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Identifying factors perceived to influence the development of elite youth football academy players

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Abstract

Based on the developmental theory presented by Gagné (2009), we examined the factors perceived to influence the development of elite youth football players at a critical stage in their progression to the professional level. Transcribed interviews with ten expert development coaches were inductively and deductively content analysed. Conceptualisation of the data revealed six interrelated higher-order categories that represented the factors perceived to either positively or negatively influence player development. These were: awareness (e.g. self-awareness, awareness of others); resilience (e.g. coping with setbacks, optimistic attitude); goal-directed attributes (e.g. passion, professional attitude); intelligence (e.g. sport intelligence, emotional competence); sport-specific attributes (e.g. coachability, competitiveness); and environmental factors (e.g. significant others, culture of game). In this investigation, awareness emerged as a fundamental and mediating element for understanding how young players are able to transition to the professional level. Collectively, the findings underline the multidimensional nature of talent development and suggest that an intricate combination of stage-specific factors must manifest for gifted young players to translate their potential into excellence. Mechanisms by which academies could be helped to shape the characteristics and conditions associated with effective development are discussed.

Keywords: talent, investment years, awareness, environment

Introduction

An inspection of the talent development literature in sport (e.g. Durand-Bush & Salmela, 2001) suggests that achieving excellence is a complex process that appears contingent on an intricate blend of innate and environmental factors. One sport that is receiving increasing research interest is elite youth football. The importance afforded to this area is reflected in the growing amount of research dedicated to the topic in recent years (e.g. Reeves, Nicholls, & McKenna, 2009; Sagar, Busch, & Jowett, 2010; Toering, Elferink-Gemser, Jordet, & Visscher, 2009).

Holt and Dunn's (2004) study of English and Canadian youth players provided one of the first building blocks in advancing our knowledge of player development. The theoretical model derived from this research indicated that the competencies of discipline, commitment, and resilience coupled with favourable social support contributed to the successful transition to the professional level. In a follow-up investigation, Holt and Mitchell (2006) augmented

the model by integrating hope theory as the mechanism to explain success in football. Specifically, this refined model predicted that players with high hope (i.e. able to demonstrate both pathways and agency thinking), who are resilient (i.e. respond positively to setbacks) and receive high social support have a greater likelihood of successfully progressing to the professional level. However, it is important to note that the original model was based upon the views of developing players who may or may not have successfully progressed to the professional level. For this reason, the conclusions drawn from these studies remain somewhat tentative.

While hope theory has been put forward as a mechanism for effective player development, Toering et al. (2009) highlighted the role that self-regulation might play in separating the elite from the non-elite. Specifically, it was revealed that elite Dutch youth players appeared to exhibit superior self-regulatory skills compared to their non-elite peers. In a further attempt to extricate the elite from the sub-elite, Van Yperen (2009) conducted a

prospective study of the psychological factors that predict career success in professional football. It was found that goal commitment, engagement in problem-focused coping behaviours, and social support seeking differentiated between youth players who successfully progressed into professional football and those who did not. An important feature of this study was the need for players to deploy sufficient coping strategies if they were to advance to the professional level. This finding implies that development in elite youth football is inherently challenging.

This notion would also seem to hold true from an English perspective. In England, elite youth football is considered to be characterised by a highly pressurised climate for success (Sagar et al., 2010). Research (cf. Richardson, Gilbourne, & Littlewood, 2004) suggests that young players encounter a variety of personal and interpersonal challenges within an academy environment that might affect their development. To this end, recent investigations have focused on stressors and coping strategies within academy players (Reeves et al., 2009), coping with the transition from academy to first-team (Finn & McKenna, 2010), and the impact of fear of failure on player performance and development (Sagar et al., 2010). This research underlines the necessity for young players to be able to cope with the potentially widespread demands they encounter during their development.

Notwithstanding these contributions to the literature, our understanding of elite player development is far from complete and a number of important questions remain unanswered. For example, research (e.g. Côté & Hay, 2002) suggests that individuals encounter a series of stages (e.g. sampling, specialisation, and investment) during their athletic career and must successfully negotiate several transitions along the pathway to the elite level (cf. Wylleman, Alfermann, & Lavallee, 2004). One of the pivotal stages in football development in England is the transition from the academy to the professional level. It is at this stage (i.e. investment years) where training, competition and the pursuit of elite level performance become the major foci of the developing athlete's life (Côté, 1999). Though this specific stage has been identified as a potentially difficult period for athletic development (e.g. Finn & McKenna, 2010), it is evident that it has received relatively little research attention. Given the suggestion that different behaviours may be required at different points during development and/or different performance domains (cf. MacNamara, Button, & Collins, 2010), it would seem important for the continued advancement of the field that we begin to identify the factors that underpin progression at key stages along the developmental pathway. Moreover, given the multidimensional nature of talent

development, it would seem imperative that researchers determine how these stage-specific factors interact to influence development.

In addition, research in elite youth football has predominantly focused on the player's perspective (e.g. Reeves et al., 2009; Toering et al., 2009; Van Yperen, 2009). Conversely, studies that have specifically focused on coaching populations are less prolific. Although Finn and McKenna (2010) surveyed expert coaches, the sample was comprised of coaches from a variety of sports (e.g. rugby union, rugby league, and cricket), and only two of them were from elite youth football settings. Similarly, though Holt and Dunn (2004) included coaches in their sample, the majority of participants contributing to the findings were players. Given the absence of research that has specifically focused on gauging the perceptions of specialist development coaches in youth football, an in-depth analysis of their expert views would be a worthy addition to the literature.

The present investigation was created with the intention of bridging these current gaps in the knowledge base. To accomplish this, Gagné's (2009) Differentiated Model of Giftedness and Talent 2.0 (DMGT 2.0) was used as the theoretical basis for the study. Gagné's model is an established developmental theory that captures the distinction between potential and achievement whilst recognising all possible determinants of expertise. The model makes the distinction between the raw material (i.e. natural abilities or gifts) at one end of the developmental continuum and the finished product (i.e. systematically developed competencies or talent) at the other end. For this reason, the talent development process can be viewed simply as the progressive transformation of gifts into talents. This transformation manifests itself when an individual with outstanding natural abilities engages in systematic learning, training, and practice (i.e. the developmental process).

For Gagné (2009), the developmental process is influenced by the action of two types of catalysts, namely, intrapersonal and environmental. The intrapersonal catalysts are subdivided into a multitude of physical, psychological, and behavioural attributes. Conversely, the environmental catalysts exert their influence in many different ways such as the wider milieu (e.g. cultural, social and familial), a variety of individuals (e.g. parents, teachers and peers), and provisions (e.g. curriculum, programmes and services). These catalysts constantly interact with and impact upon the developmental process and, importantly, can be examined with regard to their direction (i.e. positive or negative influence) and strength of causal impact. Unlike most other theories, Gagné's model recognises that chance can influence development such as the chance of

favourable genetics, an individual's environment (e.g. birth place, socio-economic status), and uncontrollable events (e.g. accidents, injuries). With its acknowledgement of both nature and nurture, the model can be described as multidimensional and appears to accurately reflect the current consensus surrounding talent development ([Tranckle & Cushion, 2006](#)). Although originally developed for the domain of education, the model presents a comprehensive conceptual framework that has recently received support for its applicability to sport (cf. Vaeyens, Lenoir, Williams, & Philippaerts, 2008).

Based on the tenets of Gagné's developmental theory and the aforementioned gaps in the literature, the purpose of the present investigation was to identify factors perceived by expert coaches to either positively or negatively influence the development of elite youth football players at a critical stage in their progression to the professional level. Importantly, a unique aspect of this study was the examination of how these stage-specific factors interact to influence development.

Method

Context

Within elite youth football in England, the academy system is the highest ranking development scheme in the country. In essence, academies are special training schemes set up and funded by professional clubs with the primary objective of developing players to the professional level. Between the ages of 9 and 16, young players join an academy on schoolboy terms (i.e. part-time attendance). At 16 years, those players who show real promise are selected to undertake a two year full-time youth training scheme known as the academy scholarship. In elite football's developmental pathway, this structured programme is arguably the most pivotal stage in a player's journey to the professional level as it provides a finite window of opportunity to accomplish their goal of becoming a professional. Upon completion of the scholarship, players are either signed onto a professional contract or released. Elite youth football is a notoriously competitive sport with over 90% of those who join an academy failing to make it as a professional (Williams, 2009).

Participants

Ten expert development coaches aged between 31 and 62 years ($m = 47.5$, $\pm s = 10.5$ years) participated in the study. The coaches were recruited from professional Premier League and Championship clubs in England. To provide a depth and richness to the information gathered, purposive sampling was

used to recruit the participants ([Patton, 2002](#)). To ensure their expert status, the inclusion of the coaches was based on a number of criteria. Firstly, it was a prerequisite that the participants were all full-time professional academy coaches with at least five years' coaching experience. In total, the coaches had between six and 22 years' coaching experience ($m = 14.5$, $\pm s = 6.2$ years), and held either the Union of European Football Associations (UEFA) Pro and/or UEFA A coaching licenses. To further certify their expert standing, it was a pre-condition that the coaches had been responsible for facilitating the development of players who had progressed to play at the highest professional levels in England (e.g. Premier League, Championship). Given the stage-specific nature of the inquiry, the coaches were also recruited on the basis that they were specifically responsible for the day-to-day development of the players at the scholarship stage (i.e. 16–18 years). In addition to the stipulated inclusion criteria, nine of the coaches held the English Football Association's (FA) Academy Manager's license with one participant working towards that end. Three of the participants also held the League Manager's Association (LMA) Certificate in Applied Management for Football.

Procedure

Following institutional ethics approval, suitable candidates for participation were identified via assistance from English football's governing bodies (i.e. FA, Football League). The coaches were initially contacted by email detailing the purpose and nature of the study and to ascertain whether they met the stipulated inclusion criteria. Of the 20 coaches contacted who met the criteria, 10 agreed to participate in the study representing a 25% sample of all academies that currently function in English football. To obtain an in-depth understanding of the coaches' views, interviews were adopted as the method of data collection. Before the interviews commenced, all participating coaches were required to provide written informed consent outlining their acceptance to participate and confirming their understanding of the purpose of the study. As preparation for the data collection phase, pilot interviews were conducted with three other coaches to enable the primary investigator to refine techniques associated with qualitative interviewing and make minor modifications to the narrative of the interview guide. All interviews were conducted at the respective academy's training facilities.

Interview guide

A semi-structured interview guide was developed to facilitate a comprehensive exploration of the expert coaches' views. To capture in-depth authentic

experience, the interview guide consisted of a series of open-ended questions that enabled the coaches to reflect broadly and thus ensure an accurate understanding of what they were describing (Patton, 2002). After reiterating assurances regarding anonymity and confidentiality, the interviews commenced with a rapport-building introductory question to initiate discussion and preface the topic (i.e. Can you tell me a little about your coaching background and experience in football?). The main body of the guide was informed by Gagné's theory with key questions developed from the model's intrapersonal and environmental catalysts. The first question was intentionally broad in nature (i.e. In general, what things do you consider to influence player development?). Subsequent questions focused specifically on the intrapersonal catalysts (e.g. What personal characteristics or qualities do you believe young footballers require in order to make it to the professional level?) and the environmental catalysts (e.g. Who do you consider to play a significant role in the overall development process?). Given the research purpose and Gagné's suggestion that these catalysts work negatively as well as positively, a further question was specifically designed to explore the factors perceived to hinder development (i.e. What do you see as the main obstacles players face during their development?). All key questions were followed by elaboration and clarification probes which served to stimulate discussion until saturation was deemed to have occurred on a particular theme (Glaser & Strauss, 1967). Each interview was digitally recorded in its entirety and lasted approximately 80 minutes ($m = 84.6$, $\pm s = 20.6$ mins).

Data analysis

In a similar fashion to Vallée and Bloom (2005), the objective of the analysis was to build an organised system of categories which explained the factors that expert coaches considered to influence player development. The interviews were transcribed verbatim and content analysed using both inductive and deductive methods. Following procedures used by previous researchers (e.g. Côté, Salmela, Baria, & Russel, 1993), the initial sweep of the data was inductive and involved examining the verbatim transcripts and identifying any meaningful units of information (i.e. quotes that represented a single, recognisable aspect of the participants' views in relation to factors perceived to influence player development). After the inductive phase, Gagné's model was used to reconstruct the individual meaning units (i.e. raw-data themes) into more manageable and meaningful concepts. Specifically, components of the model's environmental and intrapersonal catalysts were used to categorise raw-data

themes relating to a common topic into lower-order themes and subsequently into higher-order categories. This combined approach complemented the research question by allowing the tenets of the model to be integral to the process of analysis while allowing raw-data themes to initially emerge via inductive coding. This procedure permitted a systematic conceptualisation of the expert coaches' views that was underpinned and guided by an established developmental theory.

Trustworthiness

A number of measures were followed to ensure the trustworthiness of the data. Firstly, the primary investigator who conducted the interviews was trained extensively in qualitative methods as outlined by Patton (2002) and had previous experience with interview-based research of this nature. Secondly, the primary investigator was familiar with the English football culture, including jargon, and specific club history. The primary investigator also had an extensive knowledge of teams, coaches, and players in this particular sport. This familiarity and understanding not only helped gain access to the coaches prior to the study but also helped to build rapport which facilitated the interviews. Other procedures used to ensure credibility included regular peer debriefing with the research team. This entailed exploring the methods, data analysis, and decision-making processes at every stage of the investigation. To further ensure the credibility of the data, two experienced qualitative researchers independent of the research team helped triangulate the findings by assessing the data at each stage of analysis. Specifically, this involved providing an arbitrary selection of raw-data themes (30%) for the independent researchers to categorise into their lower-order themes and higher-order categories. The consistency amongst these researchers was found to be 90% for the lower-order themes and 93% for the higher-order categories. Finally, participant member checks were conducted whereby a summary of the results coupled with the conceptual framework was sent to all participants so they could verify accuracy and provide feedback on our interpretations. Responses provided from the coaches confirmed the accuracy of the results and appropriateness of the framework.

Results

A total of 114 raw-data themes emerged from the initial inductive sweep of the data. Conceptualisation of the raw-data themes revealed 23 lower-order themes and six higher-order categories that collectively represented the factors perceived by expert coaches to influence player development at this

decisive stage. These were awareness, resilience, goal-directed attributes, intelligence, sport-specific attributes, and environmental factors. A breakdown of the higher-order categories as well as the relationship amongst these categories is shown in Figure 1. As displayed in this conceptual framework, awareness of both self and others underpinned the higher-order categories and emerged as a fundamental and mediating element for understanding how players are able to progress to the professional level. Each of the higher-order categories will be explained in detail below.

Awareness

This higher-order category consisted of two lower-order themes: Self-awareness (e.g. capacity to reflect on experience, aware of what is required to excel); and Awareness of others (e.g. cognisant of what coach wants). Highlighting the connection between self-awareness and resilience, the following coach explained the importance of players being able to reflect on the challenges they experience:

The biggest thing for me about development is how young players experience disappointments. How did they feel in that game? Did they lose self control? Did they lose focus? Did they lose confidence? Next time that happens, how can I handle that better?

Linked to the concept of coachability, the need for players to reflect upon their technical development and be 'cognisant of what the coach wants' was also considered imperative as the following coach

explained, 'It's a willingness to listen, learn and take it forward. Sometimes with young players, they do the training and go home. But they wouldn't go home thinking "Why have I done that?"'. In an environment that is driven by a highly competitive selection process, the importance of being aware of what it takes to excel in order to 'outshine your rivals' was also conveyed by the coaches. As one coach explained, 'You've got to market yourself as a player. Now that doesn't mean you're not a team player when that whistles goes, of course you are. But you've got to manage yourself and do the right things for you.'

Resilience

This higher-order category relates to the attributes that collectively appeared to build resilience in young players. Specifically, raw-data themes were coalesced into four lower-order themes: Confidence (e.g. trust in one's ability, play without fear); Optimistic attitude (e.g. maintaining a positive outlook); Coping with setbacks (e.g. losing place in team, injury); and Coping with pressure (e.g. handling criticism, training with senior team). The need for players to be able to cope with adversity was seen as an indispensable attribute. This particular building block of resilience, often referred to as 'bouncebackability' in football circles was explained by the following coach:

You've got to be able to bounce back from disappointment. Can they handle the harshness of getting dropped, being injured, bad refereeing decisions,

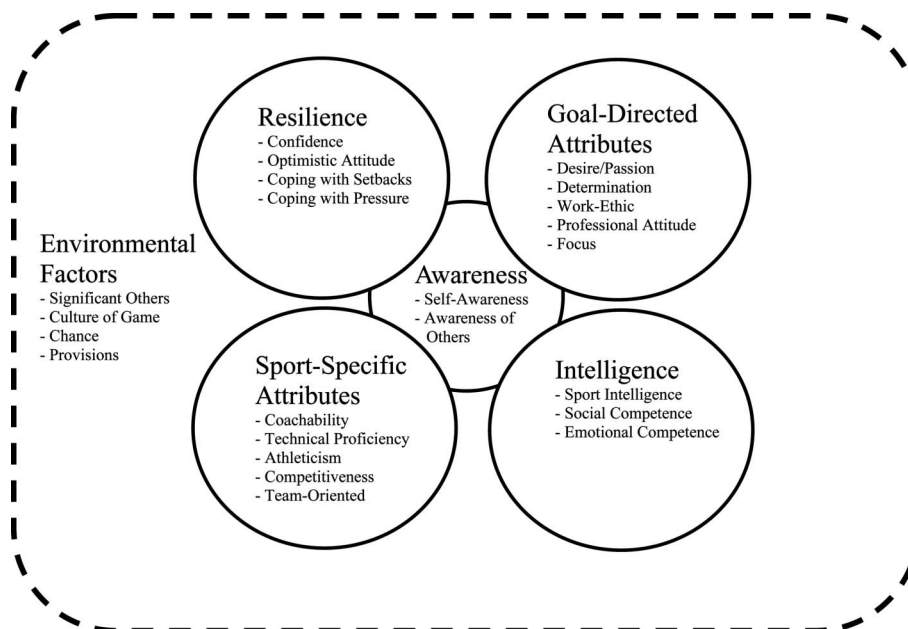


Figure 1. Conceptual framework of expert coaches' perceptions of factors considered to influence elite player development.

making mistakes on the pitch? You've got to be so resilient. You've got to have the skin of a rhino.

Another coach described how important it was for young players to be able to handle the pressures that this stage presents, 'The pressures are to get a pro-contract, the pressures are to own your own shirt, the pressures are the [senior team] manager calling you over to train with the first team and first impressions count. It's a pressure cooker ... can they handle that?'

Given the demands placed on developing players, the coaches also discussed the importance of players 'maintaining a positive outlook' and, underpinned by awareness, must appreciate that failure can actually facilitate development. One coach explained, 'Make your mistake ... next, next, next. We need failure to learn. Players need to understand that.' Confidence was also considered a crucial constituent in building resilience. By recalling how a current Premier League player first adapted to the professional environment, the following coach explained how 'trust in one's ability', and a capacity to 'play without fear' are important qualities that enable developing players to cope with a variety of intensively pressurised situations:

He went [to senior team training] and took the session over because he's so confident in what he does. It's having belief in your ability. You've got to be able to say "Well I'm one of the best and I'm going to show 'em".

Goal-directed attributes

This higher-order category relates to a variety of goal-oriented attributes that were perceived to facilitate achievement. Specifically, this category consisted of five lower-order themes: Desire/Passion (e.g. highly motivated to succeed, passion for the game); Determination (e.g. having a 'never give up' attitude); Work ethic (e.g. willingness to give 100%); Professional attitude (e.g. being self-disciplined, taking responsibility for own development); and Focus (e.g. able to block out distractions). As encapsulated by the following coach, determination combined with passionate ambition and a willingness to work hard were all qualities that interacted to drive players to succeed, 'I have to be a footballer. Don't want to be ... *have* to be. There's a burning desire there, a passion for it to go that extra mile.' The lower-order theme of focus centred on the need for players to be 'dedicated to the programme' and the capacity to 'block out distractions'. As one coach explained, 'The ability to shut out things external to the programme is vitally important.'

A professional attitude also emerged as an important theme. Mediated by awareness, this attitude centred on players being cognisant that it is

vital to take ownership of their development at this key stage. The importance of this was expressed by the following coach, 'If you've got a player coming in at 16, we're providing them with an opportunity. It's their responsibility to actually do what's required of them to take them to the next level ... it's got to be player-driven.' A central element of this professional attitude involved 'being self-disciplined' and demonstrating a 'readiness to make sacrifices'. With awareness acting as the catalyst, the following coach explained how players must reflect on what they want to achieve, be mindful of what it will take, and consequently be prepared to make certain sacrifices in order to translate that awareness into being:

They [players] have got to decide what they want and how they are going to get it. Do you want to still go out with your mates every night? Well you can't do that if you want to be a top class footballer. You've got to forsake certain things in your life if you want to achieve.

To illustrate how these goal-directed attributes work collaboratively, the following coach suggested that the presence of strong motivational beliefs (e.g. passion for the game) coupled with a professional attitude, a strong work ethic, a focused mind, and the utmost resolve to succeed can, on occasion, compensate for a lack of technical proficiency, 'I've seen young players with minimum technical ability but his attitude, his training, his mannerisms, his 100% effort and commitment was always there. He was first on your team sheet as he was totally reliable.'

Intelligence

This higher-order category refers to a range of intelligent competencies that were considered to influence development. Specifically, this category consisted of three lower-order themes: Sport intelligence (e.g. heightened game awareness); Social competence (e.g. social adaptability); and Emotional competence (e.g. able to regulate emotions, exhibiting maturity). Underpinned by awareness of self and others and closely linked to the concept of coachability, sport intelligence can be viewed as a specific type of mental aptitude that is necessary to complete the demands of a sport task successfully. One of the coaches explained how this unique form of intelligence is distinct from general intelligence or IQ, 'You look at somebody like [current Premier League player] who allegedly is not particularly bright but his football is phenomenally bright. They're two different things ... so you look for football bright ... football intelligence.' Four coaches discussed sport intelligence as having 'heightened game awareness'. As one coach explained, this attribute was viewed as

a quality that largely separated the elite from the sub-elite:

You wonder how on earth players have actually seen certain things and the only way is their awareness. You know, they must see or perceive a situation differently to ordinary people and I suppose that would make the difference between an absolutely outstanding player and a very good player.

Social competence also emerged as a factor associated with effective development. In this context social competence relates to a player's interpersonal skills and their cognisance of the social milieu in which they operate. Mediated by an awareness of others, several coaches considered the ability to successfully navigate between different groups or cliques that invariably exist within team environments to help smooth a player's development. As one coach explained, 'The type of player that I find is successful in the modern game is the person who is socially switched on, the one that is able to interact really effectively with everybody.' Equally, having the 'situational awareness' to see an opening when it presents itself (e.g. senior player gets injured so look to fill his position) was also considered conducive to development. As one coach commented, 'You have to be savvy enough to recognise an opportunity.'

Emotional competence was also considered important for successful progression. Mediated by awareness and closely linked with the professional attitude and coping sub-components, an emotionally competent player demonstrates a maturity that belies their age, has the capacity to regulate their emotions and impulses, and, as a result of past experience, is better placed to adapt to changing circumstances. As the following coach explained:

I can help technically ... I can work with them on a regular basis. I can help physically ... we can get them stronger, slightly quicker. But emotionally is the biggest thing for me at this stage. It's about growing up, having experiences and showing a maturity.

Highlighting its importance, the coaches conveyed how a lack of emotional competence might have repercussions when transitioning to the professional level. As one coach commented, 'I don't like players being rushed too soon into the game because I think they're not emotionally mature enough to handle some of the problems of the game.' Equally, a lack of emotional maturity at the onset of the training scheme might, on occasion, lead players to exhibit a 'made it already attitude' that was not conducive to progression. As one coach explained, 'You find scholars coming in and in their own little world at

home, with their mates and everything, they've made it and they're suddenly Mr Bling.'

Sport-specific attributes

This higher-order category refers to a variety of sport related characteristics that were perceived to facilitate development at this key stage. Specifically, this category consisted of five lower-order themes: Coachability (e.g. able to assimilate information, hunger to learn, consistency); Technical proficiency (e.g. high technical ability); Athleticism (e.g. being physically robust, pace); Competitiveness (e.g. winning mentality); and Team-oriented (e.g. willingness to be a team player). As one would expect, being technically proficient and demonstrating superior athleticism were viewed as indispensable attributes for progression to the professional level. Being coachable implied that young players are able to absorb information presented to them and are receptive to their coaches' methods. One coach explained its importance in the following way, 'You usually find that if you are going through something tactically, the good players it'll land very quickly but the players who are going to struggle are the ones who can't understand it.'

Although results and winning are deemphasised in the formative stages of player development (i.e. 9–16 years), several coaches discussed the need for players on the verge of the professional environment to have a 'winning mentality'. As the following coach explained, the trend to play down results should not come at the expense of developing competitiveness in young players, 'The emphasis should not be on winning but being competitive because they'll be games you can't win ... they'll be games you lose. But can we compete and have a competitive edge because they are the ones who'll become a player.'

Fundamentally, academies exist to produce individuals not teams. To this end, players are essentially competing with each other to secure one of the few professional contracts clubs offer. Nonetheless, further highlighting the link to awareness several coaches discussed the need for players to understand that being a team player would actually enhance their chances of becoming a professional. As one coach explained, 'You've got to know it ain't all about you. It's about you *and* your team. You *have* to become part of the team because the individual is produced by a successful team.'

Environmental factors

This higher-order category relates to a number of influencing factors that stem from a variety of environmental sources. Specifically, this category consisted of four lower-order themes: Significant others (e.g. coaches, parents, and friends); Culture of

game (e.g. frequent turnover of coaches); Chance (e.g. getting injured); and Provisions (e.g. access to top-class coaching).

The lower-order theme of significant others comprised a variety of individuals that were perceived to influence player development. The most cited raw-data themes to emerge centred on parental behaviours with all ten coaches mentioning ways that parents exerted an influence on development. Emphasising the perceived importance of this area, the following coach suggested there was a positive correlation between parental support and players that make the grade, 'We have found that if you have a supportive parent, you are more likely to succeed and be part of that five percent.' Supportive behaviours reported by the coaches included 'putting trust in coaches methods', 'not getting over involved in son's development', and 'providing emotional and tangible support'. Although some parents were perceived to facilitate or at the very least not obstruct development, a number of parental behaviours were thought to be detrimental to player development. As one coach explained, 'Some parents are very low maintenance. They say "Leave it to you". But there's some that no matter how Johnny's played, they think he's the best player on the pitch and what they're doing is setting the lad up for a fall.' Raw-data themes relating to negative parental behaviours included 'over-inflating player's ego', 'providing inappropriate coaching advice', 'being unreasonably expectant of success', 'putting pressure on son', 'living vicariously through son', and 'mollycoddling their son'. As the following coach explained, a lot of parental problems arise when they sense their son is not going to make it to the professional level:

You never have any problems with parents when they're [player] successful. You very rarely do. It's always when they perceive they're not being successful and then they need somebody to blame and often there isn't anybody to blame because the industry average is 5%.

A player's friends were also considered to have an influence which could either be positive (e.g. understanding of player's social limitations) or negative (e.g. lead players astray). As one coach commented, this is an area that is problematic to control, 'They [friends] have a massive influence. It's very difficult for us to manage though because how can you choose somebody's friends?' In addition, girlfriends were largely seen as an unnecessary distraction at this stage. As one coach explained, 'I think girlfriends can have a negative influence because you might have a girlfriend who really wants you to be with her and go out late on a Friday night instead of going home early.'

A number of factors relating to the culture and structure of this unique sporting context were also considered to hinder the developmental process. One of the raw-data themes to emerge related to the 'limited application of sport psychology'. It was clear the coaches considered the mental aspect of development vital at this stage. However, paradoxically there seemed to be a major disconnect between its perceived importance and its systematic application within existing development programmes. As one coach explained, 'The reality is we don't get involved in sport psychology because the majority of us don't understand it enough and we should be honest and say that.'

Other factors such as 'lack of opportunities to play', 'not enough time to develop', and 'frequent turnover of coaches' appear symptomatic of the short-term culture that characterises professional football in England. Continual changes in personnel were perceived to hinder player development as there was often no semblance of consistency which could, at times, leave the academy in a state of flux with players often having to prove themselves to a new coach. As the following coach explained:

You can start as a 16-year-old scholar but I can't tell you who's going to be your coach when you go across to the first [senior] team because we change them so often. That's a *massive* problem for their continued development because it's likely the manager will change and therefore the reserve team coach and academy manager will change.

Factors born out of providence were also considered to influence development. The coaches discussed how being in the 'right place at the right time' could have a notable influence on the developmental process. As one coach explained, 'Timing is everything ... to have the right game at the right time. I think that is so important. Now, people would call that random, call it luck. I think chance is a good word.' In the context of this study, chance related to a variety of unforeseen events and turning points that could either have a positive or negative influence on player development. Some examples included 'getting injured', 'change of coach', 'performing well when senior team manager present', and 'getting an opportunity due to injuries'. Linked to the ability of players to recognise an opportunity when it arises (i.e. situational awareness), the following coach explained how chance has the potential to change the developmental trajectory of a young player for the better:

You could be a left back and suddenly there's two [senior team] left backs injured. The manager says to me "Who have you got?" He puts him in, he

does a great job and now he's in the manager's mind. So you've got to have a little bit of luck.

The final lower-order theme of provisions relates to a variety of support mechanisms that exist for developing players. Factors such as 'access to top-class coaching', 'first-rate facilities', 'exemplary accommodation', and 'sport science support' were all perceived to have a positive influence on development. However, the most prominent factor to emerge centred on providing the 'optimal learning environment' at the academy. All ten coaches stated that establishing the most favourable environment for players to develop was central to effective development. Its importance was epitomised by the following coach who commented, 'If I was only allowed to choose one thing ... creating the right environment and that warmth, that culture of understanding, acceptance, and trust are all the things that embody development.' This view was endorsed by another coach who implied that an academy's success rested firmly upon the quality of its environment:

I think the most important element is the environment ... that is the real key. There's 40 academies in the country; they all operate under the same criteria; it's all stipulated that you must have a certain number of staff with certain qualifications etc. So why is one better at producing players than another? It all comes down to the people and creating the right environment.

Discussion

It is evident that developing professional football players is a complex process. Based on Gagné's (2009) developmental theory and drawing upon the experiential knowledge of expert coaches, we identified the factors perceived to influence player development at a key stage in the progression to the professional level. Importantly, a unique aspect of this study involved examining how these stage-specific factors interact to influence development. The findings support several assumptions derived from the recent research on talent development in football. For example, many of the factors that emerged in the present investigation offer support for Holt and Dunn's (2004) original model of player development. In accordance with Toering et al. (2009), the findings also emphasise the importance of players being able to exhibit a variety of self-regulatory skills (e.g. reflection, self-monitoring). Furthermore, the necessity for developing players to cope with a wide-range of competitive and organisational stressors (e.g. de-selection, training with senior team, pressure to secure contract)

supports existing research in youth football (e.g. Finn & McKenna, 2010; Reeves et al., 2009; Sagar et al., 2010; Van Yperen, 2009). Despite this congruence with previous research, the present study offers unique insights into our understanding of the investment years not only in football but sport in general. Specifically, the findings offer a culturally unique sport-specific account of how these stage-related factors 'work together' to influence development. In this study, it is important to note that awareness (e.g. aware of what is required to excel, capacity to reflect on experience) emerged as a fundamental agent of change that drives effective development. Specifically, awareness appeared to act as a catalyst for developing resilient behaviours (e.g. coping with setbacks), goal-directed attributes (e.g. professional attitude), intelligence (e.g. sport intelligence, emotional competence), and a number of sport-specific attributes (e.g. coachability, competitiveness). To illustrate, the coaches felt it was imperative for young players to understand that adversity can facilitate development. In this study, adversities were largely perceived as 'opportunities to grow' whereby players must introspectively 'dig deep' to evolve. To this end, the capacity to consciously reflect, assimilate, and adapt was considered a key determinant in effectively translating one's potential into excellence. An inspection of the wider literature outside of sport (e.g. McCarthy & Garavan, 1999) suggests that the creation of self-awareness in the learner is a key characteristic of successful career development. Aside from the recent work of Toering and colleagues, to-date, scant research has specifically explored its potentially far-reaching influence within athletic contexts, particularly in the literature pertaining to elite youth football. Given the findings presented here, it would seem important that future research attempts to determine more precisely the relationship between awareness and athletic development.

Consistent with Williams and Reilly's (2000) contention that successful player development is largely contingent on the environment the athlete finds themselves in, another central feature of this investigation was the importance placed on creating the most favourable environment in which to nurture young players. For the expert coaches in the present study, creating the optimal development environment extended well beyond the mere provision of first-class facilities, accredited coaches, and sport-science support. Although these factors were considered important, establishing the optimal environment appeared largely contingent on the culture or atmosphere that exists at an academy. Indeed, effective development was considered a 'people business' and having the 'right' people (i.e. academy personnel) was seen as instrumental in cultivating a positive motivational climate. Highlighting the

interaction between the environment and the individual, it was evident that such climates create the conditions that promote a number of the intrapersonal factors associated with success (e.g. optimistic attitude, team-oriented). The interaction between the environment and the individual and how it impacts upon the developmental process was further evidenced by the role it played in coaching delivery. For example, the coaches discussed how they looked to develop important intrapersonal attributes (e.g. competitiveness, confidence, coping with pressure) via the tough, challenging training environments they created (e.g. competitive practices, training with senior team). However, not all factors stemming from the environment were considered beneficial for player development. The most notable of these related to parental behaviours. Although parents were considered to be instrumental in player development, many of the parental behaviours that emerged in this study were perceived to have a detrimental influence. As key stakeholders in the development of young players, the significance of this finding should not be overlooked. However, as opposed to ostracising parents as a control measure, it would seem important that academies work closer with parents to build more positive working relationships geared towards optimising their influential role as a 'football parent'.

Although the environment in which athletes are nurtured clearly has a significant influence on the developmental process, it is surprising that research concerned with the optimisation of development environments within sport is still in its infancy, especially within sport-specific settings. Indeed, despite recent contributions (e.g. Henriksen, Stambulova, & Roessler, 2010a), the literature concerning culturally unique contexts such as football remains somewhat limited. To this end, future research that examines the environments elite academies create to nurture young players to the professional arena would seem warranted.

In this study, chance also emerged as an influencing factor. Congruent with the tenets of Gagné's model, its influence manifested itself in a variety of positive and negative ways from the probability of a strong familial background (e.g. supportive parents) to uncontrollable events (e.g. injuries, change of coach) and unexpected turning points (e.g. opportunity due to injury of senior player). Irrespective of its directional influence, chance clearly has the potential to alter a player's developmental pathway and supports the view that talent development is by no means a probabilistic enterprise (Vaeyens et al., 2008).

Applied implications

From an applied perspective, the question remains how academies can be helped to meet the needs of developing players at this decisive stage of

development. Given the central role that awareness played in this study, coupled with the importance placed on creating the optimal environment, an applied technique that might prove beneficial in promoting these features is reflective practice. According to Raelin (2002), reflective practice involves periodically stepping back to ponder the meaning of what has happened to ourselves and others in our environment. It illuminates what the self and others have experienced, providing a basis for future action. To this end, reflective practice is considered to create the opportunity to identify areas for improvement and the formulation of ideas for change (Knowles, Gilbourne, Borrie, & Neville, 2001).

Although its application in sport has primarily focused on developing reflective skills in coaches (e.g. Knowles et al., 2001), Richards, Mascarenhas, and Collins (2009) demonstrated how it could be integrated into coaching delivery as a mechanism to aid the development of elite athletes and teams. The authors suggest that incorporating reflective practice within development programmes can cultivate an environment in which athletes and teams are empowered to engage with, and contribute to, their technical and tactical development. While the coaches in the present investigation discussed how they encouraged players to reflect on their learning, we contend that integrating structured sessions underpinned by the principles of reflective practice might provide a more systematic and holistic approach that has the potential to extend beyond the tactical and technical to develop players' socio-emotional development. Following a similar line of thought to Richards et al. (2009), if academies are to develop resilient, goal-directed, and intelligent performers, we believe that young players need to be 'reflective thinkers' who, as a result, would potentially be better equipped to transcend the challenges that this decisive stage presents. Further, by acting as a mechanism to raise awareness about the implications of certain parental behaviours, reflective practice might also prove useful in parental development by assisting academies and parents to build a reciprocal understanding of the extent of the parental role.

Strengths and limitations

A strength of this study was that it was theoretically underpinned by an established developmental theory. Gagné's model helped frame the study purpose, inform the interview context and protocol, and guide the data analysis. By reporting 'in the moment' views of expert coaches involved in the talent development process on a day-to-day basis, a further strength of the study involved overcoming some of the methodological limitations of previous retrospective

studies. A potentially limiting factor was that only ten coaches were interviewed. However, it was felt that the relatively small sample size was offset by the coaches' vast wealth of experience in elite player development (a mean of over 14 years). We also acknowledge that not all readers will be convinced that this view of players who need to 'toe-the-line' in order to progress is entirely authentic. For this reason, it must be emphasised that the findings presented here represent a theoretical ideal. It is not our intention to suggest that every favourable intrapersonal and environmental factor must be present, and every negative factor be absent for players to successfully advance to the professional level. Inevitably, there will be cases where players have successfully made the transition despite the presence or absence of certain factors. This might, in part, be due to a compensation phenomenon (Bartmus, Neumann, & de Marées, 1987) whereby deficiencies in one area (e.g. not a team player, lack of emotional competence) could potentially be compensated for by extremely high levels in another (e.g. technical proficiency, sport intelligence). Nonetheless, we contend that a favourable combination of the factors identified in this study would serve to enhance a young player's likelihood of successfully transitioning to the professional level.

Concluding remarks

To excel in any given field, Gagné (2009) contends that individuals must initially possess well above average natural abilities (i.e. gifts). However, for Gagné these exceptional natural abilities can remain simply as gifts if not effectively nurtured through the developmental process. The expert coaches' views in the present investigation appear to support this notion. Put simply, though young players must have exceptional natural ability, it appears that elite footballers are largely 'built' not 'born'. From a broader talent development perspective, it would seem important for the continued advancement of the field that future investigations look to identify the drivers that interact to facilitate progression at key stages in the developmental pathway; especially within sport-specific populations. Given the applicability of Gagné's model to athletic domains, we contend that this well-developed framework could help to conceptually drive such a research agenda.

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