

Professional Knowledge – Challenge and Opportunity for Primary Physical Education

Introduction

Over the last decade, the competency of teachers in primary physical education has received much attention. With the development and review of the Teaching Standards framework (DfES, 2002; DfE, 2012), a new national curriculum (DfE, 2013) and government funding to improve the provision of physical education and sport in schools (Ofsted, 2005, 2013, 2014) teachers are expected to deliver lessons that are considered by Ofsted (2013) to be 'good' or 'outstanding'. Concern remains, however, that many primary physical educators still lack sufficient knowledge in order to do this, with a widely held perception that physical education is a difficult subject to teach (Harris, Cale and Musson, 2012; Fletcher, Mandigo and Kosnik, 2013; Morgan and Bourke 2008; Garrett and Wrench, 2007; Blair and Capel, 2011).

In this article I examine what is meant by professional knowledge in primary physical education and in doing so argue that teacher competency will remain a concern until teacher development addresses the breadth of the subject's knowledge base. Finally, a model of professional knowledge will be presented to illustrate the various elements of knowledge in the field and suggest how it can be used as a tool to support the initial and continuous professional learning of primary physical educators.

The need for a professional knowledge base in primary physical education

Since the London Olympic Games in 2012, primary physical education has enjoyed a heightened profile at government level, influencing policy relating to funding, teacher education and curriculum. In the Ofsted report following the Games, *Beyond 2012 - Outstanding Physical Education for All* (Ofsted, 2013), professional knowledge was identified as a key factor in determining teacher confidence and competence, especially in schools where the quality of teaching required improvement.

"Teachers' lack of detailed subject knowledge limited the quality of feedback given to pupils about what they needed to do to improve. They were unsure about the step-by-step stages in teaching skills, and were unaware of the standards that pupils should achieve by the end of each key stage." (Ofsted, 2013: 52)

In a more recent report relating to the funding in primary physical education, *The PE and Sport Premium for Primary Schools* (Ofsted, 2014), further references to knowledge are made. The report indicates that in many of the schools visited, the PE and Sport Premium is being spent to support the development of teachers' professional subject knowledge and improve the quality of teaching in the subject (Ofsted, 2014). The report also indicates that strategic planning and monitoring of the funding still needs to be improved and where possible, professional development should meet the specific learning needs of the teacher (Ofsted, 2014). Keay and Lloyd (2011) caution, however, that if professional development is to have a role in maintaining and extending teachers' professional knowledge, it must first be embedded within a culture that supports, enables and recognises the value of professional learning. Schools must therefore recognise and fully commit to the development of their teachers across a breadth of professional knowledge areas.

But what knowledge do teachers need in order to be effective practitioners? Reference to 'knowledge' in the Ofsted subject reports (Ofsted 2013, 2014) and the new national curriculum (DfE,

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2013) indicates that teacher knowledge is identified as knowledge of activities, sports and skills; an arguably limited view of the subject. Although the new national curriculum is not intended to tell teachers what to teach, it does present a minimum statutory requirement of what children should be able to know, understand and do. Teachers will need to be competent in their subject knowledge and pedagogy if they are to deliver high quality learning experiences from a more flexible programme of study (The Physical Education Expert Group, 2014). The need to develop teacher knowledge, beyond a surface understanding of activities and skills, must therefore be considered if physical education is to maintain its position within the development of the whole-child and valued within the wider context of primary education.

Defining teacher knowledge

Defining teacher knowledge in physical education is problematic, because what is considered worthwhile knowledge depends largely upon different epistemological perspectives (Tom and Valli, 1990). Tsangaridou (2006) suggests that, although widely used in the literature, the phrase 'teacher knowledge' has different meanings for different people and can influence discussions about the effective practice and development of teachers. In the next section of this article, I present a model of professional knowledge that attempts to recognise the breadth of understanding required to teach primary physical education (see figure 1). Presenting knowledge in this way may be considered positivistic, as it appears to frame a knowledge-base for the subject as a set of objective truths. Whilst critics of positivism would argue that such truths about epistemology in teaching rarely exist, there is general consensus in the literature that teachers need specific knowledge of the subject and pedagogy in order to plan, teach and assess primary physical education competently. For example, the national curriculum (DfE, 2013) indicates that teachers will require knowledge of basic movement skills, balance, agility, co-ordination, competitive games and activities. Tsangaridou (2006) extends this understanding to include fundamental motor skills, physical competences and the development of social, cognitive, affective skills and behaviours.

Schon (1983) suggests that knowledge should be considered in the broadest possible terms (Eraut, 1992) and not confined to codified propositional knowledge. This has been considered by Eraut to be "disciplined based theories, generalized practical principles in an applied field" (1985:100). However, with limited time allocated to the development of primary physical education in initial teacher education (Harris, Cale and Musson, 2012), a systematic approach to teacher knowledge may provide a helpful starting point. Shulman (1987) offers a framework where teacher knowledge can be analysed through seven different domains: general pedagogical knowledge; knowledge of learners; knowledge of educational contexts; knowledge of education; content knowledge; curriculum knowledge and pedagogical content knowledge. This broad depiction of teacher knowledge suggests that subject knowledge alone is insufficient for the effective teaching of any curriculum area. For example, in bringing together subject knowledge with pedagogical knowledge, Shulman (1987) emphasises the relationship between theory and practice (Keay and Lloyd, 2011); suggesting that having knowledge of a subject is different to knowledge of *how* to engage learners in the curriculum. Whilst primary teachers will recognise Shulman's (1987) knowledge categories within their own practice, I question if such knowledge is continuously and rigorously applied for beginning teachers, within a physical education context?

A strength, traditionally valued within primary education, is the broad-ranging knowledge teachers have across the primary age-phase. Although this model provides benefits for pastoral coverage - a depth of understanding about children and childhood - it can lead to a somewhat diminished understanding of subject (Haydn-Davies, Kaitell, Randall, and Spence, 2010). The professional

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development of primary teachers, therefore, must be a careful balancing act between theoretical understanding and opportunities for subject-specific application. For example, having knowledge of planning and assessment will not be effective, unless applied and developed within the subject's context. To meet a desired competency for primary physical education, professionals will need to engage in a continuous cycle reflecting upon subject philosophy, pedagogy, context and practice.

A model of professional knowledge for primary physical education

Questions surrounding the nature of content knowledge in physical education have been a matter of debate between educators and academics for years, with Green (2010) suggesting that different philosophical and ideological perspectives are often confused and contradictory. A lack of conceptual and pedagogical coherence has also become a challenge for the profession in articulating what the knowledge base for its teachers should be (Green, 2008). In 2013 I presented a model of professional knowledge for primary physical education to the Physical Education Expert Group and later to colleagues at the Association for Physical Education Initial Teacher Education (ITE) / Training conference at the University of Wolverhampton. Although not intending to present knowledge of physical education as a set of knowledge facts, the model aims to provide a framework that can be used to discuss knowledge from a normative starting point; providing conceptual clarity for the education of primary teachers in their initial stage of teaching.

Tsangaridou (2006) suggests that various ways of organizing teachers' professional knowledge have previously been made, which over time has helped us refine our understanding of the many forms of knowledge that teachers require. The professional knowledge model in figure 1 is an attempt to reframe that knowledge through four different domains, building upon the work of Shulman (1987). These include subject knowledge, pedagogical knowledge, developing practice in context and reflective and academic engagement. The four knowledge domains are regarded as having shared importance, but in the presentation of the model consideration is given to the order that knowledge should be developed and progressed.

At the centre of the model lies the 'core' knowledge that primary educators must first develop in order to teach physical education. For example, within the domain of 'subject knowledge', understanding of fundamental skill themes (loco-motor, manipulation and stability skills) should be established prior to an understanding of the activity areas (e.g. gymnastics, dance and games etc.). An awareness of prior experiences, under reflective and academic engagement, is also considered as a starting point for any teacher. If primary educators wish to truly understand the role of physical education in the curriculum, consideration of their own prior experiences must be made as this can have a significant influence on their future practice as teachers (Curtner-Smith, 2001).

The primary purpose of the model is to engage teachers and teacher educators in a process of critical reflection about professional knowledge development. Suggestions for its use are as follows:

- as an overview of professional knowledge required for preparing beginning and existing teachers in primary physical education
- to help beginning and existing teachers identify their current stage of learning, and progress them to an emergent, secure or aspirational level of professional knowledge
- as a reflective tool to identify areas of strength and areas in need of further professional development

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- as a curricular outline for ITE and professional development programmes
- as a process for institutions to review professional programmes, ensuring a breadth of knowledge and opportunities are available for beginning and qualified teachers. Beginning, newly qualified or experienced teachers may choose to use the model to ask questions about their own personal development:
 - what aspects of professional knowledge do I feel I have most understanding of?
 - what aspects of professional knowledge do I feel I have least understanding of?
 - what prior learning experiences in physical education do I bring with me upon entering the profession?
 - where would my 'best fit' profile currently be: emerging, secure or aspirational?
 - what do I need to do to ensure my professional knowledge moves towards a secure level?
 - what are my current strengths, weaknesses, opportunities and threats in relation to the four areas of professional knowledge?

For colleagues working within the field of ITE, the model could be used to consider the following:

- within our professional programmes, how do we provide opportunities for development across all four knowledge areas?
- (if applicable) does progression through our subject specialist route move our students towards an aspirational level of professional knowledge by the end of the programme?
- what aspects of our programme are strengths that could be shared with other providers, or disseminated out of our local context?
- what aspects of our programme need further development?

Conclusion

Through this article I have attempted to put forward two key points. The first is that the knowledge base for primary physical education goes beyond an understanding of just subject knowledge and must also include an understanding of pedagogy, context, reflective and academic engagement. Secondly, anyone involved in the teaching of primary physical education must be committed to continuous development across these professional knowledge areas. In presenting a model of professional knowledge for primary physical education, I have argued that the development of teacher knowledge is a complex and on-going process. Practitioners must therefore ask questions about the breadth and depth of their knowledge, the processes by which their professional learning needs are identified and the way in which they access professional learning. An opportunity to address teachers' confidence and competence is currently provided through the Primary PE and Sport Premium, but ensuring its success will depend upon how teachers critically analyse their learning needs against the breadth of the subject's knowledge base.

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