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1 Primary teachers as physical education curriculum change agents

2 Abstract

3

4 There has been some exploration of the conceptualisation of teachers as change agents
5 within educational change literature. While this body of work does consider how
6 teachers understand, harness and influence the process of curriculum change, within
7 the policy rhetoric and educational change literature there is limited reference made to
8 how the change agent role is translated into practice. To illustrate the complex nature
9 of the change process this paper explores the experiences of generalist primary
10 teachers at the 'chalk face' as they initiate physical education curriculum change
11 within their school contexts. This paper reports on the findings of a study
12 investigating how five Scottish primary teachers with a postgraduate qualification in
13 primary physical education construed and took forward curriculum change. A
14 qualitative and interpretivist approach to the research was taken to analyse how the
15 knowledge and skills the teachers gained from the professional development they had
16 undertaken contributed to their agency to initiate curriculum change within their
17 school contexts. Drawing on the work of Fullan, the concept of change agency is
18 used to analyse the experiences of the individual teachers as they exercised their
19 agency to enact curriculum change. The paper concludes by reflecting on the findings
20 of the study to suggest factors that may support and constrain teachers acting as
21 change agents.

22

23 Keywords

24 Change agent, Curriculum change, Primary physical education, Professional
25 development, Teachers, Teacher agency

26

27 Introduction

28 The introduction of a new national curriculum in Scotland, Curriculum for
29 Excellence, has created a policy rhetoric assigning the responsibility for interpreting and
30 developing the curriculum to individual schools and teachers.

31 *Curriculum for Excellence* allows for both professional autonomy and responsibility
32 when planning and delivering the curriculum..... The framework provides
33 flexibility....Such flexibility will result in a more varied pattern of curriculum
34 structures to reflect local needs and circumstances. (The Scottish Government, 2008:
35 11)

1 Scotland is not alone in positioning teachers in this way; Priestley (2010) outlines how, over
2 the past decade, curriculum change has taken a similar stance across the Western world.
3 Furthermore, a tension has become evident between prescriptive, centrally driven curriculum
4 reform where teachers are positioned as recipients and deliverers of the curriculum, and
5 rhetoric encouraging teachers to interpret and assemble these guidelines into a curriculum
6 programme that takes account of local contexts (Kirk and Macdonald, 2001; Priestley, 2011;
7 Gray, Mulholland and MacLean, 2012).

8 The shift within policy rhetoric to position teachers as agents of change developing
9 the curriculum is problematic; particularly as the continuous barrage of centrally driven
10 reform foisted on teachers over the past two decades has resulted in eroding the professional
11 autonomy of the teaching profession, arguably creating a culture of compliance (Hargreaves
12 and Goodson, 2006; Harris, 2011). There has been some exploration of the conceptualisation
13 of teachers as change agents within education literature (see Fullan, 1993a; Kirk and
14 Macdonald, 2001; Chen, 2005; Ertmer and Ottenbreit-Leftwich, 2010; Priestley, 2011).
15 While this body of work does consider how teachers understand, harness and influence the
16 process of curriculum change, there is limited reference made as to how the change agent role
17 is translated into practice. Priestley, Edwards, Priestley and Miller. (2012) assert that: ‘in
18 order to understand the dynamic process through which change and continuity occur in
19 educational settings’ (p. 193) further research and theorising into the concept of teacher
20 agency is required. Correspondingly, this paper reports on a study which investigated how
21 individual teachers construed and took forward curriculum change within their school
22 contexts. In this paper Fullan’s (1993a) work on change agency is used as a theoretical lens
23 to understand how individual teachers took forward change.

24

1 **Individual teachers and change**

2 Viewing change as a process rather than an event, commonplace in modern society,
3 Fullan (1993b) proposes that: ‘educators need the tools to engage in change productively’ (p.
4 2). The main ‘tools’ Fullan (1993a) identifies as essential for supporting teachers to build
5 greater change capacity are ‘moral purpose’ and ‘change agency’ (p. 8). Concomitantly,
6 Fullan (2003) proposes that in the twenty first century teachers also require ‘informed
7 professional judgement’ to negotiate the complex process of educational change (p. 5).
8 Informed professional judgement involves teachers developing knowledge and understanding
9 of curriculum and pedagogical innovations, and the education system so that they can apply
10 their creative energies to take ownership of the change process.

11 Fullan suggests that central to teachers being able to harness the change process is
12 moral purpose - wanting to make a difference. Moral purpose keeps the teacher closely
13 aligned to the needs of children and has the potential to lead teachers to engage in change
14 agency as they seek to bring about improvements in teaching and learning (Fullan,
15 1993a&b). As a change agent the individual teacher engages in a learning process that
16 encompasses four core capacities: personal vision building, inquiry, mastery and
17 collaboration (Fullan, 1993a&b). Complementary to individual change agency, Fullan
18 (1993a) recognises that institutional change at the school and system levels is also required,
19 asserting that successful change requires both top-down (at the government, local authority
20 level) and bottom-up (at the teacher, school level) strategies.

21 In the Change Forces trilogy (Fullan, 1993, 1999 and 2003) advice is offered on how
22 teachers can develop the capacity to assert their professional voice and adopt a more
23 proactive response to managing the forces of change. However, this commentary lacks
24 detailed examples of teachers’ thoughts on, and experiences of initiating change. The lack of

1 detailed examples of bottom-up change in this work raises questions about how teachers
2 develop and exercise their agency within schools to influence curriculum change. In an
3 attempt to address this gap, the study which this paper reports on used the interlinked
4 concepts of informed professional judgment, moral purpose and change agency to analyse
5 the experiences of individual teachers as they initiated curriculum change in physical
6 education within their school contexts.

7 **Contextualising the study – primary physical education**

8 Primary physical education provided the context within which the teachers involved
9 in the study instigated curriculum change. Nationally and internationally concerns have been
10 expressed about the preparedness of primary teachers to teach physical education and
11 concurrently, the quality of learning experiences for children (e.g. Her Majesty's Inspectorate
12 of Education (HMIE), 2001; Hardman and Marshall, 2001). Throughout the literature it is
13 evident that there are a number of interrelated factors inhibiting primary teachers from
14 delivering quality physical education programmes. These factors are both teacher-related, for
15 example, teachers' perceptions of and confidence to teach physical education, and
16 institutional factors outside of teachers' control such as provision of physical education
17 within initial teacher education and professional development, time within the curriculum and
18 resources (DeCorby and Halas 2005; Morgan and Hansen, 2007 and 2008a). Taken together,
19 these factors can be perceived as barriers to teachers engaging with physical education and
20 can subsequently be seen to impact adversely on the quality of physical education delivered
21 in primary schools.

22 In an attempt to address the status of physical education and the quality of learning
23 experiences within schools, the past two decades have seen a growing literature emerging
24 critiquing the dominance of performative sport and health agendas within physical education

1 (Penney and Chandler, 2000; Tinning and Glasby, 2002; Penney and Jess, 2004; Wright,
2 2004; Evans, 2013), coupled with literature promoting the educational value of physical
3 education (Bailey et al., 2009; Thorburn, Jess and Atencio, 2011; Kirk, 2010; Griggs and
4 Ward, 2012). Within this literature the dominance of the multi-activity block approach to the
5 curriculum has been questioned, particularly regarding the messages about physical education
6 and physical activity this approach re-produces (Penney and Chandler, 2000; Kirk, 2004;
7 Bailey et al., 2009; Griggs and Ward, 2012; Penney, 2013).

8 Within a Scottish context, attempts to address the preparedness of teachers and the quality
9 of primary physical education learning experiences for children have been aided by three key
10 policy developments: HMIE report (2001), Physical Activity Strategy (Scottish Executive,
11 2003) and The Review Group on Physical Education (Scottish Executive, 2004). A number
12 of significant recommendations emerged from these reports, such as the repositioning of
13 physical education within the curriculum, moving it from the Expressive Arts into the core
14 area of Health and Wellbeing and mandating that all children should receive two hours of
15 physical education each week throughout their primary and secondary schooling.
16 Additionally, another key recommendation, particularly significant to this paper, was
17 investment in physical education professional development aimed specifically at primary
18 teachers. The Scottish Government attended to this recommendation by funding postgraduate
19 qualifications in primary physical education developed by the Universities of Glasgow and
20 Edinburgh. These postgraduate qualifications offered the first in-depth, accredited
21 professional development on physical education specifically for primary teachers within
22 Scotland. All of the participant teachers involved in the study reported on in this paper were
23 graduates of the Postgraduate Certificate in 3-14 physical education (PgCert), a two year part-
24 time course devised by the University of Edinburgh.

1 **The Professional Development**

2 The PgCert differed from other professional development in a number of ways (see; Jess
3 and Campbell, 2012; Carse, 2013; Thorburn, Carse, Jess and Atencio., 2011). Firstly, the
4 content and structure of the PgCert enabled links to be made between theory and practice,
5 which is recognised as playing a central role in the effectiveness of professional development
6 (Fraser, Kennedy, Reid, Mckinney, 2007). The PgCert comprised of three modules delivered
7 mainly through after school and weekend workshops and seminars:

- 8 1. 3-14 Physical Education: Setting the Context
- 9 2. The Early Years Physical Education Curriculum (ages 3-8)
- 10 3. The Upper Primary / Early Secondary Physical Education Curriculum (ages 9-14)

11 During and after each module teachers had time to apply what they had learned within their
12 school contexts through tasks and the culminating assignments. Secondly, in contrast to most
13 physical education professional development, which tends to focus on the practical nature of
14 the subject, the first module of the PgCert focussed on theory, policy and physical education
15 research to set the context for the subsequent practical modules.

16 Finally, rather than providing lesson plans for teachers to follow, synonymous with the
17 ineffectiveness of professional development, teachers were encouraged to reflect on their own
18 values, attitudes, beliefs and context to develop a physical education curriculum to meet the
19 needs of the learners they were working with (Thorburn et al., 2011). To extend and
20 challenge the multi-activity block curriculum model the teachers were largely used to
21 working with, the PgCert supported teachers to critique this model and introduced them to,
22 through practical experience and literature, alternative physical education curriculum and
23 pedagogical approaches such as *Sport Education* (see Siedentop, 1994), *Teaching Games for*

1 *Understanding* (see Bunker and Thorpe, 1982; Kirk and MacPhail, 2002) and *Basic Moves*
2 (see Jess, Dewar and Fraser, 2004).

3 **Research design**

4 The study reported on in this paper involved working with five primary teachers over
5 an extended period of time - an academic year, during 2010 and 2011. A qualitative and
6 interpretivist approach to the research was taken, with the main aim of analysing how
7 teachers engaged with long term professional development in primary physical education and
8 how they put into practice knowledge and skills they had developed. The study also sought
9 to explore the concept of educational change, attempting to understand the process of change
10 from the teachers' perspective, viewing events and the social world through their eyes
11 (Bryman, 2008).

12 Following ethical approval from the University of Edinburgh, the study employed a
13 deliberate approach to sampling (Silverman, 2010), purposively selecting PgCert primary
14 teachers because they provided an opportunity to study the relationship between professional
15 development and educational change. The main criterion for selection of these participant
16 teachers was that they had responded positively to the course, this meant they were known by
17 the course tutors to be applying knowledge and skills gained from the course within their
18 school contexts.¹ Teachers responding positively to the course were viewed as likely to
19 'produce the most valuable data' (Denscombe, 2007: 17) because they best represented the
20 research topic (Morse et al., 2002) - the relationship between professional development and
21 educational change. This deliberate approach to sampling fit with the research methods and

¹ Many of the teachers who had completed the course remained in contact with the course tutors to inform them of their work in physical education and ask for advice. Accordingly, I consulted the course leaders to identify teachers that may have been interested in being involved with my study.

1 the practicalities of conducting a small scale research study (Denscombe, 2007; Newby,
2 2010).

3 All of the participant teachers involved in the study (pseudonyms: Max, Jackson,
4 Lara, Imogen and Geoff) completed the PgCert between 2008 and 2009, had been teaching
5 for more than ten years and taught in large schools with between 300 and 400 pupils. Imogen,
6 Max and Jackson were employed in city schools while Geoff and Lara taught in small town
7 schools. When the participant teachers started the PgCert they were all employed on a full-
8 time basis within their schools as generalist class teachers. However, as a result of their
9 engagement with the PgCert, at the time of the research all of the teachers had additional
10 responsibilities for teaching physical education. Max and Jackson taught physical education
11 full-time within their school contexts, while Imogen, Lara and Geoff divided their teaching
12 time between their own class and teaching physical education to other classes in their
13 schools.

14 **Research methods**

15 Reflecting the interpretive nature of the research, both semi-structured and
16 unstructured interviews, along with observations were utilised to allow interaction between
17 the researcher and participant teachers. The timetable for the research was flexible so that the
18 gathering of data did not impinge on the teachers' heavy workloads and timetables. The three
19 semi-structured interviews were conducted across the academic year. The first interview, at
20 the beginning of the fieldwork (around July/August) attempted to establish the teachers'
21 physical education backgrounds and their 'typical' pedagogical practices before commencing
22 the PgCert. Whilst acknowledging the complexities of asking the teachers to recall practice
23 they were no longer engaged in, this was deemed a valuable line of enquiry to initiate the

1 research process as it enabled me, as the researcher, to establish the back story of the teachers
2 and build a rapport with them (Bogdan and Biklen, 1982). Following on from the first round
3 of interviews, the second interview (around September/October) concentrated on the
4 teachers' practice after completing the PgCert. The final interview, towards the end of the
5 fieldwork (around March/April), provided the opportunity to follow up on themes emerging
6 from the previous interviews, clarify physical education terminology used by the teachers and
7 explore the concept of change.

8 Complementary to the semi-structured interviews, three unstructured interviews were
9 conducted with the teachers. The semi-structured and unstructured interviews lasted for
10 around one hour, were digitally recorded and transcribed in full. The unstructured interviews
11 were not guided by an interview schedule (Cohen, Manion and Morrison, 2007), and were
12 called planning conversations because the main intention behind them was to encourage the
13 teachers to talk openly about their physical education planning, teaching and evaluations.
14 The planning conversations were conducted on three occasions within the academic year, in
15 August, January and April which corresponded with the teachers' planning cycles. Although
16 the planning conversations were not entirely spontaneous, as they were arranged in advance
17 with the participant teachers, their tone was conversational (Punch, 2009). Rich data was
18 generated by the planning conversations, providing an insight into the teachers' thought
19 processes regarding how and what they taught. The planning conversations complemented
20 the semi-structured interviews and related to the observations made of physical education
21 lessons.

22 Drawing on a non-directive approach, the observations conducted were unstructured,
23 but focussed and recorded in handwritten fieldnotes before being typed up (Freeman, 1982).
24 The observations concentrated on the teacher and how they interacted with: the tasks they had

1 set for lessons, the children, and the physical education learning environment. During the
2 observations the role of the researcher was not to judge and evaluate, but to clarify and
3 understand. In scheduling observations I had to be flexible to reflect the teachers' timetables
4 and averaged around six observations for each teacher across the academic year. The data
5 generated through the observations proved valuable in initiating discussion in both the semi-
6 structured interviews and planning conversations.²

7 Reflecting on the research design I recognise the potential for bias because of the
8 purposive sampling and the possibility that this would lead the participant teachers to respond
9 in ways they thought was required of them. To address this, strategies were built into the
10 study so that reliability and validity were continually evaluated (Morse *et al.*, 2002). For
11 example, I attempted to maintain an open and enquiring mind throughout the study by
12 reflecting on my own subjectivity (Denscombe, 2007). Additionally, the research methods
13 used within this study reflected: 'an attempt to secure an in-depth understanding of the
14 phenomenon in question, through triangulation' (Denzin and Lincoln, 1998: 4). In this study
15 triangulation involved looking at the phenomenon, the teachers' experiences of professional
16 development and their subsequent engagement in curriculum change, from more than one
17 perspective (Denscombe, 2007; Boeije, 2010). The interviews, observations and planning
18 conversations provided three ways of interpreting the experiences of the teachers; comparing
19 this data revealed that the teachers consistently reiterated their thoughts and experiences
20 which contributed to the verification of their accounts and the validity of the research.

21

² While Geoff was part of the study he was unable to take part in planning conversations and only two observations could be made of his teaching. As this article is largely based on data from the planning conversations and observations no reference is made to Geoff within this paper.

1 **Data analysis**

2 A large amount of textual data was gathered during the fieldwork phase of the study.
3 The interview transcriptions and fieldnotes were analysed drawing on a grounded approach to
4 code the data and identify emergent themes (Charmaz, 2006; Punch, 2009; Boeije, 2010).
5 This iterative process of coding the data involved both induction and deduction. Ideas were
6 formed inductively from the data by making connections between categories and themes:
7 ‘raising them to a higher level of abstraction’ (Punch, 2009: 172). Correspondingly, in a
8 deductive manner the emergent categories and themes were compared with relevant literature
9 for verification (Punch, 2009). In relation to the interview data specifically used within this
10 paper, inductive analysis was first applied to identify emergent themes. The data was then
11 analysed in a deductive way coding it to correspond with Fullan’s (1993a) description of
12 informed professional judgement, moral purpose and change agency with the associated
13 capacities: personal vision; mastery; inquiry, and collaboration. Within the remainder of
14 this paper, I draw on my observations and present excerpts of the interview data to evidence
15 how the participant teachers acted as change agents: devising a personal vision for physical
16 education, developing mastery through inquiry, and seeking out opportunities to increase
17 their knowledge through collaboration with others.

18 **Background to the Teachers**

19 Acknowledging that context and structures work in parallel with individual agent
20 factors, Lawson’s (1983a&b) model of teacher socialisation in physical education was used
21 to analyse the teachers’ physical education background stories and identify the contextual
22 factors that shaped the teachers over time. Lawson defines three interrelated and overlapping
23 phases of socialisation: acculturation, professional socialisation and organisational
24 socialisation. Applying these phases to the teachers’ background stories revealed a wide

1 range of factors influencing their understanding and teaching of physical education, for
2 example, schools, colleagues, outside agencies and education policy (Carse, 2013). At the
3 acculturation phase the teachers were influenced by their past personal experiences of
4 physical education and physical activity. Max and Lara recalled very positive school
5 experiences of physical education, which they had wanted to recreate in their teaching. In
6 contrast, Imogen and Jackson had less positive school experiences, but had enjoyed engaging
7 in physical activity outside of school. Imogen and Jackson spoke of how their school
8 experiences made them want to improve the learning experiences for the children they were
9 working with.

10 Considering the professional socialisation of the teachers, they made scant reference
11 to their experiences of physical education within their initial teacher education, but reflective
12 of much of the literature (see Caldecott, Warburton, and Waring, 2006; Morgan and Hansen,
13 2008b) a consensus did emerge on the lack of time afforded to physical education. It was the
14 organisational phase, mixed with acculturation experiences that appeared to be most
15 influential on the teachers' approach to teaching physical education. In Scotland most
16 primary schools have a visiting physical education specialist teacher; this emerged as being
17 very significant to the teachers' professional learning. Each teacher discussed how, in the
18 early stages of their careers, they had learned about teaching physical education mainly
19 through working with the specialist teacher; this usually involved observing the specialist and
20 then teaching a follow-up lesson. Concurrently, prior to undertaking the PgCert, the teachers
21 described replicating a sport oriented curriculum in their teaching, as Max reflected: 'if I've
22 loved playing sport..and been taught that skills and drills way and that made sense to me...and
23 then if I see somebody else [the PE specialist] doing it perfectly well, why would I question

1 it.’ This quotation demonstrates how the teachers’ experiences of physical education through
2 acculturation and organisational socialisation combined to influence their teaching practice.

3 **Teachers engaged in change agency**

4 Analysing the teachers’ physical education background experiences in relation to the
5 professional development they had undertaken and their response to it suggested that the
6 teachers had initiated change in their practice within their school contexts. The emergent
7 themes arising from the data resonated with Fullan’s (1993a&b) work on change agency,
8 exemplifying the concept of informed professional judgment and the capacities for change:
9 personal vision; mastery; inquiry, and collaboration.

10 *Informed professional judgement and personal vision*

11 The professional development (the PgCert) the teachers engaged with exposed them
12 to ‘external ideas as well as internal ideas, interaction and judgment’ (Fullan, 2003: 7), which
13 contributed to their development of ‘informed professional judgment’. ‘External ideas’
14 around the education system and curriculum and pedagogical approaches emerged from the
15 PgCert; this supported the teachers to revise their thinking around physical education and
16 develop a collective understanding, what Fullan (1993a) describes as a ‘shared vision’. This
17 shared vision then became a resource for the teachers because as they ‘interacted’ with the
18 contexts they were working in the shared vision combined with their ‘internal ideas’ into their
19 personal vision. In contrast to their previous understanding of physical education, which had
20 centred on activities and their teaching, the vision emerging from the PgCert centred on the
21 children and learning (Carse, 2013). The following extracts from Lara and Jackson illustrate
22 that the teachers’ primary concern in their renewed personal vision was motivating,
23 challenging and supporting the children they were working with:

1 The subject areas [within physical education] I have chosen to go through with the
2 children are based on as much as I can [their] choice and past experience. For the
3 children there is still a real drive from them to have a traditional sense of physical
4 education i.e. things like gymnastics and games and sport specific. So I have to bear
5 that in mind and also try to match it with the developmental approach [advocated by
6 the PgCert]. I'm trying to make it [physical education] motivational, inclusive and
7 developmental; I'm trying to fit it into the community so it's relevant to them [the
8 children]...Drawing on knowledge and experience from the children in the delivery
9 too.

10 Similarly Jackson said:

11 It's not just about them [the children] sitting down and listening to me, it's about them
12 contributing during the lessons and feeding off their energy and their ideas, it's not
13 just me spoon-feeding answers. I'm now teasing out more from them, their actual
14 experience...And it's not me, it's obviously part of the teaching, but they're getting it
15 for themselves and they're learning it for themselves. So the key is obviously
16 learning. You want there to be good learning, quality learning.

17 These extracts are indicative of the personal vision articulated by all of the teachers which
18 were reflective in nature, focussed on the educational value of physical education and on
19 children's learning experiences (Thorburn et al., 2011; Carse, 2013).

20 *Mastery and inquiry*

21 In line with Fullan's (1993a) description of mastery and inquiry as essential capacities
22 for successful change the participant teachers were committed to extending and deepening
23 their physical education knowledge and understanding. As the teachers experimented with
24 new ideas in physical education lessons, enacted their personal vision and reflected on their

1 practice they became immersed in a process of continuous learning that was embedded within
2 their everyday work, as Imogen reflected:

3 You get all the information, you accommodate it and then you assimilate it and some
4 of it I'm still assimilating, still working through. So I still pull out stuff from my
5 folders and look through it...and actually the more you do it practically the more it
6 becomes relevant...I think I'm actually a person who learns by doing not just by
7 reading.

8 Much of the curriculum development the teachers initiated centred on modifying the multi-
9 activity block programme they had previously delivered to make it more connected and
10 developmentally appropriate; this involved experimenting with some of the different
11 approaches the PgCert had introduced them to.

12 All of the teachers adapted the curriculum they were delivering in the early years
13 (children aged 5 to 8) to use *Basic Moves* as a framework for exploring fundamental
14 movement skills and the application contexts for these skills. I observed all the teachers
15 deliver *Basic Moves* lessons which all followed a similar framework. After an introductory
16 activity, which was often a game, the children would then explore movement through guided
17 discovery supported by the teacher's questioning. The following extract from my fieldnotes
18 of a *Basic Moves* lesson Imogen lead illustrates this:

19 Imogen asked the children to use the apparatus to go over, under and through. A
20 discussion then takes place with the children on over, under and through which
21 involves the children demonstrating. The children are then asked to go over, under
22 and through with different body parts. Imogen asks the question: *What body parts did*
23 *you use?* The children answer: *feet, side, elbow, hands, tummy, back.*

1 Following on from the taught part of the lesson, the children had the opportunity to work
2 independently to apply the movement they had been learning at stations devised by the
3 teacher. These stations were carefully designed to encourage the children to be adaptable and
4 creative in their movement, whilst also affording the teacher the opportunity to focus their
5 attention at specific stations to work individually with the children. At the end of the lesson
6 the children were often given the opportunity to apply what they had been learning about
7 movement in an application/game context.

8 Although every teacher used this framework, *Basic Moves* was not viewed as a
9 prescriptive programme to be followed, rather, as Max stated it was an ‘ethos’ which was
10 ‘open to interpretation’. The framework provided a structure for lessons and the curriculum,
11 but the teachers decided the content of the lessons based on the context they were working in
12 and the learning needs of the children they were working with. For all the teachers, as
13 Imogen stated, it seemed to provide: ‘scaffolding to support children to access games and
14 physical activity.’

15 Complementary to *Basic Moves* all the teachers drew on a *TgFU* approach, attempting
16 to teach through games and involve children in designing modified games. For example,
17 Lara recalled how: ‘I do make a lot of links across invasion games. I’ll use sometimes the
18 same sort of game or drill across the invasion games so the children can pick up on the links.’
19 Building on her generic teaching of invasion games, Lara followed the interest of one of the
20 upper primary classes (children aged 10 and 11) she was teaching to focus on hockey: ‘I
21 wanted the learning to be about the situated learning aspect of hockey. I wanted them to play
22 the game and develop the skills through the game.’ Accordingly, Lara provided the children
23 with the opportunity to explore the tactics of hockey such as the use of space, by playing
24 modified small-sided (four-a-side) games and full-sided (eleven-a-side) games which were

1 video recorded and then self and peer assessed by the children to compare and contrast the
2 games:

3 They had a whiteboard, it was a tick frequency chart and they had their criteria
4 [negotiated by the children], they had their four-a-side and then eleven-a-side and
5 they had to tick every time they saw a good use of space, and whatever the other
6 criteria were.

7 This example from Lara reflects a common theme that emerged for all the teachers in their
8 approach to teaching games, that they took a more holistic approach. All of the teachers
9 modified games in an attempt to better meet the children's learning needs and they provided
10 opportunities for children to problem solve, exploring the tactics, principles and social aspect
11 of game play as well as developing skills.

12 Lara, Max and Jackson also experimented with *Sport Education* in the physical
13 education curriculum. Jackson spoke of being 'excited' about trying *Sport Education*, he felt
14 that the time and energy he had put into it had 'really paid dividends', but at the same time
15 recognised difficulties in this approach:

16 Running the four leagues and four classes that's probably why I found it tiring and
17 just staying on top of the fixtures and keeping everybody right and working with the
18 duty teams and points and just managing it all. It's enormous, absolutely enormous
19 and I think I probably could have delegated [to the children] more.

20 Similarly, Lara also valued *Sport Education* as an approach and had used it extensively
21 within her physical education curriculum. The response of the children Lara was working
22 with towards *Sport Education* was also positive, affirming her use of this approach:

1 I asked the children [in a written response] what they liked or disliked and learned
2 from doing hockey through a *Sport Education* approach. You can see some of their
3 responses: “It was fair.” “We got to choose our practice sessions.” “We learned to
4 have fun” “We learned how to dribble.” Some of them broke down skills: “we
5 learned how to pass.” So they felt they were getting more out of it: “it was more
6 interesting”, “it was evenly matched”, “us choosing what to do”, “I like doing the
7 different roles”.

8 Contrastingly Max was open in critiquing *Sport Education*: ‘I’m not opposed to *Sport*
9 *Ed* and all the roles... [but] do you want to sit on the side and be the referee, the scorer, the
10 timer and stuff or do you just want to play the game.’ Yet, despite his critique there were
11 elements of *Sport Education* he liked and employed within his teaching. For example, I
12 observed Max using elements of *Sport Education* to explore striking and fielding games, as
13 the following extract from my fieldnotes exemplifies:

14 The children were asked to get into their teams and draw a t-shirt for their team; they
15 had previously made a badge, mascot and hand shake for their team. I noticed a
16 display on the wall that showed the mascots, badges and league table with points.

17 As the teachers enacted their personal vision and attempted to develop mastery they
18 demonstrated a willingness to learn and viewed learning as a continuous and lifelong process;
19 factors regarded as central to teachers developing the capacity to manage change (Hoban,
20 2002; Lasky, 2005).

21 *Connections and collaboration*

22 Implementing change the teachers worked independently and exercised their
23 autonomy, however, as Fullan (1993a) highlights, there is a limit to how much can be learned

1 individually. As the teachers developed confidence in their new physical education
2 knowledge, they sought opportunities to make connections across and beyond the curriculum
3 and for collaboration. Making connections across the curriculum all the teachers discussed
4 how they had attempted to link with other curriculum areas, for example, Max mentioned
5 working with the class teachers in his school to incorporate literacy and numeracy, ‘writing
6 letters to basketball clubs’ and ‘measuring jumps and throws in athletics’. The teachers also
7 spoke of employing their classroom practice into the physical education curriculum, for
8 example, Jackson spoke of using discussion and formative assessment strategies.

9 Making connections beyond the curriculum and with a view to seeking out
10 opportunities for collaboration, the teachers attempted to connect with key stakeholders at a
11 number of levels, community, local authority and school, as the following quotation from
12 Lara exemplifies:

13 Now the majority of my learning is coming from others so the PE (physical
14 education) group, going to the health and wellbeing networking meetings. It is about
15 communities of practice, engaging in dialogue with the Secondary School and just
16 getting to know the environment that you work in more and more.

17 Making connections with colleagues within their school and local authority contexts proved
18 relatively easy for the teachers, particularly as they attempted to promote physical activity
19 and link it with physical education. However, few of these connections developed into
20 collaboration.

21 Struggling to find opportunities for collaboration, it was evident that the teachers felt
22 increasingly isolated within their school contexts. Imogen described being ‘in a void of her
23 own’ within her school, while Lara described feeling frustrated within her school context:

1 'having something and nobody knowing what it was I had'. Similarly, Jackson reflected on
2 his limited opportunity to collaborate with colleagues in his school:

3 Yeah I think anybody will listen to me but generally my feeling is and I think
4 probably their feeling is too, although it's maybe unspoken, is that they've got their
5 stuff to be getting on with, I've got my remit to be getting on with, they don't want
6 my remit and I don't want their remit so we just kind of work in that respect.

7 Seeking out opportunities for collaboration the teachers all expressed wanting a network
8 where they could share their experiences, get advice and meet people in similar situations to
9 themselves.

10 In particular, a desire was articulated to observe other physical education specialist
11 teachers and PgCert graduates teaching, as Max passionately stated:

12 I would love to [observe people in other schools] but it's never going to happen. We
13 had a day [in-service] at X Secondary School and people were talking and they were
14 talking about sort of sharing and monitoring and stuff and I said: "this is a totally
15 ridiculous conversation because it is never going to happen, there's no point in even
16 talking about it." In a primary school [doing] a PE teacher's job, it's not [possible] so
17 we shouldn't talk about it.

18 Within his school context Max grew increasingly frustrated with the limited opportunities to
19 collaborate with other teachers. Max wanted to carry out peer observations, but the structure
20 of the school day, the limited knowledge and interest of colleagues and the solitary nature of
21 teaching physical education negated against his efforts. Despite the value of collaborative
22 approaches to learning, networks and peer observation being advocated within Scottish
23 education policy (Scottish Government, 2011), the experiences of the participant teachers in

1 this study would suggest that engaging in these collaborative activities, within the ‘real’
2 context of the school is ‘easier said than done’.

3 **Discussion**

4 The research reported on in this paper explored how teachers construed and took
5 forward curriculum change following engagement with accredited, long term professional
6 development. The work of Fullan was specifically used to analyse how the individual
7 teachers worked at curriculum change within their school contexts. Through this theoretical
8 lens it is possible to see how the teachers responded to the professional development they had
9 undertaken to develop informed professional judgement, which underpinned their change
10 agency work as they enacted their personal vision and sought to improve their practice and
11 modify the curriculum.

12 Reflecting on the findings of the study factors can be identified which enabled and
13 constrained the teachers’ change efforts. One of the main enabling factors contributing to the
14 teachers’ agency to facilitate change was their engagement with long-term professional
15 development, the PgCert. This professional development was a significant event in the
16 professional lives of the participant teachers; it impacted on their professional socialisation
17 (Lawson, 1983a&b) and motivated them to instigate curriculum change (Carse, 2013). In
18 relation to the teachers’ professional socialisation, the PgCert critiqued the traditional multi-
19 activity block, sport orientated approach to physical education, which had previously
20 dominated their own learning in physical education and their practice as teachers.
21 Contrastingly, the PgCert encouraged the teachers to critically analyse their practice in
22 physical education and introduced them to holistic, social constructivist and more child-
23 centred pedagogical approaches which promoted learning in and through physical education
24 (Thorburn et al., 2011). Furthermore, rather than prescribing a specific programme to follow,

1 the professional development provided by the PgCert challenged the teachers, encouraging
2 them to exercise their agency and utilise their professional autonomy to develop a physical
3 education curriculum grounded within their individual school contexts (Carse, 2013).

4 The teachers were also aided in their change efforts by the juxtaposition of the
5 supportive policy environment, yet still marginal status of physical education within the
6 primary curriculum. Away from the glare of narrow accountability measures, but with policy
7 in place which affirmed their change efforts, the teachers could exercise their agency to plan
8 and deliver a physical education curriculum that met the needs of their learners and took
9 account of their local context. As Lara stated, no one was ‘breathing over the shoulder’ of
10 the participant teachers scrutinising what they were doing which provided time and space to
11 initiate change. Priestley (2007) asserts that: ‘many successful reforms have succeeded
12 because they engendered professional trust and a genuine shift in power to those at the chalk
13 face’ (p. 44). Similarly, the findings from this study suggest that one of the main facilitating
14 factors of the teachers’ change efforts was the professional autonomy they were able to exert
15 within their school contexts which contributed to their ownership of the change process.

16 Despite there being a number of factors supporting the change efforts of the
17 participant teachers, there were also constraining factors. The main factor constraining the
18 change efforts of the teachers was a feeling of isolation, stemming from the issues
19 encountered as they attempted to collaborate with colleagues and other physical education
20 practitioners. At times the teachers were also restrained by the ‘grammar of schooling’ in the
21 form of: timetabling; conventional academic subjects, such as maths and language taking
22 precedence within the curriculum; a focus on accountability measures, and the ‘flat’
23 management structure (Hargreaves and Goodson, 2006; Tyack and Cuban, 1995).
24 Furthermore, the teachers had to overcome the generally ‘traditional’ sport and games

1 perceptions of physical education held by the children and their colleagues. Whilst
2 challenging, these negative factors illuminate the messy nature of the change process at the
3 ‘chalk face’ and the many contextual factors that contribute to the sustainability of change
4 (Fullan, 1993a).

5 **Conclusion**

6 At the beginning of this paper it was intimated that centrally driven reforms have failed
7 to take account of the central role of teachers in the change process, leaving the profession
8 feeling frustrated and marginalised. Contrastingly, the study reported on in this paper
9 provides fine-grained empirical evidence of teachers initiating change, within their school
10 contexts. Following engagement in professional development, the teachers became involved
11 in a process of curriculum change, as they reviewed their practice and modified the
12 curriculum. Interviewing and observing the teachers provided an insight into the links
13 between professional development and curriculum change whilst also illuminating the
14 process of teaching and learning in physical education. Furthermore, analysis of interview
15 and observation data provided an in-depth understanding of the teachers’ thinking and
16 behaviour within their school settings.

17 While the fine-grained data generated by this small scale research provides a detailed
18 picture of teachers’ and their work, I acknowledge that there are a number of limitations in
19 the research. Firstly, because the experiences of individual teachers were investigated in-
20 depth, it was not possible within the scope of the study to explore corresponding factors
21 influencing change at the macro level in the same depth. Secondly, focussing on the
22 teachers’ meant that it was not possible to fully investigate the impact of their change efforts
23 on children’s learning; this is an area which requires further research and would contribute to
24 a gap in the literature on the effectiveness of professional development in relation to the

1 learning of children.. Finally, given the small scale nature of the study, I don't seek to
2 generalise, but hope that the in-depth data generated sheds light on the complex nature of
3 curriculum change and the central role of the teacher in this process.

4 For those charged with developing policy and practice the findings from this paper
5 indicate how, when engendered with professional trust (Priestley, 2007) teachers can exercise
6 their agency to take a lead role in shaping the curriculum (Lasky, 2005). The data generated
7 by this study also suggests various factors that may contribute to teacher agency enabling
8 teachers to view change as a process they are part of rather than a reform foisted upon them,
9 these include:

- 10 • long term professional development;
- 11 • time and space for teachers to become immersed in the change process; reflecting on
12 and then improving their practice through continuous learning, and
- 13 • genuine opportunities for collaboration and professional dialogue where teachers can
14 develop networks, undertake peer observations and engage in collaborative
15 professional learning.

16 These factors are reflective of the literature on educational change which highlights the need
17 for teachers to have ownership and an understanding of change as a process (Fullan,
18 1993a&b; Hoban, 2002; Priestley, 2011). This study intimates that if teachers are to take on
19 the mantle of change agents, opportunities for teachers to examine the complex process of
20 change and their role within this process should be recognised by policy makers and
21 incorporated into professional development and initial teacher education.

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