

***Beat the Game: A Foucauldian Exploration of Coaching Differently in an Elite Rugby
Academy***

Dr Zoë Avner
zoe.avner@northumbria.ac.uk Northumbria University, UK.

Dr Jim Denison
jim.denison@ualberta.ca University of Alberta, Canada.

Dr Luke Jones
l.k.jones@hull.ac.uk University of Hull, UK.

Dr Emma Boocock
emma.boocock@northumbria.ac.uk Northumbria University, UK.

Dr Edward Thomas Hall
edward.hall@northumbria.ac.uk Northumbria University, UK.

Abstract

Problem-based learning along with other game and player-centred approaches have been promoted as valuable alternatives to more traditional, skill-based, directive, and leader-centric pedagogical approaches. However, as research has shown, they are not unproblematic or straightforward to apply. Heeding to calls for more empirical studies of game-centred approaches in coaching contexts, this study explored the impact of a unique problem-based learning (PBL) informed academy-wide coaching approach to athlete learning and development known as *Beat the Game* within a top-level rugby union professional club. Drawing on Michel Foucault's (1977) disciplinary framework, we specifically sought to critically examine *whether, to what extent, and how* a PBL informed academy-wide coaching approach challenges the dominant disciplinary logic of elite sport. Our data, based on observations and semi-structured interviews with three academy coaches and sixteen junior and senior academy players, showed a definitive loosening of disciplinary aspects in both training and game environments accompanied by a shift towards a less leader-centric, linear, and hierarchical understanding of leadership and decision-making. Despite these promising shifts, the application of a PBL-informed coaching approach within this elite development context also presented many challenges, not the least of which resulted from the non-alignment of academy and first team coaching approaches. Our analysis, therefore, indicated the need for more research which focuses on the short-term and long-term impact that such disconnects have on continued progression, performance, physical and mental wellbeing, and job satisfaction and longevity especially given the growing popularity of non-linear pedagogies in youth sporting contexts.

Keywords: Beat the Game, Problem-based learning, rugby union, Foucault, Discipline

Introduction

The purpose of this paper is to explore athletes' experiences of a unique problem-based learning informed Academy-wide coaching approach of an elite rugby union professional club, referred to as *Beat the Game*. Since the head coach introduced the approach eight years ago, players have been encouraged and praised for “beating the game” by demonstrating astute problem-solving intentions and abilities, judiciously reading, exploring, and exploiting the constraints of their training and match environments. Accordingly, the Academy coaches design and adapt training activities, and modify their interactions with players, seeking to generate meaningful challenges that further players' skilled understanding of the sport as they search for novel solutions.

Problem-based learning and guided discovery are key features of game-centred and player-centred pedagogical models and approaches. These models and approaches have been developed and applied both in physical education and to a lesser extent in sport coaching contexts (e.g., Teaching Games for Understanding [TGfU], Game Sense [GS], Problem-based Learning [PBL]; Harvey & Jarrett, 2014; Harvey, Pill, & Almond, 2018). Game-centred pedagogical approaches generally include the manipulation of constraints including playing space, game rules, number of players and positional requirements along with the setting of various game scenarios to the end of developing students' or athletes' cognitive and metacognitive skills (De Souza & Oslin, 2008). While there is some degree of variance amongst game-centred approaches and coaches' understanding(s) and application(s) of what are considered to be key features and central tenets, for example, in the way *guided discovery* is promoted more or less implicitly or explicitly in games, all of these game-centred approaches nonetheless converge in their desire to develop “intelligent performers in a game” (Harvey et al., 2018, p. 168). More precisely, these approaches strive to

develop learners that are not merely skilled technicians but rather critical and flexible problem-solvers, while also connecting with a broader health agenda around reducing the incidence of dropout in sport and promoting athlete wellbeing in elite, developmental and participatory sporting contexts (Kidman, 2005).

Reflecting key tenets of problem-based learning (PBL), Beat the Game is a pedagogical approach which uses realistic, problem-based scenarios, facilitated by a coach, to challenge and develop players' critical thinking and decision-making skills (Jones & Turner, 2006). Importantly, we do not claim that Beat the Game is a *pure* implementation of any formal textbook rendering of PBL or a constraints-led approach to coaching. Moreover, we do not intend to conflate these related but distinctive approaches (Renshaw, Araújo, Button, Chow, Davids, & Moy, 2016). Instead, we recognise that coaching is a highly complex social system of beliefs, structures and practices that is often shaped by personal *practice theories* (Cushion & Partington, 2016), as well as being variously evidence-informed. Indeed, this work responds to Cushion and Partington's (2016) call to engage more critically with the "ideas about coaching held by coaches themselves" (p. 853; e.g., Beat the Game) rather than abstract, detached, and rational conceptualisations of practice.

As one of many approaches that arguably fall under the wider umbrella of game-centred and student or player pedagogical approaches, PBL has received increased positive attention over the last 50 years from researchers across various educational domains including coaching (e.g., Morgan, Jones, Gilbourne, & Llewellyn, 2013), engineering (e.g., Mills & Treagust, 2003), science (e.g., Tandogan & Orhan, 2007), and medicine (e.g., Norman & Schmidt, 2001). Underpinned by social constructivist principles, this body of research has promoted the virtues of PBL in terms of helping students develop the skills to manage uncertainty and to navigate

increasingly complex professional working environments positioning PBL as a more “challenging, motivating and enjoyable approach to education” than more traditional “chalk and talk” pedagogical approaches (Norman & Schmidt, 2001, p. 727). When it comes to the benefits of PBL for athletes, coaching scholars have argued that using problem-based, realistic scenarios, as well as athlete questioning, can positively contribute to athlete development by helping athletes develop critical thinking and analytical skills as well as decision-making, problem solving and self-evaluation skills (Hubbal & Robertson, 2004; Jones & Turner, 2006; Ojala & Thorpe, 2015). For example, Hubbal and Robertson (2004) showed that PBL is an effective pedagogical approach in soccer as it enables athletes to develop the necessary knowledge, skills and abilities to deal with ill-structured problems defined as problems that occur in dynamic and complex real game situations. They showed that PBL was particularly effective in developing and refining athletes’ understanding of principles of attack and defence, movement on and off the ball, set pieces, positional formations and team plays.

Although PBL and other game and player-centred approaches have been promoted as valuable alternatives to more traditional, technique-focussed, directive, and coach-centric practice (Hubbal & Robertson, 2004; Pill, 2012; Pill, 2014; Light & Evans, 2013), they are not unproblematic or straightforward to apply (Cushion, 2013; Jones & Turner, 2006; Light & Evans, 2013). For instance, as Jones and Turner (2006) showed, PBL teaching and coaching approaches can be met with a certain amount of resistance as students and athletes are encouraged to take responsibility for their own inquiry-based learning, which can be quite daunting and problematic for them if they have never been exposed to similar pedagogical or andragogic approaches. It can be even more difficult for elite athletes who have often been exposed to a lifetime of coaching discipline, which seldom encourages athletes to question their coaches’ practices or affords them

the possibility to make meaningful decisions regarding their own training and development (Jones & Denison, 2017).

PBL teaching and coaching approaches clearly require a shift away from traditional understandings of teaching and coaching as a unilateral transmission of knowledge from the teacher or coach to students or athletes as passive recipients of expert knowledge. While this shift can be difficult for learners, who are encouraged to take more responsibility for their learning and development, it can be equally difficult for teachers and coaches who may perceive it as a threat to their authority and expertise (Cushion, 2013; Light & Evans, 2013). Furthermore, even if this is not the case, the transition from more coach-centric, skill-based, and technocratic coaching approaches towards athlete and game-centred coaching approaches is anything but straightforward. Indeed:

knowledge of Game-Centred Approaches (GCA) involves more than simply providing coaches with a ‘toolbox’ of skills [...], it requires a host of knowledge, understanding, practices, strategies, coherent arguments and critical thinking, all of which are conspicuously absent from utilitarian, technocratic and idealised coach education and the rhetoric of coach development. (Cushion, 2013 pp. 70-71)

These cautionary research findings echo the work of Foucauldian coaching scholars who have similarly emphasised the challenges of *coaching differently* within elite sporting contexts (Avner, Markula, & Denison, 2017; Denison, Mills, & Konoval, 2017). By coaching differently, Foucauldian scholars are referring to coaching practices which are underpinned by a change in prevailing assumptions about teaching/coaching and learning, the body and training, the self and relationships, and power and knowledge. For example, Denison and colleagues (2017) questioned the likelihood of athlete-centred and holistic coaching approaches leading to real change within

coaching, if attention is not first and foremost given to “relations of power that subordinate and objectify athletes’ bodies through the regular application of a range of disciplinary techniques and instruments” (p. 772). As such, coaching differently requires more than simply *tinkering* with established practices; rather, it requires an in-depth and ongoing problematization of the ontological and epistemological assumptions which underpin modernist coaching practices and their various unintended consequences. Importantly, these critiques are not meant to imply that change is impossible – far from it – but rather that more research is needed to move beyond mere rhetoric and to understand how new coaching models and approaches, such as Beat the Game, can achieve their aims of developing athletes more holistically as critical and flexible problem-solvers that are actively involved in their own inquiry-based learning and development.

To address this gap in the research and respond to Harvey and Jarrett’s (2014) call for more empirical studies of game-centred approaches, the present research set out to examine whether, to what extent, and *how* a PBL informed academy-wide coaching approach challenged the dominant disciplinary logic of elite development sport (Denison et al., 2017). More specifically, we examined the relationship between academy coaches’ assumptions about player learning and development and their coaching practices. Secondly, we examined the effects of these PBL informed practices on players. And lastly, we examined what factors supported or hindered coaches’ abilities to coach differently – i.e., to coach in a manner that relies less upon the imposition of discipline and is, thus, less likely to produce player and coach docility (Gerdin, Pringle, & Crocket, 2019). In particular, we were interested in the presence and activity of a range of disciplinary techniques and instruments, which have been shown to restrict and limit athletes’ learning and development without coaches necessarily being aware of these effects due to their strong taken-for-granted nature. In what follows, we expand on Michel Foucault’s (1977) concept

of *discipline* which provided the theoretical backdrop for our critical examination of PBL within this top-level rugby union Academy.

Exploring coaching practice through a Foucauldian lens

In *Discipline and Punish: The Birth of the Prison*, Foucault (1977) showed how modern power is exercised through techniques which no longer treat bodies as a whole en masse but rather seek to “work the body retail, individually; exercising upon it a subtle coercion, obtaining holds upon it at the level of the mechanism itself – movements, gestures, attitudes, rapidity: an infinitesimal power over the active body” (Foucault, 1977, p. 137). While disciplinary techniques had long been in effect, for example in monasteries and armies, according to Foucault, major changes in relations of production in the 17th and 18th century enabled a spread of the “disciplines” throughout society as more “general formulas of domination” (Foucault, 1977, p. 137). These techniques, while productive and useful in terms of augmenting the body’s utility, skillfulness, and aptitude, simultaneously diminish the body’s forces by rendering it overly compliant – what Foucault described as a relation of *docility-utility*. Thus, disciplinary power is exercised upon bodies in a way that renders them docile through the regular application of modern disciplinary techniques and instruments which seek to “subject, use, transform and improve” (Foucault, 1977, p.136). In his detailed analysis of disciplinary power, Foucault identified four main techniques which form its basis and the subtle mechanisms of its functioning. The first technique, *the art of distributions*, relates to the distribution of individuals in space according to principles of enclosure, partitioning, and rank. An example of this would be how coaches might choose to separate and/or group their athletes based on their athletic capacities (e.g., from strongest to weakest or from more experienced to less experienced) and allocate them a specific position or space in the pool, on the track, in the gym, or on the pitch based on these player hierarchies. The second technique, *the*

control of activity, relates to the ordering of activity through the timetable which establishes rhythms and cycles of repetition. This technique also seeks to establish the *correct* relation between the gesture and the body and between the body and the object it manipulates. Finally, it promotes the exhaustive use of time, where bodies are continuously and uninterruptedly applied to their exercise. The third technique, *the organisation of geneses*, relates to the sequential, linear and progressive organisation of activities. This technique seeks to promote the continuous augmenting of the body's capacities. An example of this would be coaches' use of periodized planning and of progressions and modifications to ensure their athletes' graduated and continuous improvement. The fourth technique, *the composition of forces*, relates to the careful articulation of bodies as elementary parts in order to "obtain an efficient machine" (Foucault, 1977, p. 164). An example of this would be coaches' careful selection of individual players to compose their teams based on their players' strengths and how well these can be combined to produce an optimal performance (see Denison & Mills, 2014 or Gearity & Mills, 2013). Importantly, these various techniques do not operate in isolation but rather in combination with each other. Furthermore, they combine together to exert power over the individual body through the application of three instruments of disciplinary power: *hierarchical observation, normalising judgment, and the examination* – what Foucault referred to as "the means of correct training" (Foucault, 1977, p. 170). These techniques and instruments enable the spread of disciplinary power as a "hierarchized, continuous and functional surveillance" (Foucault, 1977, p. 176) whose idealised form was manifested in Jeremy Bentham's architectural design of the Panopticon. The Panopticon reflects the *ideal* functioning of disciplinary power as it works "to induce a state of conscious and permanent visibility that assures the automatic functioning of power" (Foucault, 1977, p. 201). As such, the perfection of disciplinary power is reached as its exercise is no longer needed – i.e. when disciplinary power is

so total that individuals discipline themselves thereby becoming the “principles of their own subjection” (Foucault, 1977, p. 203).

This research fits within a growing body of coaching scholarship which has productively drawn upon Foucault’s (1977) disciplinary analysis (e.g., Gearity & Mills, 2013). These Foucauldian coaching studies have not only shown how well the various disciplinary techniques and instruments described above can be mapped onto various elite and elite development coaching contexts, but they have also successfully highlighted the various unintended consequences of their unproblematic application including athlete underperformance and disinvestment (Denison, 2007), challenging retirement experiences and relationships to exercise (Jones & Denison, 2017), eating and body image disorders (McMahon & Penny, 2013), and severe mental health issues (Gerdin et al., 2019). As these studies have highlighted, a disciplinary logic is still highly prevalent and normalised within elite sport, even within many so-called “athlete-centred” coaching contexts (Avner et al., 2017). This is why we were interested in Beat the Game and in understanding to what extent this PBL informed pedagogical model could deliver a coaching context that is indeed radically different to those traditionally observed. Underpinned by Foucault’s (1977) disciplinary analysis, this paper therefore focused on examining Beat the Game coaching practices, the assumptions which underpin these practices, and finally athletes’ experiences of these PBL informed practices.

A Poststructuralist Methodology

This study was guided by a poststructuralist ontology and epistemology. A poststructuralist ontology assumes reality and truth to be multiple, subjective, contextual and tied to the workings of power. However, unlike critical theory, poststructuralist researchers understand power as fluid, relational, and tied to the production of knowledge (Markula & Silk, 2011).

The Research Context

Hassanin and Light (2014) have identified the importance of acknowledging the influence that the sociocultural environment of elite rugby union has upon the beliefs and attitudes of its constituents. We suggest that this extends to those beliefs and attitudes that shape how players respond to any routinized pedagogical models choreographed by coaching staff. Indeed, the sport of rugby union has its own very unique history, and much of its character and persona remains steeped in its historical agenda surrounding the protection of amateur ideals, including the notion that rugby remain consonant with morality, education, and excitement (Collins, 2019). However, as a result of rugby union's eventual acceptance of professionalism and its associated normative and coercive pressures, contemporary rugby contexts are now a complex combination of established socio-historic ideals overlapped by a fierce and competitive professional logic (O'Brien & Slack, 2003). Within this context, coaches in developmental positions often feel distinct tensions associated with a perceived responsibility to preserve amateur ideals (Hassanin, Light, & MacFarlane, 2018), while simultaneously stewarding their wards through an apprenticeship for a profession defined by highly skilled manual labour (Roderick, 2006). It is against this backdrop that our research into an elite British rugby union academy took place.

The rugby union academy we selected to carry out our research has been identified as a leader in the development and implementation of a PBL informed coaching approach by England Rugby. As one coach explained, Beat the Game is about "constantly challenging what the game looks like...challenging the player[s], the coach[es], the game [rules] and the opposition...my way of effective coaching." Similarly, the athletes agreed that Beat the Game is about being challenged by the coaches to solve problems set by the use of constrained games and further prompted by

extensive coach questioning and peer collaboration, which attempt to replicate the chaotic nature of rugby union performance.

Sampling and Participants

Three rugby union coaching staff members and 16 academy Players (15-22 years old) were recruited purposefully (Patton, 2002), based upon their experiences of developing, enacting or receiving Beat the Game coaching, to participate in this study. Informed consent was obtained prior to carrying out the semi-structured interviews with coaches and players (and their parents, where appropriate). Further biographical details relating to these participants are given below:

*****Insert Table 1.0 here*****

*****Insert Table 2.0 here*****

Insider/outsider Perspectives

Our research team was composed of five members, including one researcher who is currently an active coach mentor within our research setting. This presented unique benefits which included privileged access and facilitated rapport building with the academy coaches. Moreover, it enabled us to develop an in-depth and contextualised understanding of our research setting, which we believe was strengthened through the meeting of insider and outsider researcher perspectives and the conversations that ensued (Pavlidis & Fullagar, 2013). However, it also presented unique ethical challenges to be negotiated throughout the research process – mostly related to athlete voice and ensuring that players felt comfortable expressing their thoughts and opinions and sharing their experiences of being coached through a Beat the Game approach. We sought to mitigate these risks through an enhanced awareness and focus on minimising researcher dominance in interviews, reassuring participants on issues of confidentiality, privileging listening

over questioning, using open-ended questioning, and shifting the focus of the conversation if we felt that participants were uncomfortable (Markula & Silk, 2011).

Semi-structured Interviews

The principal investigator carried out an individual semi-structured interview with each member of the coaching staff at the professional team's clubhouse. These lasted between 60 and 90 minutes. Members of the coaching staff were interviewed in order to gain an understanding of their assumptions and practices related to Beat the Game. More specifically, these interviews sought to understand coaches' assumptions about teaching and learning, the body and training, the self and relationships, and power and knowledge. We were particularly interested in understanding to what extent these assumptions reproduced and/or challenged dominant modernist understandings of: coaching as a linear transmission of knowledge from the expert coach to athletes as *resources to be developed*; the body as a *predictable machine* to be trained, improved, and transformed through the regular application of scientific principles of training and recovery; effective training as a linear, mechanistic, and graduated series of exercises; and of athlete progress and development as linear and predictable (see Denison & Avner, 2011).

After parental and player consent was granted, semi-structured interviews with players were carried out at the academy grounds during or outside of practice time. Players were specifically interviewed to gain an understanding of their experiences of being coached through a PBL informed pedagogy and to understand the impact of Beat the Game on player learning and development. Senior academy players were interviewed to understand the longer-term impact of Beat the Game and its transferability to the professional game.

Non-participant Observations

Non-participant observations of training practices were carried out by the same two members of the research team over the course of eight months (April-November 2019) to develop a better understanding of how PBL pedagogy was applied within training practices. Observations were focused on identifying gaps between coaching rhetoric and practices with a particular attention to the presence and activity of the disciplinary techniques and instruments previously outlined. Combining semi-structured interviews with non-participant observations enabled us to produce contextually rich and nuanced data about coaches' understandings and practices related to PBL pedagogy and the impact of these practices on player learning and development. These were used iteratively to inform and further refine both our interview guide and help focus our observations and field notes (Markula & Silk, 2011).

Ethics

Ethical approval for this research study was obtained through the first author's institutional Ethics Board.

Data Transcription and Analysis

The interviews were transcribed verbatim by a commercial transcriptions service, and systematically checked and reviewed by the lead author. These were then analysed through a Foucauldian lens with a focus on developing a better understanding of athletes' experiences of a PBL informed pedagogy within this specific elite development coaching context. We organised our findings around two broad themes, which aligned with our two-fold Foucauldian-driven research aims of:

- 1) Mapping the presence and activity of disciplinary techniques and instruments and evaluating Beat the Game's capacity to deliver an elite development coaching context radically different to those traditionally observed;

- 2) Providing insights into the challenges and (un)intended consequences of attempting to design less disciplinary elite development coaching contexts.

In doing so, we aimed to contribute to a growing conversation and extend recent Foucauldian research (e.g. Konoval, Denison, & Mills, 2019; Kuklick & Gearity, 2019) which has focused on the development of alternative, less disciplinary coaching practices while acknowledging the numerous challenges associated with it.

Results and Discussion

The analysis presented below highlights how coaches thought about and enacted their practice according to Beat the Game principles, as well as how players experienced and perceived this practice. Central to our discussion is how Beat the Game served to disrupt the production of coach and player docility. In the first section, we illustrate how exposure to Beat the Game influenced both coaches' and players' understandings of good coaching in ways that enabled them to problematise more traditional coaching approaches. We focus on how Beat the Game pedagogy developed flexible understandings of meaningful and valued rugby knowledge, skills and movements. In the second section, we explore various challenges and (un)intended consequences associated with Beat the Game. Here, we emphasise the challenge of doing Beat the Game well, and we critically consider how well Beat the Game prepares academy players aspiring to transition into the professional game's dominant disciplinary logic.

The Making of Less Docile Coaches and Players Through Beat the Game

Our semi-structured interviews with coaches and players highlighted a shift in both coaches' and players' understandings of good coaching through their exposure to Beat the Game and its pedagogical principles within the academy. For coaches who joined the academy, it enabled a shift in their perceptions of their role away from that of principal or sole decision-maker:

If a player would have done that himself, so say in the game, would have gone “hold on a minute, winger, you go here, I’m going back there”, I would have struggled. I would have been like: “Mate, I haven’t told you to do that; you’ve done that on your own whim”. Whereas now, if a player did that and then said: “No the reason I did it was because I could get my hands on the ball and then I’ll go and score”, I’d be like “you’re a genius”. It would be celebrated. Whereas before I came here, I would have tried to crush that stuff. (Daniel, academy coach).

As such, coaches emphasised that the central drive behind Beat the Game – to develop thinking players who are able to make their own decisions – had had a strong impact on how they now perceived their coaching roles as “not redundant”, “nor hands-off” (i.e., Renshaw, Davids, Shuttleworth & Chow, 2009), but “much more removed.” Furthermore, coaches’ exposure to Beat the Game spurred them to critically reflect on the problematic effects of their past coaching practices on players.

I guess as a player coming out of the game, I would have had an ideology of the game around how it should be played and then practice should almost represent that – at most levels, so around 16 years of age up, I would have just coached what I thought the game looks like as opposed to what it potentially could look like and I definitely constrained players and did not let them explore (Daniel, academy coach).

While the disciplinary nature of high-performance sport has been well documented (e.g., McMahon & Penney, 2013), the above excerpt also speaks to one mechanism through which disciplinary training and coaching practices are traditionally unproblematically reproduced within elite coaching contexts – namely, through the transitioning of former professional athletes into the coaching ranks. As research has demonstrated, it can be particularly difficult for former elite/

professional athletes to question elite sport's disciplinary logic precisely because they hold a strong attachment to socio-positive understandings of sport and because they themselves have often been exposed to a lifetime of sporting discipline (Gerdin et al., 2019). This is often further confounded by the legitimization of expert knowledge as a linear product of elite sport participation and successfully operating within the disciplinary norms of elite sport (Denison & Avner, 2011). While exposure to Beat the Game had enabled some of the coaches to problematise their former coaching practices, academy players were also articulate about the differences between the academy and other rugby environments. As Anthony put it, "When I go play at my club, compared to here, I just play like how I would here; so, like rather than doing what I'm told and stuff like that, I'll actually try and problem solve within the game." Players now identified good coaching as a coach's ability to ask questions and encourage thinking. This was framed in opposition to previous rugby environments where players felt that they had had little encouragement to think and problem-solve for themselves. Instead, players had been told how they could or could not move in space (what Foucault referred to as the art of distribution); "each individual has a place and each place has its individual" (Foucault, 1977, p. 143). They had also been told what they could or could not do, for example, by directing them towards making certain plays, using specific problem-solving strategies, and specific technical skills (what Foucault referred to as the control of activity);

The act is broken down into its elements; the position of the body, limbs, articulation is defined; to each movement are assigned a direction, an aptitude, a duration [...] disciplinary control does not consist simply in teaching or imposing a series of particular gestures; it imposes the best relation between a gesture and the overall position of the body (Foucault, 1977, p. 152).

Lastly, players had been directed towards adopting certain specific roles within the team (what Foucault referred to as the composition of forces); “discipline is no longer simply an art of distributing bodies, of extracting time from them and accumulating it, but of composing forces in order to obtain an efficient machine” (Foucault, 1977, p. 164). These previous experiences were framed as being quite stifling and restricting in opposition to the freedom to experiment and try things that they now experienced within the academy. As Ian described,

They just expect people to take it in and then just recycle. But it’s different here. Before I came here, I wasn’t really exploring the way I played; I was just playing the same type of rugby, but when I came, like it changed the way I play.

While our interviews with coaches and players highlighted a shift in understanding of what constitutes effective coaching and the attributes of a capable player, arguably towards a less narrow and restrictive understanding, they also provided insights into how Beat the Game practices actively disrupted discipline within this specific elite development sporting context. In what follows we focus on some specific Beat the Game practices that we felt were most impactful in that respect.

Disrupting Discipline Through a More Fluid Guiding Concept and Minimal Rule Setting/Instructions. As Kuklick and Gearity (2019) emphasised, there is not one, but myriad ways to disrupt discipline. In this specific elite development context, players attributed their enhanced thinking, adaptability, and ability to problem-solve to coaches’ minimal provision of instructions and rule setting. This, they felt, encouraged them to Beat the Game or “think outside the box”. What this further allowed, is a playful exploration with space, time, and movement related constraints and, thus, a more flexible player understanding of good rugby technique and movement. As such, it could be argued that Beat the Game pedagogies and assumptions also seem

to align with ecological dynamics and skill learning, as well as with poststructuralist critiques related to modernist assumptions around the body and learning such as controlling space, time, and movement. This more flexible understanding was, according to players, enabled by the fluid nature of Beat the Game as a guiding concept which allowed them to form their own interpretation: “I feel like you can Beat the Game in any way, really. If you just think about it.” (Tyler, academy player).

Based on interviews with players and coaches and our observations of practices, we would argue that the fluidity of Beat the Game as a guiding concept was indeed instrumental in the production of less docile players, as it encouraged players to experiment with different ways of moving and moving the ball through space. These coach-facilitated and player-generated solutions to problems were creative and wide-ranging. For instance, the head coach, acting as a referee during a training game, called “last play”, but then did not blow the final whistle to see if the players would continue to seek opportunities to score. Likewise, the width of the pitch was changed as play continued, without explicitly informing the players, to prompt them to notice evolving spaces and opportunities within matches. Similarly, some of the rules of training games were, initially, withheld from players, leading to frequent rule breaches and changes of ball possession. Reflecting the discrepant interpretations of rugby’s laws by referees, players, therefore, needed to figure out the rules of the game and to share their understanding with teammates without alerting their opponents. In another example, when one coach was initiating the activity of a game by kicking the ball to a set of attackers, one defending player was praised for “beating the game” after he knocked the ball out of the coach’s hands before the ball was even brought in play.

Disrupting Discipline Through Strategic Questioning, Multidirectional Feedback, and Group Leadership. While players highlighted the importance of Beat the Game as a fluid

concept, they also emphasised the importance of strategic questioning as an important factor in their learning and development as thinking, adaptable problem-solvers. As David emphasised, “I feel like with questions that you are being asked, you’re constantly switched on; you’re alert; you’re looking through the game to...for answers. I feel like that’s good, ‘cos that also rubs off on games [competition]... instead of just being, like, told.” This focus on developing thinking players was echoed by the coaches as a central objective of Beat the Game and something which coaches believed very much set their players apart:

Well, Beat the Game players, as I can see, they are...they’re looking at the opposition and trying to work out what they’re doing; not just thinking about themselves...so there’s just more thought going on, whereas you see guys who just show up and they just want a game plan. And if the game plan is not working, they’re not really sure what to do next, because the game plan is the game plan... (Peter, academy coach).

What these player and coach extracts further highlight is the importance of emphasising coaches’ *active* and *central* role within pedagogical contexts which adopt a non-linear approach to teaching/coaching and learning (Hall, McNulty, Laycock & Ponton, 2019). These extracts also draw attention to the dangers of oversimplified binary understandings of athlete-led as ‘good’ and coach-led as ‘bad’ forms of coaching.

While coaches remain central within Beat the Game, unlike more traditional linear pedagogical environments, learning is understood as a multidirectional process. As such, players highlighted the importance of peer feedback and of players feeding back and challenging coaches. As Eric emphasised,

A good coach is someone who gives good feedback but also someone who learns as well.

As while they're teaching, we're also giving them feedback...we can teach them as well...

so if they're giving us something, we might say, you know, "that's not working".

In further contrast to more traditional rugby union environments, coaches encouraged strategic input from every player and not only from a select few player positions whose role has traditionally been to provide feedback and make decisions on the field (e.g., number 9, number 10). As Eric further commented,

I think, on the field, they involve everyone. You know, it's not just down to the 9 and the 10 to decide to form a scrum, you know, if the winger thinks he's got something to offer, he might tell them or if the 13 or the full-back has seen from behind ...so it's like a group leadership; they develop everyone's leadership, everyone's decision-making, everyone's awareness.

From a Foucauldian perspective, this is a particularly promising shift as it highlights a move away from a more traditional view of athletes who ask questions or who challenge coaches' decisions as problem athletes (Denison & Avner, 2011). Furthermore, and crucially, multidirectional feedback was only effective within this context because players felt that it was not mere lip service and because it was actioned by coaches. Indeed, as previous Foucauldian research has demonstrated (e.g., Avner, Denison, & Markula, 2019; Mills & Denison, 2018), coaching contexts that claim to be athlete-centred, but then fail to translate rhetoric into practice, can actually result in even more controlling and normalising training environments. However, in contrast and as evidenced through our interview and observation data, Beat the Game did challenge more traditional coach-centric practices by promoting a more democratic and less hierarchical group understanding of leadership and a more fluid understanding of player roles. In so doing, Beat the

Game challenged the traditional composition of forces within rugby union, whereby only coaches and maybe a select few players (e.g., the 9 and 10) get to decide what game plan to adopt and when, how players can or cannot move on the field in relation to each other, what technical skills they can use and in what circumstances, or the risks they can take based on their position, role, and identified attributes. Such coach-centric practices remain commonplace within elite sport despite Foucauldian critiques who have emphasised their numerous problematic effects across a variety of sporting contexts. For example, Denison and Mills (2014) showed how athletic coaches' unproblematic use of rank to organise their athletes on the track can lead to athletes' internalising these hierarchies and beliefs as fixed and true rather than changeable and subjective. As a result, athletes can become overly reliant on their coaches to dictate what they can or cannot do; they might also never learn to listen to their own bodies, or to read and adapt to a dynamic changing performance environment, and thus, never achieve the kind of performances that they could have achieved within training environments which routinely problematise disciplinary techniques and instruments and their various effects.

Foucault (1977) was also clear that disciplinary techniques and instruments do not work in isolation from each other. For example, the traditional composition of forces within rugby union is also narrowly tied to another instrument of disciplinary power, namely hierarchical observation. Within elite sport, hierarchical observation is generally ensured by recruiting team captains or senior players to further enforce disciplinary norms and practices within a team setting. Indeed, ranking athletes and distributing roles, responsibilities, and privileges accordingly, a commonplace practice in elite sport is seldomly problematised. As Mills and Denison (2018) noted, through hierarchical observation "the perfect eye becomes a whole series of eyes" (p. 300) working to ensure compliance and conformity. In contrast, Beat the Game encouraged a more democratic

group leadership approach based on multidirectional feedback. The intended impact was to minimise the negative impact that player seniority, position, or attributes and qualities can have on who gets to speak and with what authority within the academy context (Foucault, in Dreyfus & Rabinow, 1983). However, while this was the intent, in practice, this was not always straightforward to achieve. Especially when the academy exists within a wider system of athlete development (the National Player Pathway), in which some players are attributed formal status among their peers, by the Governing Body, as having Elite Athlete Potential, or having been selected for one of the Junior National Teams. Indeed, supporting players to feel comfortable expressing their thoughts and opinions and feeding back to peers and coaches is not an easy linear process, nor does it happen overnight.

To summarise, our interviews showed that there was much congruence between understandings of effective coaching and being a good player or teammate within the academy, therefore demonstrating the effectiveness of Beat the Game pedagogy in terms of shifting assumptions around effective coaching and player development. These new understandings were accompanied by new, arguably less disciplinary training and player development practices, which included, but were not limited to: non-rhetorical player questioning, the setting of individual and group challenges, the strategic manufacturing of playing scenarios, the minimal use of coach instruction and rule setting, the continuous encouragement of players to creatively explore space and movement related constraints, and a group leadership approach to problem-solving based on genuine multidirectional feedback. Moreover, unlike some of the other elite coaching environments that have been previously researched (e.g., Light & Evans, 2013), Beat the Game practices were also accompanied by a shift in understanding of coach and player roles towards a less coach-centric, linear, and hierarchical understanding of leadership and decision-making. This

is, we believe, precisely what enabled Beat the Game to be productively applied within this specific context as it allowed players to feel more confident taking risks, experimenting, and challenging coaches – a freedom that they were very much aware of and valued.

Positive outcomes of being coached through a Beat the Game approach seemed to be related to players' abilities and willingness to challenge some of the disciplinary and arguably limiting unwritten traditional norms around: who gets to speak and with what authority (Foucault, in Dreyfus & Rabinow, 1983; composition of forces within rugby union); how players should or should not move through their designated space (art of distribution); and the techniques and strategies one should or should not use to move the ball through space (control of activity). Therefore, from a Foucauldian perspective, we believe that Beat the Game carries potential in terms of disrupting the production of coach and player docility – i.e. the production of uncritical, obedient and overly compliant coaches and players through the unproblematized application of disciplinary techniques and instruments. However, while our data was indeed encouraging from that standpoint, Beat the Game and PBL pedagogy nonetheless resulted in the production of new dominant normative understandings around effective coaching and player learning and development with various (un)intended consequences, some of which we expand upon in the following section.

Challenges and (Un)Intended Consequences of Beat the Game Pedagogy

Importantly, our intention here is not to position Beat the Game coaching practices as a new standard of coaching that coaches should uncritically adopt and apply. Despite these cautionary words, we were encouraged by some of our research findings which indicated a definitive loosening of disciplinary aspects in both training and game environments within this specific elite development coaching context. However, what was not clear from our interviews

with players and coaches, was whether they were aware or equipped with the tools to critically interrogate some of the (un)intended consequences of these new normative understandings related to effective coaching and the capable rugby-union player as a confident vocal leader and effective problem-solver and communicator. For instance, it was not evident that Beat the Game coaches considered which players win and which players lose within this new configuration, and how this new understanding of the capable rugby union player could, if left un-problematised, also have limiting and normalising effects on players. As such, we would argue that Beat the Game and its various (un)intended consequences should, just as any other pedagogical approach, be opened up to problematization, less it quickly becomes a new form of coaching orthodoxy as one academy coach alluded to:

I'm on my Level Four [coaching qualification] at the moment and I was hoping I was going to be in an environment of coaches who would, erm...challenge what we're doing. So, challenge that whole Beat the Game stuff and the wider game, the adaptive game stuff, but everybody...I mean, brilliantly, everyone on the course is very similar; we're all into the adaptive game – we think that's the right way to go (Peter, academy coach).

Indeed, the danger of substituting one dominant model of truth for another is something that Foucauldian scholars have repeatedly warned against. For example, Kuklick and Gearity (2019) highlighted the value of a Foucauldian awareness of power-knowledge to precisely avoid this pitfall and simply promoting “the latest disciplinary technology” (p. 294). We believe this Foucauldian awareness of power-knowledge is particularly key for coaches seeking to coach in more holistic or athlete-centred ways, be it through game-sense, problem-based learning, teaching games for understanding or any other non-linear pedagogical approach.

Furthermore, while the application of Beat the Game within this specific context clearly enabled certain positive outcomes for both coaches and rugby players, it was not without its challenges. Indeed, academy coaches recognised the very tangible challenges of “doing adaptive games coaching” well:

And actually, coaching Beat the Game and coaching through games and adaptive games, it’s really tough. It’s not easy...Am I coaching the players and I am helping them get better or am I just playing games for just games’ sake? And it’s taken me an awfully long time – and I’m still not the best at it by any stretch – it’s taken me a long time to know how to manipulate the games to change behaviour (Peter, academy coach).

They also recognised that dominant norms of coach control and a strong attachment to the plan can very much hinder the successful application of PBL within coaching context:

I do think some coaches like a lot of control and they like to see whatever they had in their head before the session starts should translate to what happens on the pitch...I think a lot of coaches will have an idea in their head of what they want to happen. And then they create some games to support that destination but actually if a moment deviates from that – but it’s a really strong Beat the Game, but it does deviate, then they’d probably feel as if they didn’t plan for that (Daniel, academy coach).

As these excerpts show, the successful application of PBL or other game-centred approaches is far from straightforward and as Cushion (2013) emphasised, require “much more than providing coaches with a toolbox of skills” (p. 70). Additionally, academy coaches emphasised the challenges related to player and parent buy-in:

So, it’s definitely a coaching thing as well, so if the kids...and even the parents don’t trust the coaches that are on the pitch, then it breaks down. “Why are you doing that? It doesn’t

look right. It looks messy”. Well of course it looks messy; that’s...It’s supposed to look like that (Peter, academy coach).

They therefore spoke to the steps they had taken to engage parents and explain the pedagogical principles of Beat the Game – in short, why they were doing what they are doing. Some of these tensions, they argued, resulted from a felt erroneous understanding of rugby as fixed and controllable rather than inherently chaotic: “rugby is a game that is chaotic. However, coaches try and make it a black and whiter and as fixed and controlled as possible. And I genuinely think that that’s where the whole...where everything’s quite flawed” (Daniel, academy coach).

While academy coaches felt that they had good buy-in from academy players, they spoke about the challenges of trying to apply a Beat the Game approach within adult rugby:

Trying to do that with a 28-year-old, who’s never been coached that way is really tough and they don’t want to think like that. They come to play to relax and actually, they just want to be told: You stand here; get the call; carry there (Peter, academy coach).

Academy coaches also perceived that trying to apply Beat the Game at the professional level could initially be met with some resistance: “They would probably moan and be like ‘You didn’t say that.’ You need to explain that that’s what we could have done at the beginning” (Daniel, academy coach). These two interview excerpts support previous research (e.g., Jones and Turner, 2006) which emphasised that PBL teaching and coaching approaches can be met with a certain amount of resistance as students or athletes are encouraged to take responsibility for their individual inquiry-based learning. However, rather than assuming that these are simply age-related differences as one of the coaches hypothesised, we would suggest that these forms of player resistance to active learning can be read as an effect of prolonged exposure to sporting discipline (Jones & Denison, 2017). Indeed, and perhaps one way that Foucault’s concept of discipline can

be fruitfully harnessed is to enhance coaches' understanding of the challenges associated with transitioning from and potentially back to more traditional coach-centric, disciplinary coaching environments. As one player expressed:

I think like moving from club to school to academy, it was a bit of a shock because I was never really encouraged to experiment with things. So, like, at my club, I was brought up not to kick...so when I moved to the academy, I found it quite hard to kick more in games. Like I've started doing it more but not as much as I should, due to the fact that that's been like instilled in us from a young age. (Anthony, academy player).

Whereas transitioning to the junior academy was not unproblematic for players, junior academy players also found the transition to the senior academy/first team challenging. As one academy coach reported:

I've had conversations with them [players who have transitioned to the senior academy/first team] and they're like "I feel like I'm having all my attributes taken away from me; I can't do this; I can't do that...because in this situation, I've got to do this, and in that situation I've got to do that..." (Clive, academy coach).

This disconnect between the junior and senior academy/first team was a source of tension for academy coaches. Indeed, they were quite critical of the senior academy/first team's coaching approach and playing style, which they referred to as "playing by numbers." They also saw it as being particularly detrimental to players, "[the players] are almost fearful of playing, of being creative, in case it goes wrong because that could cost them their place and they're not willing to do it" (Peter, academy coach). The above excerpts support previous research that has emphasised that the higher the stakes, the more difficult it becomes to coach differently (e.g., Light & Evans, 2013).

Based on our findings, it would appear that while non-linear, alternative coaching approaches are gaining traction in youth sporting contexts including elite development sporting contexts—already arguably a promising shift in and of itself—coaching approaches such as Beat the Game have yet to be recognised as useful, legitimate, and productive within many adult elite professional sporting contexts. For academy coaches, this disconnect led to some questioning around how well they were preparing academy players aspiring to transition into the professional game where they would be back into an environment with high coach-control. They therefore drew on different rationalities to justify the value of Beat the Game: “So, if the one thing they take away is, ‘I’ve got to be a better thinker and strategist’, then I think we’ve done a decent job” (Daniel, academy coach). As such, they argued that Beat the Game is about producing players who are able to adapt to any environment including more coach-centric and coach-led coaching environments which remain the norm within elite professional sport.

Limitations, Implications and Recommendations

The aim of this paper was to explore coaches’ approaches to, and athletes’ experiences of, a unique problem-based learning informed approach called Beat the Game. While we recognise that it is impossible to explore and explain all of what it meant to coach and be coached through Beat the Game, we hope that our Foucauldian analysis has provided some insights into the related challenges and opportunities of coaching differently through PBL informed approaches. Equally, we acknowledge that, while this study has provided novel insights into how PBL can contribute to disrupt discipline and challenge dominant modernist assumptions around coaching and learning, and the body and training, we do not claim that the approaches and practices outlined in this paper are the only ways to promote change and innovation in coaching contexts.

Building upon findings from previous research into PBL and other game-centred approaches (e.g., Light & Evans, 2013), the novelty and significance of this paper lies in applying a Foucauldian framework of analysis to critically examine the application of a PBL informed pedagogy within an elite development coaching context and its capacity to deliver an elite development coaching context radically different to those traditionally observed. Indeed, we believe that Foucault's disciplinary analysis provided us with a productive analytical framework to critically evaluate the possibilities and (un)intended consequences of Beat the Game as a PBL informed pedagogy. As such, coaches who adopt non-linear coaching approaches such as Beat the Game could benefit from a deeper understanding of the docility-producing effects of prolonged exposure to highly disciplinary coaching and learning environments—this may be particularly useful when it comes to supporting players transitioning from, (and potentially back to) these types of more coach-led and coach-centric traditional disciplinary environments. Moreover, we believe that a Foucauldian *toolkit* would support coaches in developing a more informed and complex understanding of the problems they encounter in their practical application of non-linear pedagogies and, as a result, develop more effective (and ethical) problem-solving strategies. Most importantly, it could help coaches refine their use of PBL and ensure that they avoid poor coaching through the continued use of unproblematized taken-for-granted disciplinary techniques and instruments, which characterises many so-called athlete-centred elite development coaching environments (Avner et al., 2017).

To conclude, as our research showed, the most important source of tension and struggle for both academy coaches and players was tied to the non-alignment of the academy and first team coaching approaches. Based on our interviews with senior academy players, more research is needed to examine the short-term and long-term impact that such disconnects have on continued

player progression, performance, physical and mental wellbeing, and job satisfaction and longevity. This is especially important given England Rugby's un-tempered promotion of problem-based learning as its endorsed approach to player development (England Rugby, 2019) and the increased acceptance and proliferation of non-linear pedagogies in youth sporting contexts.

References

- Avner, Z., Markula, P., Denison, J. (2017). Understanding effective coaching: A Foucauldian reading of current coach education frameworks. *International Sport Coaching Journal*, 4(1), 101-109.
- Avner, Z., Denison, J., & Markula, P. (2019). “Good athletes have fun”: A Foucauldian reading of university coaches’ uses of fun. *Sports Coaching Review*, 8(1), 43-61.
- Collins, T. (2019). *How football began: A global history of how the world’s football codes began*. London: Routledge.
- Cushion, C.J. (2013). Applying game centered approaches in coaching: A critical analysis of the ‘dilemmas of practice’ impacting change. *Sports Coaching Review*, 2(1), 61-76, DOI: 10.1080/21640629.2013.861312.
- Cushion, C.J., & Partington, M. (2016). A critical analysis of the conceptualisation of ‘coaching philosophy’. *Sport, Education and Society*, 21(6), 851-867.
- Denison, J. (2007). Social theory for coaches: A Foucauldian reading of one athlete’s poor performance. *International Journal of Sports Science and Coaching*, 2, 369–383.
- Denison, J., & Avner, Z. (2011). Positive coaching: Ethical practices for athlete development. *Quest*, 63, 209–227.
- Denison, J., & Mills, J. P. (2014). Planning for distance running: Coaching with Foucault. *Sports Coaching Review*, 3(1), 1-16.
- Denison, J., Mills, J. P., & Konoval, T. (2017). Sports’ disciplinary legacy and the challenge of ‘coaching differently’. *Sport, Education and Society*, 22(6), 772-783. DOI: 10.1080/13573322.2015.1061986.
- Dreyfus, H.L., & Rabinow, P. (1983). *Michel Foucault: Beyond structuralism and hermeneutics*. Chicago, USA: The University of Chicago Press.
- Foucault, M. (1977). *Discipline and punish: The birth of the prison*. New York, USA: Vintage.
- Gearity, B., & Mills, J. P. (2013). Discipline and punish in the weight room. *Sports Coaching Review*, 1, 124–134.
- Gerdin, G., Pringle, R., & Crocket, H. (2019). Coaching and ethical self-creation: Problematizing the “efficient tennis machine”. *Sports Coaching Review*, 8(1), 25-42.
- Hall, E. T., McNulty, A., Laycock, M., & Ponton, J. (2019). ‘Building a house of C.A.R.D.S.’ In E. Cope, and Partington, M. (Eds.). *Sports Coaching: A Theoretical and Practical Guide* (pp. 30-39). London: Routledge.
- Harvey, S., & Jarrett, K. (2014). A review of the game-centred approaches to teaching and coaching literature since 2006. *Physical Education and Sport Pedagogy*, 19(3), 278-300.
- Harvey, S., Pill, S., & Almond, L. (2018). Old wine in new bottles: A response to claims that teaching games for understanding was not developed as a theoretically based pedagogical framework. *Physical Education and Sport Pedagogy*, 23(2), 166-180.
- Hassanin, R., & Light, R. (2014). The influence of cultural context on rugby coaches’ beliefs about coaching. *Sports Coaching Review*, 3(2), 132-144.
- Hassanin, R., Light, R., & MacFarlane, A. (2018). Developing ‘good buggers’: Global implications of the influence and culture on New Zealand rugby club coaches’ beliefs and practice. *Sport in Society*, 21(8), 1223-1235.
- Hubball, H., & Robertson, S. (2004). Using problem-based learning to enhance team and player development in youth soccer. *Journal of Physical Education, Recreation & Dance*, 75(4), 38-43.

- Jones, L., & Denison, J. (2017). Challenge and relief: A Foucauldian disciplinary analysis of retirement from professional association football in the United Kingdom. *International Review for the Sociology of Sport*, 52(8), 924-939.
- Jones, R.L., & Turner, P. (2006). Teaching coaches to coach holistically: Can problem-based learning (PBL) help? *Physical Education and Sport Pedagogy*, 11(2), 181-202. DOI: 10.1080/17408980600708429.
- Kidman, L. (2005). *Athlete-centred coaching: Developing inspired and inspiring people*. Christchurch, NZ: Innovative Print Communications.
- Kuklick, C. R., & Gearity, B. T. (2019). New movement practices: A Foucauldian learning community to disrupt technologies of discipline. *Sociology of Sport Journal*, 36(4), 289-299.
- Light, R. L., & Evans, J. R. (2013). Dispositions of elite-level Australian rugby coaches towards game sense: Characteristics of their coaching habitus. *Sport, Education and Society*, 18, 407-423.
- Markula, P., & Silk, M. L. (2011). *Qualitative research for physical culture*. London: Palgrave Macmillan.
- McMahon, J. A., & Penney, D. (2013). (Self-)surveillance and (self-)regulation: Living by fat numbers within and beyond a sporting culture. *Qualitative Research in Sport, Exercise and Health*, 5(2), 157-178.
- Mills, J. P., & Denison, J. (2018). How power moves: A Foucauldian analysis of (in)effective coaching. *International Review for the Sociology of Sport*, 53(3), 296-312.
- Mills, J. E., & Treagust, D. F. (2003). Engineering education, is problem-based or project-based learning the answer. *Australasian Journal of Engineering Education*, 3(2), 2-16.
- Morgan, K., Jones, R. L., Gilbourne, D., & Llewellyn, D. (2013). Changing the face of coach education: Using ethno-drama to depict lived realities. *Physical Education and Sport Pedagogy*, 18(5), 520-533.
- Norman, G. R., & Schmidt, H. G. (2000). Effectiveness of problem-based learning curricula: Theory, practice and paper darts. *Medical Education*, 34(9), 721-728.
- O'Brien, D., & Slack, T. (2003). An analysis of change in an organisational field: The professionalization of English rugby union. *Journal of Sport Management*, 17 (4), 417-448.
- Ojala, A. L., & Thorpe, H. (2015). The role of the coach in action sports: Using a problem-based learning approach. *International Sport Coaching Journal*, 2(1), 64-71.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA, USA: Sage Publications.
- Pavlidis A., & Fullagar, S. (2013). Narrating the multiplicity of 'Derby Grrrl': Exploring intersectionality and the dynamics of affect in roller derby. *Leisure Sciences*, 35(5), 422-437.
- Pill, S. (2012). Teaching Game Sense in Soccer, *Journal of Physical Education, Recreation & Dance*, 83(3), 42-52, DOI: 10.1080/07303084.2012.10598746.
- Pill, S. (2014). Informing game sense pedagogy with constraints led theory for coaching in Australian football. *Sports Coaching Review*, 3(1), 46-62.
- Roderick, M. (2006). *The Work of Professional Football: A Labour of Love?* London: Routledge.
- Renshaw, I., Araújo, D., Button, C., Chow, J. Y., Davids, K., & Moy, B. (2016). Why the constraints-led approach is not teaching games for understanding: A clarification. *Physical Education and Sport Pedagogy*, 21(5), 459-480.

- Renshaw, I., Davids, K. W., Shuttleworth, R., & Chow, J. Y. (2009). Insights from ecological psychology and dynamical systems theory can underpin a philosophy of coaching. *International Journal of Sport Psychology*, 40(4), 540-602.
- Souza, A. D., & Oslin, J. (2008). A player-centered approach to coaching. *Journal of Physical Education, Recreation & Dance*, 79(6), 24-30.
- Tandogan, R. O., & Orhan, A. (2007). The effects of problem-based active learning in science education on students' academic achievement, attitude and concept learning. *Online Submission*, 3(1), 71-81.

Table 1.0 Participant coach biographical details

Coach pseudonym	Age	Coaching experience (years)	Highest level of coaching qualification
Daniel	31	12	UKCC L4*
Clive	45	18	UKCC L4
Peter	46	9	UKCC L4*

* Both Daniel and Peter were completing their UKCC L4 at the time of the study.

Table 2.0 Participant player biographical details

Player pseudonyms	Academy Age Group	Honours	Years in the Academy
Kyle	U15s	-	1
Anthony	U16s	-	2
Eric	U16s	-	2
Ian	U15s	-	1
David	U15s	-	1
George	U16s	-	3
Tyler	U18s	-	4
Cole	U18s	-	3
Travis	U15s	-	6 months
Graeme	U15s	-	6 months
Jared	U16s	-	2
Thomas	Senior Academy	National U20s	6
Brian	Senior Academy	National U18s	5

Garry	Senior Academy	National U18s	4
Lionel	Senior Academy	National U20s	7
Todd	Senior Academy	National U18s	3