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Review

Physically literate and physically educated: A rose by any other name?

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Abstract

In the 2013 release of the U.S. National Physical Education Standards the term “physically literate” replaced “physically educated”. Unfortunately, most discourse within the profession about the term physically literate occurred primarily after its adoption. While we agree with the spirit and intent of the term, we feel it is essential to discuss not only what has been potentially gained but also lost. In our paper, we illustrate the similarity of the terms physically educated and physically literate and essentially, from a definitional perspective, find little difference—but are these terms interchangeable? We provide a critical review of the standards and conclude that the change to physical literacy has produced a shift away from psychomotor outcomes to cognitive outcomes. Our concerns about this are many, but most importantly they are about the need to emphasize the “physical” in physical education (PE). It is our belief that the key to elevating the profession and maintaining and increasing support for PE is in its ability to promote and provide physical activity. Without physical activity and physical fitness as main outcomes, PE increases its vulnerability to extinction as a standard part of the U.S. K-12 education curriculum.

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1. Introduction

We are pleased to share our perspectives on the use of the term physical literacy as adopted in the 2013 release of the national K-12 physical education (PE) content standards.¹ From the outset, we want to make clear that we agree with the overall spirit and intent of the term, but we feel a sense of trepidation about the potential short- and long-term consequences of its use within the standards. Our perspectives herein are contextualized by our steadfast concerns about the marginalized status of PE in U.S. K-12 schools.^{2–4}

Our trepidation, in part, stems from the historical pattern of PE tending to follow general education trends.⁵ For example, in response to the general education movement to emphasize morals, values, responsibility, respect for self and others

(sometimes referred to as the hidden curriculum), PE responded with character education curriculum models. Similarly, when general education emphasized inquiry based learning, team building, and curriculum integration, PE followed with the movement education and sport education models and efforts to increase academic subject matter integration (e.g., math and reading) into PE. Efforts to keep up with educational trends, plus the profession’s own development, resulted in so many changes in emphases over a 50-year period (e.g., play education, developmental education, humanistic education, personal meaning, movement education, kinesiological studies) that PE has been referred to as the “chameleon of all curricula”.⁶ We believe that the zeal for PE to follow general educational trends has contributed to confusion both within and outside of the PE profession. This confusion has led to student outcomes for PE being ambiguous, lacking in priority among themselves, and to a large degree, estranged from real world concerns. We believe that this lack of clear, meaningful, and prioritized student outcomes contributes to the marginalization of PE programs,

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including reductions in both resource allocations and in time for PE during the school day. It is from this perspective that we share our views about the adoption of the term physical literacy in the national K-12 PE standards.

According to the Merriam-Webster dictionary, literacy is identified primarily as the ability to read and write—but it is often used more broadly to refer to having knowledge or competence in an area (e.g., cultural or computer literacy). The broader use of the term is frequently applied to core subject matter areas such as math, science, social studies, and language arts. Literacy as applied therein confirms aspirational commitment toward developing deep subject matter content understanding by students that results in motivated learners capable of independent real-world application. In this vein, educational planning questions may take the form of how to ensure students understand, remember, and apply the content they read and are both able and motivated to scaffold information to build greater capacity to understand real-world complexities. Literacy in this sense moves what might be considered purely cognitive learning objectives to the affective domain and to a lesser extent, the psychomotor domain.

The term literacy is now also being applied to PE — “physical literacy”. The term originated in the UK and its adoption has spread to Canada and now appears in the U.S. K-12 national PE content standards.^{1,7} While the widespread global adoption of the term physical literacy has been espoused or implied, we found limited evidence of this in the peer reviewed literature. As of October 2014, we could not find physical literacy explicitly identified as the target goal of PE (i.e., producing a physically literate individual) in the national PE standards of any country other than USA. Canada may be an exception in that physical literacy is used frequently in their professional materials (<http://www.phecanada.ca/programs/physical-literacy>), but the term was not explicitly mentioned in the Physical & Health Education (PHE) Canada current mission statement (<http://www.phecanada.ca/about-us/vision/mission>).

Without widespread consultation within the profession (e.g., discussion and debate at national conferences) or extensive committee work or marketing research, the term physically literate replaced the term physically educated in the 2013 release of the U.S. national K-12 PE content standards. The lack of broad engagement in professional discourse and market research prior to this replacement is concerning given the extensive effort the profession previously undertook to define a physically educated person. Then again, perhaps the terms physically literate and physically educated mean the same thing. After all, a commonly listed synonym for literate is educated.

Exchanging the term “educated” to “literate” reminds us of William Shakespeare’s famous line from *Romeo and Juliet*, “What’s in a name? That which we call a rose by any other name would smell as sweet.” This line from Act II, Scene 2, “a rose by any other name” is frequently used in modern day language to imply that the name or label does not really affect what something is. But are physically educated and physically literate the same? If physically educated is a rose, then is physically literate

also a rose but of a different name—or is it another flower/concept all together? Additionally, with the adoption of the term physically literate, have the outcome expectations of PE changed and if so, in what ways? More importantly, what might be the broader implications of these changes?

In this paper we examine these questions. First, we compare and contrast the terms “physically educated” and “physically literate” and show that there are few differences—hence our proposition that physical literacy is a rose but by another name. Second, we provide a comparative analysis of the 2004 and 2013 U.S. national PE content standards to make explicit how the standards have changed and identify that there has been a major shift away from the physical—hence, our question, is physical literacy really a rose by another name? Lastly, we make the appeal that the “physical” in PE must become our priority in that it is the key to elevating the profession and to maintaining and increasing support for PE.

2. Physically literate and physically educated

In the newly released national K-12 PE content standards, a new term, “physically literate”, appeared and replaced the familiar term, “physically educated” (AAHPERD, 2013). As we consider the merits of adopting this term it seems logical to compare its definition with the older term to provide a clearer understanding of what potentially has been gained and lost.

Before doing this, however, we would like to point out that we could not find any published criticism of either the term “physically educated” or of the work of the 1986 Outcomes Committee. Additionally, we did not find any detailed explanation, substantiation, or rationale for why “physically educated” was replaced with “physically literate”. As well, the current SHAPE America public domain access materials for the 2013 national K-12 PE content standards do not define the term “physically literate” or explain why it was adopted. As far as we can find, it appears that “physically literate” simply replaced “physically educated” as if the words were interchangeable or synonymous, as the Merriam-Webster dictionary indicates.

2.1. Physically literate

Whitehead⁸ describes physical literacy as the motivation, confidence, physical competence, knowledge, and understanding to value and take responsibility for engagement in physical activities for life. As applied to PE, literacy in this sense might be interpreted as moving psychomotor learning objectives to the affective and cognitive domains. In a recent *JOPERD* publication, CEO of SHAPE America, Paul Roetert and President-Elect Steve Jeffries (2014), provide thoughtful insights into the merits of the adoption of the term physically literate. As they state, “United Nations Educational, Scientific and Cultural Organization’s (UNESCO) Education Sector released a position paper⁹ that provides a background and definition of literacy. UNESCO identifies literacy as being more than just reading and writing. It is about how we

communicate in society, and it includes social practices and relationships as well as knowledge, language, and culture.”⁸ Whitehead, who is recognized as conceptualizing and promoting physical literacy extensively,⁷ places emphases on the continuum of learning so that individuals develop knowledge and ability to participate in society.^{10,11} The emphasis on multiple environments as part of physical literacy is also reflected in the national K-12 standards goal statement: “The goal of physical education is to develop physically literate individuals who have the knowledge, skills and confidence to enjoy a lifetime of healthful physical activity.”¹

2.2. Physically educated

The term “physically educated” was defined by the 1986 National Association for Sport and Physical Education (NASPE) Outcomes Committee, which was charged to answer the question, “What should physically educated students know and be able to do?” This charge was termed the “Outcomes Project” and resulted in the development of a definition of a physically educated person. A physically educated individual:

1. performs a variety of physical activities;
2. is physically fit;
3. participates regularly in physical activity;
4. knows the implications and benefits from involvement in physical activities and
5. values physical activity and its contributions to a healthful lifestyle.¹²

This definition was then expanded into 20 accompanying outcome statements related to these five focus areas. These outcome statements provide an in-depth commentary on what leaders thought PE should aim to accomplish, and it was these outcome statements that guided the first release of the national PE content standards.¹³ We reviewed these outcome statements for a physically educated individual and compared them to the definition of what we found for a physically literate person—and found very little difference.

2.3. A comparative analysis of the 2004 and 2013 PE content standards

An important question is whether the introduction of the term “physically literate” impacts the outcomes of PE

programs—or is it just a rose by another name? Additionally, does the use of this new term change the conduct of PE lessons and what students learn? To attempt to address these questions, we compared the goals identified in the 2004 and 2013 national PE standards (Table 1).

At first glance, Table 1 gives the impression that the goals of PE have remained largely unchanged, with the exception of the order in which they are stated. Hence, it appears that “physically educated” and “physically literate” individuals are essentially one in the same (i.e., a rose by another name)—but are they? For a more in-depth analysis, we constructed Table 2 to compare the 2004 and 2013 content standards and for each standard we provide an analysis of specific changes and a summary of their implications.

Table 2 shows that most of the words remain the same, but those that have changed clearly reflect a shift away from *doing* (2004 standards) to *knowing* (2013 standards). This is of great concern for us, and it leads us to question whether the difference in being physically literate and physically educated is the difference between *knowing* and *doing*?

Through our comparison the 2004 and the 2013 standards, it appears that PE has become an increasingly more cognitive subject matter and is thus more similar to other K-12 subject matter counterparts. We fear we have lost the physical aspect of PE. It now appears that PE classes are no longer expected to even engage students in physical activity or improve their physical fitness. We did not expect this finding, and it remains unclear to us if the apparent shift from *doing* to *knowing* can be attributed to the adoption of the term physical literacy. We are concerned that the 2013 standards represent a step backward rather than forward in terms of what children, parents, and school administrators need PE to accomplish—healthy, physically active, and physically fit children.

2.4. Emphasizing the “physical” in PE

Notwithstanding our concerns about the shift in the standards, we once again want to emphasize that we do not disagree that the term literacy *may* have merit. But, is this the time to push for its use? If so, what are the advantages and how will we know when they have been obtained? Our point is this—already the lay public is unable to discriminate among the words physical activity (a behavior), physical fitness (an outcome), and PE (a program of study). Would pushing a similar sounding and similar meaning term on them (i.e.,

Table 1
Goals of physical education (PE) as reflected in the 2004 and 2013 PE standards.

PE goals in 2004 standards	PE goals in 2013 standards
A physically educated individual:	A physically literate individual:
<ul style="list-style-type: none"> • Performs a variety of physical activities • Is physically fit • Participates regularly in physical activity • Knows the implications and benefits from involvement in physical activities • Values physical activity and its contributions to a healthful lifestyle 	<ul style="list-style-type: none"> • Has learned the skills necessary to participate in a variety of physical activities • Knows the implications and the benefits of involvement in various types of physical activities • Participates regularly in physical activity • Is physically fit • Values physical activity and its contributions to a healthful lifestyle

Table 2
Comparative analysis of the 2004 and 2013 national K-12 PE standards.

2004 standards: the physically educated student	2013 standards: the physically literate individual	Comparative analysis
Standard 1: Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.	Standard 1: Demonstrates competency in a variety of motor skills and movement patterns.	<ul style="list-style-type: none"> • The word <i>variety</i> moved from referring to physical activities generally to referring to motor skills and movement patterns. • Competency in movement patterns and motor skills are no longer contextualized as being needed to participate in physical activities. <p>Summary: Competence in movement forms is emphasized. Alignment of these competencies with engaging in physical activities is removed.</p>
Standard 2: Demonstrates understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical activities.	Standard 2: Applies knowledge of concepts, principles, strategies, and tactics related to movement and performance.	<ul style="list-style-type: none"> • Understanding is changed to applies knowledge. • Application to learning and performing physical activities is removed. <p>Summary: Concepts, principles, and tactics are no longer contextualized by physical activities but instead to movement and performance.</p>
Standard 4: Achieves and maintains a health-enhancing level of physical fitness.	Standard 3: Demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness.	<ul style="list-style-type: none"> • Adds <i>demonstrates the knowledge</i> and skills to achieve. <p>Summary: The standard, once primarily psychomotor, is now firmly placed within the cognitive domain. A PE program now no longer is expected to actually improve fitness or engage students in physical activity.</p>
Standard 5: Exhibits responsible personal and social behavior that respects self and others in physical activity settings.	Standard 4: Exhibits responsible personal and social behavior that respects self and others.	<ul style="list-style-type: none"> • Reference to <i>physical activity settings</i> was removed. <p>Summary: Implication is that now PE is responsible for personal and social behavior in all settings.</p>
Standard 6: Values physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.	Standard 5: Recognizes the value of physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.	<ul style="list-style-type: none"> • Recognizing the value of physical activity has replaced actually valuing it. <p>Summary: Implication is that knowing the value of physical activity is more important than actually valuing it.</p>
Standard 3: Participates regularly in physical activity.		<ul style="list-style-type: none"> • Participating regularly in physical activity is no longer reflected in the standards. <p>Summary: Implication is that knowing about physical activity is more important than actually participating in it.</p>

physical literacy) not likely add to the confusion? Also, what are the consequences to the PE profession if the public becomes even more confused?

We believe that rather than contemplating the merits of the term physical literacy, there are more important things for the profession to focus its energy on (i.e., “bigger fish to fry”)—akin to what Siedentop¹⁴ alluded to about the profession being distracted in his paper entitled *On Tilting at Windmills while Rome Burns*. There are real problems that the profession needs to address. Currently, PE is marginalized and suffers from insufficient curriculum time allocations, low subject status, and inadequate funding and personnel resources.² With increased priority for other subjects (especially reading and mathematics), PE is often omitted from the educational core, resulting in unintended negative consequences such as PE state mandates not being met and waiver programs exempting students from participating in it.¹⁵ Schools do not employ enough specialists for students to have PE every day, and many elementary schools have no PE specialists at all.

Classroom teachers are often charged with teaching PE and in many cases do so with little preparation in the subject matter.¹⁶ Despite state mandates, PE lessons are also frequently not held.¹⁷ As well, PE has far more objectives than the time and resources allocated to meet them; and because the profession has yet to prioritize them, PE has been referred to as having “muddled mission”.¹⁸

The move to use the term “literacy” has not been investigated thoroughly (e.g., through market research), and there is no evidence that simply exchanging labels will solve these problems—especially switching to a label with the primary understanding by most to mean “to be able to read and write”. Schools are already designed primarily to produce cognitive outcomes, and their structures and programs (both intentionally and inadvertently) already suppress children’s physical activity.

Rather than risk PE becoming another sedentary subject, we must take action to rejuvenate and revamp our profession. Over 60 years ago, the great American educator/scholar Ralph

W. Tyler¹⁹ emphasized that educational objectives and practices should be based on some real need that learners have. This notion was applied to PE recently by Metzler²⁰ who emphasized that PE, as it currently exists in schools, is no longer viable and that it faces extinction unless it focuses directly on the needs of today's children and receives the support of the population. As we stated before, we believe the most viable strategy for PE to thrive is for it to align objectives, programs, and practices with public health.²⁻⁴ Public health agencies are among the strongest supporters of PE,²¹⁻²³ and they (rather than departments of education) have been the entities primarily responsible for funding studies on PE and for the recent development of policies and initiatives for improving PE.

Support for this alignment comes from the increased documentation of the health benefits of physical activity²⁴ and the important role that schools²² and PE²⁵ can play in increasing physical activity. The IOM²¹ recently recommended an average daily dose of 30 min (elementary school) and 45 min (middle and high school) of PE. Importantly, because students cannot become either physically fit or physically skilled unless they move, the IOM also recommended that lessons be comprised of at least 50% moderate-to-vigorous physical activity (MVPA). While some PE lessons do exceed the 50% MVPA criterion, most fall short of this mark. Reviews of research indicate that elementary school children spent about 37% of lesson time in MVPA²⁶ and those in secondary schools averaged between 27.7% and 46.8% of lesson time in MVPA, depending upon the assessment technique.²⁷

The lack of MVPA in PE is concerning, but the lack of policies and their enforcement, including at the state level, is an even greater problem. For example, while NASPE and numerous health entities, including *Healthy People 2020*²⁸ recommend daily PE, only 19 of 50 states reported having policies identifying the frequency of delivery and specific number of minutes for PE.²⁹ Of these states, only five had the policies at all three school grade levels, and only Idaho reported having a policy specifying the percentage of lesson time to be spent in MVPA (33%, grades K-5; 50%, grades 6-12). Furthermore, PE policy is neither uniform across states, among school districts in the same state, nor even among schools within the same district.³⁰ As well, state policies do not address funding or enforcement, and only Idaho specifies a means for objectively qualifying whether MVPA goals are met.³¹

Even when states do have specific guidelines for PE frequency and time, schools often do not follow them.^{17,32} For example, of over 90,000 5th-graders followed in one California study, the vast majority (82%) attended schools in districts that failed to provide the mandated minimum level of PE.² As well, of the nearly 1000 schools nationwide that reported for the 2006 School Health and Programs Policy Study, only 3.8% of elementary schools, 7.9% of middle schools, and 2.1% of high schools reported their students had PE daily or its min/week equivalent.³³

Recently, health-optimizing physical education (HOPE), a concept that prioritizes student accrual of physical activity during lessons, has been promoted as a means for PE to contribute to public health.³⁴ Evidence-based PE programs grounded on HOPE principles have been shown to increase MVPA in lessons by up to 18%, even without increasing the frequency and duration of classes.² Several evidence-based programs are available for dissemination, but there are challenges to their adoption, including physical educators being satisfied with current programs, lack of interest by school administrators, and staff development costs.³⁵

In closing, children need physical activity to become physically fit and physically skilled and to have healthy lives, and PE is a critical source of it. We believe that supporting public health goals will help children and the profession substantially more than abandoning physical activity as a main outcome of PE and adopting the trendy literacy label. Our hope is for the profession to become sufficiently evidence-based so that we can avoid jumping on untested bandwagons. It takes time, energy, and other resources to re-label what we do. Our preference is that we direct our limited resources to the important tasks of prioritizing PE objectives, helping states and school districts create and enforce PE policies, disseminating evidence-based programs, and supporting and conducting relevant research.

3. Summary

During the course of writing this paper we were struck by a few unexpected observations. Among them was that the term physical literacy was adopted in the national K-12 PE standards without either widespread consultation among professionals or market research. To date, its adoption has generally been substantiated on the bases that it will help to elevate the profession by providing increased clarity and by coming into line with current general education trends. In response, we fully agree that PE needs clarity. However, to date there is no evidence that using and promoting the term physical literacy will help. There are currently very few peer review publications on physical literacy and none of these are data-based.

In this paper we made the case that following general education trends and changing our focus frequently is at least partially responsible for confusion about PE; and for this reason, we caution the profession about jumping on the literacy bandwagon. We also highlighted that indeed there are many similarities between the terms "physically educated" and "physically literate"; yet, there are clear, but subtle, contrasts between the 2004 and 2013 national standards. A major concerning point for us is the apparent loss of increasing physical activity and physical fitness as an outcome in PE.

Like it or not, the term "physically literate" has made its way into the national standards. Time will tell if this was a wise move. In the interim, the profession should focus on more pressing matters. Tantamount among these is that most

children fall far short of meeting recommended physical activity guidelines and they have too little PE, some of which is not of high quality. This is where we ought to place our professional priorities.

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