Physical education teachers’ continuing professional development in health-related exercise: a figurational analysis

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Title: Physical Education teachers’ continuing professional development in Health Related Exercise: A Figurational analysis.

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Abstract

This paper uses figurational sociology to explain why Secondary Physical Education teachers’ engagement with Health Related Exercise (HRE) is often limited. Historically-rooted concerns surround the teaching of HRE, and these have recently been linked to teachers’ limited continuing professional development (CPD) in HRE (HRE-CPD). A two-phase, mixed-method study involving a survey questionnaire (n=124) and semi-structured interviews (n=12) was conducted in the UK to explore Physical Education teachers’ engagement with HRE and HRE-CPD over time. The findings confirm that teachers’ engagement with HRE-CPD is often limited. Indeed, nearly three quarters of the teachers (73%) also felt that their tertiary education had failed to adequately prepare them to teach HRE. This paper argues that a range of interdependent processes are contributing towards teachers’ limited engagement with HRE, and that most of these processes - such as the marginalization of HRE - are rooted in the privileging of sporting, individualised and performative ideologies within Physical Education. In conclusion, it is argued that informed and strategic action which addresses the above issues and which transcends all levels of the education figuration is needed if the concerns surrounding HRE are to be overcome.

Key Words

Physical Education; Teachers; Health Related Exercise; Continuing Professional Development, Figurational Sociology
Introduction

Within the most recent National Curriculum for Physical Education (NCPE) in England (2007), Health Related Exercise (HRE) is concerned with the ‘Key Concept’ of ‘Healthy, active lifestyles’ and it seeks to promote the ‘Key Process’ of ‘Making informed choices about healthy, active lifestyles’ (Qualifications and Curriculum Authority, 2007). Essentially, HRE is ‘physical activity associated with health enhancement’ and refers to the processes through which pupils learn in and through ‘active participation in…a range of sport, dance and exercise experiences including individualised lifetime activities’ (Cale and Harris, 2009a, p.141).

The introduction of the NCPE in 1992 allowed HRE to evolve from being an implicit component of Physical Education to being a more explicit and planned way of achieving specific learning outcomes concerned with the promotion of healthy, active lifestyles (Harris, 1995; Cale, 1996). However, little guidance for teachers followed on how the requirements of the National Curriculum could be translated into pedagogy and practice (Harris, 1995). It was argued that the lack of support for teachers in this area highlighted the marginal status of the area and contributed to a lack of consensus regarding what HRE should ‘look like’ (Harris and Penney, 2000). Writing in 1995, Harris identified some confusion and a number of issues concerning the status, organisation and teaching of HRE. She noted, for example, how Physical Education teachers often used the terms ‘health’ and ‘fitness’ as though they were synonymous meaning that the focus on participation and physical health was subsumed by a focus on fitness and performance. Harris (1995) also found that HRE tended to be unstructured and highlighted issues such as relevance, progression, coherence and equal opportunity as well as inconsistent guidance and inadequate opportunities for teachers’ continuing professional development (CPD) in the area. Given the above, Harris (1995, p.30) went onto ask whether “a degree of lip service” was “being paid to the delivery of HRE”.

More recent studies also suggest that HRE continues to be characterised by a lack of coherence, status, and consensus relating to its aims and how it is taught in schools (Harris, 2009;
More specifically, research suggests that Physical Education teachers often have a narrow focus of HRE and still tend to be preoccupied with teaching it through fitness and sport related activities (Harris, 1997; Leggett, 2008; Ward, 2010). While fitness and sport have a role to play in HRE, it is felt by some that an over emphasis upon them may be limiting the range of physical activity and learning opportunities young people can engage with (Alfrey, Cale and Webb, 2012; Harris, 2005).

According to Fox and Harris (2003), revisions of the National Curriculum over the past two decades have focused increasing amounts of attention on HRE. Yet, such revisions still appear to have led to few changes to the pedagogies used to teach HRE (Harris and Penney, 2000; Ward, 2010). It is maintained that HRE continues to be considered marginal compared to other areas of Physical Education (Green, 2003, 2008), and to be characterized by the issues highlighted by Harris nearly 20 years ago. Moreover, it is suggested that health promotion as a goal of Physical Education remains ‘neither universally accepted nor well understood’ (Cale and Harris, 2005, p.165) and that teachers are still unsure how HRE should best be taught (Armour and Harris, 2008; Ward, Cale and Webb, 2008). Despite the historically-rooted nature of these issues, there has been little attempt to provide a theoretically informed explanation as to why this may be the case.

A number of researchers have furthermore expressed concerns about Physical Education teachers’ lack of professional engagement with HRE in its broadest sense (i.e more than sport and fitness), and this has been cited as a possible source of many of the issues and concerns surrounding HRE in schools (Armour and Harris, 2008; Armour and Yelling, 2004). For example, following an analysis of 85 physical education teachers’ career-long CPD, Armour and Yelling (2004) argued that health and life-long physical activity were two areas that were absent from their profiles. This led them to ask: “where and how are teachers developing their professional knowledge in promoting lifelong learning about physical activity for health…?” (Armour and Yelling, 2004 p.79).

This paper draws on selected findings and builds on work which emanated from a recent UK-based study that investigated Physical Education teachers’ experiences, views and
understandings in relation to HRE, and explored their engagement with HRE-CPD (Alfrey, Cale and Webb, 2011; Ward, 2010). The study upon which this paper is based was guided by two key research questions:

i) What is the nature and extent of Physical Education teachers’ engagement with: a) HRE; and b) HRE-CPD?

ii) Which social processes influence Physical Education teachers’ engagement with: a) HRE; and b) HRE-CPD?

The findings confirmed many of the concerns outlined above with respect to Physical Education teachers’ often narrow focus and limited engagement with HRE and HRE-CPD. Based on these findings, Alfrey and colleagues (2012) presented the ‘HRE Conundrum’ (see Figure 1) as an explanatory model to help the Physical Education profession better understand the often-problematic organisation and expression of HRE in schools. The model comprises four stages or interdependent processes which emerged as being influential in relation to teachers’ engagement with HRE and HRE-CPD: i) the tendency for the teachers’ philosophies\(^1\) to bear the hallmark of sport and fitness related ideologies; ii) teachers’ often narrow understandings of HRE and how best to teach it; iii) the teachers’ largely misguided confidence in their ability to teach HRE; iv) a general lack of teacher engagement with any CPD related to health and lifelong physical activity.

\[\text{INSERT FIGURE 1: The Health Related Exercise Conundrum}\]

Drawing on figurational sociology, this paper goes beyond the ‘HRE Conundrum’ to now explore and discuss in detail the broader social processes which influence Physical Education teachers’ engagement with HRE and HRE-CPD.

In trying to explain the problematic nature of HRE, the research utilised figurational (process) sociology (Elias, 1978) and the concept of ‘figurations’ to try to make sense of the social relationships (interdependencies) which have the capacity to influence Physical Education teachers’ engagement with HRE and HRE-CPD over time. Given the expectations upon Physical Education teachers’ philosophies are grounded in their \textit{figurations} and comprise an array of beliefs and underlying \textit{ideologies} that result from ‘personal and sporting \textit{biographies} and…working context’ (Green, 2003, p.146) (emphasis added).

\(^{1}\) Teachers’ philosophies are grounded in their \textit{figurations} and comprise an array of beliefs and underlying \textit{ideologies} that result from ‘personal and sporting \textit{biographies} and…working context’ (Green, 2003, p.146) (emphasis added).
teachers to influence young people’s health and most notably counteract the alleged ‘obesity epidemic’ (Evans, Rich, Davies and Allwood, 2008; Gard, 2011; Webb and Quennerstedt, 2010), understanding their professional engagement with HRE through CPD is important. To date, however, there is only a limited body of literature in this specific area.

A Figurational Perspective

Figurational sociology has begun to provide a valuable addition to the theoretical work focusing on Physical Education (see Green, 2003, 2006; Keay, 2005a; Velija, Capel, Hayes and Katene, 2008). Developed initially and largely by Norbert Elias, this approach has been used to a limited extent as a framework within which to locate a greater sociological understanding of Physical Education teachers and their ‘philosophies’ (Green, 2000, 2002, 2008). It has not, however, been applied to the specific context of HRE or the process of CPD. Central to figurational sociology is the concept of ‘figuration’ and the inescapable and complex nature of human interdependencies. A number of authors have presented detailed analyses of Elias’ work on figurational sociology (Goudsblom, 1977; Maguire, 1988; Mennell, 1998) and have subsequently suggested that there are a number of sensitising concepts which serve to guide research within this paradigm. Two of the sensitising concepts which proved most valuable within this research were: i) human knowledge develops over time within human figurations; ii) human beings can only be understood in the plural and as being part of networks, or figurations of interdependence (Elias, 1978).

It has been noted that the underpinning principles of figurational sociology are ‘deceptively simple and self-evident, yet their importance is frequently overlooked’ (Goudsblom, 1977, p.6). An understanding of figurational sociology can aid one’s appreciation of the complex and sometimes invisible chains of interdependence that characterise the personal, local and national levels of the ‘education figuration’. In the context of this research, the education figuration is a ‘network of interdependencies formed by individuals’ (Elias, 2000, p.482) who have a role to play in secondary
Physical Education (including for example, teachers, pupils, the local community, commercial CPD providers, Local Authorities/Councils and the Government).

The teacher-centric nature of this research lent itself to a particular ‘way of seeing’ Physical Education teachers’ interdependencies with significant others over time. The findings discussed in this paper originate from the ‘personal’ level of the education figuration. On this basis, the notion of ‘philosophies’ (Armour and Jones, 1998; Evans, 1992; Green, 2003; Keay, 2005a) emerged as a valuable conceptual tool to explore the teachers’ past experiences of HRE (their HRE biography) and to better understand their engagement with HRE and HRE-CPD. Teachers’ philosophies are grounded in their figurations, and according to Green (2003, p.146) comprise an array of underlying ideologies and beliefs that result from ‘personal and sporting biographies and…working context’.

For example, it is argued that a Physical Education teacher who experienced success and enjoyment through a sport-focused Physical Education curriculum as a pupil (biography), who remains heavily ‘entangled’ in sport-orientated figurations (e.g. sporting clubs), and who is exposed to prevailing and ‘residual ideologies’ (Kirk, 1988) at work (e.g. sport is the best way to educate through the physical) and via the media (e.g. playing sport will make you healthy), is more likely to reproduce a sport-focused curriculum which ‘retains traditions of the past’ (Keay, 2005b, p.139). The research study comprised two-phases and adopted a mixed-method approach which was guided by figurational concepts such as those just outlined above (e.g. human beings can only be understood in the plural and as being part of networks, or figurations of interdependence) and which are discussed in detail the following section.

The Research Process

Phase one of the study involved a survey questionnaire completed with a sample of Physical Education teachers (n=124) from secondary schools across England (Table 1). Phase two comprised semi-structured interviews with a sample of twelve teachers drawn from the original broader sample (Tables 1 and 2). The aim of the first phase of the research was to quantify and understand the teachers’ engagement with HRE, PE-CPD and HRE-CPD over time (i.e their HRE biographies,
including time at school as a pupil, at university and whilst teaching). Broader issues such as professional status, policy and collegiality were also explored. The second phase provided an opportunity to further explore the teachers ‘HRE biographies’ and the amalgam of social processes that had influenced their views and experiences of both HRE and HRE-CPD over time.

**INSERT TABLE 1: Summary of the Research Process**

In selecting the twelve teachers for phase two, the intention was to obtain as representative a sample as possible that included an equal number of male and female teachers with varying years of experience and who taught at different types of schools. Attention was also paid to geographical area and the teachers’ reported engagement with HRE, PE-CPD and HRE-CPD.

**INSERT TABLE 2: Phase two sample**

The ‘experience’ categories (shown in Table 2) were based on the ‘Professional Life Phases’ proposed by Day and colleagues (2006). Emphasising the difference between professional life phases highlights the processual nature of teaching and furthermore acknowledges that teachers are dynamic, continually changing and far from homogenous (Elias, 1978; Green, 2008; van Krieken, 1998).

In terms of analysis, quantitative data from the coded questionnaires were entered into SPSS 16.0 (Statistical Package for the Social Sciences) for analysis. Different types of statistical analysis were employed depending on the structure and nature of each question. Descriptive statistics, namely frequencies, were used to analyse the demographic data (such as sex, age and years of teaching experience) and also the data from the linear, numeric scale questions. Inferential statistics, namely chi-square, were used to evaluate potential relationships between two sets of data (such as age and engagement with HRE-CPD). Qualitative data from both the survey questionnaire and the interviews were transcribed verbatim and subject to content analysis. NVIVO 8 software was used to facilitate the emergence and analysis of ideas or themes from the data (qualitative or analytical coding). Using this software, coding allowed for the generation of ideas and a gathering of data by topic (Silverman, 2006), or ‘node’. Nodes included, for example, ‘status’, ‘figurations’ and ‘fitness’.
With reference to the first sensitizing concept presented earlier - *human knowledge develops over time within human figurations* - if one is to understand the teaching of HRE in schools it is important to address it as a historically-rooted and ongoing process. Within the study this was achieved via an exploration of the teachers’ experiences, views and understandings of HRE over time (i.e. as a pupil at school, during tertiary education and currently) in relation to the figurations of which they were a part, and with reference to broader contextual factors such as policy and available resources. In addition, and prior to data collection, a socio-historical account of the Physical Education-health-school nexus was carried out (Ward, 2010). Simultaneously, the lead researcher documented her own biography in order to bring to the fore how her experiences, understandings and knowledge relating to HRE had developed across her professional life. This also served as one way of making explicit and trying to achieve an appropriate level of involvement and detachment in different aspects of the research.

‘Involvement-detachment’ is a tenet of Elias’ work that informs how research within a figurational paradigm is approached. It encourages the view that ‘social science can only improve the human lot by clearing through some of the fog which obscures our understanding of social forces’ (Mennell, 1998, p.269). In this instance, the ‘fog’ is provided as a metaphor for personal values and interests which may serve to obscure our understanding of particular social phenomena (Mansfield, 2007).

To increase the likelihood of quality research, Dunning (1999) drew upon Elias’ work to suggest a ‘detour-via detachment’. He proposed that a ‘detour’ encourages researchers to ‘step back’ and recognise their own involvement (or detachment) and thus, their vested interests and values. The aim is that a recognition of, and reflection upon such values can limit the degree to which they will affect the research and the interpretation of the data. With reference to the present study and with such figurational principles in mind, the lead researcher also aimed for a certain degree of detachment from their role as ‘participant’ by trying to adopt the position of ‘observer and interpreter’ during the process (Mennell, 1998).
As Elias contended, if social life is the subject of study then those researching it are inevitably involved and complete detachment is not within the realms of sociology (Mansfield, 2007). In this research and as noted above, whilst the lead researcher aimed to achieve a sufficient degree of detachment, her own biography (for example, the fact that she had worked in schools, and valued broad and balanced Physical Education) meant that total detachment was neither possible nor desirable. It should also be acknowledged that the position of individuals, groups and societies along the involvement-detachment continuum is continually in flux (Mansfield, 2007) and as a result, the degree to which a social scientist is involved in their research is always changing. Furthermore, a researcher’s degree of involvement and therefore detachment will be influenced by the social phenomena under exploration and will inevitably change throughout the research process.

In addition to addressing the teaching of HRE as a historically-rooted and ongoing process, the second sensitising concept - human beings can only be understood in the plural - encourages an appreciation of the complex and dynamic web of interdependencies within which people (in this case teachers) are enmeshed. As part of a socio-historical frame that is characteristic of figurational sociology, the central concept of figuration was used in the research to illuminate the relationships with others which served to influence the Physical Education teachers’ engagement with HRE and HRE-CPD. For example, teachers’ day-to-day practices can be influenced by the pupils they teach, their past and present colleagues, senior management and policy makers, amongst others. Acknowledging this, explicit attempts were made to explore these interdependencies by exploring the teachers’ relationships or interdependencies with other people such as colleagues, heads of department and policy makers. These interdependencies, and the ways in which they had influenced teachers’ engagement with HRE and CPD, are now discussed with reference to the research findings.

**Discussion of Findings: A Figurational Analysis**

Locating the teachers within their historically-rooted figurations, as suggested by Elias (1978), encouraged an appreciation of the social interdependencies (e.g. with their teachers,
lecturers, Head of Department, colleagues) and multi-directional social processes (e.g. the teachers’ privileging of sport within Physical Education in response to historically-rooted traditions and ideologies) which had both enabled and constrained their experiences of HRE and HRE-CPD over time. The discussion of the findings, some of which have been discussed elsewhere (Alfrey, Cale and Webb, 2012), focuses firstly on the teachers’ figurations and the amalgam of biographies and ideologies which were subsumed within them. It then shifts to the inextricable social processes which, as aspects of the teachers’ figurations, emerged as influential in terms of their engagement with HRE and HRE-CPD. The findings from phase one (survey) and phase two (interviews) of the research are discussed together.

**Teachers, figurations, and HRE**

Both the survey and interview data suggest that the teachers’ engagement with HRE and HRE-CPD was influenced to varying degrees by their interdependence with others in the education figuration over time. The teachers control over their HRE experiences varied over the course of their biography as a consequence of the ever-shifting balances of power between them and others in the education figuration. This variance did not appear to be linear, with factors such as age, choice and increasing complexity of their figurations all contributing to the nature and extent of teachers’ HRE experiences. Drawing upon the survey data, over half of the teachers had no prior experience of HRE before being expected to teach it. A similar number (57%) of the teachers reported not to have been taught HRE by their teachers whilst they were at school, approximately half (51%) had not been exposed to HRE by their initial teacher educators whilst at university, and most (70%) had not engaged in any HRE-CPD in the past three years.

The findings suggest that the teachers’ lack of engagement with HRE-CPD may have been related to a lack of awareness. Although limited, opportunities for formal HRE-CPD have existed on local and national levels but, for a range of reasons, teachers have had limited engagement with them. For example, ‘free’ health-related modules that were developed by experts in the field and subject to quality assurance were provided through the National Continuing Professional
Development Programme in England but few teachers engaged with them (Armour and Harris, 2008).

Viewed from a figurational perspective it could be argued that the teachers’ often limited engagement with HRE and HRE-CPD was a consequence, in part, of the nature and focus of their interdependencies with their previous teachers, teacher-educators and more recently their colleagues, school management and CPD providers, amongst others. Indeed, when asked in the interviews about the nature and focus of their experiences of HRE as a pupil, which were largely dictated by their teacher at the time, some of the teachers stated that:

All I can remember is cross-country around the school grounds or into the local park...
(Sarah, 4-7 years of experience)

Fitness testing, warming up and cooling down were what we did for HRE. Oh, and circuit training sometimes too. (Thomas, 0-3 years of experience)

Cross country was the main way we learnt about health. Most of the class hated it but I didn’t mind it. Sort of enjoyed it really. (Philip, 30+ years of experience)

Whilst not everyone could remember their experiences of HRE as a pupil - which in itself is perhaps interesting - the quotes above were fairly representative and suggested a fairly individualised, task-orientated and performative approach to HRE.

Moving on to tertiary education, the survey data revealed that approximately three quarters of the teachers felt that the amount (76%), content (74%) and structure (73%) of the HRE component of their training was inadequate. Perhaps not surprisingly, nearly three quarters of the teachers also felt that their tertiary education had failed to adequately prepare them to teach HRE (73%). The interview data further supported these findings, with all of the teachers discussing their limited and sometimes non-existent engagement with HRE during their tertiary education.

It would have been valuable to have had some insight into HRE (during tertiary education)...I had to work my ass off to build my resources and knowledge around it. (Sophie, female, 0-3 years of experience)
At uni we learnt about how to teach warm-ups and cool-downs and about heart-rates.

( joanne, female, 4-7 years of experience)

These findings further correspond with work of Cardon and De Bourdeauhuij (2002) and Harris (2003, 2005) who suggested that some Physical Education teachers may not have had the opportunities to learn how to teach HRE in broad, balanced and educative ways. At the same time of course, it is important to acknowledge that tertiary education is ‘initial’ education and it cannot be expected to cover all aspects of subject knowledge and associated pedagogies in depth. The nature and focus of HRE at tertiary level is discussed in further detail in a following section.

In terms of in-service HRE-CPD following their tertiary education, the majority (79%) of the teachers felt that the support they received from the education figuration was inadequate. Some commented:

I guess that it’s (HRE-CPD) just never been made readily available to us by anyone…The head, the local government no-one…  (Stuart, 4-7 years of experience)

There hasn’t been CPD to do with HRE at all…if that is an area we should be focusing on then we haven’t been prepared at uni or in-service CPD (Ethan, 8-15 years of experience)

It’s (HRE) in the curriculum but I guess it’s just assumed by uni lecturers and heads of department that we know how to fitness test and do circuit training and stuff. We do but that’s not the point..  (Sarah, 4-7 years of experience)

The findings presented thus far confirm the persisting concerns outlined in the introduction regarding the nature of HRE in secondary schools. In particular, and in response to Armour and Yelling’s (2004) question that was highlighted earlier (concerning where and how teachers develop their professional knowledge in the area), the findings suggest that the education figuration, and more specifically the people who comprise it, has not been conducive to providing opportunities for teachers to engage with, or develop adequate professional knowledge related to HRE or HRE-CPD.

Whilst the HRE Conundrum (see Figure 1) presents an overarching explanation for this, there were also a number of interdependent social processes which emerged from the research as being
constraining in this regard. The focus of the discussion now shifts to these social processes as aspects of the education figuration in order to help us understand Physical Education teachers’ limited professional engagement with HRE in its broadest sense, and as defined earlier. In doing this, different aspects of the teachers’ location in the education figuration are explored.

“HRE is obviously to do with how fit we are”: HRE, Ideologies and Pedagogy

The findings from both phases of the research suggest that most of the teachers conceptualized HRE in narrow ways and therefore chose to teach it predominantly through fitness related activities and usually fitness testing and circuit training (Alfrey et al., 2012). It seems from the interview findings in particular that the teachers often prescribed to an ideology of HRE that restricted this area of the curriculum to individual fitness and the empirical testing of fitness. As some teachers stated:

- Fitness and fitness testing is prioritised (Fred, 8-15 years of experience)

  Implicit in all lessons, all physical education lessons is the fitness element... it’s gotta run through all the activities that you run, they’ve gotta have that fitness element, it has to be there. (Philip, 30+ years of experience)

- For HRE we offer a block called ‘fitness’ and that’s basically going off to our off-site gym and using rowing machines etcetera and planning their own training programmes...I think it’s good to have that 10 minutes on fitness testing and/or fitness awareness which relates to that sport. (Ethan, male, 8-15 years of experience)

- We try and do a number of fun tests with the kids based around the bleep test...try and make it a bit more specific to sport. (Nathan, male, 4-7 years of experience)

- Yeah we are predominantly a games school, I think most schools are. We do a lot of swimming and a lot of fitness... we mix it up. Time is precious and you have to do it quickly… (Claire, female, 30+ years of experience)

Justificatory ideologies, reflected to some extent by the quotes above, appeared to be manifested in the contexts for learning that teachers used to teach HRE. Such ideologies, Green argues (2003), are developed and communicated by teachers as a way of rationalising or justifying their practices. For example, Philip rationalized his use of fitness testing by stating that pupils “have to have the fitness element”, Ethan thought it was a “good” way to teach HRE, and Stuart suggested fitness
testing was “fun” for his pupils. There is a range of literature, however, which suggests that this approach to HRE is not necessarily ‘good’, ‘fun’ or indeed educational for many pupils (Cale and Harris, 2009; Gard, 2008’ Garrett and Wrench, 2008).

The findings presented thus far suggest that the teachers’ relationships with others in the education figuration – namely teachers, lecturers and colleagues - over many years had led them to understand HRE in relatively narrow and ideological ways (e.g. health is synonymous with fitness, and HRE is best taught through fitness testing and circuit training). It is argued here that these relatively narrow understandings may have served to limit the teachers’ engagement with HRE-CPD. Fred’s understanding of HRE, for example, was constrained by a particular ideology that positioned it as being synonymous with fitness testing and when asked if he or his colleagues needed HRE-CPD he remarked:

Erm…not really I wouldn’t have said, not in HRE. We are all fairly good with the fitness testing and what it encompasses. Possibly some (HRE-CPD) on training maybe…training methods and practices but…like I say, we can only incorporate 10-15 minutes into a lesson so is it worth it spending a day on a course? (Fred, 8-15 years of experience).

As the quote above indicates, Fred felt happy with his ability to test his students’ fitness and therefore did not perceive a need to engage with any HRE-CPD. HRE, however, encompasses much more than fitness testing (Harris, 2000; Harris and Fox, 2003) and HRE-CPD is one of the few processes through which teachers’ often narrow and ideological understandings of HRE can be challenged and broadened to align more closely with the curriculum definition presented at the outset (Alfrey, Cale and Webb, 2012). Yet, as the HRE Conundrum (Figure 1) suggests, teachers’ justificatory ideologies and often narrow conceptualizations of HRE are rarely challenged throughout their complex process of professionalization, either via CPD or through more informal means.
In comparison to the other teachers, one teacher (Sophie, 0-3 years of experience) discussed her views and experiences in ways which suggested she had a relatively broad HRE biography. In addition, her philosophies, social interdependencies (e.g. with her old manager) and practices were not as heavily circumscribed by sporting ideologies. She stated that “After my boss forced me to deliver classes I learned I actually loved it and so I brought that into school with Fit ball and Boxercise lessons.” Linking to the discussion earlier on the privileging of sport within Physical Education, Sophie added that “We do all sports, that stuff is easy. It’s all we did at uni”.

If we consider the definition of HRE provided in the introduction, Sophie had adopted a relatively broad approach to the area in comparison to the other teachers. Her repertoire included ‘a range of sport, dance (e.g. Pump it Up routines) and exercise (e.g. Boxercise) experiences including individualised lifetime activities (e.g. Fit Ball)’ (Cale and Harris, 2009a, p.141). Indeed, Sophie’s HRE biography, her interdependencies with others and the ideologies which informed her pedagogies seem to have allowed her to look beyond sport and traditional fitness activities. In a similar way, her biography also appears to have been influential in terms of her openness to engaging with HRE-CPD (Alfrey, Cale and Webb, 2012).

As we know, sporting, individualised and performative ways of ‘seeing’ and ‘doing’ Physical Education have been consistently privileged. The findings suggest that this has contributed to the marginalization of HRE (i.e. learning in and through a range of non-competitive, inclusive physical activities) in this context.

“I’m winging it”: The marginalisation of HRE

Within the education figuration the perceived marginalised status of teaching, Physical Education, and HRE was found to be a common theme throughout this research. With regard to teacher status, most of the teachers (79%) felt that they were perceived by the general public as being of lower
status than other professionals of a comparable pay-scale. Furthermore, nearly two-thirds (64%) felt that Physical Education teachers were perceived as being of lower status than teachers of other subjects. These findings support literature that has highlighted the contested status of both the teaching profession and of Physical Education (Evans and Penney, 1998; Hoyle, 2001; Johns, 2005; Webb, 2006). According to some, the renewed interest in Physical Educations role in obesity prevention (Gard, 2011) has arguably revived the ‘flagging’ profession (Johns, 2005, p.70) by proving its legitimacy and relevance as an area of the curriculum. Indeed, given the moral panic over obesity (Gard, 2011; Webb and Quennerstedt, 2010), it may be reasonable to assume that Physical Education and particularly HRE would be regarded as important areas of the curriculum. The present findings, however, concur with other research which suggests that in practice HRE is still afforded less status than other areas of Physical Education, namely sport and competitive team games (Harris, 1997, 2005; O’Connor, Alfrey and Payne, 2011). For example, some of the teachers stated that:

I have to say that an awful lot of our HRE I’m winging it or I’m going on what I’ve learnt along the way, by chance, rather than ever been given it. (Frances, 16-30 years of experience)

‘HRE is quite a versatile lesson…and it’s an easy lesson to deliver more to the point, ha ha, ad hoc.’ (Toni, 8-15 years of experience).

The approaches to HRE described by these teachers are concerning and reflect the marginalised status of the area. Whilst the existence of a planned HRE programme is not necessarily indicative of effective HRE, a progressive and coherent plan with clear and relevant links to curricula is more likely to contribute to an educationally sound HRE programme. Tertiary education is a context within which teachers should acquire and develop the knowledge, skills and understandings necessary to plan and teach a broad and balanced range of units of work. The following section focuses the teachers’ experiences of HRE during tertiary education (inclusive of university and Initial Teacher Education).
“Warm-ups, cool-downs and heart-rates”: HRE and Tertiary Education

The findings presented at the start of the discussion suggested that the teachers’ experiences of HRE at tertiary level focused predominantly, if not solely, on “how to teach warm-ups and cool-downs and about heart-rates” (i.e. sport and fitness). The privileging of sport in schools is well documented. Adding to this, various authors have suggested that some Physical Education teachers’ preoccupation with sport and fitness may be partly a consequence of the prescriptive and scientific focus of the Physical Education and Sport Science degree programmes from which they typically graduate (Cale and Harris, 2009a; Colquhoun, 1994; Harris, 2010). Further, McNamee (2005) has questioned whether the scientific focus within Physical Education degree programmes, which appear to reproduce and reinforce sporting ideologies, can promote effective teaching and learning in other aspects of Physical Education. With specific reference to HRE, both Harris (2005) in the United Kingdom, and Bulger, Mohr, Carson and Wiegand (2001) in United States, have found that tertiary education can often serve to limit as opposed to extend prospective teachers’ knowledge, experiences and expressions of HRE.

As reported earlier, the findings from the present study revealed that a large majority of the teachers (73%) did not feel adequately prepared to teach HRE. It is therefore claimed that this inadequate preparation contributed to the narrow focus that many of the teachers held of the area. The constraints and time pressures upon initial teacher educators are acknowledged, and the findings confirm the concerns of Fox and Harris (2003) who suggest that there are often limited opportunities for pre-service teachers to engage with HRE as part of their Physical Education at tertiary level. As the findings presented earlier suggest, HRE did not feature strongly in many teachers’ tertiary education:

*I’ve never had any training (in HRE) or anything like that. There was nothing involved in HRE at uni.* (Nathan, 4-7 years of experience)

A similar issue has been acknowledged in the United States, with Trost (2006, p.184) calling for teacher training programmes to ‘bring a legitimate public health perspective to their students’.
Whilst Physical Education teachers cannot be held responsible for achieving the aims of public health policy, a greater focus on developing teachers’ understanding of health and its relationship with physical education and physical activity is essential.

Returning to the UK context, Fox, Cooper and McKenna (2004) also identify the nature of Physical Education at the tertiary level as problematic. They explain that the current education of new teachers consists mainly of working in schools under the supervision of experienced teachers. They argue that this system ‘restricts exposure to changes in educational thinking and techniques and is likely to perpetuate existing methods and values, as well as inhibit innovative approaches’ (Fox et al., 2004, p.351). The findings suggest that if innovative methods of teacher training do exist in this context they are not necessarily impacting upon Physical Education teachers’ practices because their largely unchallenged philosophies are often tied to the past (Curtner-Smith, 1999; Keay, 2005a; Green, 2003). According to Fox et al. (2004, p.351), although ‘learning through doing’ allows for an easier transition into qualified teaching, ‘there is a need to address how to optimise the capacity to generate new physical activity promotion ideas in time-pressed department offices’ which are more-often-than-not inclined to maintain the status quo. Whilst any attempt to broaden and deepen the focus of HRE would be valuable, we would add to the above suggestion that in addition to aiding teachers to develop ‘physical activity promotion ideas’ (Fox et al., 2004) it is important that their tertiary education helps them articulate an educational rationale which underpins them. Further research into the education figuration and the HRE experiences of prospective teachers as part of their tertiary education is evidently needed.

As we know from the discussion thus far, Physical Education teachers’ engagement with HRE at school, during tertiary study and as part of their CPD is often very limited. What the next section discusses, therefore, responds to the following question: where they are acquiring the knowledge they feel they need to teach HRE?

“In terms of HRE I wouldn’t say I’ve really learnt”: Teachers’ HRE Knowledge
Although it is acknowledged that ‘teacher knowledge can never be absolute’ (Rossi and Cassidy, 1999, p.195), the narrow focus of HRE within Physical Education (Cale, 2000a, 2000b) has in the past been partly attributed to limited teacher biographies and knowledge (Castelli and Williams, 2007). The findings from the present study raise some serious questions about the nature and acquisition of Physical Education teachers’ HRE knowledge over time. The interviews provided an opportunity to understand the Physical Education teachers’ HRE biographies and the contexts within which their knowledge of HRE had developed. The teachers’ HRE knowledge was not tested, but rather the teachers were asked: ‘Where and when do you feel that you acquired the knowledge to teach HRE?’ Similar to the findings of O’Sullivan (2005), most of the responses suggested that the teachers relied on knowledge that they had acquired through ‘life experiences’ as opposed to through more formal experiences such as CPD. For example, responses from the teachers included:

A lot of my HRE knowledge comes from personal interest - magazines, websites, DVDs etc.’ (Philip, 30+ years of experience)

In terms of HRE I wouldn’t say I’ve really learnt, it’s gone on my experience of training and coaching...When I was playing sport as a participant, a lot of the things we did were related to HRE so I’ve had experience of doing it myself. (Stuart, 4-7 years of experience)

Because I worked in the health and fitness industry for six years before I trained to be a teacher, I was put through so many different courses. I feel that has put me in good stead to deliver perhaps stuff that I shouldn’t be delivering if I’m honest. For example, I haven’t got an exercise to music qualification but I’ll happily take aerobics. (Toni, 8-15 years of experience)

These quotations suggest that the teachers were relying on experiences and knowledge gained outside of their professional context and the education figuration. Referring to Philip’s quotation above, although magazines, websites and DVDs can provide useful information, they may not always be wholly accurate, reliable and appropriate for the school context. Similarly, whilst we recognize the value of knowledge gained through life experience, the lack of standardization can lead to a lack of consensus and ad hoc practices which are not necessarily in line with curricula or desired learning outcomes (Harris, 2000).
Harris (1997) argues that contributing to the lack of consensus surrounding HRE is teachers’ seemingly limited engagement with HRE in a professional context (i.e. HRE-CPD). Drawing upon the work of Elias (1978) who views knowledge-production as a consequence of social interdependencies, this lack of consensus could be explained in terms of the teachers’ knowledge being developed through multiple interdependencies, some of which are beyond the education figuration and thus are not in line with a specific curriculum or aim.

Stuart, quoted above, claimed that he learnt most about HRE from his ‘experience of training for and coaching rugby’. With respect to this, it should be noted that children are not miniature adults (Garrett and Wrench, 2008; Hopple and Graham, 1995; Rice, 2007) and the sport-related activities that Stuart enjoyed as an adult may not represent the kinds of experiences that would be appropriate for young people, or that they would necessarily enjoy and wish to pursue.

The findings reinforce that, whilst many of the teachers seemed to be confident in their ability to teach HRE, many had not had the opportunity to gain the specific and necessary knowledge required to do so. This supports the work of Castelli and Williams (2007) who found that whilst Physical Education teachers were very confident about their HRE knowledge, when tested on it they did not meet the standard of achievement expected of a ninth-grade student (14-15 years of age). In practical terms, this raises questions about whether Physical Education teachers are acquiring the content and pedagogical content knowledge (Shulman, 1986; 1987) they need to teach HRE and in the way that curricula define. Indeed, it would be logical to assume that any limitations in the Physical Education teachers’ HRE knowledge are likely to be linked to their interdependencies with others in the education figuration, their lack of prior engagement with HRE and HRE-CPD, and the ideologies and cultures which they have been exposed to over time. The following section explores the cultures of performative which appear to pervade teaching and physical education.

“It’s not always possible to do everything”: HRE and a Cultures of Performativity
Despite the Physical Education teachers’ limited engagement in HRE-CPD, the findings revealed that most engaged with other forms of CPD. This tells us that the limiting factor maybe more the nature of HRE than CPD. In the main though, the focus of the teachers’ CPD was on immediate, tangible goals such as sporting achievements and the teaching of examinable Physical Education. When asked what they needed and what guidance or resources they had sought to support their HRE teaching, most teachers had little to say but some stated that:

“Time. I just don’t have time. The kids want you to do one thing, the parents another, the head of department wants the teams doing well and the head of school wants good exam results. It’s not always possible to do everything well.” (Frances, 16-30 years of experience)

The only thing I use is the OCR (examination) books and all the fitness tests and what sports they are used for. (Ethan, male, 8-15 years of experience)

We’ve got a couple of CPD packages for sport-related fitness but that’s mainly for exams and it’s mainly geared towards answering exam questions and stuff like that. (Philip, male, 30+ years of experience)

Limited engagement with HRE-CPD was arguably an unintended consequence of the Physical Education teachers’ interdependencies with others in the education figuration, and the subsequent pressures upon them to meet academic (such as exam attainment), professional (such as coaching awards) and student sports performance-related targets. As Webb and Quennerstedt (2010) highlight, such pressures are linked to a culture of performativity which to a certain extent serves to regulate Physical Education teachers’ behaviour through presenting them with a range of performance targets. Further, given the constantly changing landscape in education and the numerous initiatives and policies with which teachers are faced, teachers appear to be perceiving other professional needs as more pressing. For example, some of the developments in the UK in recent years which teachers have been faced with include the new Secondary Curriculum (Qualifications and Curriculum Authority, 2007), the Every Child Matters policy (Department for Children, Schools and Families, 2004), and more recently the Wolf Report (Department of Education, 2011). Already time-pressed teachers are expected to not only be aware of such policies
and initiatives, but to align their teaching and ‘performance’ accordingly. This represents yet another factor constraining their engagement with HRE-CPD.

**Concluding Comments**

This paper has provided a theoretically informed explanation as to why Secondary Physical Education teachers’ engagement with HRE and HRE-CPD is often limited. Figurational sociology was used as a lens through which to explore and discuss the social processes which appear to be influencing Physical Education teachers’ engagement with HRE and HRE-CPD, and this led to some interesting findings and further questions. The majority of the teachers who participated in this research felt that their tertiary education had failed to adequately prepare them to teach HRE. In response to such findings we argued that teachers’ philosophies – an amalgamation of the figurations of which they are a part, their biographies, and prevailing ideologies - have constrained their engagement with HRE and HRE-CPD over time. If it is accepted that Physical Education teachers can, will and should positively influence young people’s health, then their limited engagement with health-related physical education is problematic. We argue that informed, strategic and long-term action which addresses the ‘HRE Conundrum’, and which transcends all levels of the education figuration is needed. The intention is that this action will encourage all Physical Educational professionals within the education figuration to critique their practices and philosophies, and challenge the status quo as it pertains to their subject generally and HRE or health-related physical education in particular.

**Acknowledgements**

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**References**


Gard, M. (2011) ‘A meditation in which consideration is given to the past and future engagement of social science generally and critical physical education and sports scholarship in particular with various scientific debates, including the so-called ‘obesity epidemic’ and contemporary manifestations of biological determinism’. *Sport, Education and Society* 16(3): 399-412.


Figure 1: The Health Related Exercise Conundrum (Alfrey, Cale and Webb, 2011)

Dominant ideologies and practices are not challenged and status quo prevails.

Teachers feel confident in their ability to teach pupils about sport and/or fitness and do not perceive a need to engage with HRE-CRD.

Teachers begin ITE with philosophies which are heavily circumscribed by sport and/or fitness ideologies.

Teachers have narrow understandings of HRE and tend to teach it through sport and/or fitness related activities (namely fitness testing and circuit training).

The HRE Conundrum
Table 1: Summary of the Research Process

<table>
<thead>
<tr>
<th><strong>Sampling</strong></th>
<th><strong>Participants</strong></th>
<th><strong>Method</strong></th>
<th><strong>Focus</strong></th>
<th><strong>Analysis</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phase One</strong></td>
<td>Random stratified</td>
<td>Secondary Physical Education Teachers (n=124, 60 males and 64 females)</td>
<td>Paper Survey</td>
<td>Demographics; Teachers’ experiences, views and understandings of HRE, PE-CPD and HRE-CPD</td>
</tr>
<tr>
<td><strong>Phase Two</strong></td>
<td>Purposive</td>
<td>Secondary Physical Education Teachers (n=12, 6 males and 6 females)</td>
<td>Interviews</td>
<td>Teachers’ experiences, views and understandings of HRE and HRE-CPD</td>
</tr>
</tbody>
</table>
In line with a figurational approach, the term ‘HRE biography’ is used here to refer to the socio-historical context within which Physical Education teachers have experienced and engaged with HRE and HRE-CPD over time.

OCR (Oxford Cambridge and RSA Examinations) is the main UK awarding body, providing qualifications that engage learners of all ages at school, college, in work or through part-time learning programmes.

Specialist Colleges are one of the nine strands of the Physical Education and Sport Strategy for Young People (PESSYP) (formerly known as the Physical Education, School Sport and Club Links [PESSCL] strategy) was launched in October 2002 and was supported by a government investment of £978 million between 2003-04 and 2007-08.

Table 2: Phase two sample

<table>
<thead>
<tr>
<th>Name (pseudonym)</th>
<th>Gender</th>
<th>Experience Category (years)</th>
<th>Type of School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claire</td>
<td>Female</td>
<td>30+</td>
<td>Secondary</td>
</tr>
<tr>
<td>Philip</td>
<td>Male</td>
<td>30+</td>
<td>Secondary School for Boys</td>
</tr>
<tr>
<td>Frances</td>
<td>Female</td>
<td>16-30</td>
<td>College</td>
</tr>
<tr>
<td>Toni</td>
<td>Female</td>
<td>8-15</td>
<td>Secondary School</td>
</tr>
<tr>
<td>Ethan</td>
<td>Male</td>
<td>8-15</td>
<td>Secondary School</td>
</tr>
<tr>
<td>Fred</td>
<td>Male</td>
<td>8-15</td>
<td>Secondary School</td>
</tr>
<tr>
<td>Joanne</td>
<td>Female</td>
<td>4-7</td>
<td>Secondary School</td>
</tr>
<tr>
<td>Nathan</td>
<td>Male</td>
<td>4-7</td>
<td>Independent Co-educational</td>
</tr>
<tr>
<td>Sarah</td>
<td>Female</td>
<td>4-7</td>
<td>Secondary School</td>
</tr>
<tr>
<td>Stuart</td>
<td>Male</td>
<td>4-7</td>
<td>Specialist Sports College^III^</td>
</tr>
<tr>
<td>Sophie</td>
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</tr>
<tr>
<td>Thomas</td>
<td>Male</td>
<td>0-3</td>
<td>Secondary School</td>
</tr>
</tbody>
</table>

^I^ In line with a figurational approach, the term ‘HRE biography’ is used here to refer to the socio-historical context within which Physical Education teachers have experienced and engaged with HRE and HRE-CPD over time.

^ii^ OCR (Oxford Cambridge and RSA Examinations) is the main UK awarding body, providing qualifications that engage learners of all ages at school, college, in work or through part-time learning programmes.

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