

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

## International Journal of Educational Research

journal homepage: [www.elsevier.com/locate/ijedures](http://www.elsevier.com/locate/ijedures)

# Effects of physical education continuing professional development on teachers' physical literacy and self-efficacy and students' learning outcomes

K.W.R. Sum<sup>a,\*</sup>, T. Wallhead<sup>b</sup>, S.C.A. Ha<sup>a</sup>, H.P.C. Sit<sup>a</sup><sup>a</sup> Department of Sports Science and Physical Education, The Chinese University of Hong Kong, Hong Kong Special Administrative Region<sup>b</sup> Division of Kinesiology and Health, University of Wyoming, USA

## ARTICLE INFO

**Keywords:**

Continuing professional development (CPD)  
Physical literacy  
Physical activity (PA)  
Self-efficacy  
Motivation  
Randomized controlled trial  
Physical education (PE) teacher

## ABSTRACT

The purpose of this project is to use a randomized controlled trial to examine the effects of continuing professional development (CPD) on teachers' physical literacy and self-efficacy and students' physical literacy and physical activity (PA) participation. Seventy teacher participants will be randomly allocated into the CPD intervention and control groups. A total of 50-h of CPD will be completed by teachers during an eight-month period. Teachers will complete physical literacy and self-efficacy questionnaires prior to, and at the end of the CPD program. Following the completion of the PD program, teachers will deliver an 8-month curriculum intervention in schools focused on developing student physical literacy. Prior to, and following the curriculum intervention students will complete questionnaires on their physical literacy, motivation and enjoyment of PA and measured daily PA levels. Teachers' physical literacy and self-efficacy can be regarded as major determinants of effective physical education teaching, which in turn, influences students' physical literacy and PA participation.

## 1. Introduction

In this study the research team will explore the effects of physical education continuing professional development (PE-CPD) on teachers' physical literacy and self-efficacy and students' physical literacy and associated PA behavior. The levels of PA of many children in Hong Kong (Ha, Macdonald, & Pang, 2010) and in other developed nations (National Center for Health Statistics, 2012) are below the levels that are sufficient to promote health. In response to this evidence and to the data showing the rising levels of childhood obesity, various organizations (e.g. Chinese Ministry of Education, 2002; Education Bureau, 2013) have recommended that school PE programs should play a central role in increasing the PA levels of young people. However, the effects of school-based interventions on students' physical literacy and PA levels have been minimal.

PE has become one of the eight Key Learning Areas in Hong Kong since 2002. According to the PE Key Learning Area (Education Bureau, 2013), quality PE (QPE) should "help students develop an interest in sports, engage regularly in PA and lead an active and healthy lifestyle" (Education Bureau, 2013, p. 2). Students are entitled to have this learning experience in QPE throughout their primary and secondary schooling. In connection with the QPE agenda, a new requirement of CPD for teachers was introduced in 2003 to promote quality teaching. The Committee on Professional Development of Teachers and Principals (2013) launched the Towards a Learning Profession: The Teacher Competencies Framework (TCF) and the Continuing Professional Development of Teachers.

\* Corresponding author at: G09, Kwok Sports Building, Department of Sports Science and Physical Education, Chinese University of Hong Kong, Shatin, N.T., Hong Kong Special Administrative Region.

E-mail addresses: [kwsun@cuhk.edu.hk](mailto:kwsun@cuhk.edu.hk) (K.W.R. Sum), [wallhead@uwyo.edu](mailto:wallhead@uwyo.edu) (T. Wallhead), [sauchingha@cuhk.edu.hk](mailto:sauchingha@cuhk.edu.hk) (S.C.A. Ha), [sithp@cuhk.edu.hk](mailto:sithp@cuhk.edu.hk) (H.P.C. Sit).

<https://doi.org/10.1016/j.ijer.2018.01.001>

Received 20 September 2017; Received in revised form 22 December 2017; Accepted 3 January 2018

Available online 05 January 2018

0883-0355/ © 2018 Elsevier Ltd. All rights reserved.

According to the new CPD requirement, PE teachers, as subject specialists, are encouraged to take a minimum of 150 h of PE-related or non-PE-related CPD subjects provided by the Education Bureau or service providers over a three year period. This requirement is to ensure that public funds allocated to CPD enable PE teachers to perform to the best of their ability and provide quality teaching and learning for students in Hong Kong.

The research team will use this CPD requirement to design and evaluate an intervention program to develop both teachers' and students' physical literacy. The primary purpose of this study is to examine the effects of the PE-CPD on teachers' physical literacy and self-efficacy and students' physical literacy and associated PA motivation and behavior.

The objectives are identified as follows:

1. To develop and evaluate a PE-CPD program for school PE teachers;
2. To examine the effectiveness of PE-CPD in terms of its impact on teachers' knowledge of physical literacy and self-efficacy;
3. To examine the effectiveness of PE-CPD in developing students' physical literacy and associated PA motivation and participation; and
4. To examine the influence of teachers' knowledge of physical literacy and self-efficacy on students' motives and participation in PA.

## 2. Background of research

PE-CPD for teachers, as a key intervention of this proposed project, is considered to be a key component of Hong Kong's educational policy to enhance the quality of learning and teaching in schools. Aligned with this, the Teacher Competencies Framework (TCF) has been launched to develop teachers' professional growth in knowledge and skill capacities through the sharing of working experiences and adoption of lifelong learning (COTAP, 2013). Physical literacy is an important determinant of children's PA behavior (Whitehead, 2010). Therefore, the effects of a CPD designed to develop both teachers' and students' physical literacy within the recommended TCF is an important topic to explore. The following discussion is an exploration of the concept of physical literacy as a component of the adoption of a physically active lifestyle, the relationship between the effects of CPD and teachers' self-efficacy to teach physical literacy, and the associated changes in students' motives and PA participation that accompany development of physical literacy as a framework that underpins the study.

### 2.1. The concept of physical literacy

Physical literacy, as embodied within physical education, is a concept that is rapidly gaining acceptance around the world (Whitehead, 2001, 2007, 2010). The rationale for this inception is that physical literacy has been vaunted as a key disposition for students of all abilities to establish lifelong adherence to PA. Whitehead (2010) defined physical literacy as a multidimensional disposition acquired by individuals encompassing "the motivation, confidence, physical competence, knowledge and understanding to maintain physical activity throughout the lifecourse" (p. 18). Within schools, physical literacy is considered to be an integral part of the education of the whole child, such that becoming physically literate is as important as for example, developing numerical or informational literacy.

PE has been situated as the primary vehicle for children and adolescents to develop physical literacy (Hastie & Wallhead, 2015). The intended purpose of PE is to develop students' appropriate skills, help them understand strategies for moving within a specific environment, and to understand how this affects their health, rather than simply providing students with an opportunity to become physically fit within lessons. Armstrong (1996) suggested that "the way exercise is presented to children may have important implications for future activity patterns and consequently for their health and well-being as adults" (p. 109). The concept of physical literacy can be explored in the contexts of the teachers as active practitioners, child as an active learner and schools and the curriculum as providing active contexts (Maude, 2001).

Recently, researchers have suggested that the PE curriculum should have a physical literacy approach as it is critical to long-term health (McKean, 2013). In this sense, PE teachers have a critical role in developing student physical literacy such that future generations have the "motivation, confidence, physical competence, knowledge, and understanding to value and take responsibility for maintaining purposeful physical pursuits and activities throughout the life course" (Whitehead, 2010, p. 10). To achieve this goal, PE teachers must first understand the concept of physical literacy within their professional development. Developing this knowledge will facilitate their efficacy to prepare students of today to live a healthier lifestyle, and do so in ways that assist others, are respectful of the environment, and have the potential to generate innovative ideas. Because the essential features of physical literacy have never been introduced and delivered in the Hong Kong school PE context, in this proposed project, the research team will investigate both teachers' and students' development of physical literacy as they progress through the CPD program intervention.

### 2.2. Effects of CPD and teachers' self-efficacy

Self-efficacy is an important aspect of social cognitive theory (Bandura, 1977, 2001); self-efficacy is described as an individual's judgment on his or her ability to succeed in specific circumstances. An individual's self-efficacy is influenced by his or her external experiences and self-perception of the outcome of many circumstances. Self-efficacy also has impact on an individual's motivation and accomplishments.

Tinning (2010) stated that PE teachers' self-efficacy is a key element in their beliefs, and it also influences their behavior and

Download English Version:

<https://daneshyari.com/en/article/6841496>

Download Persian Version:

<https://daneshyari.com/article/6841496>

[Daneshyari.com](https://daneshyari.com)