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Introduction to the PESP special issue: ‘Developing movement capability in physical education’

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Introduction

Several years ago, one of us spent time working with a physical education teacher and his 9th-grade class (pupils aged 15 years) on the west coast of Sweden. The teacher was trialling a new module that had a focus on movement capability and one of the introductory activities for the pupils was to create a ‘movement milestone timeline’. This essentially meant using pen and paper to sketch out a timeline from birth to one’s current age and then entering learning events that related to movement on that line. The teacher started the pupils off with events such as learning to walk and learning to ride a bicycle and then left them to it. As the teacher circulated, the activity appeared to be working well. There were some animated discussions about ‘when *normal* babies begin to walk’ and ‘what counts as swimming’ and the pupils were engaged in the reflective task. After a period of about 15 minutes, however, the noise level started to rise and almost all the pupils had finished the task. When the class started to discuss their timelines, the reason for this abrupt end to the activity became obvious: the kids had made plenty of entries for the first 9 or 10 years of their lives. They had learned to walk, swim, ice skate, do somersaults on trampolines and otherwise move in a range of contexts. After 10 years of age though, movement milestones were few and far between. Most of the kids were lucky if they could enter one or two learning events that they had experienced between 11 and 15 years of age.

Two things are interesting about this incident. First, the pupils struggled to identify significant aspects of movement capability that they had developed in almost three years of secondary physical education *despite* movement capability being a central aspect of their physical education (PE) curriculum.¹ Second, the students were finished – or perceived themselves to be finished – with movement learning before they reached lower secondary school. By implication, this would suggest that young people’s repertoires of movement capability are more or less fixed from the age of 10!

Now, we do not wish to lay too much emphasis on this individual incident. It was after all just one class and we were not conducting a systematic investigation of 15-year-old pupils’ movement histories. Still, the incident substantiates earlier claims made about movement capability in physical education scholarship. In the last couple of decades, scholars have suggested, for example, that if the school subject comprises the repetition of short introductory lessons in a wide range of activities, physical education is unlikely to provide pupils with opportunities to develop movement capability (Kirk 2010; Kretchmar 2006; Siedentop 1994). Others have expressed concerns about the amount of time devoted to movement capability in physical education teacher education (PETE) programmes,

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suggesting that many teachers starting their careers have insufficient knowledge to help students develop movement capability (Fischman, Overdorf and Coker 2007).

While these concerns are still relevant, much attention has been given to movement education in PE in recent times. Indeed, there has been something of a groundswell of scholarship conducted on topics such as physical literacy (Cairney et al. 2019), fundamental motor skills (Barnett et al. 2016; Nobre, Valentini, and Rusidill 2020), constraints led approaches (Correia et al. 2019), embodied exploration (Barker, Nyberg, and Larsson 2020; Nyberg, Barker, and Larsson 2020) and a range of other factors related to movement capability (Duncan, Cunningham, and Eyre 2019; Lambert 2020; Larsson 2021). In other words, physical educators could expect some progress to have been made. The broad question that this special issue seeks to address is: 'where are physical educators at now with movement education?'. More specifically, the two questions that provide the impetus for the special issue are: (1) what occurs in the name of movement education in physical education today? And related, (2) how does movement education relate to pedagogical principles and empirical evidence described in physical education scholarship? The special issue addresses these questions by providing a selection of current scholarship being conducted in the field. The selection is not exhaustive; other scholarship sheds light on movement capability in PE. Still, the issue contains papers from diverse perspectives that touch on one or more main themes running across current movement capability scholarship.

Themes in movement capability scholarship in physical education

Physical education scholars have adopted different perspectives in their examinations of movement capability. Each perspective has its own unique assumptions and terminology for expressing aspects of movement learning (Barker, Bergentoft, and Nyberg 2017). This heterogeneity is in part what makes a special issue rather useful: examples from different research perspectives can be compared. Our goal in this section, however, is to set out some common themes which will provide a sense of how the contributions fit together. The four themes presented are (1) meaning(s) of movement capability, (2) how principles translate into practice, (3) the place of teachers in the development of movement capability, and (4) the place of learners in the development of movement capability.

The meanings of terms such as *skill*, *physical literacy*, and *movement capability* have constituted an enduring theme in movement capability scholarship. Discussions have tended to take place within perspectives rather than across them. Researchers have focused on clarifying and refining definitions (Shearer et al. 2018) rather than questioning their implicit assumptions. Clarifying has typically involved efforts to outline what the terms mean for further research. Occasionally, scholars have examined how movement is conceptualized in education policy. Brown (2013), for example, investigated how Arnold's notion of 'in, through, and about' movement is reflected in the Australian curriculum, a theme picked up by Stolz and Thorburn (2017). In a similar vein, Janemalm, Quennerstedt, and Barker (2019, 2020) looked specifically at the meaning of *complex* movement in the Swedish physical education context.

Attracting considerable interest from scholars is the question of what happens when movement learning principles are put into practice. This theme can itself be seen as a kind of umbrella theme subsuming, how principles are practised pedagogically (Rhoades and Hopper 2018), how principles can be practised in different ways (Correia et al. 2019; Renshaw and Chow 2019; Roberts, Newcombe, and Davids 2019) and what the consequences of implementing these principles are, for instance (Bedard, Bremer, and Cairney 2020; Coker 2018; Lindgren and Barker 2019). The implementation of physical literacy, in particular, has received substantial attention recently with two special issues in the *Journal of Teaching in Physical Education* (Durdin-Myers and Whitehead 2018; Kriellaars et al. 2019).

Physical education researchers have also been concerned with the role of teachers in developing pupils' movement capability (Nyberg and Larsson 2017). Several claims have been made for the importance of teachers' understanding of movement capability when it comes to teaching and

learning. Olson, Laidlaw, and Steel (2017), for example, worked from the premise that teachers play a significant role and investigated teachers' reflections on the importance of skill acquisition. In a similar vein, Larsson and Nyberg (2017) investigated how teachers understand the task of helping students to develop movement capability. The authors found that a number of teachers, in fact, refrain from teaching movement capability, despite its presence in official curricula. In a systematic review, Lander et al. (2017) examined the relation between type and quantity of teacher training and student improvement.

Finally, the issue of learner characteristics – including the process that individuals go through when learning – has been an area of ongoing interest to researchers. Scholars have, for example, examined aspects of moving that learners pay attention to when learning to move (Nyberg and Meckbach 2017), how learners make sense of movement learning generally (Rönnqvist et al. 2019), as well as learner competence and how this affects learning (Chen, Hammond-Bennett, and Hypnar 2017; Nobre, Valentini, and Rusidill 2020).

In sum, four broad, overlapping themes run through existing PE scholarship on movement capability. These themes concern: (1) meaning(s) of movement capability, (2) how principles translate into practice, (3) the place of teachers in the development of movement capability, and (4) the place of learners in the development of movement capability. These themes can, to greater and lesser extents, be seen in the contributions that make up the current special issue.

Contributions

The contributions of the special issue are outlined briefly below:

Jia Yi Chow, John Komar, Keith Davids and Clara Tan provide an overview of the theoretical underpinnings and practical implications of nonlinear pedagogy for Physical Education (PE). To exemplify applications of key concepts, the authors discuss how nonlinear pedagogy is currently implemented as a framework for learning in PE programmes of Singapore schools. Their illustration captures the 'What', 'Why' and 'How' of nonlinear pedagogy in PE.

Wayne Smith, Alan Ovens and Rod Philpot present a new movement education resource, titled 'Movewell', which is being developed for Aotearoa/New Zealand primary school teachers. The resource centres on learning through games and has been designed to help teachers to think differently about the purposes and pedagogies of movement education. In their contribution, the authors present the philosophy of Movewell along with its content and empirical material.

Anna Tidén, Gunilla Brun-Sundblad and Suzanne Lundvall provide results from a multidisciplinary project in Sweden which investigates children's and youth's attitudes to, and participation in, school physical education. The longitudinal study illustrates, through the lens of Pierre Bourdieu, how movement capability at the age of 15, together with cultural capital and sports habitus, is reflected in the exercise habits and participation in sport and physical activity of young adults.

Richard Light and Jenny Clarke put forward complex learning theory (CLT) as a way to understand and account for the development of movement capabilities in coaching and teaching. The authors outline the principles of the theory and highlight the complexity of learning in and through sport. The article grounds theory in practice by showing how CLT can be used to understand the learning involved in the development of swimming skills.

Gunn Nyberg, Håkan Larsson and Dean Barker explore how learners develop movement capability when they are provided opportunities to choose their own learning strategies. The authors focus on learners in three different activities: juggling, unicycling, and contemporary dance. Their results suggest that successful learning can be thought of as orienting oneself in a landscape. Learners adopt a number of strategies that facilitate orientation such as occupying a vantage point and following others.

James Rudd, Carl Woods, Vanda Correia, Ludovic Seifert and Keith Davids consider movement capability in physical education using an ecological dynamics framework. The authors outline what an ecological approach entails and provide three real-world examples that exemplify how the

approach can help physical educators achieve the aim of enabling children to lead physically active lives.

Finally, Øyvind Standal and Judith Bratten examine how knowledge about oneself as an embodied, moving human being can be considered as intrinsically valuable. They combine an auto-ethnographic account of being a non-traditional physical education teacher with theoretical-reflective analysis of embodied self-knowledge. Drawing on somaesthetic theory, they present auto-ethnographic material to show how inner experiences of movement can be valuable and that when one moves, one also learns something about oneself as a human being.

Note

1. The first line of the physical education aim statement in the Swedish curriculum states that, 'teaching in physical education and health *should aim at pupils developing all-round movement capacity*' (SNAE 2012, 48, our emphasis).

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