

THE UNIVERSITY of EDINBURGH

Edinburgh Research Explorer

The primary class teacher, professional development and physical education

Citation for published version:

Jess, M, Carse, N & Keay, J 2017, The primary class teacher, professional development and physical education. in G Griggs & K Petrie (eds), Routledge Handbook of Primary Physical Education. Routledge International Handbooks, Routledge, pp. 112-122. DOI: 20.500.11820/33a0c74f-7122-4fa3-bee3-09b2e2a7a41a

Digital Object Identifier (DOI):

20.500.11820/33a0c74f-7122-4fa3-bee3-09b2e2a7a41a

Link:

Link to publication record in Edinburgh Research Explorer

Document Version: Peer reviewed version

Published In: Routledge Handbook of Primary Physical Education

Publisher Rights Statement:

This is an Accepted Manuscript of a book chapter published by Routledge in Routledge Handbook of Primary Physical Education on 21/11/17, available online: https://www.routledge.com/Routledge-Handbook-of-Primary-Physical-Education/Griggs-Petrie/p/book/9781138682344.

General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Édinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.



Mike Jess, Nicola Carse & Jeanne Keay

Introduction

With primary physical education receiving increased political, professional and academic attention (e.g. Kirk, 2005; Quay & Peters, 2008; Tsangaridou, 2012), the subject is beginning to move from its traditionally marginal role in the primary school curriculum (Carse, 2015). This change in fortune is largely due to the perception that physical education during these formative years has the potential to help address the concerns regularly raised about children's health and wellbeing, physical activity levels and sport participation (Petrie & lisahunter 2011). While this attention is to be welcomed, disquiet about the quality of primary physical education remains a persistent feature within the literature (e.g. Harris, Cale, & Musson, 2011). In particular, global concerns are regularly voiced about the quality of the physical education experiences received by primary school-aged children when delivered by generalist teachers (e.g. Morgan & Burke, 2008; Graber et al. 2008; Griggs, 2010). Given that generalist class teachers are responsible for the delivery of primary physical education in many countries (Tsangaridou, 2012), significant progress is unlikely to be made until issues around the motivation, confidence and competence of those who teach primary physical education are addressed. Therefore, while this chapter acknowledges significant quality improvement in primary physical education will involve an integrated process across the cultural, materialeconomic and socio-political arenas (Petrie, 2016), the focus will be on the need to find effective ways that support the professional development of generalist class teachers in their teaching of physical education. To address this topic, the chapter is split into four related sections. First, it discusses how traditional approaches to teachers' professional development are being questioned as more contemporary approaches increasingly recognise the complex nature of teachers' professional learning. The chapter then considers key contextual factors influencing the position of physical education within the primary school, before discussing how the traditional professional development experiences that most generalist class teachers receive appear to have done little to address the issue of quality in the subject area. Finally, the chapter considers how findings from a small number of contemporary professional development projects appear to have the potential to act as a catalyst for a shift in the nature of future professional learning development in primary physical education.

Putting Teachers' Professional Learning in Context

The aim of this initial section is to consider how contemporary thinking about teachers' professional development offers an opportunity to address the deficiencies that have long been reported about traditional professional development (e.g. Hoban, 2002; Kennedy, 2005; Korthagaon, 2016). This traditional approach, which still dominates in many contexts, is grounded in the belief that attendance at one-off, off-site, short courses will act as the catalyst for change in teachers' thinking and practice. These courses are usually delivered by 'experts' whose role is to transmit course content to the teachers who are generally passive recipients but who are expected to cascade new content to colleagues when they return to their schools (Darling-Hammond et al. 2009). Large scale examples of this traditional professional development approach come from studies in England (Pedder et al., 2009) and New Zealand (Timperley et al., 2007) where a consistent finding revealed a dominant delivery model which sees teachers attending short courses where they listen, usually passively, to others with greater expertise. A key to the persistence of this traditional approach has been the interest in teachers' professional development at the policy level (Kennedy, 2014): an interest that has consistently seen government agencies taking a simplistic cause and effect view of professional development as a relatively straightforward top-down transmission process (Ball et al, 2012). Teachers have thus become accustomed to a form of 'quick fix' professional development (LeCompte, 2009) that offers 'set' content designed to address their perceived limitations. In essence, this traditional approach treats teachers as technicians (Lingard, Hayes & Mills 2003), as opposed to autonomous professionals, because it is based on the premise of pre-prepared materials that are 'teacher proof' (Kelly, 2009).

In recent years, it has increasingly been proposed that this traditional approach is no longer appropriate because it '*contradicts everything we know about the ways in which people are most likely to learn*' (Armour, 2006, 204). Ayers (1992 cited in Fleet & Patterson 2001) argues that policy-makers, academics and professional development providers too often speak *for* teachers and not *with* them, with the result that the teacher role is simply to transmit the messages that children are expected to act on (Gard 2008). In this scenario, the

professional learning needs and wishes of teachers, and the influence of their local contexts, receive little attention in this top-down professional development process.

As is now discussed, calls for professional development that is designed for and with teachers, and is relevant to their everyday practice, are becoming increasingly more common (Helterbran & Fennimore, 2004). Accordingly, there is a growing acknowledgement that educating teachers is a much more complex process than has long been assumed (Clarke & Hollingsworth, 2002) and that there is a need for professional development approaches that "develop sophisticated but accessible means of understanding continuing professional development more deeply" (Kennedy, 2014, p. 690). As such, an emerging body of literature is asking for professional development approaches to be more explicitly informed by theoretical perspectives that can support an understanding of the relationship between teachers' professional learning, government policy and practice in schools (Ball, MaGuire & Braun, 2012; Fraser et al, 2007; Hargreaves & Shirley, 2010). Korthagon (2016:5) proposes that the key for the future is subsequently to question and explore how teachers learn because, "if we wish to promote teacher learning, we will have to take their thinking, feeling and wanting into account." . However, this shift will require a move towards professional learning approaches that explicitly set out to enhance teachers' motivation and confidence alongside their capacity to improve the quality of their teaching and children's learning (Day & Gu, 2007; Fullan, 1993; Guskey, 1986; Kennedy, 2005). While the traditional professional development course will undoubtedly have a role to play in this form of teacher learning, there is a need to recognise that professional learning is a 'dynamic enterprise' (Sheridan et al. 2009: 385) that incorporates a wide range of different learning experiences concerned with increasing teachers' knowledge bases, skill sets and attitudes. As Korthagon et al (2006) have proposed, the promotion of teacher change through pre-planned, 'quick fix' programmes is an approach doomed to failure, which means a need to shift the focus from the curriculum package to the teacher as the learner. As Stenhouse (1975) suggested several decades ago, teachers should not be led to view the curriculum process "as a package of materials or a syllabus of ground to be covered." but more as a "way of translating any educational idea into a hypothesis testable in practice." (p. 142).

As teacher learning becomes the focus of the discussion, however, it is also important to acknowledge the influence of the social context in which this professional learning is taking place (Hoban, 2002). Efforts to influence teacher learning, motivation and confidence need to be attuned to the specific circumstances and settings in which teachers are working.

Accordingly, the role of collaboration in teachers' professional learning has increasingly been stressed. For example, Fleet and Patterson (2001, 4), have emphasised the importance of 'the relational aspect of professional development' and highlight the importance of valuing teachers' knowledge and perceptions, building on affective components and encouraging engagement by focusing on meaningful, relevant content. Teachers therefore need to engage in collaborative, interactive professional development for further exploration of, reflection on and evaluation of new materials they meet (MacNaughton & Hughes 2007). As Sheridan et al. (2009, 396) observe 'training alone is insufficient and that ongoing support efforts are necessary to transfer knowledge and skill to practice'.

In this relational vein, the potential influence that 'communities of practice' may have on teacher learning has received considerable attention (e.g. Wenger 1998). The 'communities of practice' concept is based on the belief that participation in communities is a key to individuals' identity formation and has a significant influence of their learning (Lave &Wenger 1991). Wenger (1998, 85) argues that 'communities of practice' are 'a locus of engagement in action, interpersonal relations, shared knowledge and negotiation of enterprises, such communities hold the key to real transformation – the kind that has real effects on people's lives'. However, while this idea of knowledge sharing may imply that 'communities of practice' are supportive and harmonious settings, they also involve those features of interpersonal relations that include conflict, tension and dilemma (Herskind, 2010). 'Communities of practice' are therefore complex phenomena as, concurrently, they have the potential to provide teachers with collaborative and supportive professional learning opportunities while also highlighting differences and uncertainties that create new possibilities for change (MacNaughton, 2009). Unlike the traditional professional development approach, recognising the importance of 'communities of practice' allows teachers the opportunity to focus on issues, problems and successes they experience in their daily lives. In this way, professional learning experiences within 'communities of practice' are likely to be highly relevant and meaningful for teachers, and have the potential to give them some ownership of their professional learning. In this context, teachers are no longer seen as technicians, but as professionals who have some control of their own continuing professional learning.

Therefore, while government agencies will undoubtedly continue to influence teachers' professional learning, there is a growing consensus among professionals and academics of a

need to move beyond the simplistic top-down 'silver bullet' approach and create a context for professional learning that is more participative, collaborative, situated and focussed on teachers' learning.

Putting Primary Physical Education in Context

Before focussing on the physical education professional development of generalist class teachers, the chapter will consider how numerous factors have influenced the positioning of physical education within the primary school and accordingly highlights the need for teacher professional development concentrated on improving the quality of the subject area.

At the global macro level, it is important to acknowledge that the primary school curricula across the world incorporate a wide range of subject areas and learning experiences. Two of these subjects, literacy and numeracy, are consistently viewed as the core of the primary school curriculum and generally receive more curriculum time and attention. The majority of the other subject areas subsequently receive less attention and are viewed as being more marginal e.g. design, technology and physical education (McCormick & Paechter, 2000). Further, with the delivery of this multi-subject curriculum usually the responsibility of one class teacher (Alexander, 2012), concerns are often raised about the subject knowledge of these teachers, particularly in relation to the non-core subjects (Thornton, 1998). In addition, with policy imperatives changing on a regular basis, non-core subjects often become development focus for a short period of time before this focus moves to another subject area or educational theme (Ball et al, 2012). Therefore, as physical education seeks to find its position in the congested curriculum at the school level, both DeCorby et al. (2005) and Morgan and Hansen (2008) have reported that this marginal status often leads to limited whole school planning or informed leadership to support the development of primary physical education.

At the individual teacher-level, findings consistently report that many generalist teachers' have negative perceptions of, and lack of confidence to teach, physical education. For many class teachers a lack of physical education content has been reported to reduce their confidence and motivation to teach physical education (e.g. Faucette et al., 2002) and contribute to doubts about what they are teaching (DeCorby et al., 2005; Hart, 2005). It has also been reported that many class teachers who perceive themselves to be lacking in the motor skills and the knowledge of rules, tactics and techniques do not feel confident or

competent teaching physical education (Carney and Chedzoy, 1998; Morgan, 2008; Morgan & Bourke, 2008; Xiang et al., 2002). In addition, many class teachers are influenced by their personal experiences as learners in the physical education setting when they were at school themselves (Faulkner, Reeves & Chedzoy 2004). In line with the teacher socialisation literature (Lawson 1983), Morgan and Hansen (2008) report that many primary teachers reproduce their personal physical education experiences within their own teaching of physical education and suggest that because many of these teachers experienced a physical education curriculum focussed on a multi-activity games and sport approach, they believe that this is what physical education should involve. However, as has been discussed elsewhere (e.g. Kirk, 2004), this dominant multi-activity approach has received much criticism in recent years, particularly due to its negative influence on the nature of children's learning experiences (Morgan & Hansen 2008). As a consequence, many primary teachers often express negative perceptions of physical education (Harris, Cale, & Musson 2011) which may lead to a lack of engagement in professional development as teachers. As Petrie (2010) has noted, the combination of limited appropriate primary physical education content and low confidence levels appears to be a significant barrier to the effective teaching of physical education in primary schools. She goes on to suggest that developing primary school generalist teachers' content knowledge and supporting them to feel confident about themselves as participants in movement activities are important areas for consideration for professional development programmes if there is to be a change in the quality of physical education in primary schools.

Putting primary physical education in context, it is apparent that although the subject is currently receiving more attention than usual, the evidence would suggest that this attention may only be for a relatively short period of time. In addition, even although this raised attention may be welcomed, the subject would still appear to have a marginal position in a congested primary curriculum and, critically, is largely taught by generalist class teachers who report themselves uncomfortable about their teaching of the subject. Supporting generalist class teachers' professional development in physical education would therefore seem to be a key component of any future quality improvement agenda.

Putting Generalist Class Teachers' Physical Education Professional Development in Context

Given the many issues discussed in the previous section, and the concerns that have consistently raised about student teachers' inadequate initial teacher education (ITE) in physical education (Blair and Capel 2011; Griggs 2007; Harris, Cale & Musson 2011, see Tsangaridou in the previous chapter), the professional development of generalist class teachers has been identified as a key area to the future development of primary physical education is arguably the 'phase where enhanced professional development for teachers is most needed', while Tsangaridou (2012) has highlighted the need for more systematic, rich and robust study on the effects of physical education professional development on generalist primary teachers.

At one level, there has been some degree of success in this area. With the increased attention being focussed on primary physical education, there is evidence that national professional development programmes and accompanying research studies are being carried out in many parts of the worlds. Using the United Kingdom as an example, where considerable amounts of money have ben invested in national schemes that seek to support primary physical education curriculum developments alongside the associated professional development of primary teachers. As these programmes have been implemented, interest within the research community has grown and has resulted in an increasing number of evaluations and academic publications. Examples of these national schemes and publications in England include the National PE and School Sport Professional Development Programme (PESSCL) (Armour & Duncombe, 2004), the Youth Sport Trust's TOPs Programmes (Harris et al., 2011), the School Sport Partnership Project (McIntosh, 2012) and the Primary PE Premium (Griggs, 2016), and, in Scotland, the Active Schools Project (Reid & Thorburn, 2011) and the Scottish Primary Physical Education Project (Elliott et al, 2012). In addition, there have been a number of similar studies focussed on the practices of generalist primary teachers in various parts of the world that include Honk Kong (Ha et al, 2004), Australia (Morgan & Hansen, 2008) and New Zealand (Petrie, Jones & McKim, 2007).

However, in line with the issues reported earlier in the chapter about traditional top-down professional development programmes, most of these physical education studies consistently re-iterate the limitations of this linear 'quick fix' approach. For example, in their investigation of the Youth Sport Trust's TOPS programme in England, Harris, Cale and Musson (2011; 2012) concluded that while the professional development courses on offer had some positive impact on the teachers' subject knowledge and attitude towards physical education, the short timescale of the courses, the focus on pre-prepared resource materials as opposed to pedagogy and the lack of follow-up support significantly limited the effectiveness of the programme. It has also been reported that the 'outside experts' who deliver these courses often fail to discuss how the content might be applied in teaching contexts (Bechtel & O'Sullivan, 2006) and rarely fully address teachers' learning needs (Armour, 2006). A further observation by Atencio et al (2011) and Jess and McEvilly (2013), when reflecting on many years designing professional development courses for generalist primary teachers within a Scottish context, was to recall how the impact of their early professional development attempts in the form of short-term, off-site courses supported by a detailed manual faltered as many teachers returned to their school contexts with no support structures in place. Consequently, while these large scale traditional professional development programmes may briefly raise the profile of physical education within many primary schools, the approach taken has often been perceived as too brief, superficial and lacking in the challenge, relevance and progression that will bring about a long term change in quality (Harris et al, 2011; Petrie et al, 2007).

Contemporary Professional Development in Primary Physical Education

In response to the limitations of these traditional programmes, a small number of professional development projects have been designed in efforts to address the key concerns raised. Examples from New Zealand (Petrie, 2010; Petrie, Burrows & Cosgrif, 2014) and in Scotland (Elliot & Campbell, 2013; Carse, 2015) have reported on these more in-depth, contemporary projects and, as is now discussed, may offer some key pointers for future professional development efforts. In New Zealand, two projects were set up to focus on a longer term, participative, collaborative and situated professional learning experience for generalist primary teachers. In the first study, a year-long national professional development programme was concentrated on generalist teachers' knowledge, practices and attitudes in relation to physical education (Petrie, 2010). Focussed on whole-school professional development, the programme involved 'lead teachers' from each primary school working alongside a physical education subject. Following a 'lead teacher' professional development programme, a range of school-based activities were introduced in each school over the year. These activities included regular after-school staff meetings, the production of lesson/unit

plans and the advisers working through scripted lessons with staff, modelling physical education lessons and offering teachers' feedback on taught lessons. Following analysis of data from 25 teachers, Petrie (2010) concluded that the successes of the project saw the teachers changing their view of physical education, transferring their pedagogy skills from the classroom to the gymnasium and generally feeling more confident and motivated to teach physical education. However, as noted earlier, the study also highlighted how the teachers were hindered in developing appropriate learning experiences because of their limited physical education content knowledge. In a later study, Petrie et al (2014) reported on a more in-depth project in which three teacher educators worked closely with four primary teachers over a period of two years. Primarily situated in teachers' schools, this project started by focussing on the teachers' current thinking and practice and used this as the catalyst to expand their pedagogy repertoires, develop innovative physical education practices and explore how these innovative ideas could be sustained and spread to the wider school community and different school sites. As the project unfolded it was apparent that all participants (both teachers and teacher educators) passed through a complex process of change as they negotiated their personal preconceptions about physical education, personalised their issues to reorient their thinking about physical education and also began to 'do things differently' (p. 53). Crucially, these changes were predicated upon the participants working collaboratively in a 'community of practice' that helped them co-construct the initiatives and recognise that changing their previously 'fixed' concepts and practices required time to 'grapple with the discomfort of not knowing, engage in reflective dialogue, talking and dithering, and come to a place of reconfiguring and reimagining' (p. 55).

The Scottish Primary Physical Education Project (SPPEP), which ran between 2006 and 2014, was a similar in-depth project that followed a different pattern to the New Zealand projects. During the lifespan of this project, over one thousand generalist primary teachers were offered the opportunity to enrol on government-funded masters-level programmes that set out to help the teachers develop a specialism in primary physical education. These two-year programmes, based at the Universities of Edinburgh and Glasgow, differed from previous professional development in Scotland in that the modular course structure enabled the teachers to spend time negotiating how key theoretical concepts could inform their thinking and practice in relation to physical education. During the programmes, the teachers were regularly presented with opportunities to apply key ideas from the modules in their own school contexts and then share their experiences in a 'community of practice' with fellow

students and university staff (Jess & Campbell, 2012). Rather than providing pre-prepared resources and lesson plans, the teachers were encouraged to regularly reflect on their personal values, beliefs and contexts as they sought to design physical education learning experiences that met the needs of the learners they were working with (Thorburn et al., 2011).

From small scale studies investigating the impact of SPPEP (e.g. Elliot & Campbell, 2013, Carse 2015), findings emerged that displayed how the long term and recursive nature of the professional development experience contributed to the teachers' efforts to change their thinking and practice. By challenging the teachers' thinking over a period of time, the teachers began to use their professional autonomy to develop physical education programmes that were contextualised within their individual school settings (Carse, 2015). As a consequence, as the teachers' thinking and practice started to change they began to view the change process as something over which they had some agency rather than as an external policy that was being imposed upon them to implement (Thorburn et al., 2011; Elliot & Campbell, 2013). Interestingly, it was also apparent that the teachers were aided in their change efforts by a supportive policy environment aligned with the on-going marginal status of physical education within their settings (Carse, 2015). As such, running through the teachers' change efforts was the professional autonomy they were able to exert within their school contexts, which contributed to their ownership of the change process.

However, a factor constraining these change efforts was a feeling of isolation that stemmed from the issues encountered as the teachers attempted to collaborate with their colleagues and other physical education practitioners. In particular, the teachers felt they had to overcome the traditional multi-activity sport and games perceptions of physical education that were held by most of their children and colleagues. Whilst challenging, these negative factors highlighted the complex nature of the change process at the 'chalk face' and the many contextual factors that contribute to the sustainability of change (Fullan, 1993). Significantly, many of the teachers highlighted the importance of being part of a supportive 'community of practice' in which they were able to share their experiences in physical education (Elliot & Campbell, 2013).

While these contemporary programmes in New Zealand and Scotland acknowledge the messiness of this type of in-depth professional development, both experiences highlight how the long term nature of the projects and the genuine opportunities for collaboration offered the teachers the time and space to become immersed in a change process, reflect on their

practice and to then consider how to improve their practice through a continuous learning process.

Conclusion

This chapter has discussed the issues facing generalist class teachers in their teaching of physical education by highlighting the current higher status of physical education in primary schools and the many reasons for the ongoing concern about the quality of the learning experiences that children meet in primary physical education. While the chapter acknowledges that improving quality will be a long term and multi-faceted process, it takes the view that generalist teachers' professional learning in physical education will be one of the key factors influencing any improvements. However, while traditional top-down approaches to teachers' professional development may still dominate across the education sector, and within primary physical education specifically, the chapter argued that the gains from this 'quick fix' approach are generally limited. By considering findings from a small number of contemporary studies, the chapter proposes that professional learning needs to be part of a regular long term process that encourages teachers to actively negotiate the everchanging local and wider influences that impact on their thinking and practice in physical education. Making, or having, the time to collaboratively reflect on how their previous and current experiences, personal interests and current capacities act to influence their thinking and practice would seem to be a logical starting point for this process. By regularly reflecting on the impact of these changing influences, teachers will hopefully begin to view their primary physical education professional learning as a long term and recursive process and not simply as a 'quick fix' that is an add-on to their 'real' work.

References

Alexander, R. (2012). *Curriculum freedom, capacity and leadership in the primary school*. National College for School Leadership.

Armour, K. (2006). Physical education teachers as career-long learners. Physical Education & Sport Pedagogy, 11(3), 203-207

Armour, K. M. & Duncombe, R., (2004). Teachers' continuing professional development in primary PE: Lessons from present and past to inform the future. *Physical Education and Sport Pedagogy*, 9 (1), 3-22.

Atencio, M., Jess, M., & Dewar, K. (2012). 'It is a case of changing your thought processes, the way you actually teach': Implementing a complex professional learning agenda in Scottish physical education. *Physical Education & Sport Pedagogy*, 17(2), 127–144

Ayers, P., Sawyer, W. & Dinham, S. (2004). Effective teaching in the context of a Grade 12 high-stakes external examination in New South Wales, Australia, *British Educational Research Journal*, 30, 141–165.

Ball, S., Maguire, M., & Braun. A., (2012). *How Schools Do Policy: Policy Enactments in Secondary Schools*. London: Routledge

Bechtel, P., & O'Sullivan. M., (2006). Effective Professional Development – What We Now Know. *Journal of Teaching in Physical Education* 25 (4): 363–378.

Blair, R., & Capel. S. (2011). Primary Physical Education, Coaches and Continuing Professional Development. *Sport, Education and Society* 16 (4): 485–505.

Carney, C. & Chedzoy, S. (1998). Primary Student Teacher Prior Experiences and their Relationship to Estimated Competence to Teach the National Curriculum for Physical Education, *Sport, Education and Society* 3: 19–36.

Carse, N. (2015). Primary Teachers as Physical Education Curriculum Change Agents. *European Physical Education Review* 21 (3): 309–324

Clarke, D., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and Teacher Education*, 18, 947–967.

DeCorby, K., J. Hala, S. Dixon, L. Wintrup, & H. Janzen., (2005) Classroom teachers and the challenges of delivering quality physical education. *The Journal of Educational Research* 98: 208–20.

Darling-Hammond, L., Chung Wei, R., Andree, A., Richardson, N. and Orphanos, S. (2009). *Professional Learning in the Learning Profession: A Status Report on Teacher Development in the United States and Abroad*. The National Staff Development Council and The School Redesign Network, Stanford University.

Day, C., & Gu, Q. (2009). Teacher emotions: Well being and effectiveness. In P. A. Schutz & M. Zembylas (Eds.), *Advances in teacher emotion research: The impact on teachers' lives* (pp. 15–31). Dordrecht: Springer.

Elliot, D., Atencio, M., Jess, M., & Campbell. T. (2013). From PE Experiences to PE Teaching practices? Insights from Scottish Primary Teachers' Experiences of PE, Teacher Education and professional Development. *Sport, Education and Society.* 18(6), 749-766.

Elliot, D., & Campbell. T. Campbell (2013): 'Really on the ball': exploring the implications of teachers' PE CPD experience, *Sport, Education and Society*, DOI: 10.1080/13573322.2013.765400

Faulkner, G.E.J., C. Reeves, & S. Chedzoy. (2004). Nonspecialist, preservice primary-school teachers: Predicting intentions to teach physical education. *Journal of Teaching in Physical Education* 23(3) 200-215.

Faucette, N., Nugent, P., Sallis, J. F. & Mckenzie, T. L., (2002) I'd rather chew on aluminium foil.' Overcoming classroom teachers' resistance to teaching physical education. *Journal of Teaching in Physical Education*, 21/3, 287-308.

Fleet, A., & Patterson. C. (2001). Professional Growth Reconceptualized: Early Childhood Staff Searching for Meaning. *Early Childhood Research & Practice* 3 (2): 1–11.

Fraser, C., Kennedy, A., Reid, L. and Mckinney, S. (2007) Teachers' continuing professional development: contested concepts, understandings and models. *Journal of In-Service Education*, 33(2), 153-169.

Fullan, M. (1993) Change Forces, London: The Falmer Press.

Gallahue, D. & Cleland-Donnelly, F. (2003) *Developmental Physical Education for All Children Fourth Edition*, Leeds: Human Kinetics.

Gard, M. (2008). Producing Little Decision Makers and Goal Setters in the Age of the Obesity Crisis. *Quest*, 60(4) 488–502.

Graber, K., Locke, L., Lambdin, D., & & Solmon, M., (2008). The Landscape of Elementary School Physical Education, *Elementary School Journal* 108(3), 151-159

Griggs, G. (2007). Physical Education: Primary Matters, Secondary Importance. *Education 3–13 International Journal of Primary, Elementary and Early Years Education*, 35 (1): 59–69.

Griggs, G. (2010). For Sale–Primary Physical Education £20 per hour or Nearest Offer. *Education 3–13 International Journal of Primary, Elementary and Early Years Education,* 38 (1): 39–46

Griggs, G. (2012). Standing on the Touchline of Chaos: Explaining the Development of the Use of Sports Coaches in UK Primary Schools with the Aid of Complexity Theory. *Education 3–13 International Journal of Primary, Elementary and Early Years Education*, 40 (3): 259–269.

Griggs, G. (2016). Spending the Primary Physical Education and Sport Premium: a West Midlands case study, *Education 3-13: International Journal of Primary, Elementary and Early Years Education*, 44(5), 547-556.

Guskey, T. R. (1986). Staff development and the process of teacher change. Educational Researcher 15, 5–12.

Ha, A., Lee, J., Chan, D. & Sum, R. (2004) Teachers' perceptions of in-service teacher training to support curriculum change in physical education: The Hong Kong experience. *Sport Education and Society*, 9(3), 421-438.

Hargreaves, A. & Shirley, D., (2010) *The Fourth Way: The inspiring future for educational change.* Corwin Press: New York.

Harris, J., Cale, L., & Musson, H. (2011) The Effects of a Professional Development Programme on Primary School Teachers' Perceptions of Physical Education. *Professional Development in Education* 37 (2): 291–305

Hart, M. (2005). Influence of a Physical Education Methods Course on Elementary Education Majors' Knowledge of Fundamental Movement Skills, *Physical Educator*, 62: 198–204.

Helterbran, V., & Fennimore, B. (2004). Collaborative Early Childhood Professional Development: Building from a Base of Teacher Investigation. *Early Childhood Education Journal*, 31 (4): 267–271.

Herskind, M. (2010). Tensions and Dilemmas in Body-pedagogy in Kindergarten – Employees' Effort to Transform a Vocational Education Programme about Body and Movement into Practice. *Sport, Education and Society* 15 (2): 187–202.

Hoban, G. (2002) *Teacher Learning for Educational change: a systems thinking approach* Buckingham: Open University Press

Jess, M. & Campbell, T (2012), The Scottish Primary Physical Education Project (Part 2): From Traditional CPD to Long Term Professional Learning, *Physical Education Matters*, Summer

Jess, M., & McEvilly, N. (2013). Traditional and contemporary approaches to career-long professional learning: A primary physical education journey in Scotland, *Education 3-13: International Journal of Primary, Elementary and Early Years Education, 43*(3), 225-237.

Kelly, A. (2009). The Curriculum: Theory and Practice, 5th Edition, London, SAGE

Kennedy, A. (2005). Models of Continuing Professional Development: a framework for analysis. *Journal of In-service Education*, 31(2), 235-250.

Kennedy, A., (2014) Understanding continuing professional development: the need for theory to impact on policy and practice, *Professional Development in Education*, 40 (5), 688-697.

Kirk, D. (2005) Physical education, youth sport and lifelong participation. *European Physical Education Review*, 10, 95-108.

Korthagen, F., Loughran, J., & Russell, T. (2006). Developing fundamental principles for teacher education programs and practices. *Teaching and Teacher Education*, 22, 1020–1041.

Korthagen, F. (2016). Inconvenient truths about teacher learning: towards professional development 3.0, *Teachers and Teaching*, DOI: 10.1080/13540602.2016.1211523

Lave, J. & Wenger, E. (1991), *Situated learning: legitimate peripheral participation* London, Cambridge University Press.

Lawson, H. (1983), Toward a model of teacher socialization in physical education: The subjective warrant, recruitment, and teacher education. *Journal of Teaching in Physical Education*, 2(3), 3-16.

LeCompte, M. D. (2009) Trends in Research on Teaching: An Historical and Critical Overview. In: Saha, L. J. and Dworkin, A. G. (Eds.) *International handbook of research on teachers and teaching*, Dordrecht, Netherlands: Springer.

Lingard, B., Hayes, D., & Mills, M. (2003). Teachers and Productive Pedagogies: Contextualising, Conceptualising, Utilising. *Pedagogy, Culture & Society*, 11 (3): 399–424.

Mackintosh, C. (2012). Dismantling the School Sport Partnership Infrastructure: Findings from a Survey of Physical Education and School Sport Practitioners. *Education 3–13 International Journal of Primary, Elementary and Early Years Education*. doi: 10.1080/03004279.2012.714793.

McCormick, R & Paechter, C. (2000). Learning and Knowledge. Sage Publications.

MacNaughton, G. (2005). *Doing Foucault in Early Childhood Studies: Applying Poststructural Ideas*. Abingdon: Routledge.

MacNaughton, G., & Hughes. P. (2007). Teaching Respect for Cultural Diversity in Australian Early Childhood Programs. *Journal of Early Childhood Research*, 5 (2): 189–204

Morgan, P. (2008) Physical Education in Primary School: Classroom Teachers' Perceptions of Benefits and Outcomes, *Health Education Journal* 67: 196–207.

Morgan, P., & Bourke. S. (2008) Non-specialist teachers' confidence to teach PE: The nature and influence of personal school experiences in PE. *Physical Education and Sport Pedagogy* 13: 1–29.

Morgan, P. & Hansen, V. (2007). Recommendations to Improve Primary School Physical Education: Classroom Teachers' Perspectives, *Journal of Educational Research* 101: 99–111.

Pedder, D., Storey, A. and Opfer, D. (2009) *Schools and Continuing Professional Development in England: the State of the Nation, synthesis report.* London: Training and Development Agency.

Petrie, K. (2010). Creating confident, motivated teachers of physical education in primary schools. *European Physical Education Review*, 16(1), 47-64.

Petrie, K. (2016): Architectures of practice: constraining or enabling PE in primary schools, *Education 3-13 International Journal of Primary, Elementary and Early Years Education*, DOI: 10.1080/03004279.2016.1169484

Petrie, K., Burrows, L., & Cosgriff, M. (2014). Building a Community of Collaborative Inquiry: A Pathway to Re-imagining Practice in Health and Physical Education. *Australian Journal of Teacher Education*, *39*(2), 45-57

Petrie, K. & Hunter. L., (2011) Primary teachers, policy, and physical education. *European Physical Education Review*, 17(3), 325-339.

Petrie, K., Jones, A., & McKim, A. (2007). *Effective professional learning in physical activity*. Wellington, New Zealand: Ministry of Education.

Pickup, I., & Price, L. (2007). *Teaching physical education in the primary school. A developmental approach*. London: Continuum.

Quay, J., & Peters. J. (2008). Skills, Strategies, Sport, and Social Responsibility: Reconnecting Physical Education. *Journal of Curriculum Studies* 40 (5): 601–626.

Reid, G. and Thorburn, M. (2011) Analysing policy change in Scottish physical education and school sport. *Journal of Policy Research in Tourism, Leisure and Events*, 3(3), 298-315.

Sheridan, S., Pope Edwards, C., Marvin, C., & Knoche, L. (2009). Professional Development in Early Childhood Programs: Process Issues and Research Needs. *Early Education and Development* 20 (3): 377–401.

Stenhouse, L. (1975). An Introduction to Curriculum Research and Development. London: Heinemann Educational.

Thorburn, M., Carse, N., Jess, M. & Atencio, M., (2011) Translating change into improved practice: analysis of teachers' attempts to generate a new emerging pedagogy in Scotland, *European Physical Education Review*,

Thornton, M., (1998). *Subject Specialists – Primary Schools, UCET Occasional Paper No. 10*, University of Hertfordshire.

Timperley, H., Wilson, A., Barrar, H. & Fung, I. (2007) *Teacher Professional Learning and Development: Best Evidence Synthesis Iteration*. Wellington: Ministry of Education.

Tsangaridou, N. (2012). Educating Primary Teachers to Teach Physical Education. *European Physical Education Review* 18 (3): 275–286.

see Tsangaridou in the previous chapter

Wenger, E. (1998) *Communities of practice: learning, meaning, and identity* Cambridge, MA, Cambridge University Press

Xiang, P. L., Lowy, S. & Mcbride, R., (2002), The impact of a field-based primary physical education methods course on preservice classroom teachers' beliefs. *Journal of teaching in physical education*, 21 (2), 145-161.