1   **No Place To Hide: Football Players' and Coaches' Perceptions of the Psychological**

2   **Factors Influencing Video Feedback**

3   Within men's elite youth football in England, academies are talent development

4 centres set up and funded by professional clubs with the primary objective of developing

5 players to reach the professional level. However, this transition is a complex and demanding

6 process (Bruner, Munroe-Chandler, & Spink, 2008; Mills, Butt, Maynard, & Harwood,

7 2012), with low numbers of players graduating into senior football (Brown & Potrác, 2009).

8 The ability to reflect on and learn from performance has been identified as a crucial element

9 associated with successful progression within professional football (Harwood, 2008; Toering,

10 Elferink-Gemser, Jordet, & Visscher, 2009), with youth football often characterised by a

11 balance between 'development' and 'results' (Gilbourne & Richardson, 2006). The desire to

12 maximise learning opportunities within youth football has led to widespread use of video-

13 based performance analysis by coaches, athletes and sport scientists within the football

14 environment (Drust, 2010). Coaches have reported using video for a broad range of purposes,

15 including tactical work, pre-match psychological preparation, team building and as a tool for

16 reflection and debriefing (Pain & Harwood, 2007). Performance Analysis (PA) research has

17 contributed significantly to our current knowledge of identification of movement and

18 performance patterns within competitive football (Hughes & Franks, 2007), and other areas,

19 such as the identification and use of key performance indicators (James, Mellalieu, & Jones,

20 2005), and the role of motion analysis techniques to gather information relating to work rate

21 data (Carling, Reilly, & Williams, 2008). However, while a great deal of attention has been

22 paid to the role of video as a method to record sports performance data in an 'accurate' and

23 'reliable' manner (Hughes & Franks 2007; MacKenzie & Cushion, 2012), less attention has

24 been paid to understanding how players are responding psychologically to VFB. The old

25 adage 'the camera never lies' may have led some coaches and practitioners to see video

1   primarily as an 'objective' source of information, one which is less open to subjective

2   interpretation than alternative methodologies. Recent research suggests that the delivery of

3   VFB may not be as straightforward or as simple as sometimes assumed (Stratton, Reilly,

4   Williams, & Richardson, 2004).

5   A number of recent studies have begun to shed light on the ways in which elite team-

6   sport coaches and athletes interact within applied video practice. Responding to the

7   dominance of (post)positivist research paradigms within existing VFB/PA studies,

8   researchers have adopted qualitative methodologies in an attempt to capture the reality of

9   how video-based performance analysis is delivered 'in situ' within applied practice (e.g.

10   Groom, Cushion, & Nelson, 2011); Groom Cushion, & Nelson, 2012; Mackenzie & Cushion,

11   2014; Nelson, Potrać, & Groom, 2014; Taylor, Potrác, Nelson, Jones, & Groom, 2015).

12   Using qualitative interviews, Groom et al.,(2011) examined football coaches' perceptions of

13   video-based performance analysis, presenting a conceptual framework for its delivery within

14   sport. Their study revealed a broad range of contextual, environmental and psychological

15   factors influencing delivery sessions, and emphasised the importance of coaches treating

16   athletes as individuals, knowing what players liked doing and what they did not, and creating

17   an environment where athletes can be open in their responses without fear of judgement.

18   Recent evidence suggests that football coaches also need to be aware of the

19   asymmetrical power relationships can develop between coach and athlete within VFB

20   practice (Groom et al., 2011; Groom et al.,2012; Taylor, Potrác, Nelson, Jones, & Groom,

21   2015). Unintended consequences of these coaching behaviours can include players becoming

22   reluctant to give and receive critical feedback during video sessions, resistance to feedback

23   and a failure to learn. When the video was used to 'replace' the coach in Taylor et al's study,

24   the athlete ('Claire') reported an initial positive impact, such as an increase in concentration

25   and in the intensity of her physical efforts. However, there were also negative effects, such as

26   the fear of making mistakes or showing weakness on camera, leading to her feeling anxiety in

1   the lead up to, as well as during, VFB sessions and being reluctant to voice her disagreement

2   with coaches or teammates interpretations of what was happening in performance. Her

3   experiences mirror previous research that has highlighted the subtle ways in which coaches

4   use their power to influence athletes' responses to VFB (Nelson et al., 2014). The findings of

5   these studies illustrate that delivery can be influenced by coaches' ability to obtain, maintain,

6   and further develop a level of trust and respect afforded to them by the athletes in coaching

7   contexts (Cushion & Jones, 2006; Potrác, Jones, & Armour, 2002). When mutual respect and

8   openness are present within the coach–athlete relationship, the athlete appears to have a more

9   positive experience (Nelson et al., 2014).

10   These recent PA studies have advanced our understanding of the influence that VFB

11   can have on an athlete's emotions and behaviours in elite sport. However, there remain a

12   number of gaps in this literature. Firstly, to date, no study has undertaken an in-depth

13   exploration of VFB delivery from a psychological perspective. This is surprising given that

14   sport psychology research has enumerated the positive benefits associated with delivering

15   video as a psychological intervention (Ives, Straub, & Shelley, 2002)). These include an

16   increase in confidence in pre-performance routines (e.g. Tracey, 2011), motivating players

17   returning from injury (Feltz, Short, & Sullivan, 2008), as a reflective tool for athletes and

18   coaches (e.g. MacKenzie & Cushion, 2014; Carson, 2008) and in association with mental

19   imagery (Holmes & Collins, 2001) and music (Bishop, Karageorghis, & Loizou, 2007).

20   While recent studies have provided insight into coaches' and athletes' perceptions of VFB (or

21   video-based performance analysis), the focus of these studies has primarily been on

22   understanding delivery from a socio-pedagogical perspective (in particular, the role of power

23   relations within coaching practice). It is important to understand athletes' and coaches'

24   perceptions and awareness regarding the psychological factors underpinning VFB. Research

25   has indicated that a lack of awareness of how athletes are responding to VFB may have

26   negative consequences for player performance (Pensgaard & Duda, 2002).

1   Given the recent focus on the coach–athlete dyad in VFB research (e.g. Groom et al., 2011).

2   it is surprising that the perspectives of player and coach have not hitherto been explored in

3   depth within the same study. Such an approach would extend our current understanding and

4   allow for comparison between these dual perspectives. With these deficits in mind, the

5   present study aims to provide a comprehensive examination of the psychological factors

6   influencing VFB delivery in UK youth male soccer by exploring the perceptions of players

7   and coaches within elite youth football. It is hoped that the findings of this study may provide

8   greater consensus on the ways in which coaches and practitioners can incorporate these

9   technologies and techniques into applied practice within youth football. The findings of this

10 study can provide coaches and sport scientists working within sport with practical

11 recommendations on how and when to use video in the youth football environment to help

12 optimise the psychological and performance of this technology.

13   **Methodology**

14 In order to explore these questions in depth, a two-part qualitative study was conducted, with

15 interviews utilised to investigate (i) coach and (ii) player perceptions of the subject.

16 Following institutional ethics approval, players and coaches were recruited who were

17 currently attached to a professional football academy and had experience (six months+)

18 working with VFB. The coaches and players involved were contacted by telephone to inform

19 them personally of the nature of the study and to elicit their participation. The authors

20 approached this study from an interpretivist philosophical perspective – focusing on

21 understanding the meanings, purposes and intentions that people attach to their actions and

22 interactions. This approach assumes that reality is socially constructed by individual actors

23 and should be interpreted rather than measured (Johnson & Waterfield, 2004).

24 **The Participants**

Running head, *Perceptions of VFB*

1   The participants in this two-part investigation were eleven male football coaches (age,

2    $M = 38.4$, range = 29-52) and twelve male football players (age, $M = 17.1$, range = 16-18).

3   Nine of the coaches were employed full-time within English Academy Premier League clubs,

4   while two were employed as full-time coaches within the England Youth International

5   environments. The coaching group reflected a range of years of qualified coaching

6   experience in terms of time coaching. The coaches were qualified to UEFA 'B' (n=6) and

7   UEFA 'A' (n=4) license level, and their coaching experience ranged from $7 – 21$ years ($M =$

8   12.5). All coaches had a minimum of 6 months of using VFB within their coaching practice.

9   The twelve players represented six different professional football academies in the English

10   Premier ($n = 8$) and Championship ($n = 4$) leagues and were either first- or second-year

11   scholars on full-time contracts. A range of experience within the academy football system

12   (years, $M = 5.4$, range $4 – 8$) and playing positions were included. Eight of the players had

13   been part of a youth international squad (Under 16-19 level), and four had made their senior

14   professional debut at the time of the study.

15   **The Interviews**

16   A semi-structured interview guide was developed to explore participants' perceptions

17   of VFB delivery and ensure that the same questions/probes were asked of all participants

18   (Patton, 2008). The interview guide was developed from the existing literature and the

19   authors' experiences of working with video in professional football. The guide covered three

20   major aspects of video feedback delivery: *experiences of using VFB, the impact of VFB, and*

21   *optimising VFB delivery*. Pilot interviews were conducted with a sample of two players and

22   three coaches from a professional football academy (not re-interviewed in the main study),

23   which led to additional prompts being added to the guide. Rapport-building questions and

24   open questions (such as 'Can you tell me about a typical post-match evaluation session using

25   the video') were followed up by more specific questions such as 'How does it feel when you

26   watch yourself on video?' until saturation was deemed to have been achieved on a particular

1   issue. Clarification and elaboration probes were also used to encourage the participants to

2   expand on their initial responses in order to ensure an accurate, in-depth understanding of

3   what they were describing. None of the participants in the pilot study subsequently

4   participated in the main study. All the interviews were conducted by the lead author, who had

5   received training in qualitative research methods. In the majority of cases (ten coaches /

6   eleven players), these were face-to-face interviews; telephone interviews were conducted

7   with two participants due to the difficulty of organising face-to-face interviews. The

8   interviews lasted between 54 and 107 minutes (*coaches*, time 63-107, M = 83.3 min; *players,*

9   time 54-97, M = 74.1 min).

10   **Data Analysis**

11   Data from the interviews were transcribed verbatim and a heirarchical content

12   analysis was conducted by the principal researcher in order to identify and explore common

13   themes within the data. To facilitate comparison at a later stage, the interview transcripts of

14   the players were transcribed and analysed separately from the coaches' interview transcripts.

15   The process of data analysis moved from description through to analysing meaning, and

16   involved a progressive coding technique (Braun & Clarke, 2006) containing both inductive

17   and deductive elements (Krueger & Casey, 2000). A frequency analysis was conducted to

18   illustrate how often each theme was mentioned by the participants, to allow interested readers

19   to immerse themselves in the data and gain a fuller understanding of the perceptions of the

20   participants (e.g., Fletcher & Arnold, 2011).

21   The lead author's level of immersion in the topic area (as a practitioner working with

22   video within elite football at the time of data collection) was seen as a strength of the

23   investigation, potentially adding depth and richness to the data gathered. His experience

24   brought context-specific knowledge and experience of video feedback practice to the

25   development of the interview guide and the analysis phase of the study. However, a number

26   of self-correcting verification strategies were also employed during the analysis to reduce

1 potential researcher bias and optimise trustworthiness (Holt & Sparkes, 2001). These

2 measures included providing a sample of each participant group – four coaches and four

3 players – with the full text of their interview as a check for accuracy. A follow-up phone call

4 was made with one coach (C8) to clarify and elaborate on the points he made in his interview

5 regarding the use of video for punishment. To address potential researcher bias, the lead

6 author held regular meetings with two colleagues, both experienced academics, during the

7 data analysis phase. The role of these colleagues was to act as 'critical friends' (e.g., Smith &

8 Sparkes, 2006) and to encourage reflection on the data and exploration of alternative

9 explanations and interpretations. Finally, a summary of the author's conclusions was

10 provided to the performance managers of each academy involved as a way of stimulating

11 feedback.

12 **Results**

13 The results derived from the data analysis represent the collated interview responses of the

14 participant coaches and players. The coach interviews (part a) yielded 421 distinct raw-data

15 quotes which were abstracted into 111 lower-order themes and 17 higher-order themes. From

16 the player interviews (part b), 490 distinct raw-data quotes were abstracted into 104 lower-

17 order themes and 16 higher-order themes. In both studies, these higher-order themes were

18 abstracted into the same three general dimensions – Psychological Responses to VFB, VFB

19 Delivery Strategies, and VFB Delivery Climate. To aid comparison, the player and coach

20 perceptions are presented together under these three dimensions. Where possible, the

21 language used in the participants' perceptions have been used within the theme labels. Direct

22 quotes have been used to give an insight into the dialogue between the coaches, players and

23 practitioners involved in the study.

24 **Psychological Responses to VFB**

1   Coaches and players articulated a number of psychological responses which

2   influenced the VFB delivery sessions. Specifically, both groups identified six psychological

3   factors that influenced the effectiveness of VFB delivery – Self-confidence, Thoughts,

4   Emotions, Mental Toughness, and Visualisation/Imagery. The only differences were the

5   subthemes Focus (Coach-only) and Self-esteem (Player-only).

6   **Coaches' perspectives on psychological responses to VFB.** Improvements in

7   psychological outcomes, such as self-confidence and communication, were seen by the

8   coaches as a reason for using VFB in youth football. The players' receptiveness to VFB was

9   seen as influenced by their individual psychological state at the time of delivery. For

10   example, self-confidence was also highlighted by the coaches as an indicator of how a player

11   might respond to VFB. High-confidence players were perceived as less concerned about how

12   they were viewed by their team-mates and thus easier to work with. Similarly, players with

13   lower levels of self-esteem were viewed as less receptive to VFB:

14   So much about how they respond to anything in the academy, including the video, is

15   linked to how confident they feel about themselves as a person … you know the ones

16   who struggle with esteem will also struggle with feedback, and will take things too

17   personally, too emotionally (C3).

18   The coaches felt that self-reflection – either coach-guided or unguided – could help

19   players to move beyond emotional responses, reflect more objectively on their performance,

20   and that using VFB could narrow the gap between the views of coach and player. The

21   coaches felt that players often tended to focus on their immediate emotions and failed to see

22   the 'bigger picture' relating to their development. While negative emotions were associated

23   with certain delivery styles (discussed below), the coaches generally associated the delivery

24   experience with positive emotions, represented by sub-themes such as 'Players often enjoy

25   first exposure to VFB', 'Positive emotions help players focus' and 'Player emotions become

26   less intense after VFB'. One coach reported using the video "to build his [the player's]

1 understanding of better choices and feelings to focus on under pressure ... how he would feel

2 doing it" (C4). However, a number of coaches also reported using video to deliberately elicit

3 'negative' emotional responses from their players:

4   If I think they are getting lazy, and I want to get a response from my players, then I

5   use the video to hammer them, show them exactly how poor they were. It is often

6   more powerful when really negative, as when they train next they know they have to

7   train harder than ever before to correct their mistakes (C2).

8   The theme of Mental Toughness encapsulated the coaches' perception of VFB as a

9 process which could both develop and reveal a player's mental strengths, and was linked to a

10 wider goal of preparing players to handle the pressures of senior football. This element was

11 epitomised in the sub-themes 'Video reveals character through pressure', 'Removed player

12 excuses' and 'Makes players more accountable for errors'. Observing how players handled

13 criticism, or how they responded to making a mistake in front of other players, offered some

14 coaches a measure of a player's psychological coping skills. "When you take their excuses

15 away from them, it puts them under pressure, and you see their true character come out

16 (C11)". Several coaches saw VFB as a tool they could use to aid their players' transition to

17 senior football by making them more self-reliant and able to handle criticism, qualities seen

18 as essential for coping mentally with the less supportive and highly critical environment of

19 the professional game. To achieve this goal, some coaches felt they had to be prepared to be

20 tough on the players, in the same way their coaches had been with them as young players:

21   I know the players [in the academy] think that I am a bit harsh on them, I can see it in

22   the way they respond to me in meetings, but it is nothing compared to the way I was

23   treated when I was their age (C2).

24   Finally, the use of mental imagery was identified as a psychological skill which the

25 coaches felt was integral to building players' confidence and optimising the performance

26 impact of VFB. Imagery was seen as a tool which could help the coach link the

1   psychological and emotional responses of the players to the performance he was looking for

2   in the game. In particular, using the player as his own model was seen as enhancing the

3   imagery process.

4   **Players' perspectives on psychological responses to VFB.** While delivery was

5   associated with positive psychological responses, it appeared to be a negative and

6   uncomfortable process at times for the players. In a similar way to the coach data, VFB was

7   reported as a tool which could build players' confidence regarding specific aspects of their

8   performance: "I watch little technique things, body shape, footwork, my first touch, important

9   stuff … [VFB] helps me feel like a better player, I sort of believe in my ability to do these

10 things more when I see them" (P2). A link was also made between confidence and thought

11 patterns during delivery. Players discussed how holding onto negative thoughts, following

12 poor performance or criticism, could eat away at their confidence and negatively influence a

13 player's performance in the future:

14   I find that once I am thinking about the video it's almost impossible to let it go …

15   especially if I have made a mistake and it has been replayed in the team meeting. It's

16   not like I wouldn't be thinking about my mistakes anyway, but the video seems to set

17   it in your mind, and it sometimes takes a few days to shake it off (P12).

18   Self-reflection was seen as a skill which could help players avoid these negative

19 thought patterns. Players focused on themselves during team VFB, losing focus when they

20 weren't on screen: "I'm listening to the coach talk about the team shape, but I'm watching

21 myself, whether I have a good touch if I get the ball, or whether I look OK on screen" (P10).

22 Emotions such as anxiety, pride and embarrassment also played a central role in the video

23 delivery experience. Seeing themselves on video for the first time was a positive experience,

24 as was recalling good performances. For one player, video feedback helped him cope with a

25 long-term injury:

1   I had one game (at) home, I had an absolute *worldy* [best ever performance]. I

2   watched [the video] so many times. It is weird though 'cos I got badly injured in the

3   88th minute of the game. Watching it from time to time [during my recovery] helped

4   me keep my head up and remembering the way playing well feels. (P2)

5   The players made a link between emotions experienced during VFB and in the game

6   itself. Negative emotions felt at the time of an on-field incident – such as guilt,

7   embarrassment or anxiety – were often recalled during a video session. This often prevented

8   players from enjoying team meetings. Players who became overly emotional when watching

9   VFB or receiving coach criticism were seen by some players as 'mentally weak'.

10   Conversely, VFB could also develop mental strength:

11   I was playing for [the reserves] and wanted to show the boss I could handle the next

12   level, but I was against a good player and got embarrassed by him really. I choked. I

13   got hold of the tape and watched it over and over to see what I could have done better.

14   I got another chance [to play for the reserves] early this year, and did better.

15   The player data also indicated that some players struggled to control when and how

16   they would recall a negative video image they had previously seen in a team meeting, and

17   reported experiencing negative emotional responses to coach criticism for a significant period

18   following VFB (several days to a week). Visualization (the use of mental imagery) was seen

19   as a psychological technique which was linked to VFB. It enabled players to recall their

20   performances in greater clarity, helping one player to "build an image in my mind of what it

21   would look like if I did it right" (P10) and thus translate coach feedback into action.

22   **VFB Delivery Strategies**

23   The second dimension focused on how VFB was delivered to the players. Similar

24   emergent themes – Team-focused VFB, Team pre-match preparation, One-to-one focused

25   VFB, Self-modelling, and Self-observation – were identified from the data analysis process

26   for both the players and coaches.

1   **Coaches' perspectives on VFB delivery strategies.** The coaches welcomed the use

2   of video in the post-performance debrief, linking it to improved team performance,

3   communication, and group cohesion. For some, the video was the 'final word' on what

4   actually happened during performance, adding greater depth to the analysis process.

5   However, caution was urged by a number of coaches. Viewing their own mistakes in front of

6   their team-mates and the coach was seen by a number of coaches as a psychological barrier to

7   learning for players. VFB could be distracting, creating anxiety and a negative mood amongst

8   the group. If unmanaged, this negative mood was seen to carry over into training or the next

9   game, disrupting performance. Reading the mood of the group and managing negative

10   emotions was seen as a challenge:

11   The problem I have is when one kid falls over or something, and we all start laughing

12   … some players get embarrassed and duck their heads down, their attention's gone.

13   You say, *"Look, we are doing this for a reason"* …but they are gone, mentally. (C9).

14   There was some recognition that video could act as a motivational tool prior to

15   performance. However, the coaches admitted that controlling its psychological impact on

16   individual players was a challenge. There was consensus view was that it was important to

17   identify clear outcomes for using video as a pre-match preparation tool. The coaches spoke in

18   greater detail about the need to find ways of delivering VFB to maximise learning over the

19   long term. One-to-one VFB was one approach to targeting individual needs, and "a way to

20   connect with the player on a personal level" (C1). Private meetings with players improved

21   the level of trust and shared understanding between player and coach, and led to a better

22   relationship between them:

23   The team meetings give individuals a chance to hide a little ... they might have

24   thoughts they feel foolish to share in front of the lads ... [One-to-one] is perfect for

25   building confidence in what they think and say, their understanding of the game. It is

26   teaching them that their point is heard, not always correct, but always wanted (C7).

1   Withholding negative feedback and only feeding back positive performance

2   accomplishments – known as positive self-review, a form of video self-modelling (VSM[1]) —

3   was linked to improvements in player confidence, focus and motivation. This approach was

4   viewed by coaches as an alternative to delivering VFB within the team post-performance

5   debriefs. For some coaches, the power of one positive example was seen as more effective

6   than multiple negative ones. Coaches were also positive about strategies which encouraged

7   players to take greater control of their own learning. The 'ideal' delivery scenario was one

8   where the players didn't need the coach during VFB. As one coach remarked: "[Video] will

9   remain limited if coaches are not prepared to risk letting go of the process a little. Give [the

10   player] the opportunity and motivation to do it for himself. If he leads, then you have the

11   ability to take it deeper, and he takes the initiative" (C9).

12   **Players' perspectives on VFB delivery strategies.** For the players, the mode of

13   delivery – in a group, privately with a coach or on their own – created distinct psychological

14   responses and outcomes. Team-focused VFB was linked to improved understanding of roles,

15   enhanced group cohesion and improved team and individual performance. Video was also

16   viewed as an 'objective source of performance information' by the players, one that could

17   resolve disagreements:

18   When you are playing OK, but the coach thinks you're not, you aren't really in a

19   position to argue back; you had no evidence [before video was introduced]. Now I

20   feel he can't ignore the evidence now … but it goes both ways too and there's no

21   place for me to hide now either (P6).

22   When video was used pre-game as a motivational tool, the players experienced strong

23   positive emotions (e.g., 'the buzz'; P7) and increased self-confidence and psychological

24   readiness to perform. When watching video with a motivational music track, more than half

---

[1] Video Self-modelling: A process whereby athletes learn from images of their own adaptive behaviour as seen on videotape, allowing individuals to view themselves being successful, acting appropriately, or performing new tasks.

1 of the players felt that it led to an increase in their arousal levels pre-match. However, such a

2 strategy had to be timed correctly as part of a home or away match plan:

3   We watched the first [video] before a [home] youth cup game … it had everyone in it,

4   our best play as a team, and an amazing soundtrack, the room was bouncing … we

5   went straight out and played a blinder. It [still] gives me goose bumps if I watch it

6   now. We watched another one on the bus [to the next (away) game] but an hour later

7   we were still on the bus…and were a bit flat by the warm up. (P12).

8   Many players reported that they had become demotivated by the team delivery

9 context. Too much emphasis had been placed on team outcomes by the coach, for some

10 players, and their individual needs were not being met. Buy-in by the whole team was key to

11 maximising effectiveness. Without such acceptance, the team format could become stale and

12 boring: "it's the same thing over and over; it's become pointless" (P9). It had also become an

13 uncomfortable process for many, creating anxiety during competition. One player recalled:

14 "As soon as the ball had gone past me [in the game], I thought 'I hope they didn't get that on

15 video'" (P7). Time spent focusing on their individual performance, however, was welcomed

16 by all the players, and associated with improvements in self-awareness, confidence, and the

17 coach–athlete relationship. The players felt that the coach's delivery was more effective one-

18 to-one than in a team setting: "with each session I understood more what he expects from me,

19 and what I am capable of (P4)". Again, using positive self-review (VSM) was associated

20 with positive outcomes such as increased self-confidence, enjoyment and motivation. The

21 benefit of observing successful performance was linked to situational-specific self-

22 confidence:

23   I had a tape from [my recent international trip]. I kept focusing on this one skill from

24   the tape. A turn, in the middle of the park. I must have watched it 25-30 times, I'm not

25   kidding … like in a trance or something [laughs]. It made me feel brilliant, like I had

26   a trick that I knew I could use against anyone (P11).

The VFB Delivery Climate

The importance of creating the right environment or climate surrounding VFB delivery was extensively reinforced by the coaches and players alike. Two sub-themes – Coach behaviour and Coach education – were present in both the coach and player results. The coaches also discussed the role of Peer-to-peer evaluation, Psychological understanding, Individual differences, and Support staff role in their interviews. Three sub-themes – Control of learning, Role of psychological support staff, and Goal setting – emerged from the player data analysis.

Coaches' perspectives on the VFB delivery climate. Many of the coaches felt that the delivery climate needed to be positively perceived by the players in order to maximise player motivation and confidence levels:

[Coaches] might have all the information at their disposal, but you need to create an atmosphere that encourages players to be positive; to go out and try things (C4).

The coaches acknowledged, however, that some players held a negative perception of their VFB work, probably linked to their (the coaches') use of video as a negative tool, for punishment or excessive criticism. Although this negative perception could have a damaging effect on players' motivation to engage in learning long-term, it was important to try and strike a balance between positive and negative content. Some coaches felt that there were 'receptive' and 'unreceptive' players, with the former possessing qualities which separated them from their peers (e.g., a greater level of self-awareness or confidence). For the coaches, these players usually found a way of using the video information productively, regardless of the coach's input or the team environment:

There might be 5 or 6 players in here … enjoying the banter, but there is often one kid who is focusing intently on it; you know he's analysing it properly. I can pick out the individual players that I know I can trust to self-analyse … often that kid makes it [to senior football] … because of his attitude and passion to get better (C1).

1   The coaches wanted to create an environment where players felt able to critically

2   assess their own and others' performance in public (peer-to-peer evaluation). It was

3   acknowledged, however, that this open and honest setting was hard to create due to the

4   'traditional culture' within football:

5   We are fighting against the culture of football a little here, as honesty is in short

6   supply the further up the ladder you get. That doesn't mean our job [as academy

7   coaches] is to send players up who are selfish and self-focused, but to send players

8   who can be honest and have a positive impact on the teams they play for. That's what

9   first team managers want but don't often have available to them (C3).

10   The idea of the sport science practitioner taking a more active role in the development

11   of a positive learning environment around the video work interested some of the coaches. For

12   them, the psychologist brought a distinctive set of skills and abilities to the delivery process:

13   "I think good delivery is built around these two people – the coach and practitioner – and

14   might possibly hold the key. But, who does what depends on the relationships within that"

15   (C2). It was proposed that the involvement of a sport psychologist could benefit coaches and

16   their support staff. One coach said:

17   I have had good chats with our psych about this, and it has helped me see and

18   understand some of the factors involved from the player's viewpoint. We are

19   planning to get him more involved. Maybe I need to step back, and not be the one

20   leading all the time, maybe get others? It's worth a go, because this [video] could be

21   gold dust, but it's not really making the impact we think it can at the moment (C7).

22   The idea of the psychologist leading the delivery, a role traditionally seen as the

23   coach's, was discussed by another coach: "I wouldn't like to say who the best person to

24   deliver video is because the role of the coach as expert, some might question. A practitioner

25   with expertise in psychology might be more beneficial for the players, more objective" (C11).

26   The coaches felt that a psychology practitioner could also work in tandem with the

1 performance analysis practitioner: "The analyst probably already has a better basic

2 knowledge of performance than the psych, but the psych understands the impact better. This

3 combination would be ideal for the coach" (C5).

4   **Players' perspectives on the VFB delivery climate.** For the players, a positive

5 response was associated with higher levels of enjoyment, confidence and team cohesion.

6 Keeping the mood light and focused on enjoyment would help 'mistake-conscious' players to

7 stay positive:

8   If one of the lads attempted to try something fancy or make daft mistakes they were

9   generally laughed at, or mocked by others in a friendly way if we had won or played

10   well. When a player made the error in a match that we had lost, he was often left to

11   stew on it for days … That's not good for you (P11).

12   The use of video for punishment was generally disliked by the players, especially

13 when the coach used VFB to embarrass them in front of their team-mates. This approach was

14 linked to a loss of motivation and limited learning. At times the coach was believed to be

15 deliberately using video in a negative manner, to bring players "down a peg or two … to stop

16 you getting cocky" (P4). Other players reported 'switching off' in response to what they saw

17 as overly critical reaction by the coach during video replay:

18   It got to the point where the players sit there, and [the coach] was stopping them and

19   picking poor play and mistakes … and all I could think about was "Shit. He's coming

20   to me again, I know it's me next … he's making me look a right idiot" … it became

21   routine to get picked on, [so] I switched off (P10).

22   The players talked about taking more ownership of the delivery process – moving

23 from a coach-led process to a more player-led process. However, they felt it was difficult to

24 be proactive where video work was concerned: "[the coach] has experience that I don't have,

25 and sees what I need to do to be a senior pro … but I also have goals of my own. I need to

26 access the video to review my own game" (P3). This was an issue of trust for many players:

1   "I'm not a kid … [the coach] thinks we are thick … what happens when we move up to the

2   first team and he's not there to hold our hands?" (P2). Some of the players felt that there was

3   also a role for a psychology professional within the delivery process, for example, helping

4   improve the impact of pre-match motivational videos. One player also suggested that this

5   support could be aimed at the coach himself to help them reflect on their own coaching

6   behaviour: "Maybe if the psych could get [the coach] to watch the video and see himself the

7   way we see him, he might calm down in team meetings" (P12).

8   **Discussion**

9   The perceptions captured in this study provide a rich understanding of the role of

10   psychological factors within VFB delivery in youth football. While the value placed on

11   psychology by coaches in VFB is well established (e.g., Groom et al., 2011; Pain &

12   Harwood, 2007), this investigation provides the first comprehensive examination of the

13   factors involved in its delivery. The findings of this qualitative investigation supplement the

14   existing literature, which has highlighted the value that coaches place on VFB in the

15   psychological development of young football players (Groom et al., 2011; Pain & Harwood,

16   2007). The exploration of the perspectives of coaches and players in the same study extends

17   our current understanding and allows for greater comparison of these perceptions. There were

18   many areas of congruence in the two groups' perception of VFB. In line with previous

19   research, both groups viewed video feedback as a useful tool to help the team prepare for and

20   reflect on performance and training (Groom et al., 2011; Mackenzie & Cushion, 2014). It also

21   played a role in developing team cohesion and communication (Pain & Harwood, 2007) as

22   well as targeting psychological outcomes such as confidence-building and pre-match

23   readiness (Tracey, 2011). However, coach and athlete views diverged on the role of team vs

24   individual VFB. While all the participants saw video as a positive psychological tool when

25   personalised – such as in one-to-one VFB and in self-modelling work (findings reported

1   elsewhere – e.g., Ste-Marie et al., 2011) – the coaches concentrated on the positive results of

2   team VFB. For the players, this approach was less effective, psychologically, due to

3   repetition and a lack of individual feedback. Overall, our findings support the need to take

4   account of athletes' individual preferences for receiving performance analysis (Groom et al.,

5   2011; Nelson et al., 2014; MacKenzie & Cushion, 2014).

6   An interesting finding from this investigation was that a number of the psychological

7   characteristics identified by both players and coaches – such as focus, goal setting, the use of

8   mental imagery, setting realistic performance evaluations and self-awareness – have been

9   identified as qualities or skills linked to success within elite sport (i.e., psychological

10   characteristics of developing excellence or PCDEs; MacNamara, Button, & Collins, 2010;

11   Orlick & Partington, 1988). Previous research has linked these PCDEs not only to performing

12   successfully at the elite level, but also in helping athletes reach the top of their sporting

13   disciplines (Collins & MacNamara, 2012; MacNamara et al., 2010; Orlick & Partington,

14   1988). The link between VFB and coping skills is a promising area for future research.

15   Collins and MacNamara (2012) have argued that natural setbacks and failures – such as poor

16   performance, deselection and losing – are a necessary part of a young athlete's development

17   pathway. The coaches and players in this study both saw self-reflection and self-awareness as

18   important aspects of this ability to cope. Reflective thinking, embodied in such practices as

19   seeking help (by, e.g., asking questions) and apologising for errors, was identified by coaches

20   as a desirable quality within VFB practice and has been shown to be a key regulatory strategy

21   used by high-level players in youth football (Gledhill & Harwood, 2015; Toering et al.,,

22   2009). Self-regulated learning refers to self-directed processes that enable learners to

23   transform their mental abilities into performance skills (Zimmerman, 2008). It has been

24   identified as a key differentiator between elite vs. non-elite soccer players – the former are

25   able to cope successfully with the transition between youth and senior football (Toering et al.,

26   2009).

1   This investigation has highlighted the key role that players' emotions play in the

2   delivery experience. For many of the young players interviewed for this study, watching

3   themselves on video in team meetings was, at times, a highly personalised and emotive

4   experience. The players reported experiencing negative emotions, such as embarrassment and

5   anxiety, before, during and following these public VFB sessions, in response to seeing

6   themselves make performance errors in front of others – a finding observed with other team

7   sport athletes (e.g., McArdle, Martin, Lennon, & Moore, 2010; Taylor et al., 2015). While it

8   is not clear whether these emotional responses may inhibit the learning process, the coaches

9   and players interviewed for this study felt that they disrupted both team and individual

10   learning from VFB. While these emotions were experienced in the run-up to a team VFB

11   session (where fear of public embarrassment was a powerful factor), previous research has

12   shown that emotions such as anxiety, embarrassment and anger are often linked to an

13   athlete's primary cognitive appraisal of specific situations (e.g., winning vs losing, good vs

14   poor performance; Lazarus, 1991). Left unchallenged, these irrational beliefs – such as "I

15   need to perform perfectly and cannot make mistakes" – can generate dysfunctional emotions

16   which might subsequently influence a player's willingness or ability to focus during feedback

17   sessions. Through education, there is an opportunity to help players learn to replace irrational

18   beliefs by more rational assertions such as "I want to perform well, but everyone makes

19   mistakes, mistakes that I can learn from". Research has shown that psychological approaches

20   such as REBT (Rational Emotive Behavioural Therapy) may be helpful in reducing irrational

21   beliefs and anxiety in athletes (Turner & Barker, 2013; Turner, Slater, & Barker, 2014).

22   Trials of REBT within youth football (e.g. Turner et al., 2014) have shown that education

23   workshops can modify athletes' irrational beliefs about their performance, albeit temporarily.

24   Many of the coaches interviewed saw the development of players who could move

25   quickly to accept criticism, process emotional responses, and take responsibility for reflecting

26   on their own performance as key outcomes of VFB work. The sport psychology literature has

1   demonstrated that not only can these qualities be developed in players, but it has consistently

2   shown that players who possess these coping skills ('resilience' or 'mental toughness',

3   among other terms used) are more likely to get to the top and do better when they get there

4   (Collins & MacNamara, 2012; MacNamara et al., 2010). However, this study raises question

5   marks over the approach advocated by some coaches to pursue the development of these

6   qualities within video practice. Our findings illustrated how some coaches appear to advocate

7   unnecessarily critical, negative or belittling approaches with their players – a form of 'tough

8   love' seen as crucial to the development of players' psychological coping skills. According to

9   one respondent, coaches need to risk being seen as unpopular and even be disliked by the

10   players to prepare them mentally for the 'harsh realities' of senior football. Other coaches

11   (and players) perceived that there were 'receptive' and 'unreceptive' players, and that some

12   athletes were too 'weak' mentally to handle VFB effectively. These comments may reflect

13   what some researchers have described as an ego-driven climate within the professional soccer

14   academy environment, one which promotes the notion that results are all that matters

15   (Harwood, 2008; Mills et al., 2012). Mirroring recent research into team sports (e.g. Groom

16   et al., 2011; Taylor et al., 2015), the findings reported here indicate that young footballers are

17   likely to respond negatively to these dominant, power-driven coaching practices, with players

18   reluctant to share their opinions or challenge their coach's views out of fear that the coach

19   might embarrass them in front of their peers.

20   One strategy which the coaches in this study regarded as particularly beneficial in

21   developing players' critical reflection skills was peer-to-peer evaluation, involving players

22   offering critical feedback of their team-mates' performance during team meetings. The

23   benefits of encouraging players to take an active role in their own learning and engage in

24   collaborative learning activities have support in the sport psychology literature (Kidman,

25   Thorpe, Jones, & Lewis, 2001). However, the notion of critiquing team-mates or challenging

26   the coach was not positively perceived by the players, a finding reported elsewhere in the

1   literature (Taylor et al., 2015). This reluctance to participate in feedback may in part be due

2   to fear of being criticised by coaches or looking stupid in front of their peers. The creation of

3   a positive supportive learning environment surrounding VFB appears crucial for optimising

4   players' engagement in learning activities. This finding is supported by recent research that

5   makes the link between this supportive learning environment and self-regulation with

6   adolescent football players (Gledhill & Harwood, 2015).

7   For the players, this may be linked to the fear of losing the social support of their

8   peers (Evans, Slater, Turner, & Barker, 2015). The full-time academy environment is

9   characterised by a group of adolescent males living away from home together, training and

10 playing together day in day out, and often developing close friendships. If coaches were

11 unable to cultivate a supportive learning environment around VFB, there is a suggestion that

12 players would be willing to risk losing acceptance amongst their peers (Ommundsen,

13 Roberts, Lemyre, & Miller, 2005). Edmondson (1999) has referred to the shared belief that

14 the team is a safe environment for interpersonal risk-taking – such as noting errors,

15 disagreeing with team-mates and challenging the coach's views – as Team Psychological

16 Safety. Although, intuitively, the benefits of learning collaboratively with one's peers would

17 seem to be a given, peer-to-peer evaluation may more accurately reflect coaches' preferences

18 for reflecting on practice (e.g., Williams & Kendall, 2007)

19 **Strengths, limitations and future directions**

20   Before examining the practical implications of this study, it is important to consider

21 the study's strengths and limitations. Given the interpretivist nature of this investigation, we

22 acknowledge that other plausible interpretations of the data may exist that are not being

23 utilised in a particular study. The rich data gathered comparing the perceptions of coaches

24 and players, the methodology adopted was seen as a strength of the current study. To

25 improve the trustworthiness of the data collected, all interviews could have been conducted

26 face-to-face and participants could have been provided with a copy of the interview guide

1   prior to the interview. Presenting participants with the analysis of the data and study

2   conclusions (rather than just the transcribed interviews) would also allow them an

3   opportunity to reflect and comment on the conclusions drawn by the researchers. While the

4   coaches and players were recruited from a range of academy environments, this study was

5   conducted within full-time, male football academies (16-18 age group) and so may only be

6   reflective of this environment and developmental stage. The author's experiences working

7   within youth football environments suggests that coaches and practitioners may apply VFB

8   differently at other stages of the player pathway, including younger and senior professionals.

9   Practitioners may also need to consider the experiences of female players into account, given

10   the male-dominated nature of football research to date (Gledhill & Harwood, 2014, 2015). We also

11   encourage future researchers to explore the impact of individual-focused video interventions

12   on psychological outcomes associated with performance within elite sport settings. Finally,

13   future research should also explore the role which video might play – positively or negatively

14   – in preparing athletes to cope mentally with the challenging times they will face in making

15   the transition to elite sport.

16   **Applied Implications**

17   The study findings have a number of relevant practical implications for psychologists,

18   analysts and coaches working with video in the performance environment from a

19   psychological perspective. The authors argue that coaches and practitioners need to provide

20   athletes with the resources and support necessary to utilise VFB in a positive and productive

21   manner. The skillset of the Psychologist, in particular, may add value to this area of practice

22   (Groom et al., 2011; Ives et al., 2002), possibly in an educational role aimed at raising the

23   psychological understanding of coaches and practitioners wanting to work with VFB in

24   performance environments. This recommendation comes in response to coaches reporting

25   that they lacked sufficient knowledge of their players' psychological responses to video

26   feedback, a finding reported elsewhere in the sport psychology literature (Ste-Marie et al.,

1 2012; Pensgaard & Duda, 2002). This may be linked to football coaches' low perceived

2 competence in the area of player development beyond the technical and tactical (Harwood,

3 2008). While the importance of athlete self-reflection has been reported in the context of

4 video practice (e.g., Groom et al., 2011), it may be that by using video to promote critical

5 reflection by coaches on their own practice (e.g., Carson, 2008), Psychologists can have a

6 positive impact on coaching behaviour. Hammond (2004) has argued that this shift toward

7 video for reflection purposes might encourage a more holistic evaluation of the instructional

8 process in sport. Recognising the role of psychological factors within video practice, there

9 may also be benefits in formalising the development of a toolbox of transferable knowledge

10 and skills that players are able to draw on in response to challenging experiences (Collins &

11 MacNamara, 2012) to gain the most out of each video session. By reflecting with athletes in

12 one-to-one sessions on why they displayed certain behaviours – such as communicating with

13 team-mates under pressure or responding to making an error – video could be used to focus

14 critical reflection, learning and future response to specific challenging experiences. Such

15 approaches may provide coaches with an opportunity to challenge players' behaviours

16 without the fear associated with public viewing of on-field errors. It is acknowledged,

17 however, that with the growing number of athletes in the academy environment (Evans et al.,

18 2015), expending more time and resources on VFB work may be logistically problematic.

19 Practitioners may benefit from immersing themselves within the delivery environment –

20 either as a Sport Psychology or Performance Analysis practitioner or in a dual Psychologist-

21 Analyst role – in order to influence coaching practice.

22 **Concluding remarks**

23 The rich corpus of data collected in this study illustrates the importance coaches and

24 players both place on psychological factors within VFB practice. It is clear that at times

25 coaches and athletes hold markedly different perceptions about how VFB should be delivered,

26 and that some coaches' feel they lack knowledge regarding their athletes' psychological

1   responses to VFB. The experiences reported by the players in this study are a reminder that

2   coaches need to understand the psycho-social complexity underpinning the use of VFB

3   (Groom et al., 2011; Taylor et al., 2015). This seems particularly important when working

4   with adolescent athletes, who may be sensitive to embarrassment when watching their on-

5   field mistakes in front of their peers in team meetings. As a result, we argue that decisions

6   regarding how VFB is applied may need to be part of an individualised process, informed by

7   such factors as athlete preferences, developmental needs, coach philosophy and access to

8   sport science support services. We recommend that future research build on the work

9   presented here and by others (e.g. Groom et al., 2011; Nelson et al., 2014), by exploring ways

10 of creating a positive, supportive learning environment seen as crucial for optimising

11 athletes' engagement with VFB.

12 **Acknowledgements**

14 **References**

15 Bishop, D. T., Karageorghis, C. I., & Loizou, G. (2007). A grounded theory of young tennis

16   players' use of music to manipulate emotional state. *Journal of Sport & Exercise*

17   *Psychology*, 29(5), 584-607.

18 Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research*

19   *in Psychology*, *3*(2), 77-101.

20 Brown, G., & Potrać, P. (2009). 'You've not made the grade, son': De-selection and identity

21   disruption in elite level youth football. *Soccer & Society*, 10(2), 143-159.

22   doi:10.1080/14660970802601613

1   Bruner, M. W., Munroe-Chandler, K. J., & Spink, K. S. (2008). Entry into elite sport: A

2   preliminary investigation into the transition experiences of rookie athletes. *Journal of*

3   *Applied Sport Psychology*, 20(2), 236-252. doi:10.1080/10413200701867745

4   Carling, C., Reilly, T., & Williams, A. M. (2008). Performance assessment for field sports.

5   London: Routledge.

6   Carson, F. (2008). Utilizing video to facilitate reflective practice: Developing sports

7   coaches. *International Journal of Sports Science & Coaching*, *3*(3), 381-390.

8   Collins, D., & MacNamara, Á. (2012). The rocky road to the top. *Sports Medicine,* 42(11),

9   907-914.

10 Drust, B. (2010). Performance analysis research: Meeting the challenge. Journal of Sports

11   Sciences, 28(9) doi:10.1080/02640411003740769

12 Edmondson, A. (1999). Psychological safety and learning behavior in work teams.

13   *Administrative Science Quarterly*, 44(2), 350-383.

14 Evans, A. L., Slater, M. J., Turner, M. J., & Barker, J. B. (2013). Using personal-disclosure

15   and mutual-sharing to enhance group functioning in a professional soccer academy.

16   *The Sport Psychologist*, 27(3), 233-243.

17 Fletcher, D., & Arnold, R. (2011). A qualitative study of performance leadership and

18   management in elite sport. *Journal of Applied Sport Psychology*, *23*(2), 223-242.

19   doi:10.1080/10413200.2011.559184

20 Gilbourne, D., & Richardson, D. (2006). Tales from the field: Personal reflections on the

21   provision of psychological support in professional soccer. *Psychology of Sport and*

22   *Exercise*, 7(3), 325-337. doi:10.1016/j.psychsport.2005.04.004

23 Gledhill, A., & Harwood, C. (2014). Developmental experiences of elite female youth soccer

24   players. *International Journal of Sport and Exercise Psychology*, 12(2), 150-165.

25   doi.org/10.1080/1612197X.2014.880259

Gledhill, A., & Harwood, C. (2015). A holistic perspective on career development in UK female soccer players: A negative case analysis. *Psychology of Sport and Exercise,* 21, 65-77.

Groom, R., Cushion, C. J., & Nelson, L. J. (2011). The delivery of video-based performance analysis by England youth soccer coaches: Towards a grounded theory. *Journal of Applied Sport Psychology*, 23, 16-32. doi:10.1080/10413200.2010.511422

Groom, R., Cushion, C. J., & Nelson, L. J. (2012). Analysing coach–athlete 'talk in interaction' within the delivery of video-based performance feedback in elite youth soccer. *Qualitative Research in Sport, Exercise and Health*, 4(3), 439-458. doi:10.1080/2159676X.2012.693525

Hammond, J. (2004). *Using performance analysis technology to evaluate the instructional process in sport.* In H. R. Morton (Ed.), Proceedings of the 7th Australasian conference on mathematics and computers in sport (pp. 172-181). Palmerston Nth, NZ: Massey University.

Harwood, C. (2008). Developmental consulting in a professional football academy: The 5Cs coaching efficacy program. *The Sport Psychologist*, 22(1), 109.

Holt, N. L., & Sparkes, A. C. (2001). An ethnographic study of cohesiveness in a college soccer team over a season. *The Sport Psychologist*, *15*(3), 237-259.

Hughes, M., & Franks, I. M. (2007). *The essentials of performance analysis: An introduction.* London: Routledge.

Ives, J. C., Straub, W. F., & Shelley, G. A. (2002). Enhancing athletic performance using digital video in consulting. *Journal of Applied Sport Psychology*, 14(3), 237-245. doi:10.1080/10413200290103527

James, N., Mellalieu, S., & Jones, N. (2005). The development of position-specific performance indicators in professional rugby union. Journal of Sports Sciences, 23(1), 63-72. doi:10.1080/02640410410001730106

1   Johnson, R., & Waterfield, J. (2004). Making words count: the value of qualitative research.

2   *Physiotherapy Research International*, 9(3), 121-131.

3   Kidman, L., Thorpe, R., Jones, R. L., & Lewis, C. (2001). *Developing decision makers: An*

4   *empowerment approach to coaching*. Christchurch, NZ: IPC Print Resources.

5   Krueger, R. A., & Casey, M. A. (2000). *Focus groups: A practical guide for applied*

6   *researchers* (3rd ed.). Thousand Oaks, CA: Sage.

7   Lazarus, R. S. (1991). Progress on a cognitive-motivational-relational theory of emotion.

8   *American Psychologist,* 46, 819–834. doi: 10.1037//0003-066X.46.8.819

9   Liebermann, D. G., Katz, L. H., Hughes, M. D., Bartlett, R. M., McClements, J., & Franks, I.

10   M. (2002). Advances in the application of information technology to sport

11   performance. *Journal of Sports Sciences*, 20(10), 755-769.

12   doi:10.1080/026404102320675611

13 Mackenzie, R., & Cushion, C. (2012). Performance analysis in football: A critical review and

14   implications for future research. *Journal of Sports Sciences*, 31(6), 1-38.

15   doi:10.1080/02640414.2012.746720

16 Mackenzie, R., & Cushion, C., (2014). Performance analysis in professional soccer. In D. M.,

17   Peters & P., O'Donoghue (Eds). *Performance Analysis of Sport* XI, P. 23-32.

18   Routledge, NY.

19 McArdle, S., Martin, D., Lennon, A., & Moore, P. (2010). Exploring debriefing in sports: a

20   qualitative perspective. *Journal of Applied Sport Psychology*, 22(3), 320-332.

21 MacNamara, Á., Button A, Collins D. (2010). The role of psychological characteristics in

22   facilitating the pathway to elite performance. Part 1: identifying mental skills and

23   behaviours. *The Sport Psychologist*, 24, 52-73

24 Mills, A., Butt, J., Maynard, I., & Harwood. C. (2012). Identifying factors perceived to

25   influence the development of elite English football academy players. *Journal of Sport*

26   *Sciences. 30*, 1593-604.

Nelson, L. J., Potrác, P., & Groom, R. (2014). Receiving video-based feedback in elite ice-hockey: A player's perspective. *Sport Education and Society*, 1-22. doi:10.1080/13573322.2011.61392

Ommundsen, Y., Roberts, G. C., Lemyre, P., & Miller, B. W. (2005). Peer relationships in adolescent competitive soccer: Associations to perceived motivational climate, achievement goals and perfectionism. *Journal of Sports Sciences*, 23(9), 977-989. doi:10.1080/02640410500127975

Orlick, T., & Partington, J. (1988). Mental links to excellence. *The Sport Psychologist,* 2(2), 105-130.

Pain, M. A., & Harwood, C. G. (2004). Knowledge and perceptions of sport psychology within English soccer. *Journal of Sports Sciences*, 22(9), 813-826. doi:10.1080/02640410410001716670

Pain, M. A., & Harwood, C. G. (2007). The performance environment of the England youth soccer teams. Journal of Sports Sciences, 25(12), 1307-1324. doi:10.1080/02640410601059622

Patton, M. Q. (2008). *Utilization-focused evaluation*. Thousand Oaks, CA: Sage.

Pensgaard, A. M., & Duda, J. L. (2002). If we work hard, we can do it a tale from an Olympic (gold) medalist. *Journal of Applied Sport Psychology,* 14(3), 219-236. doi:10.1080/10413200290103518

Smith, B., & Sparkes, A. C. (2006). Narrative inquiry in psychology: Exploring the tensions within. *Qualitative Research in Psychology*, 3(3), 169-192.

Ste-Marie, D. M., Law, B., Rymal, A. M., Jenny, O., Hall, C., & McCullagh, P. (2012). Observation interventions for motor skill learning and performance: An applied model for the use of observation. *International Review of Sport and Exercise Psychology*, 5(2), 145-176. doi:10.1080/1750984X.2012.665076

1   Stratton, G., Reilly, T., Williams, A., & Richardson, D. (2004). *Science of youth soccer.*

2   London: Routledge.

3   Taylor, W. G., Potrác, P., Nelson, L. J., Jones, L., & Groom, R. (2015). An elite hockey

4   player's experiences of video-based coaching: A poststructuralist reading.

5   *International Review for the Sociology of Sport*, 1–14, 1012690215576102.

6   Toering, T., Elferink-Gemser, M., Jordet, G., & Visscher, C. (2009). Self-regulation and

7   performance level of elite and non-elite youth soccer players. *Journal of Sports*

8   *Sciences*, 27(14), 1509-1517. doi:10.1080/02640410903369919

9   Tracey, J. (2011). Benefits and usefulness of a personal motivation video: A case study of a

10   professional mountain bike racer. *Journal of Applied Sport Psychology*, 23(3), 308-

11   325. doi:10.1080/10413200.2011.558364

12 Turner, M., & Barker, J. B. (2013). Examining the efficacy of rational-emotive behavior

13   therapy (REBT) on irrational beliefs and anxiety in elite youth cricketers. *Journal of*

14   *Applied Sport Psychology*, 25(1), 131-147.

15 Turner, M. J., Slater, M. J., & Barker, J. B. (2014). Not the end of the world: The effects of

16   rational-emotive behavior therapy (REBT) on irrational beliefs in elite soccer

17   academy athletes. *Journal of Applied Sport Psychology*, 26(2), 144-156.

18 Williams, S. J., & Kendall, L. (2007). Perceptions of elite coaches and sports scientists of the

19   research needs for elite coaching practice. *Journal of Sports Sciences,* 25(14), 1577-

20   1586. doi:10.1080/02640410701245550

21 Zimmerman, B. J. (2008). Investigating self-regulation and motivation: Historical

22   background, methodological developments, and future prospects. *American*

23   *Educational Research Journal,* 45, 166–183.