

HEALTH-BASED PHYSICAL EDUCATION

A FRAMEWORK FOR PROMOTING ACTIVE LIFESTYLES IN CHILDREN AND YOUNG PEOPLE

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Part 1: Introducing a new pedagogical model for Health-Based Physical Education

On 11th and 18th May 2020, we delivered two webinars for the Association for Physical Education (afPE) focused on a Health-Based Physical Education (HBPE) pedagogical model. These webinars are available to view in the members' area of the afPE website and are outlined in the following two articles (part 1 and 2). HBPE is one framework that can support physical educators to promote young people's positive physical activity attitudes and behaviours. In part 1, we present a rationale for new 'PE-for-health pedagogies' (Armour & Harris, 2013) – new ways of teaching about physical activity. We subsequently justify the foundations of HBPE, including the model's major theme and goals, and the underlying theories and important assumptions for practitioners. In part 2, we provide a range of practical examples and identify key considerations to illustrate how HBPE can be effectively applied to help promote positive physical activity behaviour.

INTRODUCTION

The first article has two aims. Firstly, to generate a rationale for new 'PE-for-health pedagogies' in physical education. Secondly, to justify and explain some of the foundations of the HBPE pedagogical model framework; specifically, the major theme, learning goals, assumptions and theories that make up the HBPE framework. Readers would benefit from reviewing the original HBPE pedagogical model advocacy paper (Haerens *et al.*, 2011), which laid some of the groundwork for the model's subsequent development (Bowler, 2019).

WHY DO WE NEED NEW 'PE-FOR-HEALTH PEDAGOGIES'?

We focus on three key reasons why we need more practitioners to consider new 'PE-for-health pedagogies': the tremendous power of physical activity, common approaches to teaching health-related learning in PE, and the growing use of pedagogical models.

a) PHYSICAL ACTIVITY IS A RESOURCE FOR LIFE – YET THE WORLD HAS STOPPED MOVING

Whilst the evidence on the benefits of physical activity are without question, research indicates that most people are not active enough to achieve these potential benefits. A recent Active Lives Survey (Sport England, 2019) revealed that less than half of children and young people in the UK are meeting the physical activity recommendations of an average of at least 60 minutes per day across the week (Chief Medical Officers, 2019). In a nutshell, and to re-use a powerful phrase from Nike (2012), "the world has stopped moving". A wealth of literature cites the potential physical, social, psychological, personal, educational and even financial advantages of regular physical activity, which we argue is a truly fabulous resource for life! The Chief Medical Officer went as far as suggesting that if there was a medication that had similar effects to physical activity it would be regarded as a "wonder drug" (2010, p.21).

b) APPROACHES TO TEACHING PHYSICAL ACTIVITY AND HEALTH HAVE GENERALLY NOT BEEN EFFECTIVE

Despite calls within the profession for a focus on PE developing healthy active

lifestyles, we have arguably not been able to achieve this goal effectively. However, whilst PE alone cannot create an active society (PE has a direct influence over around only 2 per cent of a young person's waking life (Fox *et al.*, 2004)), we would argue that it hasn't always done what is best in the name of physical activity. Perhaps the subject has too many goals? Perhaps attention has been focused in the wrong direction? Perhaps some approaches have been misguided, in the name of physical activity? Just one example of the latter is the common use of ad hoc fitness testing and a focus on methods of training for sport performance in health-related PE (Alfrey & Gard, 2014; Harris & Leggett, 2015). Notwithstanding their 'potential' educational benefit, we question what experiencing fitness testing and methods of training does for physical activity promotion in children and young people? These questions have been long-argued, along with calls for more aligned approaches that will effectively lead to physical activity promotion (Harris & Cale, 2018). Whilst some approaches have perhaps not hit the mark in activating healthy, active lifestyles, a number of successful initiatives across the world *have* been able to make sustained changes to young people's physical activity behaviours, and a number of these are drawn upon in this pedagogical model. To summarise, we know that the subject has multiple aspirations (Bowler *et al.*, 2020), we know from the points above that some approaches are misdirected in terms of physical activity promotion, and we know that a significant number of teachers are poorly prepared, through both their ITT



and CPD to teach health-related learning in schools (Alfrey *et al.*, 2012). These reasons warrant new 'PE-for-health pedagogies' and an evidence-informed framework to help practitioners to effectively teach health-related learning in PE.

c) MODELS-BASED PRACTICE IN PHYSICAL EDUCATION

In addition to the first two points, a growing area of research in PE is in the area of 'models-based practice' or 'pedagogical models', such as the use of Sport Education, Cooperative Learning and Teaching Games for Understanding. Whilst not without limitations, pedagogical models provide an alternative approach to curriculum design that move away from a multi-activity approach that aspires to achieve broad aims with a few dominant teaching strategies. Rather, pedagogical models provide a flexible, evidence-informed framework that can be used to design local curricula to achieve specific outcomes associated with each model.

These three reasons (a, b and c) provide a justification for new 'PE-for-health pedagogies'. As such, we respectfully urge readers to consider their approaches to teaching health-related learning and, if the assumptions of the model later align with your own beliefs, to consider the use of HBPE in your future practice. We also suggest, in line with Fernandez-Rio (2016, p.5), that, in the future, HBPE might even be considered as "the pivotal pedagogical model for physical education, because all the others should try to support this one's basic goal". The remainder of the article explores the key foundations of the HBPE pedagogical model.

MAJOR THEME – VALUING A PHYSICALLY ACTIVE LIFE

The major theme, or aspiration, of HBPE draws on a significant evidence-base for the benefits of teaching for valuing – helping individuals to see the intrinsic benefits of physical activity and securing meaningful experiences through their PE journey. HBPE is the first pedagogical model with valuing physical activity as its explicit aspiration. Siedentop (1996) depicts valuing with three important qualities: 1) participation: people value physical activity when they organise their life so they can be regularly active; 2) literate: they are knowledgeable participants in their chosen activities; and 3) critical: they understand barriers to participation and work to overcome these for themselves and others.

Figure 1: HBPE learning goals

Students who 'value a physically active life' will:

1. Lead an active lifestyle through regular participation in meaningful physical activity (**habitual mover**)
2. Demonstrate a positive attitude and perceived competence in chosen physical activities through high levels of effort and individual challenge (**motivated mover**)
3. Explain how and where to engage in interested physical activities, the effects of an active lifestyle and how to participate safely and effectively to achieve their personal goals (**informed mover**)
4. Evaluate socio-cultural barriers to physical activity involvement and become activists (movement promoters) to positively affect their own and others physical activity environment (**critical mover**)

These three qualities are of real importance to teachers, given that most children and young people sustain physical activity for intrinsic reasons, such as personal meaningfulness, challenge and joy, rather than for extrinsic motives such as health, disease prevention or weight loss (Teixeira *et al.*, 2012). To this end, we have drawn on research from Kretchmar (2006) and Beni and colleagues (2017) who suggest five qualities for the creation of meaningful experiences in PE: (1) social interaction, (2) fun/delight, (3) challenge, (4) motor competence, and (5) personally relevant learning. As a result of the broader consideration of meaningful participation, a fuller exploration of the major theme for HBPE is:

“Valuing a physically active life, so that students learn to value and practise physical activity for their health and wellbeing, joy, social interaction, challenge, competence and personally relevant learning experiences.”

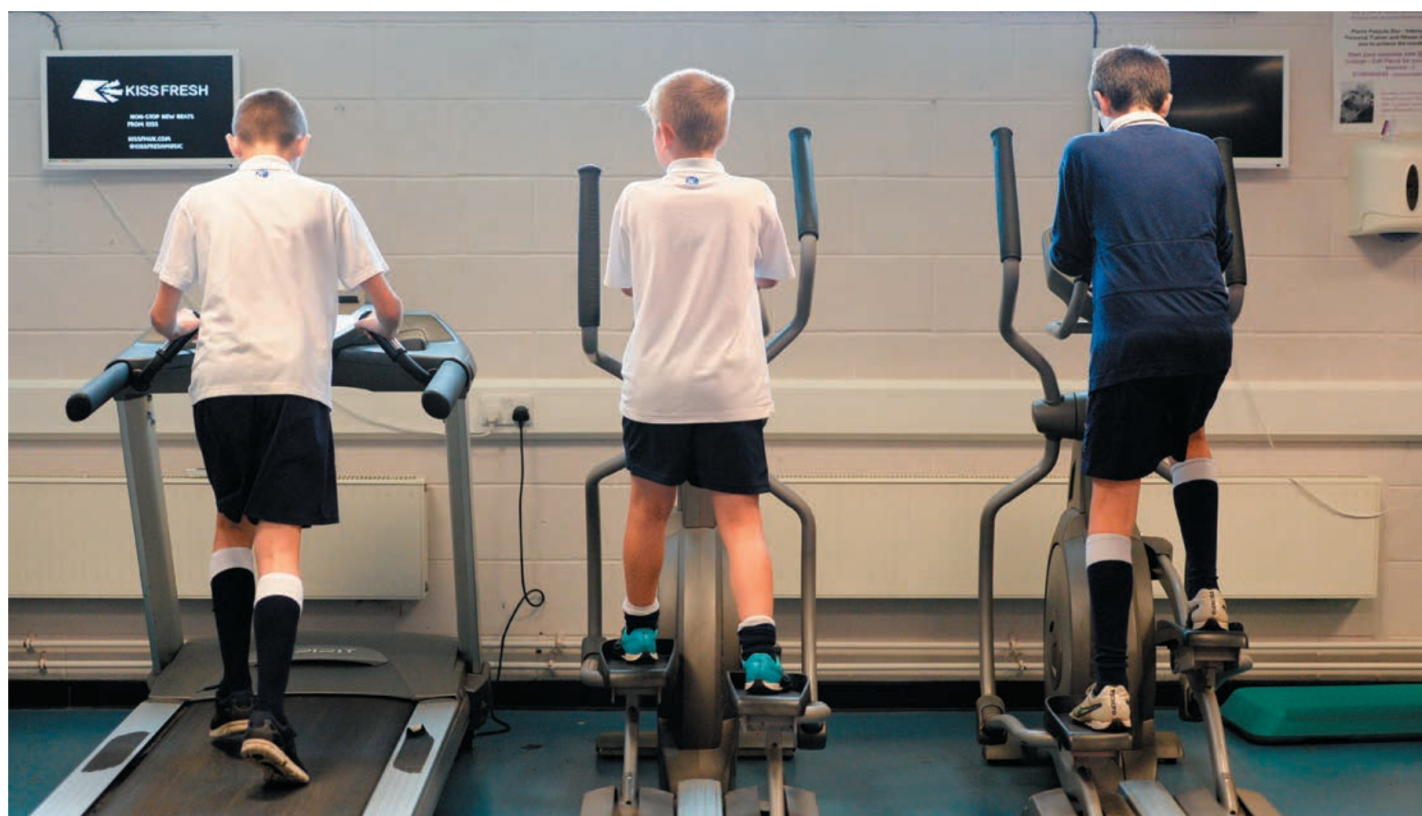
(Bowler, 2019, p.212)

LEARNING GOALS

To achieve the major theme of valuing a physically active life, we have developed four learning goals that aspire to develop habitual, informed, motivated and critical movers. These are presented in Figure 1. The four movers should guide the design and delivery of HBPE and are considered further in part 2.

UNDERLYING THEORIES

In designing HBPE, we have drawn from the strong evidence associated with behaviour change for intrinsic motivation and physical activity participation. For this article, we highlight three major theoretical frameworks, although this is not to say that other theories should not be considered in achieving the major theme and learning goals.



SELF-DETERMINATION THEORY

Self-Determination Theory (SDT) is one of the most well-known theories of motivation and supports a holistic understanding of what drives individuals' motives. In a simplified view of SDT, three key needs are required for self-determined (intrinsic) motivation: the needs for autonomy, competence and relatedness (or belonging). If children and young people perceive these needs in their PE and physical activity settings, they can develop more intrinsic participation motives. The need for autonomy is fulfilled when individuals perceive they have a degree of control over their behaviour, such as choice and ownership to make decisions. Competence concerns our achievements, knowledge and skills; people need to build their perceived competence and develop mastery over tasks that are important to them. Thirdly, relatedness involves feelings of belonging or connectedness and being respected by significant others such as a teacher and peers (Ryan & Deci, 2017). Applying these three needs in practice is considered in part 2.

Whilst SDT provides an excellent framework to optimise intrinsic motivation, it is primarily concerned with changing behaviours within individuals and places less focus on the broader factors affecting physical activity. These broader determinants are crucial in establishing the factors affecting physical (in)activity participation and are aligned with the second and third underlying theories of

HBPE – the Social Ecological Model of Health and Correlates of Physical Activity. These two additional frameworks support physical educators to think beyond the PE lesson to achieve more effective physical activity behaviour change in their students.

SOCIAL ECOLOGICAL MODEL OF HEALTH

The Social Ecological Model identifies five determinants or levels of health behaviour (McLeroy *et al.*, 1988). *Intrapersonal* determinants highlight that an individual's knowledge, beliefs and experiences will influence their behaviours. *Interpersonal* determinants emphasise the influence of friends, family and wider social networks. *Organisational* determinants consider the

cultures and regulations within institutions such as schools and workplaces.

Community determinants include relationships among individuals, groups and organisations within a designated geographical area, such as a village, town or city. Finally, *policy* determinants emphasise the influence of local and national policies and laws that govern health behaviours.

The Social Ecological Model emphasises that if we really want to change physical activity behaviours, we must work at multiple levels to do so. The importance of the multi-level nature of this model is borne out in school-based interventions which consistently indicate that multi-component strategies are most promising

Table 1: Correlates of physical activity (Adapted from: Bauman *et al.*, 2012; Biddle *et al.*, 2015; Sallis *et al.*, 2000; Van der Horst *et al.*, 2007)

Demographic/individual	Psychological	Behavioural	Social	Environmental
Females Older children Adolescents	Self-efficacy Perceived competence Behavioural control Body image Task goal orientation	Immediately before/after school Weekends School-community partnerships	Parents Family Teachers Peers (adolescents)	School PA policy Opportunities to be active Access/proximity to activities, facilities and equipment

Figure 2: HBPE assumptions about learning and teaching

- Assumption 1:** Prioritise a physical activity for life (rather than a fitness, sport or performance) approach (although exercise and/or fitness may form part of some programmes).
- Assumption 2:** Changes in physical activity behaviour require extended periods of learning in multiple learning domains (affective, cognitive, physical and social). The affective domain will take highest priority, although this will be supported by the physical, cognitive and social domains.
- Assumption 3:** What is learnt in HBPE must be meaningful and draw from and be transferable into young people's leisure time.
- Assumption 4:** Approaches must support all students' perceptions of autonomy, competence and relatedness to develop their intrinsic motivation for physical activity.
- Assumption 5:** HBPE should draw on multiple school, family and community strategies.

in physical activity participation. For example, Kriemler *et al.* (2011) identified that effective changes to the PE curriculum, as well as wider educational (cross-curricular) and environmental (social and built environment) changes, are most effective in achieving changes in children and young people's physical activity behaviours. Furthermore, Biddle *et al.* (2015) suggest specific school and family strategies are typically much more effective than either of these in isolation. We encourage physical educators to consider these findings in terms of their broader work on physical activity promotion.

CORRELATES OF PHYSICAL ACTIVITY

The study of correlates is crucial to effectively target specific variables which are most likely to affect individuals' physical activity behaviours (Biddle *et al.*, 2015). These variables, as with the Social Ecological Model, present multiple levels of influence on physical activity behaviour. An awareness of the correlates will enable teachers to: 1) identify specific variables which cannot be changed or modified (e.g. age) to target populations who have typically lower levels of physical activity, and 2) identify variables that can be changed (e.g. perceived competence). Table 1 (on the previous page) summarises a number of known correlates of physical activity for young people. The correlates emphasise those who are typically the least active (females and older adolescents) as well as other factors, both within individuals (such as self-efficacy or body image) and the wider social environment (access to physical activity, the support of others to be active and the implementation of an effective

school physical activity policy). An understanding of the correlates is crucial to the promotion of physical activity and is used as a basis for identifying a range of teaching and learning strategies in part 2.

ASSUMPTIONS ABOUT LEARNING AND TEACHING

The HBPE pedagogical model outlines five assumptions about learning and teaching (Figure 2) to enable young people to value a physically active life. If a teacher understands and has a belief system in line with the assumptions, they will be more likely to implement it successfully and achieve the intended learning outcomes (Metzler, 2011). In this way, the assumptions serve as an important guide to practitioners in the design and implementation of their HBPE programmes.

CONCLUSION

In this article, we have provided a rationale for new approaches to teaching health-related learning in PE and presented the key foundations of the HBPE pedagogical model. We have shared the major theme of valuing a physically active life, along with four movers which depict the learning goals. HBPE draws on theoretical frameworks to justify the importance of teaching for valuing and intrinsic motivation, as well as generating practitioners' awareness of the multiple levels of determinants which can affect their students' physical activity. Finally, to enable transparency in the implementation of the pedagogical model, we presented the assumptions about learning and teaching. ■

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