2000). *Physical Education: What future(s)? Sport, Education and Philosophy and Theory*, 37, 705-718.
- Physical and Health Education Canada* (n.d.). About QDPE. Accessed May 21, 2009 at: http://www.phecanada.ca/eng/physicaleducation/about_qdpe.cfm
- UK Sports (2002). Game Plan: a strategy for delivering Government's sport and physical activity objectives. London: Cabinet Office. Accessed online December 22nd, 2008 at <http://www.sportdevelopment.org.uk/gameplan2002.pdf>.
- United Nations* (2002). 56/116. *United Nations Literacy Decade: education for all*. Resolution adopted by the General Assembly, Fifty-Sixth Session (January 18). New York. Accessed online May 19th, 2009 at: <http://www.undemocracy.com/A-RES-56-116.pdf>
- United Nations Educational, Scientific and Cultural Organization* (2003). *Literacy, a UNESCO perspective*. Assessed online March 26, 2007 at: <http://unesdoc.unesco.org/images/0013/001318/131817eo.pdf>
- Wall, J. & Murray, N. (1994). *Children and movement: Physical education in the elementary school*. Dubuque, Iowa: Wm C Brown Co. Publishers.
- Whitehead, M. (2001). The concept of physical literacy. *European Journal of Physical Education*, 6, 127-138.
- Whitehead, M. (2007, February). *Physical literacy and its importance to every individual*. Presentation at the National Disability Association Ireland, Dublin, Ireland. Assessed online March 10, 2007 at <http://www.physical-literacy.org.uk/dublin2007.php>
- Wright, J., & Burrows, L. (2006). *Re-conceiving ability in physical education: A social analysis*. Accessed online: www.learnmem.org/cgi/doi/10.1101/lm.39301

Table 2: PHE Canada's (n.d.) characteristics of a Quality Daily Physical Education (QDPE) program.

Characteristics of a QDPE Program

1. Daily curricular instruction for all students (K-12) for a minimum of 30 minutes.
2. Well planned lessons incorporating a wide range of activities.
3. A high level of participation by all students in each class.
4. An emphasis on fun, enjoyment, success, fair play, self-fulfillment and personal health.
5. Appropriate activities for the age and stage of each student.
6. Activities which enhance cardiovascular systems, muscular strength, endurance and flexibility.
7. A participation based intramural program.
8. Qualified, enthusiastic teachers.
9. Creative and safe use of facilities and equipment.