Collaborative Evaluation of Individual and Team Performance in Training and Match Environments

using the Coach Logic Online Platform

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Abstract

Sports coaches’ commonly have a limited appreciation of pedagogy (Light & Evans, 2013). Furthermore, investigations concerning coaches’ use of performance analysis for athlete learning are rare (Groom, Cushion, & Nelson, 2011). Complex Learning Theory (CLT) advocates nonlinear and sociocultural educative approaches (Light, 2013). Considering this digital age, the aim of this investigation was to examine coaches’ use of Coach Logic - an online video-based coaching platform. Seven Head Coaches (five rugby union and two field hockey) were interviewed individually whilst their coaching staff and players contributed to group interviews. Results confirmed a priori themes of active, social and interpretive as derived from CLT. Analysis of these findings established that online coaching platforms have the capacity to facilitate the active involvement of athletes in the process of performance analysis. From a social perspective, online coaching platforms have helped to develop a positive team environment and also interpersonal working. Good practice was evident relating to interpretive approaches; however, the potential for coaches to embrace more radical conceptualisations of knowledge acquisition is stark. Online coaching platforms have a place in contemporary team sport environments and can contribute to athlete learning and other important aspects of team culture and cohesion.

Key words: Complex Learning Theory, performance analysis, athlete learning, team culture, coaching practice.
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The pedagogic expertise of the sports coach has become an increasingly common topic of discussion within the contemporary sports coaching literature (Light, Harvey, & Mouchet, 2014; Padley & Vinson, 2013). Investigations into sports coaches’ beliefs have most commonly uncovered a relatively weak understanding of pedagogy (Evans, 2006; Light & Evans, 2013) whilst research focussing on coaching practice has frequently revealed linear, technically-focussed, modes of delivery (Harvey & Jarrett, 2014; Magias, Pill, & Elliott, 2015). Linear pedagogies are characterised by the ‘passing down’ of knowledge from coach to athlete through which the learner is conceived as a recipient, rather than an active player, in the development of their understanding and expertise (Roberts & Ryrie, 2014).

Contrastingly, consensus within recent research suggests that coaches should adopt nonlinear pedagogic approaches thus acknowledging the complex and dynamic nature of the development of expertise in most sporting environments (Chow et al., 2006; Pill, 2014). Nonlinear pedagogy is considered to be a multidimensional and psycho-social facilitation of the development of athletic expertise and is commonly aligned to constructivist theories of learning (Cassidy, Jones, & Potrac, 2009; Vinson, Brady, Moreland, & Judge, 2016). Constructivist theories suggest humans ‘construct’ their learning by considering how new experiences and/or information relate to their prior understandings and how these various elements can be pieced together. Within this premise, the learner is cognitively active, adopting a reflective disposition to build their own interpretation of the environment (Nelson, Potrac, & Groom, 2016). However, Davis and Sumara (2003) suggested that the various forms of constructivism (e.g. psychological and social) and the numerous perspectives from which these conceptions have emerged (from, for example, Dewey, Piaget and Vygotsky (Day & Newton, 2016; Light, 2008; Potrac, Nelson, Groom, & Greenough, 2016; Toner, Moran, & Gale, 2016)) have caused some confusion amongst educators. In an attempt to resolve this confusion, Davis and Sumara (2003) proposed a ‘complex’ learning theory as an umbrella term under which the various perspectives could all be brought. However, Light et al. (2014) were keen to point out that Complex
Learning Theory (CLT) is more than just a synonym for constructivism because it is inclusive of theoretical approaches such as enactivism (Varela, Thompson, & Rosch, 1991) and situated learning (Lave & Wenger, 1991). Inclusion of enactivism and situated learning under the umbrella of CLT requires a conscious and deep consideration for cultural influences within learning environments. There are considerable similarities between CLT and recent work by Jones, Thomas, Tuim Vitto Filho, da Silva Pires Felix and Edwards (2016) and Jones, Edwards and Tuim Viotto Filho (2016) discussing the cultural-historical or activity-theoretical (CHAT) perspective. These theories all place considerable emphasis on the process of mediation within an active social context as foundational for understanding learning. CLT was adopted as the theoretical lens for this investigation due to the clarity and applicability of the framework to applied sporting environments.

Complex Learning Theory, Game Sense and sports coaching

Light (2008) was the first to bring CLT to the attention of sports pedagogues and outlined the three broad ideas which inform this framework. First, learning is considered to be active insofar as participants should be conceived as adapting to the environments in which they are placed and evolving their understanding by constantly being required to re-examine their historically and culturally-informed experiences of their sporting contexts and performance. To this end, learning is much more than simply receiving and internalising information but a complex, conscious and non-conscious re-construction of their lived experience (Pill, 2014, 2016). Second, learning is considered to be social insofar as the interpersonal interactions which participants enjoy within their sporting experiences are considered to be inextricably connected to internalization and/or the constant evolution of their understanding and development. Whether learning is first a social process which is then internalized (Vygotsky, 1978) or simply an important component in the learner’s construction of their internally-derived understanding (Piaget, 2001) is debated; however, all constructivist perspectives undoubtedly place heavy emphasis on the importance of social interactions in learning and development. Finally, learning is considered a process of interpretation in that all the
underpinning theoretical perspectives reject the notion that there is a pre-given, fixed, external reality (Light, 2013). Rather, learning is seen as the individual’s interpretation of the world. Light (2013) suggested the implications for coaches in accepting such a notion is that learning should take place in the context of the participant’s own game performance rather than expecting athletes to accept direct instruction from the coach as universal truth. Considering learning as a process of interpretation may also help reduce the gap between procedural and declarative knowledge (Anderson, 1983; Light, 2008) although there is limited empirical evidence to support such a hypothesis. Regardless, embracing CLT does necessitate rejecting the dualist assumption separating mind and body which elevates the importance of the former over the latter; Light (2008) contended that this elevation has led to the proliferation of linear pedagogies in sport and further afield.

Empirical research founded overtly on CLT is rare. The majority of research sympathetic to such foundations has been conducted in physical education (Atencio, Yi, Clara, & Miriam, 2014; Koekoek & Knoppers, 2015; Pill, 2016; Quennerstedt, Annerstedt, et al., 2014; Quennerstedt, Öhman, & Armour, 2014; Slade, Webb, & Martin, 2015) although some recent work in this domain has focussed on coach education provision (Galvan, Fyall, & Culpan, 2012; Hussain, Trudel, Patrick, & Rossi, 2012; Paquette, Hussain, Trudel, & Camiré, 2014). The most directly relevant research to the context of this paper has concerned theoretical positioning (Light et al., 2014; Pill, 2014) rather than reporting empirical data. Focussing primarily on rugby union, Light et al. (2014) proposed a model for the application of CLT through Game Sense pedagogy to enhance ‘at-action’ decision making. Light et al. (2014) attempted to focus coaches’ attention on the importance of understanding the holistic, historical and cultural perspectives which inform players’ decision making. Game Sense pedagogy is a games-based approach to teaching and coaching through which players engage with a series of context-rich small-sided and modified games designed to elicit technical and tactical understanding. Game Sense currently represents the most commonly discussed pedagogic approach which is founded on CLT (Light, 2013). Light (2013) outlined the three key features of Game Sense as facilitated questioning, a supportive learning environment and collaborative evaluation. In applying both CLT
and Game Sense to Australian Football, Pill (2014) also incorporated constraints-led approaches (Chow et al., 2006; Davids, Button, & Bennett, 2008) to encourage coaches to consider how to ensure transferable information-movement couplings are meaningfully designed into training environments. Whilst both Light et al. (2014) and Pill (2014) aid our understanding of the application of CLT and Game Sense pedagogy, the lack of empirical work founded on CLT represents a clear gap in the research literature.

In considering the three pedagogic features of the Game Sense model, it is evident that some attention has been paid to the facilitation of questioning (Barnum, 2008; Cope, Partington, Cushion, & Harvey, 2016; Cope, Partington, Harvey, & Cushion, 2014; Pearson & Webb, 2008) and creating supportive learning environments (Cassidy, 2010; Kidman, 2005) but collaborative evaluation remains a relatively untouched area of study in sports coaching contexts. Furthermore, research into the behavioural and pedagogic practice of sports coaches has tended to solely focus on the episodic delivery of practical sessions (e.g. Cushion, Ford, & Williams, 2012; Ford, Yates, & Williams, 2010; Partington, Cushion, Cope, & Harvey, 2015) rather than on the broader contexts of coaching practice including such elements as the use of performance analysis (PA) as a learning tool. Combining these elements reveals that consideration has not yet been given to the power of collaborative evaluation through performance analysis from a pedagogically-informed perspective.

Performance analysis, collaborative learning and intrinsic motivation

PA is a relatively new addition to the contemporary multidisciplinary sports science support services available to the high performance/performing sports coach (O'Donoghue, 2015). Furthermore PA is now commonly accepted as an integral component of the coaching process (Groom et al., 2011; Groom, Cushion, & Nelson, 2012). Whilst the role and practical application of PA in performance sport is well documented, academic investigations of coach perceptions of PA are somewhat limited (Groom et al., 2011). Moreover, there is also a notable absence of PA studies to have examined the effectiveness of PA procedures from an athlete learning perspective. Reeves and
Roberts (2013) highlighted that video-based PA within elite youth football is considered a necessary tool for coaches and players alike and can contribute to several key developmental areas: a) team and individual performance, b) reflection, and c) psychological implication associated with performance analysis. Bampouras, Cronin, and Miller (2012) discovered that players were sceptical of PA owing to being excluded from having an active role in the process. Bampouras et al. (2012) reported that coaches believed players were unable to identify any particular issues with a performance and were unable to cope with the information.

The principal study investigating individual players’ perceptions of PA was conducted by Groom and Cushion (2005). A group of ten, under 17 year old professional youth footballers received ten video analysis sessions throughout a season, and evaluated their thoughts utilising a semi-structured questionnaire. The players suggested video feedback was a useful tool to stimulate players’ learning providing the opportunity to improve game understanding and decision-making, recognise individual and team strengths, improve individual and team weaknesses and develop analytical skills (Groom & Cushion, 2005). Other work by Nelson, Potrac, and Groom (2014) and Francis and Jones (2014) has highlighted the potential usefulness of PA as a tool for athlete learning, but has provided limited evidence surrounding the value of collaborative evaluation in this regard. Nonetheless, the contemporary literature cited here is unanimous that coaches should encourage the active involvement of athletes during sessions and ensure athletes take personal responsibility for conducting their own analysis on their performance and the performances of others in order to enhance their knowledge of the game. The mechanism by which players engage with PA has commonly presented challenges for the performance sports coach operating outside of professional settings. Although O’Donoghue and Mayes (2013) proposed that the surge in internet-based video platforms has aided coaches in facilitating PA-based feedback for players, there is little empirical evidence providing any insight into such processes.
Considerable recent research in sports coaching contexts has demonstrated a strong connection between autonomy-supportive approaches and athletes’ intrinsic motivation. Furthermore, prior studies have established the importance of developing intrinsic motivation in athletes in order to perform at optimal levels. Those who are intrinsically motivated have been shown to display greater effort (Healy, Ntoumanis, Veldhuijzen Van Zanten, & Paine, 2014; Ntoumanis, Healy, Sedikides, Smith, & Duda, 2014; Ntoumanis, Taylor, & Thøgersen-Ntoumani, 2012; Pelletier, Fortier, Vallerand, & Briere, 2001), persistence (Ntoumanis et al., 2014; Ntoumanis et al., 2012; Pelletier et al., 2001; Radel, Sarrazin, Legrain, & Wild, 2010) and perform to a higher level (Ntoumanis & Mallett, 2014).

The aim of the current investigation was to examine Head Coaches’ use of an online video coaching platform with a particular focus on the processes utilized to facilitate collaborative evaluation of team processes, training and match performance among athletes and also among the coaching staff. Furthermore, this project investigated the factors which determined athletes’ engagement with the platform, their broader perceptions of the importance of PA, as well as the perceived success of the collaborative evaluation activities.

**Methods**

**Participants**

Following institutional ethical approval, one provider of an online coaching platform (Coach Logic) responded to an emailed invitation to engage with a research project investigating the potential of their product to enable the collaborative evaluation of sports performance. Coach Logic is an online coaching platform that is a commercial service paid for by annual subscription by each club. Within the ‘Video Room’ of Coach Logic, coaching staff are able to upload training and match footage for all their team to view. Subsequently, either players or coaches could create and apply ‘tags’ to the footage to highlight a particular element of play, for example, ‘successful line-out’. Finally, the Coach Logic enables players and coaches to add comments to each individual tag and, more generally,
each video clip. These clips, tags and comments can be supplemented by other documents such as training plans, playbooks etc. which can be uploaded and shared through other ‘rooms’ within Coach Logic.

The provider then sent an email to all the Head Coaches using the platform with an invitation to take part in the research and an instruction to make direct contact with the principal investigator if they were interested. Twelve coaches responded to the principal investigator of which seven were able to meet the inclusion criteria of 1) being based in the UK 2) having used the system for at least six months and 3) being able to offer access to players for group interviews. All of the coaches, assistant coaches and players were male. Table 1 provides a profile of the key characteristics of the sample clubs. In each case, the ‘assistant’ coaches and ‘players’ columns represent the number interviewed rather than the absolute number involved at each club.

Table 1: Key characteristics of sample clubs

<table>
<thead>
<tr>
<th>Club</th>
<th>Sport</th>
<th>Level</th>
<th>Head Coach</th>
<th>Assistants</th>
<th>Players</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Rugby union</td>
<td>National league – senior amateur</td>
<td>L4; 22 years</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>B</td>
<td>Rugby union</td>
<td>National league – senior amateur</td>
<td>L3; 4 years</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>C</td>
<td>Rugby union</td>
<td>National league – senior amateur</td>
<td>L3; 15 years</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>D</td>
<td>Rugby union</td>
<td>Amateur club academy (U18)</td>
<td>L3; 4 years</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>E</td>
<td>Rugby union</td>
<td>Private school academy (U18)</td>
<td>L3; 26 years</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>F</td>
<td>Field hockey</td>
<td>Regional league – senior amateur</td>
<td>L2; 20 years</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>G</td>
<td>Field hockey</td>
<td>National league – undergraduate and postgraduate student</td>
<td>L4; 30 years</td>
<td>0</td>
<td>6</td>
</tr>
</tbody>
</table>

N.B. ‘L’ represents the formal coaching qualification held. For example, L4 equates to a Level 4 ‘high performing’ coach award (Sports Coach UK, 2016)

The head coaches engaged with the platform in a variety of ways. For example, all of the coaches posted videos of either training and/or match performances within the ‘video room’ facility. Some coaches posted whole matches, whilst other posted team highlights or individually-focussed edited clips. The processes requiring athlete involvement varied greatly across the sample. For example, some head coaches required individuals to post a comment or tag each clip, whilst others
merely required their athletes to have viewed the material to inform group discussion at a later time.

Analysis of the material posted on the platform was mostly facilitated by coaches, although some athletes were also charged with collating feedback from team units (such as the defensive players) or providing individual feedback to peers. The head coaches typically posted content on a weekly basis; usually post-match and pre-training.

Data Collection and Analysis

Semi-structured individual and group interviews were selected for the present study to enable sufficient flexibility to explore the real-world practices of the coaches and athletes under investigation and to ensure that the richest understanding of athlete learning could be captured. A semi-structured interview schedule was created for each of the groups in question and was based around the CLT learning themes of active, social and interpretative conceptions of learning (see Appendix I). Additionally, questions were designed to gauge perceptions of the online system, the PA-related processes in place at the club and any operational/logistical issues or concerns. A member of the research team visited each of the seven clubs conducting individual interviews with the Head Coach (duration 33-85 minutes). Individual or group interviews with assistant coaches (duration 17-75 minutes) and a group interview with players (31 to 42 minutes) were also conducted. The interviews with assistant coaches and players were organised by the Head Coach and all were conducted in a quiet room within the host club’s facility.

Each interview was transcribed verbatim producing 127 single-spaced pages of transcript. Content analysis was deployed in order to organise the data into interpretable and meaningful categories (Miles, Huberman, & Saldana, 2013; Robson & McCartan, 2016). Numerous researchers have predominantly deployed an inductive approach to content analysis with themes emerging from the raw data (Nelson, Groom, & Potrac, 2014; Robson & McCartan, 2016). Conversely, deductive
approaches necessitate a pre-determined framework for analysis. From a pragmatic perspective, much qualitative analysis features elements of both inductive and deductive approaches and the rigour of such approaches is well established (Biddle, Markland, Gilbourne, Chatzisarantis, & Sparkes, 2001).

Miles et al.’s (2013) three-stage content analysis procedures were followed in an inductive and then deductive manner. The first stage comprised the identification of meaning units by the lead author. Meaning units were words or phrases used by the participants which were considered to be potentially important. The meaning units were coded based on key terms identified within the raw data. Subsequently, themes were derived inductively through careful consideration of the codes and meaning units. For example, meaning units all relating to the coaches’ facilitation of the advancement of their athletes’ sport-specific understanding, were grouped together to form one emergent initial theme. Following the identification of initial themes, the lead author consulted with the rest of the authorship team to check the accuracy and confirm agreement of the thematic structure. This process resulted in some minor alterations to the placement and interpretation of meaning units, but the inductive thematic structure was unanimously supported. For example, whilst the team agreed with all the identified themes, a small number of quotations were reallocated to another theme following discussion surrounding the interpretation of the meaning unit. The authorship team then collaboratively sorted the themes deductively into the a priori framework of active, social and interpretative learning drawn from CLT. The final deductive process enabled an explicit connection to be drawn to the underpinning theoretical framework for the study and a facilitated clarity in addressing the study’s research questions (Miles et al., 2013). All processes were managed using the standard tools and features of Microsoft Word.

To ensure trustworthiness of the data analysis processes, a number of key features were implemented. Peer debriefing (Robson & McCartan, 2016) was a regular feature of the investigation and involved all members of the research team regularly discussing matters of design, data collection and analysis. Throughout the process of the investigation, different members of the research team
took the lead on identified sections. Inclusion of any particular meaning unit required the unanimous
agreement of the research team concerning the interpretation and placement within the respective
theme. Furthermore, member checking was implemented through the emailing of completed
transcripts to participants; only minor typographical alterations were requested (Robson & McCartan,
2016). All four members of the authorship team have experience of coaching and competing in
performance sport at a level concomitant with the clubs featured with this investigation. This enabled
the authors to more dependably understand the culture, language and competing pressures within
the featured clubs (Miles et al., 2013; Robson & McCartan, 2016). Finally, rich, thick, descriptions of
the participants’ perceptions and experiences are described throughout the results section (Geertz,
1988) with data triangulated (Robson & McCartan, 2016), where possible, through the individual and
group interviews. These processes enable the reader to construct their own connections to their
individual contexts as we do not generalise our findings to a broader population (Crotty, 1998).

Results and Discussion

The data analysis processes produced 1,016 meaning units which were placed into six key
themes (see Table 2). The six key themes were allocated to one of the three a priori categories of
active, social and interpretive. These three categories will be considered in turn with themes relating
to each element presented, analysed and supported through the use of direct quotations from the
coaches and players.
Table 2: Concepts, themes and meaning units

<table>
<thead>
<tr>
<th>Concept</th>
<th>Theme</th>
<th>Sample meaning unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active</td>
<td>Athlete involvement through tasks (96)</td>
<td>Coach Logic [enables] the players to contribute, to the point of this is what you do; this is what we should do. (Chris)</td>
</tr>
<tr>
<td></td>
<td>Athletes’ developing understanding of the sport and their performance (199)</td>
<td>Now the girls are actually able to start [viewing] the game and start seeing themselves, and make comments themselves. (Hugh)</td>
</tr>
<tr>
<td>Social</td>
<td>Learning in community and athlete collaboration (220)</td>
<td>It [working in small groups] makes the players more together. (Chris)</td>
</tr>
<tr>
<td></td>
<td>Roles, responsibilities and team culture (233)</td>
<td>The senior guys, the guys that are the main leaders on the pitch, tend to take more responsibility for putting the comment up, from the less senior guys. (Matthew)</td>
</tr>
<tr>
<td>Interpretive</td>
<td>Inviting multiple perspectives (193)</td>
<td>We’re hoping they have that discussion in the club house after the game, which they do, you hear them speaking about it after the game. (Brendan)</td>
</tr>
<tr>
<td></td>
<td>The pursuit of consensus (75)</td>
<td>I was going to say the majority of the points last season, we were in agreement with the coaches I think, there were only a few occasions where our opinions differed, which is a good thing because were all on the same page. (Paul)</td>
</tr>
</tbody>
</table>

* The number in parentheses illustrates the number of meaning units attributed to each theme

Active

Two subthemes of (i) athlete involvement through tasks and (ii) athletes’ developing understanding of the sport and their performance emerged through the inductive phase of the content analysis and will be reported in turn. These subthemes relate to two elements of Light’s (2013) explanation of the ‘active’ component of CLT. Relating to the first element, our data provide support for the way in which coaches and athletes conceived learning as being more than a passive receiving and internalising of information. However, relating to the second element, our data provide only partial evidence of any meaningful advancement of athletes’ understanding of the sport or of their performance.
Athlete involvement through tasks

At one level, where learning is active, athletes play a participatory role in their development as a performer. They guide their learning and engage in the process rather than being dependent upon the feedback from the coaching staff. Coaches’ facilitation of tasks through Coach Logic enabled a considerable degree of athlete involvement in the learning process. Dominic’s (Coach, Club D) approach to the use of Coach Logic overtly embraced the value of athlete involvement in the process of performance analysis:

[My] coaching philosophy is trying to get players to facilitate learning themselves. So giving them all the tools to be able to do that. I think the thing for me as a coach, is to not have to tell the players what they’ve done wrong, but them know what they’ve done wrong, for them to have the tools to go out and do that as well ... The good thing is they’re very proactive, they’ve taken it all on board and they’re really looking to push, that’s where you will see the integration from the academy up through the senior rugby.

The value of player involvement in the process of performance analysis is further supported by the testimony of Scott (Player, Club B):

I think it [being involved] makes it more meaningful to you – if you’re part of it. If someone is just telling you what to do, then you might think that’s just an opinion. I think if you’re part of it, you may buy in a lot more: it actually means something to you.

Using the online video platform has clearly enabled the coach to provide opportunities for the athlete to engage with their learning and supports the previous literature that has highlighted the potential value of video feedback and performance analysis (Francis & Jones, 2014; Groom & Cushion, 2005; Nelson, Potrac, et al., 2014).
Athletes’ developing understanding of the sport and their performance

The processes facilitated by the coaches through Coach Logic took a number of different forms. Several coaches used the system to post material prior to training or matches in order to enable players to have time to review content in advance. For example, Freddie (Coach, Club F) outlined one aspect of his practice:

But what I often do, is post video clips on to [Coach Logic] ahead of that session, and say to them defence, midfield and attack and maybe defensive players look at this clip, what’s wrong, what’s right, how can we improve? So when they come into that video session, they’ve seen the clips before and they can think about what they’re doing, rather than it being a shock for them on the night. It gives them the opportunity to preview the video, before we actually get through the session.

Several players highlighted the benefit they perceived in posting material in advance of the subsequent review of performance. For example, Bobby (Player, Club C) said:

Yeah when we get given those scenarios, because we’ve already watched the video. You know what ideally they’re hoping for. They’re hoping that we can identify the structure of things and that will help us buy into it. Rather than them say, look at this, this is what’s wrong. They give us a chance to do it and have a feedback to the group. And the coaches will have their feedback in as well. So everyone can get their say.

Freddie and Bobby’s testimony reveals their mutual belief in the importance of time for individuals to reflect before answering. This finding supports the related literature concerning the need for coaches to allow sufficient response time when asking questions (Cope et al., 2016; Cope et al., 2014) and the potential value in collaboration in the learning process (Light, 2008, 2013), albeit through the original context of an online coaching platform thus accentuating the importance of interactive accessibility in this digital age.
Given the athlete-initiated and collaborative processes facilitated by the majority of the coaches, it is clear they both invited, and were welcoming of, a wholly inclusive approach to the use of performance analysis and the subsequent learning process. This is commensurate with Light et al.’s (2014) belief that the process of learning may even be more important than the solution at which the learners arrive. Tim’s (Player, Club F) perception supported the value of the (learning) process over and above the establishment of the ‘correct’ solution:

Everybody has their say and [Freddie] picks people to say about certain videos which I think is quite good, because we’ve all seen it, we can all say our bit, you know whether people say it’s right or wrong it doesn’t really matter. It’s all about having that open discussion, we’re a team trying to discuss the problem or the situation, whatever it might be and thing that’s quite good ... I think the quality of the people’s answers was a lot better, from not just panicking and say something, because everyone’s waiting for them to say something. I seem to remember them last year a few times just being sort of, people being very defensive about the video ... so I think, having more people with time to think about it [helps].

The coaching practices described above are illustrations of autonomy-supportive approaches. The design of such practices is paramount as the tasks facilitated by the coach must be meaningful in order to secure the engagement of the athletes. Our findings provide some support for the previous investigations that have connected autonomy-supportive approaches and athlete effort, persistence and performance level (Healy et al., 2014; Ntoumanis et al., 2014; Ntoumanis & Mallett, 2014; Ntoumanis et al., 2012; Pelletier et al., 2001; Radel et al., 2010). The use of Coach Logic created the opportunity for the development of an autonomy-supportive environment. The selection of tasks and ensuring they provide choice within specific rules and limits has been shown to develop athlete’s intrinsic motivation (Mageau & Vallerand, 2003; Occhino, Mallett, Rynne, & Carlisle, 2014). However,
the findings of the present study only offer limited evidence of a positive impact of using Coach Logic on athletes' intrinsic motivation. For example,

That’s where you will see the real benefits, the fact that you have guys, from under 14’s been used to that. That system of reviewing their own games, looking up what they need to improve, knowing how to improve it and going out and doing it themselves, rather than waiting for the coach to improve it. (Brendan, Coach, Club B)

Whilst Connor (Player, Club C) said:

If you discuss with people and come together with common goals, and you identify what to work on or whatever. Then you can see what you want to work on, you know that that’s what you’re trying to achieve and then gives you that inspiration for training and you train that bit harder.

Brendan’s suggestion that his use of Coach Logic facilitated greater input from the athletes and Connor’s belief of a resultant added impetus in training hints at a possible enhancement of intrinsic motivation, although our data provide no evidence relating to performance improvement. Nevertheless, Aaron (Coach, Club A) felt that Coach Logic effectively enabled him to ensure that a greater range of his players were actively involved in the analysis of team performance than he had been able to facilitate through other approaches:

Maybe I’m using it [Coach Logic] as a learning tool. Some people like to visualise it and see it. Some people like to do it and some like to be told how to do it. So what Coach Logic is doing from a learning perspective is - People [who are] asking ‘Where do we need to go, why do we need to do that?’; they’ve ticked that box. People that do it and feel it; they’ve done it. The ones that like to review it and see it from the 3D perspective from actually seeing the video; can say ‘that’s where I need to go’. So I
think by being able to have this kind of tool, you’re helping all of the learning styles.

Getting a greater understanding, instead of just shouting at them.

However, autonomy-supportive approaches via Coach Logic were not always well received. A number of players preferred to be told what to do rather than engaging with collaborative work. For example, Duncan (Player, Club D) said:

I think the stuff we do with [the coach] is better [than what we do ourselves]. Because when, after like a day at school or something, the first thing I want to do is relax. And not worry about watching an 80 minute game of rugby. And have to pay attention and say I’ve done that wrong, or I’ve done something well there. So it’s quite time consuming.

However, even if the players do fulfil the tasks, it does not mean that the player themselves are engaged in the activity. It appears that the necessity for an open supportive environment is met by scepticism by some of the players. For example, Eric (Player, Club B) said:

Yeah I think your voice is listened to, but then it’s not going to override anything the coach has already decided to implement. That’s just my opinion.

This clearly highlights the need for the coach/coaching staff to consider how the information is used and help the athlete’s understand the importance of their contribution. Our data reveal that it was through consideration of the social interactions between athletes that coaches addressed such needs.

Social

Two subthemes of (i) learning in community and athlete collaboration and ii) roles, responsibilities and team culture emerged through the inductive phase of the content analysis and will be reported in turn. Under both sub-themes, our data provide overwhelming positive support for social and collaborative approaches to athlete learning through the analysis of performance.
Learning in community and athlete collaboration

The social constructivist approach claims that both the communication process and interaction between individuals and the social context results in learning (Koekoek & Knoppers, 2015; Potrac et al., 2016; Vygotsky, 1978). Coaching practice is socially constructed and involves the relationship between the coach, athlete and the environment (Cushion, 2010a, 2010b, 2010c). In order for interactive sport team members to learn it is of paramount importance that they are able to develop meaningful inter-personal relationships and communicate effectively within a positive environment. Chris (Coach, Club C) focuses on the communication facility afforded with the learning platform:

Coach Logic has lots of logistical things - this is where you’ve got to be and when; some straight forward things that make management of the squad easier. We live in this age of communication, so somebody telling a story about how they found out they were dropped on a board [shakes head] ... Whereas communication now is constant, but it can also be quite shallow. We still try and do things face-to-face ... The main bit for us, is the analysis the opportunity for us to watch.

The platform has positively contributed to the culture and shaped behavioural norms within the team:

For me, it’s gone well. It does give everyone an equal chance and share regardless of whether you’ve got 100 caps [representative honour] or one cap; that’s obviously important within the community of the team. The exchange of ideas, talking with your peers. There’s more value in that obviously. (Alf, Assistant Coach, Club C)

These findings support the following functions of team norms in providing information and allowing for group integration (Carron & Eys, 2012). The development of a community with collaborative learning and group work opportunities frequently leads to the development of a positive team culture.
that has a collective vision. Percy (Player, Club D) emphasises the importance of peer learning and mentoring:

So once I tag a video, he'll [my mentor] maybe comment on it and say you’ve did this well, pointing out to me what my strengths and weaknesses were and we can almost have a conversation about what I need to improve ... Because coach has got a lot going on, [my mentor] does that.

An open and honest communication channel is vital as transmitting and receiving messages efficiently is the cornerstone of successful teamwork. The social perspective indicates that authentic learning does not merely relate to formal engagement but also to the informal interactions that take place in conjunction with the “unplanned intersection of people, culture, tools and context” (Hansman, 2001, p. 44). The Coach Logic platform has afforded the opportunity for communication to take place in a variety of different ways. For example, Piers (Assistant Coach, Club C) said:

[We’re] getting the engagement from 20 or 30 guys coming in instead of engagement from five guys, so that’s quite good. So you ask different guys to present for five minutes ... So it’s helping the communication and camaraderie as well.

Along a similar theme Barry (Player, Club C) and Freddie (Coach, Club F) highlight the collective engagement of team members:

I think it’s useful when there’s a bit of player input as well. Some match analysis you can have throughout the season but if you don’t actually see it happening, you don’t have your own input or get your own opinions across, it’s quite difficult to get much out of it ... when you’ve got players working together who’ve been watching a video of our performance, I think that helps balance ideas off each other and get a better understanding of what’s actually being talked about.
The pitch stuff is really the most important thing as far as the collaboration is concerned. I think getting people together to sit as a group and look at the video is very important as it’s not just the coach standing up. Again, it’s about their learning, being able to sit in a room with the whole group there and to get them, to feedback on what they’re seeing is really important. I think also it’s their ability to look at, what happened on the weekend on their phone ahead of training I think all those little aspects are actually important.

Working in smaller groups and ensuring that significant peer learning takes place alongside offering social support. For example, Chris (Coach, Club C) said:

Some of the feedback [from the players] was absolutely top draw … The task we came up with gave them ownership: ‘here’s what you found, how do we put that into a game plan to make that improvement?’ ... And again, cultural things moving forward, I want them to come to us and say ‘I saw myself do this, how can I improve it? How do I change? It’s all very well, if they know what they need to work on, but if they don’t ask for support or make the effort to improve it, it’s pretty worthless.

For such social support mechanisms to be successful, the team members have to be prepared to maintain a collaborative mind set and provide emotional, affective and performance-related information (G. W. Jones, 2010; Yukelson, 1997). These mechanisms illustrate the importance of well-defined roles and responsibilities for all team members in order to facilitate an effective team environment.

Roles, responsibilities and team culture

Appreciating the roles and responsibilities of other team members is vital for the development of a positive team culture (G. W. Jones, 2010). For example, Chris (Coach, Club C):
It [working in small groups] makes the players more together. Most players, if they work on line-outs, maybe the rest of the other players can breathe a sigh of relief and know that it’s going to be done for them. But what we want to do is bring people in and upskill them.

Chris’s beliefs resonate with some important principles outlined within a number of theoretical principles. Chris is attempting to build a cultural norm in which all players are expected to actively and collaboratively contribute to the enhancement of team performance and also to athlete learning. This perspective resonates with the principles underpinning situated learning and legitimate peripheral participation (Lave and Wenger, 1991) through which newcomers to the team will learn the cultural norms and expected ways of operating within the environment through prolonged exposure to the behaviour of the ‘old-timers’ within the group. This is further illustrated by Andre (Assistant Coach, Club B) how discussed the impact of experienced players on the development of younger squad members:

You learn from experienced players. You learn from what other guys do. So I think when it comes to that side of it, that often, it’s something that’s highlighted more if you have just the young group of players. So if you got a really young squad with not much experience, things like that where they can learn from other players. You suddenly realise you’re struggling in certain situations in games or they don’t learn from their mistakes week in week out and I think part of that is having a good balance to your squad having some good, key experience players, in key positions.

The platform has also been instrumental in the development of cohesion which has often been linked to success in sport (Carron, Bray, & Eys, 2002):

I think the bits around the connectedness and team has shown the way we’ve gone about things this year but it’s a very subjective measure. But when you see the
number of people who train and who play for the team and the number of people who pat on the back ... It’s a pretty strong sign of the connectedness. If you look at performance, one of the other things I’ve said to the players, if he loses, we lose, if he wins, we win, it’s that unselfishness for the betterment of the team. Taking pride in other people’s success. (Chris, Coach, Club C)

Chris’ perception illustrates that, in addition to the social benefits of Coach Logic to athlete learning, the associated enhancement of team cohesion was also important. Player interaction was also deemed extremely beneficial in the empowerment process and ensuring that communication is not simply coach to player orientated:

I think it’s useful when there’s a bit of player input as well. Some match analysis you can have throughout the season but if you don’t actually see it happening, you don’t have your own input or get your own opinions across, it’s quite difficult to get much out of it. So if it’s just coaches or the strength and conditioning guys it’s really difficult to get a lot out of it. But when you’ve got players working together who’ve been watching a video of our performance, I think that helps balance ideas off each other and get a better understanding of what’s actually being talked about. (George, Player, Club C)

George’s insight provides further evidence relating to the importance of player empowerment and athletes’ perceptions of autonomy for authentic learning (Iachini, 2013; Ntoumanis & Mallett, 2014; Pelletier et al., 2001) but also highlights the extent to which the players’ interpretation should shape collective training foci and match strategy.

Interpretive

The interpretive strand of this investigation reflects the belief that there is no pre-given, fixed and external reality (Light, 2013) and strives to understand athlete learning in the context of their own
game performance, rather than as an enactment of the coach’s universally applicable belief. Two
subthemes emerged through the analysis namely i) inviting multiple perspectives and ii) the pursuit
of consensus.

Inviting multiple perspectives

At first glance, there appeared to be widespread investment in learning processes that embraced an
interpretive perspective. For example Kyle (Player, Team B) said:

You’ve got 23 sets of eyes looking over it. What you comment down, four or five guys
might agree but in different way. But then they can have their say on what you’ve
written and something to add, it’s not just you putting the information ... so you’re
constantly learning.

The value placed in the collaborative processes espoused by Kyle reflects the positivity commonly
associated with the social aspects of athlete learning (Atencio et al., 2014; Quennerstedt, Annerstedt,
et al., 2014) and those components discussed within the ‘social’ section of this paper. Furthermore,
Kyle’s perspective provides an insight into the potential value to athlete learning of performance
analysis conducted in collaborative ways, as opposed to a coach-directed conversational dialogue
(Groom et al., 2012). Central to Kyle’s belief is the value placed in different perspectives and
interpretations of the same environments that he acknowledges as a pivotal component of his
continual learning journey. Similarly, Gus (Player, Team C) illustrates how the use of video itself can
offer that alternative perspective to enable an interpretation of an environment from a different
perspective than that held-over from playing the game:

Just that it gives you a different perspective of everything. If you’re on the pitch you
don’t see half of what the camera will show you. Just give you a different approach to
things, so you can think this is the right option.
The collaborative processes implemented at Teams B and C extend the evidence provided by Reeves and Roberts (2013) concerning the positive psychological associations with performance analysis. Reeves and Roberts (2013) posited that performance analysis is largely associated with positive motivation as long as the athletes’ considered they had had a ‘good’ game but questioned whether highlighting a poor performance may affect athletes conversely. The findings of this investigation illustrate that structuring performance analysis in a collaborative manner can help to mitigate potential negative affective responses and thus reflect the assertions of Koekoek and Knoppers (2015) relating to the impact of affect in relation to framing an individual’s interpretation of their own performance. Koekoek and Knoppers (2015) found that children, in a physical education context, when framing their constructions of reality, are strongly influenced by the affective implications of their team mates’ reactions. Kyle and Gus’ perspectives suggest that affect can also be a factor in adult learning in a coaching context. Furthermore, Alfred (Player, Club F) speculated that the processes facilitated by the coach through the online platform had altered players’ perceptions of the performance analysis processes and had moderated the potential for negative affective responses:

What I’ve been aware of ... it [Coach Logic] kind of normalises the self-analysis because the video is available to everyone to analyse. People do not expect so much, the big wow, the big reveal, when the coach walks in with the video, saying ‘right we’re going to watch these clips’ and everyone feels a little bit self-conscious ... mainly that’s the reason why at the moment we talk people through the video rather than posting notes, because people can take that the wrong way very easily, you can be seen to be pointing your fingers unless it’s written very carefully.

Alfred’s belief is commensurate with the evidence presented by Groom et al. (2012) and Nelson, Potrac, et al. (2014) insofar that a domineering and/or controlling approach to performance analysis feedback heightens the potential for the coach to induce anxiety. Nelson, Potrac, et al. (2014) reported that ‘John’, the subject of their investigation, often perceived his teammates were fearful of
a judgmental analysis of their performance and considered the greatest value from performance
analysis work to occur when experienced players were able to collaborate in the reviewing of match
footage. Steve’s (Player, Club F) perspective highlighted a similar value given to collaborative
processes by suggesting that a shift away from coach-led performance analysis along with the
provision of time away from the rest of the group to reflect led to an increase in the quality of
contribution from athletes:

Yeah I think, the quality of the people’s answers was a lot better, from not just
panicking and saying something, because everyone’s waiting for them to say
something. I seem to remember them last year a few times just being sort of, people
being very defensive about the video. What you said there about people not being
afraid to have the video. There was a time, I remember seeing a clip of video which
Freddie asked us, what do we have to say about it and one person, ripped it apart, like
every little tiny thing. What Freddie was actually trying to show us was that was a
really bit of good little play and we should do that again. But the feedback that came
was very negative, so I think, having more people with time to think about it.

The findings of this investigation demonstrate that placing value in each individual’s interpretation of
performance is an important component in facilitating a successful collaborative analysis. For
example, Ben (Player, Club F) said:

Well I think everybody interprets each video differently, so it adds to a discussion, I
think Freddie has been quite good at not always saying this is the right thing to do in
this situation ... Like I say there is no right and wrong within hockey and within sport.
You know, you’re just addressing each situation as you come to it and it’s nice that
everybody can say there bit about certain situations and that makes us more of a
team, because, we’re not afraid to criticise other people too, that’s obviously quite
important as well because I think that does bring people together, it’s not upsetting
to know that people think you’ve done something wrong, and so on and so forth.

Ben’s acknowledgement that there is no universal truth to be imparted by the coach and his
appreciation of Freddie’s ability to draw wide-ranging interpretations from across the group is
commensurate with an adoption of sociocultural learning theory (Hodkinson, Biesta, & James, 2008)
in that the value of each individual’s perspective should be upheld. The findings of this investigation,
therefore, offer further evidence that underline the potential value of sociocultural perspectives of
learning in sporting environments (Quennerstedt, Annerstedt, et al., 2014).

The pursuit of consensus

Whilst there are numerous aspects to suggest that the coaches featured within this
investigation were able to facilitate a collaborative approach to performance analysis through the
online platform that was commensurate with an understanding of the interpretative nature of
learning, there were also a number of factors that cast doubt on the coaches’ true intentions. For
example, whilst Chris (Coach, Club C) initially said:

Its [video analysis] open to everyone. I’m not the only one with the DVD and they have
to take my opinion. Those opinions become important as well. Not all coaches want
that.

... he also then went on to say:

And now they can’t say it’s me against them, its video. Making judgements backed up
with hard evidence. So setting players targets. So one of our players has got a really
simple issue. When he carries the ball he cuts back in, rather than work his way out.
Bending their line and giving us a chance to go forward. When he cuts back in, it loses
our momentum and it makes it difficult for our players to support him. It’s a really
simple thing. I’ve got half a dozen clips that prove my point.
These two quotations illustrate Chris’s conflict surrounding the ultimate purpose of facilitating collaborative performance analysis. Initially, Bruce appears to be inviting and valuing an interpretive framework and welcoming diversity in opinion, whereas in the second quotation, Bruce views the video as a tool to evidence and support his assessment of a player’s poor decision making. Such a contrasting perspective reflects the difference between viewing learning as *acquisition* and *participation* (Sfard, 1998), commensurate with the work of Quennerstedt, Öhman, et al. (2014).

Bruce’s initial assertion could be likened to a disposition encouraging a ‘participatory’ perspective in that athletes’ are being considered as active members of a community (Lave & Wenger, 1991) whilst the latter quotation reveals a desire for the athletes to internalise and ‘acquire’ his own understanding (Piaget, 2001). Brendan (Coach, Club B) also demonstrated a strong desire to reach consensus through the process of collaborative performance analysis:

> Every time the attack guys had said a comment that I had in my video and we were getting a bit more excited every time we played the clips and its bang on with what they’ve just said. That’s when you can tell it’s really important, so that works really well and we will continue with that this year.

Similarly, Carter (Assistant Coach, Club C), whilst espousing the value of athlete-derived analysis, essentially sees the purpose of such processes as being to establish answers that the coaches have already constructed, albeit without the need for the coaches to actually ask the question.

> Being able to come up with the information that we want them to come up with in the first place [is great], but the value is much greater if it comes from the players than if it comes from the coaches. So they’re coming back with the answers before we’ve asked the questions and it’s fantastic … They’re thinking through themselves; they’re going home spending more time on the thought process in preparation for the game.
Therefore, Brendan and Carter can be seen to be struggling between the more radical forms of constructivism in which valued knowledge is that pieced together by the learner and the more empirically-oriented approaches in which understanding is tacitly or explicitly located in an external environment (Cobb, 1986; Slade et al., 2015). Eddie (Coach, Club E) explains that the battle to engage with more radical perspectives on learning may be impeded by the coach’s desire to maintain a ‘face’ of competence and understanding of the situation:

The thing about coaching is, in a coaching session you want to show how smart you are sometimes, and impart knowledge, whereas I think with the kids we’ve got to look, we’ve got to get them on board with learning so we’ve been, from last season we’ve been videoing it on the iPad a lot to show model practices. Instead of showing it to them after, we’ve been showing it to them before. So here’s where we want to work at the break, show them the tackle technique, here’s some good passing goals so we’re going to show it to them all before we even coach it to them.

Eddie’s perspective is reinforced by Nelson, Potrac, et al. (2014) who found that players who consider the coach to be unable of conveying meaningful information through performance analysis may lose the respect of their athletes and that this may negatively impact on the ability of the whole group to learn.

Conclusion

Coach Logic, and other similar online coaching platforms, clearly have a place in contemporary team sport environments and can contribute to athlete learning and other important aspects of team culture and cohesion. The investigation has demonstrated that CLT represents an effective and insightful perspective from which to better understanding individual and collaborative learning within a team sport environment. Shifts towards the use of online, video-based, coaching platforms are an inevitable part of the evolution of coaching practice in this modern digital era. Communication
channels between coach and athletes need to incorporate information technology as well as more traditional methods. The accessibility and practical functionality of online coaching platforms is vital in establishing engagement from all parties and opening-up performance analysis as a meaningful and normative component of team preparation. For many performance-focused sports teams operating at amateur level, such as those featured in this investigation, face-to-face training time is precious and often greatly limited. For these reasons, online coaching platforms should be seen as a mechanism to augment and enhance the value of that precious and limited time, rather than as a replacement. Therefore, online coaching platforms have the potential to contribute to a coach’s holistic construction of a nonlinear approach, but only as one component of a broader pedagogical strategy.

Online coaching platforms have the capacity to facilitate the active involvement of athletes in the process of performance analysis and this appears to be valued and accepted by all parties. The athletes’ involvement through tasks and their subsequent development of understanding represents two key elements for coaches to consider. The active involvement in meaningful and autonomy-supportive tasks may well have subsequent benefits to athletes’ intrinsic motivation. Whilst many athletes can be engaged and empowered through tasks facilitated through online coaching platforms, it is inevitable that such approaches will not be universally embraced by each individual team member and so coaches will need to remain cognisant of the challenges of facilitating a diverse range of learners. Athletes should be tasked to complete meaningful and accountable analysis of training and performance on a regular basis. Coaches should seek to establish a cultural norm within the team environment of engagement with the online coaching platform and with a focus on enhancing athlete autonomy, competence and relatedness.

From a social perspective, online coaching platforms have helped to develop a positive team environment and interpersonal working at a variety of levels. Coaches’ effective use of such tools can greatly enhance the principles of learning in a community through athlete collaboration. Furthermore, effective structuring of tasks with well-defined roles and responsibilities can enhance the team culture
and learning process. Despite the virtual nature of the interactions facilitated through online coaching platforms, it is clear that such approaches can contribute to a socially and culturally embedded appreciation of coaching practice. Furthermore, the social components of this investigation have demonstrated the value in theorising the complex reality of coaching practice from a sociocultural perspective. Coaches should facilitate regular directed tasks demanding collaborative analysis amongst team members featuring carefully constructed groupings to best enhance athlete learning and team performance. Opportunities for collective decision making and problem solving should be constructed with an emphasis on shared responsibility.

Considering the interpretive perspectives of athletes’ learning, this investigation has evidenced considerable good practice but has also revealed the potential for coaches to embrace a more radical conceptualisation of the acquisition of knowledge relating to their sport. Whilst inviting and valuing multiple perspectives from all parties, coaches struggled with the pursuit of consensus as the most desirable outcome from the learning tasks; this may highlight limitations within their epistemological understanding of coaching practice (Grecic & Collins, 2013). It is clear the coaches grappled with the balance between long-term development and achieving more immediate success in terms of match result. In most instances coaches felt constrained by the immediacy of the next competitive match and so may have benefitted from further pre-season and between-season preparations. More substantive preparations incorporating online coaching platforms during all phases of the season might enable athletes to be more meaningfully engaged in their learning. An overt understanding of the purpose of each task is crucial to learning. Specifically, athletes should be helped to understand how their engagement was to more explicitly impact on training foci and match strategy. For example, through the transparent dissemination of the processes through which team strategy is constructed, athletes should be shown how their involvement in the performance analysis processes will shape the team’s vision, tactics, principles and norms.
Given the importance of the social processes outlined within this paper and the difficulties experienced by some coaches in embracing the multiple perspectives offered by players, it appears that coaches need support to develop their practice in facilitating a wholly inclusive learning community that embraces a wide range of experience, knowledge and abilities. This investigation has shown some evidence of benefit to younger players and those working with peers; however, future research should consider how more senior players and mentors can learn from engaging in collaborative activity. Future research should also consider how to more meaningfully construct an inter-disciplinary approach to the use of online coaching platforms that more authentically incorporate the wider coaching team including, for example, strength and conditioning coaches, physiotherapists and performance analysts. Finally, future research should more overtly consider whether more tangible performance improvements can be evidenced through the use of online coaching platforms.


Appendix I: Interview guide for Head Coaches

Introduction
1. Can you tell me about your coaching journey?
   a. Key milestones?
   b. Development of role?
   c. Motivations?

Transition
1. Can you tell me about how you have learned to coach?
   a. Formal (courses/degrees)
   b. Informal (CPD/workshops)
   c. Non-formal (mentoring/observation/web-content/books)
   d. Experiential

Main body
1. What do you think are the most important aspects of quality coaching?
2. How did your decision to use Coach Logic fit with your understanding of quality coaching?
3. In what ways have you sought to use Coach Logic with the team?
4. To what extent has your use of Coach Logic been successful?
5. What affects the likely engagement of team members and coaching staff with Coach Logic?
6. To what extent is collaborative analysis of performance important to the success of the team?
7. How would you characterise the team’s engagement with Coach Logic?
   a. Players
   b. Coaching staff
8. To what extent has your use of Coach Logic helped the team to learn?
   a. Examples?
9. To what extent do you perceive using Coach Logic has impacted the team?
   a. Collaboration
   b. Team performance
      i. Wins/quality of performance – team/individual
   c. Understanding
   d. Contributions
10. What do you consider to be the most useful functions within Coach Logic?
    a. Suggestions for improvement?

Ending
1. What does the future look like for the use of Coach Logic within your team?

Summary
- I think we’ve discussed these things today [enter topics of discussion]; do you feel that’s a fair reflection of what you’ve said?
- Is there anything else you’d like to mention that you haven’t yet had a chance to discuss?