

The development of a pedagogical model for Health-Based Physical Education

Leen Haerens^{1,3}, David Kirk², Greet Cardon¹, Ilse De Bourdeaudhuij¹

¹*Ghent University, Ghent, Belgium*, ²*University of Bedfordshire, Bedford, United Kingdom*, ³*Flemish Research Foundation, Brussels, Belgium*

Background

It has been generally recognized that physical education should play an important role in the promotion of an active and healthy life style with an emphasis on students' preparation for lifelong PA. Although there is a consensus among scientists and politicians that physical education should impact upon the population's health, there is relatively little scientific evidence available to show how this should be done. In this context, many experts have called for the use of evidence-based curriculum development to increase the effectiveness and accountability of physical education programs for promoting physical activity (e.g. Bailey, 2008). According to Metzler (2005), instructional models can form the basis for a strong research-based agenda of curriculum development since models such as Sport Education, Teaching Games for Understanding (TGfU) and Personal and Social Responsibility (PSR), have acquired strong support from research. Surprisingly, given its cultural salience and prominence in arguments for physical education at all levels of the curriculum, there is no instructional model for Health-Based Physical Education (HBPE).

Research Questions

The focus of the inquiry is the development of an 'instructional' or, as we prefer, a 'pedagogical' model for HBPE based on Metzler's theoretical framework for models-based practice (MBP) in physical education. The major theme of this HBPE model is that students learn to value and practice appropriate physical activities that enhance health and wellbeing now and for the rest of their lives.

Methods

In our review of literature we found various physical education programs that stated a concern for health either instead of or alongside more traditional concerns for the development of motor skills and their practice in games and sports, gymnastics, aquatics, athletics and dance. In some initiatives, while health-related material was added to physical education curricula, the underpinning traditional logic of motor skill development remained unchallenged and, as a result, the health dimension was merely accommodated and in some cases undermined. We also discovered some programs that sought to reconceptualise physical education to facilitate the achievement of health outcomes, and we examined five of these programs in detail, including SPARK and CATCH, the Flanders health-related physical education program, M-Span, Daily Physical Education and Student-Centred Physical Education. We concluded that while these five examples offered some valuable subject matter and pedagogical approaches to HBPE, none of them met the requirements of a pedagogical model in Metzler's terms. On the basis of this literature review, we propose that the development of the HBPE model is highly appropriate and necessary as it will form the basis for a strong research agenda providing scientific evidence for physical education's role in activity promotion among adolescents.

Frame

The framework of the pedagogical model identified by Metzler requires the inclusion of the following components: Foundations, teaching and learning features, and implementation needs and modifications are extensively described. Foundations consist of the theories and rationale behind the model, the assumptions about teaching and learning, the major theme of the model, learning domain priorities and interactions, student learning preferences and plans for validation of the model. The teaching and learning features include directiveness and inclusiveness, engagement patterns for learning, students developmental requirements, learning tasks, verification of instructional processes

and assessment of learning. The implementation needs and modifications refer to teachers' required expertise and effective teaching skills, contextual requirements and modifications, and teacher and student roles and responsibilities.

Many of the key features in the model's design can be attributed to features of self-determination theory and constructivist learning theory. Both theories have similar recommendations for organizing learning environments, although starting from different points of view. Self-determination theory starts from the purpose of motivating students to engage in (learning) activities, while constructivist learning theory starts from the perspective of effective learning processes.

Research findings

The model has been developed as a prototype to be tested in a variety of settings, including field-testing in different grades and with different contents. The effectiveness of the model for realizing learning outcomes during physical education classes will be investigated by assessing students' acquisition and internalization of the values, knowledge and skills that form the core of the HBPE model. It will furthermore be important to investigate whether acquiring these values, knowledge and skills will stimulate young people to engage in an active lifestyle beyond school. Finally, the model needs to be validated in terms of prolonged transfer of learning by investigating effects on sustained engagement in physical activities as an adult. In terms of teachers' knowledge, the main learning outcomes, subject matter and teaching styles will be meaningful in terms of personal and professional experience, particularly with respect to their observations and recollections of its beneficial effects on learners.

The major theme of HBPE is that students learn to value and practice appropriate physical activities that enhance health and wellbeing now and for the rest of their lives. This way of thinking about HBPE required a thorough re-conceptualization of physical education as learning in the affective domain is considered as the models' priority and will require applying and developing new teaching and evaluation methods. Although experiences from teachers with implementing other models that foreground affective learning such as cooperative learning might give inspiration, these methods will need to be refined specifically for HBPE. Additionally, not only teachers, but also principals, pupils and parents will need to socialize into this new way of thinking about physical education.

Finally, for teachers to be able to implement the HBPE, advocacy towards policy makers will be required. In Flanders, for example, curriculum plans typically include information on how many hours of 'sport' activities need to be taught leaving no opportunities for implementing instructional models.

References

Bailey, R., Armour, K., Kirk, D., Jess, M., Pickup, I., Sandford, R. and the BERA Physical Education and Sport Pedagogy Special Interest Group (2009) 'The educational benefits claimed for physical education and school sport: an academic review', *Physical Education and Sport Pedagogy* 24: 1-27.

Metzler, M.W. (2005) *Instructional models for physical education* Holcomb Hathaway, 2nd Edition.