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Mills, A, Butt, J, Maynard, I and Harwood, C

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Running Head: Toward an understanding of optimal

Toward an understanding of optimal development environments within elite English
soccer academies

Abstract

This study examined the factors perceived by successful coaches to underpin optimal development environments within elite English soccer academies. A semi-structured interview guide was developed to interview ten expert coaches about the environments they create for players at a key stage in their development. The interviews were transcribed verbatim and inductively content analyzed. The results identified a wide-range of factors resulting in a conceptual model that explained how these factors interact to underpin an optimal environment. Subcomponents of this model included: organizational core (e.g., advocate a player-driven ideology), adaptability (e.g., embrace novel ideas & approaches), player welfare (e.g., understand players' world-view), key stakeholder relationships (e.g., build trust with parents), involvement (e.g., encourage players' ideas/feedback), and achievement oriented (e.g., establish an explicit pathway to senior level). Collectively, the findings highlight the importance of establishing strong, dynamic, organizational cultures at elite youth soccer academies. Ways that academies might be helped to establish such environments are discussed.

Keywords: elite, environment, development, soccer, organizational culture

1 Nurturing the next generation of elite soccer players continues to be a topic of
2 considerable importance for professional clubs and governing bodies alike (e.g., UEFA,
3 Premier League). While the development and eventual success of a gifted young player
4 is considered to be influenced by a variety of innate, psychological, and behavioral
5 factors (e.g., sport intelligence, resilience, commitment) (Mills, Butt, Maynard, &
6 Harwood, 2012); few would dispute that it is also shaped by their environmental
7 experience (Reilly, Williams, & Richardson, 2003). Indeed, the very term talent
8 development in soccer implies that young players are provided with a suitable learning
9 environment to achieve their potential (Williams & Reilly, 2000). To this end,
10 successful progression is considered to be largely contingent on the environment
11 players' find themselves in, and importantly, the way they interact with it. For example,
12 interactions between key stakeholders (e.g., coaches, peers, parents) within youth soccer
13 academies are predicted to play a pivotal role in a player's development (Richardson,
14 Gilbourne, & Littlewood, 2004).

15 Although a variety of more far-reaching, systemic environmental factors (e.g.,
16 culture of the game) are considered to impact upon player development (Mills et al.,
17 2012); the specific environment created at a youth soccer academy would appear to be
18 one of the most directly controllable factors in the life of a young player. Indeed, as
19 Durand-Bush and Salmela (2001) note, "we cannot change our genetic make-up, but we
20 can change our environment to make it as conducive as possible to improving
21 performance" (p. 285). Despite this assertion, the development environments in which
22 elite young players are nurtured have not been studied in depth.

23 An inspection of the sport psychology literature reveals that this lack of research
24 appears to hold true for sport in general. Certainly, while talent development research
25 has accrued a comprehensive understanding of the characteristics athletes require to

1 develop and maintain elite level performance, considerably less is known about the
2 actual environments that largely engender these characteristics and ultimately drive the
3 talent development process (Martindale, Collins, & Abraham, 2007). Although under-
4 represented at present, preliminary studies that have explicitly focused on effective
5 talent development environments are beginning to emerge. For example, Martindale et
6 al. (2007) examined coaches' perceptions of the goals and systems required to
7 implement effective talent development environments across a wide range of sports
8 within the United Kingdom (UK). The results revealed a variety of methods such as the
9 use of role models, setting clear expectations, individualized programs, informal
10 athlete/coach interactions, and promoting self-responsibility.

11 Henriksen, Stambulova, and Roessler (2010) introduced a holistic ecological
12 approach for researching athletic talent development. Specifically two working models
13 represent this approach: Athletic Talent Development Environment (ATDE),
14 Environment Success Factors (ESF). The ATDE model consists of micro and macro-
15 levels, athletic and non-athletic domains, and of a time-frame. In contrast, the ESF
16 model includes a variety of preconditions (e.g., material, financial), the process (e.g.,
17 practices, competitions), the organizational culture (e.g., espoused values, basic
18 assumptions), and individual/team development and achievements. For Henriksen and
19 colleagues, it is the interaction of the success factors that are considered to influence the
20 development environments' effectiveness in nurturing athletes to the elite senior level.
21 In developing this ecological approach, Henriksen et al. have investigated the talent
22 development environments of a range of Scandinavian sports teams (i.e., sailing, track
23 & field, kayaking). This line of research highlighted that development environments are
24 highly individualized and context-specific in nature, and thus, demonstrate the need for

1 research to continue to determine the features that underpin successful development
2 environments across sports and cultures.

3 A perusal of the extant coaching psychology literature may also offer some
4 insight into the factors required to establish the optimal conditions for development.
5 Although not explicitly concerned with elite youth development environments, Vallée
6 and Bloom's (2005) study of how collegiate coaches built successful sports programs
7 revealed that success was underpinned by coaches who demonstrated a personal desire
8 to foster players' individual growth. Coaches also possessed wide-ranging
9 organizational skills and, importantly, were able to get athletes to buy-in to the team's
10 vision and philosophy.

11 Although this research has enhanced our understanding in the area, knowledge
12 of athletic development environments is far from complete, particularly where elite
13 youth soccer is concerned. Indeed, given the important role the environment is
14 considered to play in the development of players, it is somewhat surprising that studies,
15 to-date, have largely overlooked how player development environments are optimized.
16 Notwithstanding a wealth of research that emphasizes the importance of deliberate
17 practice, sport-specific play, and coaching behaviors (e.g., Álvarez, Balaguer, Castillo,
18 & Duda, 2009; Cushion, Ford, & Williams, 2012; Ford, Ward, Hodges, & Williams,
19 2009) within the specific training environment; far less is known about the broader
20 context of a player's development environment. In light of the growing recognition that
21 sport psychology should look to broaden its horizons to consider the wider
22 organizational milieu that athletes find themselves in (Fletcher & Wagstaff, 2009), the
23 absence of such enquiries warrants attention.

24 Further, while research within elite youth soccer has predominantly focused on
25 the player's perspective (e.g., Sagar, Busch, & Jowett, 2010); studies with coaching

1 populations are somewhat less prolific. Given the pivotal role a coach has in the player
2 development process, there is a clear need for more in-depth investigations that harness
3 their experiential knowledge. Indeed, in light of the findings from Vallée and Bloom
4 (2005), it is predicted that coaches responsible for overseeing the daily operation of a
5 soccer academy would need to deploy a range of organizational skills that extend far
6 beyond the specific coaching and/or practice environment. As such, a detailed attention
7 to the strategies and mechanisms head coaches deploy in this regard might reveal
8 important information about how academy environments are optimized from a broader
9 organizational perspective.

10 Moreover, as advocated by Williams and Reilly (2000), a key area for further
11 research in elite youth soccer is to provide guidelines for nurturing players through each
12 stage of development. Indeed, talent development research (e.g., Côté & Hay, 2002;
13 Wylleman, Alfermann, & Lavallee, 2004) suggests that athletes' progress through a
14 series of stages and key transitions (e.g., sampling, specialization, investment,
15 maintenance) during their development. One of the key stages in elite player
16 development in England relates to the investment years (i.e., 16-18) where the most
17 promising young players are signed to undertake a two year full-time youth training
18 program known as an academy scholarship. In elite soccer's development pathway, this
19 structured program provides young players with a finite window of opportunity to
20 realize their ambition of becoming a professional. In talent development terms, this
21 stage represents the specific transition from elite junior to elite senior and is where
22 training, competition, and the pursuit of elite level performance become the major foci
23 of a developing players life.

24 Although this specific transition is considered critical; with athletes having
25 frequently described it as the most difficult stage they encountered (Stambulova,

1 Alfermann, Statler, & Côté, 2009), little is known about the environments that are
2 created to support players at this crucial stage. Given the suggestion that athletes' needs
3 vary at different stages in development and, as such, often require different coaching
4 environments as they progress (Van Rossum, 2001); the scarcity of stage-specific
5 investigations represents a gap in the knowledge base. As such, it would seem important
6 that research begins to identify the factors that underpin optimal environments at key
7 stages along the development pathway. Furthermore, as previous research (e.g.,
8 Henriksen et al., 2010; Williams & Reilly, 2000; Richardson et al., 2004) alludes to the
9 interactional nature of development environments, it would also seem important for
10 studies to determine how these stage-specific factors interrelate to create the most-
11 favorable conditions for developing players.

12 To bridge these gaps in our understanding, the purpose of the present study was
13 to examine successful elite academy coaches perceptions of the factors considered to
14 underpin optimal development environments for players at a key stage in their
15 progression to the elite senior level. Rather than simply generating a descriptive account,
16 a unique aspect of this study involves working toward an understanding of how these
17 factors act together. From a real-world perspective, the nature of this investigation
18 would seem timely. Indeed, the ever-increasing quality of the Premier League coupled
19 with the extraordinary buying power of elite clubs has led to a scenario where, to
20 succeed, young players not only have to be one of the best players in England but also
21 the world. As such, the director of youth at the Premier League remarked that, "the
22 focus on youth has probably never been as intense or as urgent since the inception of the
23 Premier League as it is right now" (BSkyB, 2011). To this end, a scientific investigation
24 of the features considered to underpin optimal player development environments might

1 have a number of important practical implications for those working within these
2 settings.

3 Method

4 *Participants*

5 Ten expert academy coaches aged between 31 and 62 years ($m = 47.5, \pm s = 10.5$
6 years) participated in the study. The coaches were recruited from professional Premier
7 League and Championship clubs in England. Geographically, the clubs were based in
8 the North (n=4), North West (n=2), Midlands (n=2), and South regions (n=2) of
9 England. To capture an authentic picture of best practice, it was also essential to recruit
10 a representative sample that could justifiably be considered expert. To this end, the
11 inclusion of the coaches was based on a number of criteria. Firstly, it was a prerequisite
12 that the participants were all full-time head coaches (i.e., academy managers) of elite
13 youth academies and had at least five years' experience at the elite level. In total, the
14 coaches had between six and 22 years coaching experience ($m = 14.5, \pm s = 6.2$ years) and
15 held either the Union of European Football Associations (UEFA) Pro and/or UEFA A
16 coaching licenses. To further certify their expert status, the coaches were also selected
17 on the basis that they were: (a) specifically responsible for overseeing the development
18 of players at the investment year's stage (i.e., 16-18 years); and (b) managed academies
19 that had successfully facilitated the development of players who had progressed to play
20 at the highest professional levels in England (e.g., Premier League). In addition to the
21 stipulated inclusion criteria, nine of the coaches held the English Football Association's
22 (FA) Academy Manager's license. Three of the participants also held the League
23 Manager's Association (LMA) Certificate in Applied Management for Football.

24 *Procedure*

1 Following institutional ethics approval, suitable candidates for participation were
2 identified via assistance from English soccer's governing bodies (i.e., FA, Football
3 League). The coaches were initially contacted by email detailing the purpose and nature
4 of the study and to establish whether they met the inclusion criteria. Of the 20 coaches
5 contacted who met the criteria, 10 agreed to participate in the study representing a 25
6 percent sample of the elite academies that currently function in English soccer. This
7 number of participants is consistent with previous research involving an interpretative
8 approach to analysis (e.g., Dale, 2000). To obtain an in-depth understanding of the
9 coaches' perceptions, interviews were adopted as the method of data collection. Initially,
10 a provisional interview guide was pilot tested with three youth soccer coaches not
11 otherwise connected to the study. This process enabled the researcher to make minor
12 alterations to the narrative of the guide. Convenient times for the interviews were agreed
13 and informed consent was obtained before data collection began. The coaches were also
14 assured that their views would remain anonymous and be treated confidentially. The
15 interviews were carried out at each academy's training facilities.

16 *Interview guide*

17 A semi-structured interview guide based on existing talent development literature
18 (i.e., Martindale et al., 2007; Vallée & Bloom, 2005) was carefully structured to elicit
19 truly open-ended responses. Though the same set of questions were asked with each
20 participant, the interviewer let the natural flow of conversation direct the discussion
21 which allowed coaches' specialist knowledge and experiences to be explored in greater
22 depth as it arose (Patton, 2002). The interviews commenced with a rapport building
23 introductory question to initiate discussion and preface the topic (e.g., can you tell me a
24 little about your coaching background and experience in soccer?). The main body of the
25 guide contained questions about how these expert coaches created successful

1 environments (e.g., how do you look to create an effective player development
2 environment?) and also the factors considered to underpin optimal player development
3 environments (e.g., what strategies and methods do you believe help to create an
4 optimal environment at the academy?). Elaboration probes were used throughout to
5 elicit in-depth information and to ensure that coaches had discussed everything they felt
6 relevant before the interviewer moved on to the next question. Each interview was
7 digitally recorded in its entirety and ranged from 55 to 120 minutes in length (m 84.6, \pm
8 s = 20.6 mins).

9 *Data analysis*

10 Thematic interpretational content analysis was adopted for analyzing the data (cf.,
11 Côté, Salmela, Baria, & Russell, 1993). This analysis was selected to specifically
12 display the thematic content of the interview scripts (i.e., highlighting the central themes
13 characterising coaches' views) while engaging in the interpretations and meanings of the
14 participants' quotes, and thus, analyse the data beyond description alone that is often
15 associated with conventional qualitative content analysis. Specifically, this involved
16 examining the verbatim transcripts and identifying any meaningful units of information
17 (i.e., quotes that represented a single, recognizable aspect of participants' views in
18 relation to factors perceived to underpin optimal environments). Individual meaning
19 units (i.e., raw-data themes) that related to a common topic were coalesced into groups
20 of greater generality, resulting in the emergence of lower- and higher-order themes. For
21 example, raw-data responses such as promote togetherness/camaraderie amongst
22 players, demonstrate equality amongst players, and develop local home grown players,
23 were grouped to create the lower-order theme of team-ethos. It is important at this stage
24 of the analysis process, for interpretation and meaning, that similarities and differences
25 are discussed (Côté et al., 1993). Therefore, the research team considered the

1 interpretation of one transcript and then viewed the transcript in relation to the whole
2 data (i.e., themes emerging). The final level of classification consisted of grouping
3 higher-order themes into key domains. This stage followed a similar process to the prior
4 stages of creating themes, except it was conducted at a more abstract, general
5 dimensional level of analysis. This process resulted in the creation of a conceptual
6 model that explains the interrelationship between the key factors at a macro level.

7 *Trustworthiness*

8 A number of measures were followed to ensure the credibility of the data. Firstly,
9 the primary investigator (PI) who conducted the interviews had extensive training in
10 qualitative research methods and had previous experience of interview-based research.
11 Secondly, the researcher was familiar with English soccer culture, including jargon, and
12 specific club history. The researcher also had an extensive knowledge of teams, coaches,
13 and players in English soccer. This familiarity and understanding helped to build
14 rapport with the coaches, which in turn, facilitated the interviews.

15 Other procedures used to ensure credibility included regular peer debriefing with
16 the PI's research team. This involved examining the methods, data analysis and
17 decision-making processes at each stage of the investigation. In addition, two
18 experienced qualitative researchers independent of the research team helped triangulate
19 the findings by assessing the data at each stage of analysis. This process of triangulation
20 is often referred to as analysis triangulation (Patton, 2002). Specifically, an arbitrary
21 selection of raw-data themes were presented to the independent researchers for them to
22 categorize into the lower-and higher-order themes. The consistency amongst these
23 researchers was found to be 93% for the lower-order themes and 91% for the higher-
24 order categories. The researchers met to discuss differences and reach agreement on the
25 final themes. As one example to illustrate the process of how consensus was achieved,

1 the raw data theme of establish a highly structured program was categorized into the
2 lower-order theme of vision by one researcher and the theme of discipline by a second
3 researcher. The researchers re-read the participant's transcript to discuss the meaning
4 and reasoning guiding the thematic analysis. Based on the meaning it was agreed that
5 establishing a highly structured program was explaining the role of setting rules and
6 maintaining a structured approach for a disciplined player environment, and thus, was
7 categorized in the lower-order theme of discipline. Finally, to further establish
8 credibility of the results, participant member checks (Lincoln & Guba, 2000) were
9 conducted whereby a summary of the interview and a diagram of the model were sent to
10 each coach so they could substantiate the accuracy of the data. Responses provided from
11 the coaches confirmed the accuracy of the data and appropriateness of the model, thus,
12 assuring the research team that the results were valid and reliable.

13 Results

14 A total of 80 raw-data themes emerged from the interview transcripts representing
15 the strategies and mechanisms considered by expert coaches to underpin optimal player
16 development environments. The raw-data themes were coalesced into 17 lower-order
17 and nine higher-order themes (see Figure 1). These higher-order themes were titled:
18 Organizational core; adaptability, player welfare, stability, effective communication,
19 key stakeholder relationships, involvement, achievement oriented, and material
20 provisions. To go beyond the descriptive and provide a more meaningful understanding
21 of how these themes interact to support an optimal environment, higher-level
22 conceptualization of the data revealed four key domains. These were titled: Operating
23 system, psychosocial architecture, organizational functioning, and physical environment.
24 A breakdown of the subcomponents (i.e., higher-order themes) within each domain as
25 well as the interrelationship between these domains can be seen in Figure 2. As

1 displayed in this conceptual framework, optimal player development environments
2 appear to be driven by the interaction of: (i) a coherent operating system (i.e., the
3 strategy); (ii) a strong psychosocial architecture (i.e., the process); (iii) consistent
4 organizational functioning (i.e., the process); and (iv) a suitable physical environment
5 (i.e., the tangible). These key domains and interrelated subcomponents are discussed in
6 detail below.

7 *Operating system.* A coherent operating system is the strategic center of an
8 optimal development environment. This represents an academies fundamental approach
9 for player development (i.e., ethos, vision, values). In essence, it is the heart and soul of
10 the academy. Specifically, operating system (i.e., strategic) emerged from the higher-
11 order theme of organizational core which relates to the mechanisms that collectively
12 provided the strategic foundation for an optimal environment. Within organizational
13 core, eight raw-data themes were categorized into three lower-order themes:
14 Development ethos (e.g., establish clear core values to underpin development), identity
15 (e.g., craft individuality for academy), and vision (e.g., create a clear mission/purpose).
16 Highlighting how these mechanisms (e.g., ethos, vision) work together to support the
17 overall strategy, one of the coaches discussed:

18 I believe our mission is to develop elite young players...and elite people. The
19 philosophy we have here is the means to achieving that. It's a philosophy
20 [points to Latin on club emblem] that we wear with pride and has been at the
21 heart of the club for over 120 years.

22 Within the lower-order theme of development ethos, the coaches discussed the
23 importance of espousing whole-person development. As one coach explained, "The *one*
24 thing that we pride ourselves on is producing the person as well as the player. The
25 holistic development of the player is vital so we look to educate them socially as well as

1 football [soccer] wise.” The need to establish explicit core values was also considered
2 vital as they provided the framework to guide development. One of the coaches
3 commented:

4 I really go back to old fashioned core values. Core values in terms of integrity,
5 how hard you work, respect for the game, respect for your colleagues, and respect
6 for your staff. Before we get on the training pitches it’s those values that are
7 looked at.

8 *Psychosocial architecture.* With the organizational core’s development ethos
9 acting as the catalyst, this key domain comprises the processes that ultimately foster a
10 supportive, engaged, and positive climate. Thus, it represents the psychological and
11 social environment that is constructed within the academy. This psychosocial
12 architecture is largely built through the interpersonal relationships that exist amongst all
13 key stakeholders involved in the development process. Specifically, the higher-order
14 themes of player welfare, involvement, key stakeholder relationships, and achievement
15 oriented encompass this domain.

16 The theme of player welfare relates to the processes and mechanisms used to
17 safeguard the well-being of players. This was considered fundamentally central to the
18 creation of an optimal environment. Highlighting its link to key stakeholder
19 relationships, one of the coaches remarked, “I think care is the key...our care for players
20 is probably second-to-none. I made sure I knew *all* our kids *and* their parents right the
21 way through to 18.” A further coach stated, “It’s probably no different to your own
22 family. When you go home, you want to feel safe, you want to feel warm, and you want
23 to feel welcome...so we try to create all those elements.” The importance of
24 understanding the player’s world-view, and being there for players if required was also
25 stressed. As one coach explained:

1 We have a very hands-on approach and like players to know we're there for
2 them. If they want to bounce things off us or if they have personal problems,
3 they can come and talk to us. I'm very open with them. I understand what
4 they go through at this age so I like to think we're pretty good at developing
5 them not only as players but also as people.

6 The higher-order theme of involvement relates to the processes deployed to
7 empower key stakeholders and create a climate of ownership and relatedness. In total,
8 11 raw-data themes were categorized into two lower-order themes: Empowerment (e.g.,
9 make player feel important/part of the club), and team-ethos (e.g., share success/make
10 players feel part of the group). Within the lower-order theme of empowerment, the
11 importance of including support staff in decisions about the program was discussed.
12 This was considered to foster an environment where staff sense they can make valued,
13 unique contributions. As the following coach explained:

14 I would never make a one-off decision and say, "Right, that's the way we're
15 going to go now." I would pull the staff together and say, "Look, I think we
16 can improve if we do this, this, and this....What do you think?" That was
17 important as everybody then buys into the decision.

18 Linked to player welfare, the need to make the player feel important/part of the
19 club was discussed as a method to cultivate an environment where players feel
20 valued. One of the coaches commented:

21 We always put the players first. In any working environment, if people are not
22 comfortable in it, they won't develop so when a boy signs for [club name] he gets
23 told that he's more important than me or any member of staff because ultimately
24 we are here for him.

1 At this key stage, the need to create a player-driven environment that promotes
2 self-responsibility was also considered crucial. The following coach explained how they
3 encouraged players to be more accountable for their own development:

4 One of the big things that we implement is not allowing the lads to have any
5 excuses. If they want something, we do our best to provide it. We're not
6 mothering them or spoiling them but we create an environment whereby
7 ultimately, they've got to take responsibility for themselves. If they haven't
8 had a good game or if they're not progressing at the rate they'd like, they've
9 got to take some responsibility for that.

10 Within the lower-order theme of team ethos, the coaches discussed the value of
11 developing local home-grown players. This was encapsulated by the following coach:

12 If you look at most clubs that have been successful in Europe, they've had a
13 basis of home-grown talent...Barcelona's a good example. I think that's a
14 great thing because it gives you a natural camaraderie. It also gives the
15 players an ownership of the club which is what we all believe in.

16 Underpinned by the development ethos and core values, the higher-order theme of key
17 stakeholder relationships relates to the processes and mechanisms used to develop
18 positive working relationships with all key stakeholders both internally (i.e., players,
19 staff) and externally (i.e., parents). As one coach explained, "we work hard to create a
20 positive development environment between the family and ourselves. It's how you treat
21 people. Personal liaisons are one of the real factors of why we are so successful at the
22 academy." Specifically, 14 raw-data themes were categorized into two lower-order
23 themes: Internal stakeholders (e.g., build reciprocal understanding with senior team
24 manager), and external stakeholders (e.g., convey total commitment to parents). Within
25 the lower-order theme of internal stakeholders, treating players with respect, being

1 open, honest and approachable with players, and promoting transparent processes were
2 considered vital. The following coach encapsulated these themes,

3 The big difference here is the transparency, the openness and the honesty of the
4 approach. We promote an open door policy so if someone walked into the office
5 and said “Why am I not in the team?” They get a straight answer.

6 Within the lower-order theme of external stakeholders, the need to treat parents
7 and families as customers was considered important. In elite youth soccer, recruitment
8 and retention of players are integral aspects of player development. As such, adopting a
9 service mind-set was viewed as a vital feature of an optimal environment. As one coach
10 explained, “We always have the view that our players and their families are our
11 customers. So, if *we* didn’t do it well, somebody *else* would.” Similarly, the need for
12 staff to build trust with players and parents was considered essential. Emphasizing the
13 link between organizational functioning and psychosocial architecture, the following
14 coach commented, “We do our best to build a triangle of trust between the player, the
15 parent, and the staff. Now it’s got to be interlinked because if it isn’t you’ve had it.”

16 The higher-order theme of achievement oriented is another important
17 subcomponent of the psychosocial architecture. Specifically, this refers to the processes
18 and mechanisms that were deployed to create a positive motivational climate that
19 espoused a culture of excellence. In total, 18 raw-data themes were coalesced into four
20 lower-order themes: Discipline (e.g., set clear parameters & ground rules), engagement
21 (e.g., allow players to express their creativity), challenge (e.g., create demanding
22 physical & mental training sessions), and inspiration (e.g., establish an explicit pathway
23 to the senior level). To get the best out of young players, the coaches discussed the need
24 to establish an environment that was disciplined without being oppressive. One coach
25 explained, “they get quite a regimented structure which I think players need because if

1 you just let them get on with it, they generally start to do their own thing and they'll
2 start to fall by the wayside." The need to keep players on their toes and continually
3 engaged was also considered important. Strategies used to achieve this included
4 providing a dynamic development program and utilising eclectic teaching methods. One
5 coach commented, "it's not just on the training field...we teach them nutrition,
6 flexibility work, proprioception work, injury prevention work, video analysis, and
7 media skills. So, using different tools, we teach them in different ways." The necessity
8 to keep the atmosphere positive at all times was also considered important as the
9 following coach explained, "The environment should be created so it is positive, vibrant,
10 and forward-thinking...so if there's a problem ... [claps]... it's gone...let's go again. So
11 one thing, our environment has a short memory. I think that's important."

12 The need to inspire players was also considered vital. Within this lower-order
13 theme, the necessity to establish an explicit pathway to the senior level was deemed
14 particularly important. This was encapsulated by the following coach who stated,

15 What we offer against most Premiership clubs is an opportunity to progress
16 because there's a route through here. At [club x], [club y] there's no route through.
17 You've got World Cup winners in front of you so it ain't going to happen.

18 Similarly, establishing an environment that provided players with opportunities to
19 experience the senior level (e.g., training with the senior team) was considered
20 paramount for effective development. As one coach explained, "I've got loads of good
21 players coming through but they only ever realize they're a good player if the [senior
22 team] manager gives them a go. They've got to have it...talent has to meet
23 opportunity."

24 *Organizational functioning.* This key domain relates to the specific processes and
25 behaviors that underpin the smooth operation of the academy. This domain interacts

1 with the operating system by bringing the ethos, values, and vision to life, thereby,
2 facilitating how the academy functions. Illustrating the link between strategy and
3 process, the following coach explained, “So if you've got the philosophy and your aims
4 and objectives in place... then you get onto the processes and how you are going to
5 bring them about.” Specifically, organizational functioning comprised the three higher-
6 order themes of adaptability, stability, and effective communication. The higher-order
7 theme of adaptability relates to the strategies and mechanisms considered to create an
8 environment that was progressive and flexible in its approach to development. Within
9 this higher-order category, six raw-data themes were coalesced into two lower-order
10 themes: Commitment to innovation (e.g., embrace novel ideas & approaches), and key
11 stakeholder development (e.g., promote recurrent staff training & development).
12 Mediated by the organizational core, within the lower-order theme of commitment to
13 innovation the coaches discussed the need to “continually strive for new and improved
14 methods” and “regularly review systems and practices”. Given the fast paced, ever-
15 changing nature of professional soccer, the importance of being adaptable was
16 considered essential as the following coach explained, “You’re always evolving as a
17 club and always trying to develop...you must be prepared to change as the game
18 changes all the time.” Within the lower-order theme of key stakeholder development,
19 the importance of not solely focusing on player development at the expense of other key
20 stakeholders (i.e., staff, parents) was underlined. With the development ethos acting as
21 the catalyst, this all-inclusive focus also appeared to help strengthen the psychosocial
22 architecture by engaging all stakeholders. The importance of such an integrated holistic
23 focus was encapsulated by the following coach:

24 It’s been said that academies should be like greenhouses. They should allow
25 young players to grow and develop like plants. I would take it a stage

1 further...so as well as young players developing, the staff and parents
2 should also be developing and that's the only way you can stay at the front.

3 Underpinned by the operating systems core values and linked to an academy's
4 capacity for a robust psychosocial architecture, the higher-order theme of stability
5 relates to the processes and mechanisms that were considered to support an integrated,
6 coordinated and stable environment. Specifically, eight raw-data themes were coalesced
7 into two lower-order themes: Integration (e.g., well-integrated staff), and continuity
8 (e.g., ensure continuity with coaches and support staff). Within the lower-order theme of
9 integration, the following coach explained the need to link the academy with senior
10 team operations, as he explained,

11 The [senior team] manager is just down the corridor so it's very much a
12 working together environment where there is no separation. At some
13 academies, you can have different sites for first [senior] and youth teams.
14 However, I firmly believe that when the first team is interlinked with the
15 academy, it's not such a big jump for the players.

16 Within the lower-order theme of continuity, the necessity to have consistency with
17 academy personnel was considered a crucial constituent of organizational functioning. It
18 also appeared to play a key role in bolstering the psychosocial architecture by helping to
19 maintain and regulate key stakeholder relationships. As one coach commented,
20 "continuity and sustainability are two vital ingredients in a youth program. It's no
21 coincidence that the clubs with the more stable environments in terms of staff are
22 proving to be more successful." The coaches also stressed the importance of ensuring
23 that staff behaviors were aligned and consistent. This consistency was explained by one
24 coach in the following way:

1 “If you don’t get it right in here [academy], you don’t get it right out there [points
2 to playing field]. If you haven’t got the staff singing together off the same hymn
3 sheet, you’ll never get it right on the pitch.”

4 The higher-order theme of effective communication acts as a crucial mediator between,
5 and within, both strategy and process, thus promoting cohesiveness amongst the
6 domains. To illustrate, effective communication not only facilitated the smooth
7 operation of the organization from a functional perspective; it also helped bring the
8 organizational core to life (i.e., what we are all about and how we are going to achieve it)
9 and strengthened the psychosocial architecture by acting as a catalyst to positive key
10 stakeholder relationships.

11 Specifically, five raw-data themes were coalesced into the following two lower-
12 order themes: Transmit key messages (e.g., ensure expectations are clear to all
13 stakeholders), and effective feedback (e.g., talk regularly with parents about their sons’
14 progress). The lower-order theme of transmit key messages relates to the importance of
15 clearly communicating the academy’s operating system (i.e., ethos, identity, vision).
16 Relating to expectations, one such message centered on communicating the need for an
17 integrated approach amongst key stakeholders. As the following coach explained, “the
18 environments not only about them [players]...so we have regular meetings with staff
19 and parents to ensure everyone knows what is expected of them. It’s a program that
20 exists not only for the players but for everyone.” Linking to the psychosocial
21 architecture, the lower-order theme of effective feedback relates to the need to provide
22 constructive two-way channels of communication to both players and parents. As the
23 following coach explained, “We have regular parent nights where we give an honest
24 appraisal of their son’s progress and then they [parents] can fire back at us as well.”

1 importance of espousing holistic development supports previous studies (e.g.,
2 Martindale et al., 2007; Vallée & Bloom, 2005). Specifically, the coaches in the current
3 investigation stated that their academy ethos was strongly grounded in developing well-
4 rounded individuals. The results of the present study also offer support for research (e.g.,
5 Vallée & Bloom, 2005) that has highlighted the need for head coaches to possess a
6 wide-range of organizational and management skills. Particularly noteworthy were the
7 parallels that could be drawn with previous research regarding the need to empower
8 individuals and obtain buy-in from key stakeholders.

9 In accordance with existing youth soccer literature (e.g., Richardson, et al., 2004;
10 Williams & Reilly, 2000), the findings also underline the pivotal role that interactions
11 between key stakeholders play in a player's development, and emphasize the
12 importance of establishing supportive socio-emotional environments. Further, a number
13 of themes generated in the present study (e.g., challenge, engagement) support previous
14 research (e.g., Álvarez et al., 2009; Cushion et al., 2012) by demonstrating how coaches
15 can manipulate the training environment to make it as conducive as possible to
16 development. Along these lines, the findings also highlight how coaches might engineer
17 the environment to develop psychological factors such as mental toughness. It was
18 apparent that some of themes in this study echoed techniques identified in previous
19 research (e.g., Weinberg, Butt, & Culp, 2011) to be associated with the development of
20 mental toughness in athletes. Specifically, the themes of engagement, challenge, and
21 empowerment support the notion that mental toughness is developed by exposing
22 athletes to tough, challenging experiences but within the framework of a positive and
23 confidence building environment. Offering support for such environmental
24 manipulation, in their study of mental toughness in soccer players, Thelwell, Weston,
25 and Greenlees, (2005), found that tough environmental challenges (e.g., being dropped

1 from team) encountered in the formative stages of development were perceived by
2 senior professionals to facilitate their progress to the professional level. In this regard,
3 determining, more precisely, the ways coaches can orchestrate situations conducive for
4 developing mental toughness in elite young players would appear to represent an area
5 for further development.

6 Despite this agreement with previous research, the present study offers a number
7 of unique insights that add to our understanding of talent development environments,
8 particularly where elite youth soccer is concerned. Indeed, no research has explicitly
9 examined and conceptualized the factors perceived by academy coaches to underpin
10 optimal development environments for players at a key stage in their journey to the
11 senior level. The current investigation has bridged this gap and, in doing so, has resulted
12 in a conceptual framework (see Figure 2) that elucidates the dynamic interrelationships
13 between the reported higher-order themes at a macro level. As explained in the results
14 section, optimal player development environments appear to be driven by the interaction
15 of four key domains: (i) a coherent operating system (strategic); (ii) a strong
16 psychosocial architecture (process); (iii) consistent organizational functioning (process);
17 and (iv) a suitable physical environment (tangible). To discuss further how these key
18 domains act together to produce the most-favorable development conditions, one could
19 use the analogy of a computer system. Specifically, the operating system could be
20 considered analogous to the hardware of a computer system; whereas the psychosocial
21 architecture, organizational functioning, and physical environment domains represent
22 the software. To illustrate how all four domains work in collaboration, an academy
23 might possess a coherent organizational core, exhibit consistent organizational
24 functioning, and have a suitable physical environment. However, without a strong

1 psychosocial architecture, the academy might not live its values and strategy would fail
2 to be executed by process.

3 When viewing the framework as a whole, the four key domains and the
4 subcomponents therein point toward the importance of a strong, dynamic organizational
5 culture as a keystone for the creation of an optimal development environment.
6 Cruickshank and Collins (2012, p.340) define culture as, “a dynamic process
7 characterised by the shared values, beliefs, expectations and practices across the
8 members and generations of a defined group.” Put simply, organizational culture can be
9 viewed as, “the way we do things around here”, and largely guides how individuals
10 think, act, and feel (Reid & Hubbell, 2005). In corporate settings, successful managers
11 understand the interplay between strategy, process, and high performance. In doing so,
12 they ensure that their culture is a powerful and enduring source of competitive
13 advantage by being an enabler (rather than a hindrance) to strategy execution (Reid &
14 Hubbell, 2005). However, while the creation of high performing cultures in elite sport is
15 purported to be an increasingly important aspect of a contemporary sport psychologist’s
16 role, to date, no clear empirical evidence exists to support its delivery (Cruickshank &
17 Collins, 2012). As such, it is questionable whether applied sport psychologists are
18 presently equipped to meaningfully intervene at an organizational level.

19 *Practical implications*

20 The findings from the present investigation offer a number of practical
21 implications for those working within elite youth soccer settings (e.g., coaches, sport
22 psychologists). An overarching implication of this study is that a detailed, scientific
23 attention to expert perceptions of best-practice might help academies to optimize their
24 environment and lay the foundation for a strong organizational culture.

1 For head coaches charged with overseeing the operation of an academy, the
2 findings underline the importance of developing a coherent operating system on which
3 to base player development. To bring this operating system to life within the academy
4 environment, it also appears important for head coaches to possess, and deploy, a
5 repertoire of organizational, management, and personal liaison skills. For example,
6 such skills appear particularly germane for establishing a strong link to the senior team
7 which was considered an integral feature of an optimally performing environment.
8 Indeed, as one coach remarked, “talent must meet opportunity”, thus building a
9 reciprocal understanding with the senior team manager appears imperative. Côté,
10 Salmela, and Trudel et al. (1995, p.9) contend that organization involves, “applying
11 one’s knowledge towards establishing optimal conditions for training and competition
12 by structuring and coordinating the tasks involved in reaching the goal.” To this end, we
13 feel the development of such knowledge would help coaches to establish a strong
14 psychosocial architecture and facilitate consistent organizational functioning within elite
15 academies.

16 In addition, while considerable research attests to the importance of positive
17 coach-athlete relationships, the present study accentuates the need for an integrated
18 approach to talent development that centers on creating a strong link between all
19 stakeholders (i.e., player, staff, parent). One coach referred to this as the “triangle of
20 trust”. We believe this is an important finding as in most instances; the primary focus in
21 talent development is on the athlete. As such, in working towards creating the optimal
22 conditions for player development, it is imperative for academies to invest time in
23 attempting to fully harness the potential of other influential stakeholders in the
24 development process. In this regard, while the present study has focused on the coach’s
25 perspective, the parental viewpoint has also started to receive some attention (i.e.,

1 Harwood, Drew, & Knight, 2010) Specifically, Harwood et al. studied the perceived
2 stressors of academy parents during their child's specialising (i.e., age 9-15) years of
3 development. Parents identified academy processes and quality of communication (e.g.,
4 limited information, feedback and communication from coaches) as stressors. This
5 finding attests to the importance of academies providing good channels of
6 communication as a mechanism to facilitate organizational functioning and help
7 construct a strong psychosocial architecture. Indeed, while research (i.e., Mills et al.,
8 2012) has shown that certain parental behaviours are considered by coaches to exert a
9 negative influence of player development (e.g., parental pressure, interference,
10 conflicting advice), it is clear that academies must be able to communicate and work
11 with parents as part of creating an optimal environment for development.

12 The findings also hold a number of implications for sport psychologists working
13 within these settings. For example, in this study, it was clear that academy environments
14 should act as an incubator for both professional and personal development. Given that
15 elite academies operate with an exacting remit from the Premier League to develop
16 players holistically, this finding was anticipated. However, while the coaches strongly
17 alluded to whole-person development as a fundamental tenet of an optimal environment,
18 an academy is nonetheless clearly oriented to being successful at soccer. To this end,
19 one wonders if the elite soccer focus of these academies encourages an athletic-identity
20 and potential identity-foreclosure for these adolescents (Murphy, Petitpas, & Brewer,
21 1996). If a strong athletic-identity is emphasized for players, then education can
22 potentially be neglected and the teaching of life skills often ignored or only given scant
23 attention (Grove, Lavalley, & Gordon, 1997). Given the suggestion that less than one
24 per cent of players are going to make it as a professional (Green, 2009), academies must
25 be mindful of not, albeit unintentionally, instilling such identity-foreclosure. For a truly

1 balanced approach to player development, it would seem crucial to pay close attention
2 to preparing these adolescents for success in other life domains. Given that a key ethical
3 canon in psychology is to do no harm, applied practitioners working in these settings
4 have an important role to play in ensuring this balanced approach is firmly embedded
5 into an academy's psychosocial architecture.

6 In addition, given that optimal environments were considered to be underpinned
7 by positive coach-player relationships that encourage self-responsibility, empowerment,
8 and togetherness; we support the recommendation to promote autonomy-supportive
9 climates in elite youth soccer (cf., Álvarez et al., 2009) In such climates, it is suggested
10 that players feel more competent in their sport, more autonomous in their actions, and
11 better related to significant others from their environment. Considerable empirical data
12 (e.g., Mageau & Vallerand, 2003) demonstrates that enhanced perceptions of autonomy,
13 competence, and relatedness nurture intrinsic and self-determined extrinsic motivation;
14 both of which are important determinants of persistence and performance. However, in
15 highly pressurized, results-focused settings such as professional soccer, it is suggested
16 that coaches might become ego-involved in their work and, in turn, emit controlling
17 behaviors (Mageau & Vallerand, 2003). As such, sport psychologists could help shape
18 the development environment via the promotion of autonomy-supportive coaching
19 climates that extend beyond the specific practice environment in order to be woven into
20 the very fabric of the academy's culture.

21 Following in the footsteps of previous researchers (e.g., Pain & Harwood, 2008),
22 we believe the data reported here could also enable the development of an empirically
23 driven diagnostic tool that could be used by applied practitioners to provide academies
24 with a clear understanding of the strengths of their current development environment
25 and, also, generate awareness about areas that might require optimization. Given the

1 importance placed on an integrated approach to player development, it is anticipated
2 such an applied tool could be used to gauge the views of all key stakeholders (i.e.,
3 player, staff, parent), which, in turn, would enable a triangulated quantitative assessment
4 of the potential positive and negative impact of a wide range of factors within the
5 environment. Following a data-driven, collaborative approach to psychological
6 provision, the practitioner could work alongside the coach to identify areas for
7 optimization, and develop action points and strategies for meaningful change. Work is
8 currently underway with a view to developing this tool.

9 *Strengths and limitations*

10 A primary strength of this study is that it represents an initial attempt to reveal
11 the factors that underpin optimal development environments at a key stage in a player's
12 progression to the professional level. Indeed, by focusing specifically on the investment
13 years, the findings also serve to address the scarcity of research that has targeted this
14 important period for athletic development. In addition, by assembling the key and
15 common factors perceived by successful coaches presently working within elite player
16 development environments, a further strength involved overcoming some of the
17 methodological limitations of retrospective study designs. This study has also advanced
18 existing literature by highlighting how the relevant factors can work together to create
19 the optimal conditions for development. This advancement was, in part, made possible
20 by the method of data collection (i.e., interviews) and more importantly the analysis
21 chosen. Specifically, while interviews provided in-depth, rich, and context relevant
22 information, the unique information on how the factors involved work together was
23 generated through adopting a thematic interpretative content analysis.

24 Although this study has enhanced our understanding of elite player development
25 environments, some limitations need to be addressed. First, given the culturally specific

1 focus on the English academy system, the transferability of the findings to player
2 development environments in other countries is unknown. As such, readers should be
3 circumspect in any attempt to apply the findings to other settings. Second, only ten
4 academy coaches were surveyed in the present study. However, it was felt that the
5 relatively small sample size was offset by the participants' wealth of experience in elite
6 player development (a mean of over 14 years), and that a quarter of all elite soccer
7 academies were represented.

8 We must also acknowledge that it is not our intention to imply that every coach
9 deployed all the strategies and mechanisms reported here; nor suggest that they were
10 implemented in exactly the same way or to the same extent. Indeed, although this study
11 provides insight into how coaches develop optimal player development environments,
12 obtaining coaches' opinions of how they shape the environment only represents one side
13 of the equation. With effectiveness largely being a process-product phenomenon, it
14 would seem important to elicit the perceptions of players to ascertain whether or not
15 academy environments are presently meeting their needs. A follow-up study to this end
16 is currently underway.

17 *Concluding remarks*

18 The current study represents an initial step in connecting high performing
19 cultures to elite player development. Indeed, the findings suggest that a strong, dynamic
20 organizational culture provides the bedrock for an optimally performing development
21 environment. Given the increasing quality in the Premier League and the impact this has
22 on opportunities for young players, academies must continually search for ways to
23 enhance player development. We believe that a focus on the creation of such cultures
24 represents such an avenue. From an applied perspective, engineering the environmental
25 conditions for success in elite youth soccer represents a highly enticing prospect for

1 those currently working in these contexts. While it is hoped the present study offers a
2 building block toward the realization of such a prospect, future research must determine,
3 more precisely, the ways that sport psychologists can make a substantiated contribution
4 in shaping the culture within elite youth soccer academies. If this can be achieved, and
5 effectively applied, we believe it would afford developing players with the optimal
6 platform to transform their potential into excellence and successfully navigate the
7 challenging transition from elite junior to elite senior.

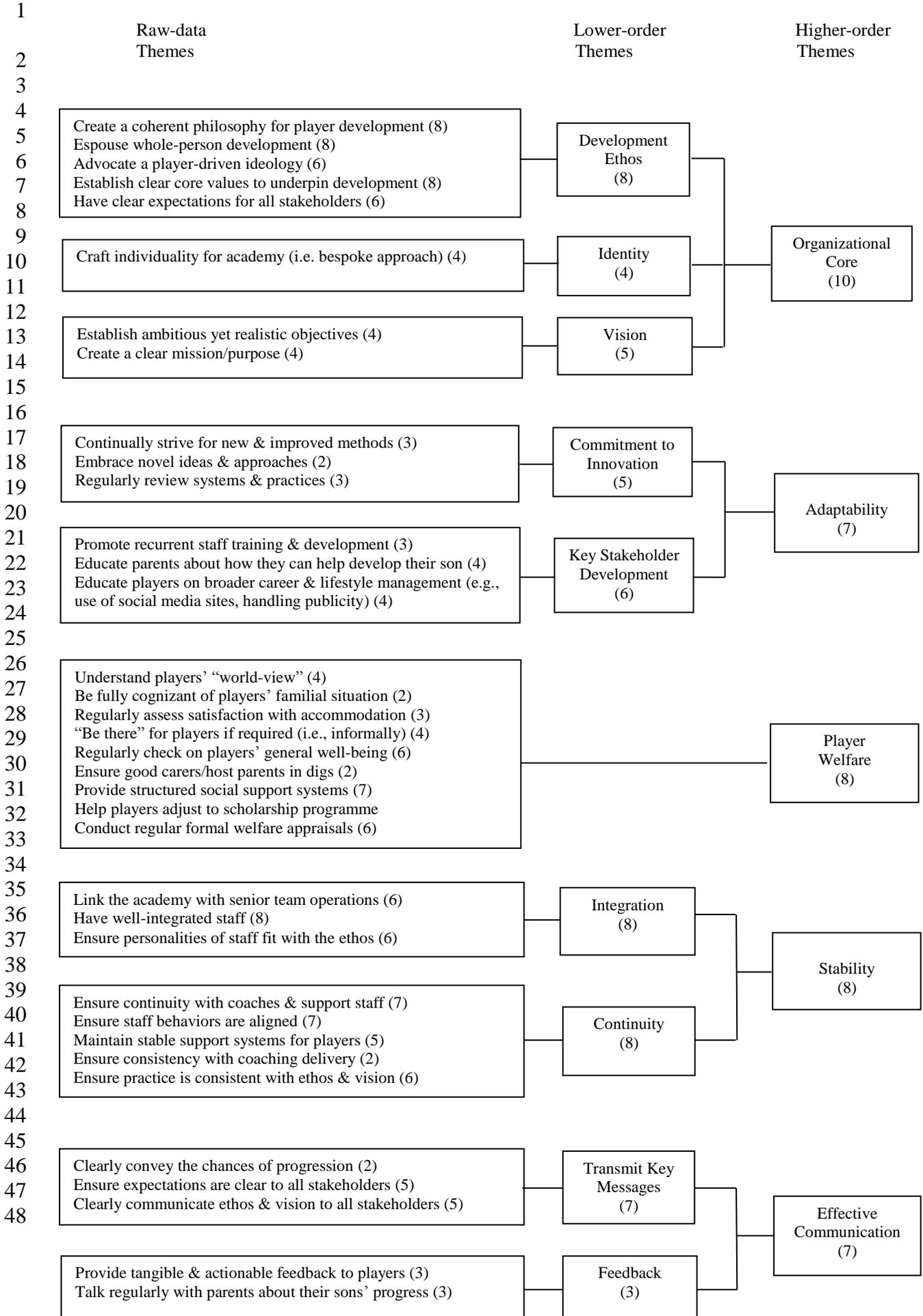
8 References

- 9 Álvarez, M. Balaguer, I. Castillo, I., & Duda J. (2009). Coach autonomy support and
10 quality of sport engagement in young soccer players. *The Spanish Journal of*
11 *Psychology*, 2, 138-148.
- 12 British Sky Broadcasting (2011, 22 October). Football League accepts Elite Player
13 Performance Plan. Retrieved 26th January 2012 from <http://www.skysports.com>
- 14 Côté, J., & Hay, J. (2002). Children's involvement in sport: A developmental
15 perspective. In J. M. Silva & D. Stevens (Eds.), *Psychological foundations of*
16 *sport* (2nd ed, pp. 484–502). Boston: Merrill.
- 17 Côté, J., Salmela, J., Baria, A., & Russell, S. (1993). Organizing and interpreting
18 unstructured qualitative data. *The Sport Psychologist*, 7, 127–137.
- 19 Côté, J., Salmela, J. H., Trudel, P., Baria, A., & Russell, S. J. (1995). The coaching
20 model: A grounded assessment for expert gymnastic coaches' knowledge. *Journal*
21 *of Sport and Exercise Psychology*, 17, 1–17.
- 22 Cruickshank, A., & Collins, D. (2012). Culture change in elite sport performance teams:
23 Examining and advancing effectiveness in the new era. *Journal of Applied Sport*
24 *Psychology*, 24, 338-355.

- 1 Cushion, C., Ford, P.R., & Williams, M. (2012). Coach behaviors and practice
2 structures in youth soccer: Implications for talent development. *Journal of Sport
3 Sciences, 30*, 1631-1641.
- 4 Dale, G.A. (2000). Distractions and coping techniques of elite decathletes during their
5 most memorable performances. *The Sport Psychologist, 14*, 17-41.
- 6 Durand-Bush, N., & Salmela, J. H. (2001). The development of talent in sport. In R. N.
7 Singer, H. A. Hausenblas, & C. M. Janelle (Eds.), *Handbook of sport psychology*
8 (pp. 269–289). New York: Wiley.
- 9 Fletcher, D., & Wagstaff, C. R. D. (2009). Organizational psychology in elite sport: Its
10 emergence, application and future. *Psychology of Sport and Exercise, 10*, 427-434.
- 11 Ford, P. R., Ward, P., Hodges, N. J., & Williams, A. M. (2009). The role of deliberate
12 practice and play in career progression in sport: The early engagement
13 hypothesis. *High Ability Studies, 20*, 65-75.
- 14 Green, C. (2009). *Every Boy's Dream: England's Football Future on the Line*. London:
15 A & C Black Publishers Ltd.
- 16 Grove, A. R., Lavalley, D., & Gordon, S. (1997). Coping with retirement from sport:
17 The influence of athletic identity. *Journal of Applied Sport Psychology, 9*, 191-
18 203.
- 19 Harwood, C., Drew, A., & Knight, C. (2010). Parental stressors in professional youth
20 football academies: A qualitative investigation of specializing stage parents.
21 *Qualitative Research in Sport & Exercise, 2*, 39-55.
- 22 Henriksen, K., Stambulova, N., & Roessler, K.K. (2010). A Holistic approach to
23 athletic talent development environments: A successful sailing milieu. *Psychology
24 of Sport and Exercise, 11*, 212–222.
- 25

- 1 Lincoln, Y.S., & Guba, E.G. (2000). Paradigmatic controversies, contradictions, and
2 emerging confluences. In N.K. Denzin & Y.S. Lincoln (Eds.), *Handbook of*
3 *qualitative research* (2nd ed., pp. 168–188). Thousand Oaks, CA: Sage.
- 4 Mageau, G.A., & Vallerand, R.J. (2003). The coach–athlete relationship: A motivational
5 model. *Journal of Sports Sciences*, *21*, 883-904.
- 6 Martindale, R.J.J., Collins, D., & Abraham, A. (2007). Effective talent development:
7 The elite coach perspective in UK sport. *Journal of Applied Sport Psychology*, *19*,
8 187-206.
- 9 Mills, A., Butt, J., Maynard, I., & Harwood, C. (2012). Identifying factors perceived
10 to influence the development of elite football academy players in England.
11 *Journal of Sport Sciences*, *30*, 1593-1604.
- 12 Murphy, G. M., Petitpas, A. J., & Brewer B. W. (1996). Identity foreclosure, athletic
13 identity, and career maturity in intercollegiate athletes. *The Sport Psychologist*, *10*,
14 239 - 246.
- 15 Pain, M., & Harwood, C. (2008). The performance environment of the England youth
16 soccer teams: A quantitative study. *Journal of Sport Sciences*, *26*, 1157-1169.
- 17 Patton, M. Q. (2002). *Qualitative research and evaluation methods*. Newbury Park, CA:
18 Sage.
- 19 Reid, J., & Hubbell, V. (2005). Creating a performance culture. *Ivey Business Journal*.
20 Retrieved September 13, 2012 from <http://www.iveybusinessjournal.com>
- 21 Reilly, T., Williams, A. M., & Richardson, D. (2003) Identifying talented players. In:
22 *Science and Soccer II* (Eds. T. Reilly and A.M. Williams), pp. 307-326. London:
23 Routledge.

- 1 Richardson, D., Gilbourne, D., & Littlewood, M. (2004). Developing support
2 mechanisms for elite young players in a professional soccer academy: Creative
3 reflections in action research. *European Sport Management Quarterly*, 4, 195–214.
- 4 Sagar, S. S., Busch, B. K., & Jowett, S. (2010). Success and failure, fear of failure, and
5 coping responses of adolescent academy football players. *Journal of Applied*
6 *Sport Psychology*, 22, 213–230.
- 7 Stambulova, N., Alfermann, D., Statler, T., & Côté, J. (2009). Career development and
8 transitions of athletes: The ISSP position stand. *International Journal of Sport and*
9 *Exercise Psychology*, 7, 395–412.
- 10 Thelwell, R., Weston, N., & Greenlees, I. (2005). Defining and understanding
11 mental toughness within soccer. *Journal of Applied Sport Psychology*, 17, 326
12 332.
- 13 Vallée, C. N., & Bloom, G. A. (2005). Building a successful university sport program:
14 Key and common elements of expert coaches. *Journal of Applied Sport*
15 *Psychology*, 17, 179–196.
- 16 Van Rossum, J. H. (2001). Talented in dance: The Bloom stage model revisited in the
17 personal histories of dance students. *High Ability Studies*, 12, 181–197.
- 18 Williams, A. M., & Reilly, T. (2000). Talent identification and development in soccer.
19 *Journal of Sports Sciences*, 18, 657–667.
- 20 Weinberg, R.S., Butt, J., & Culp, B. (2011). Coaches' views of mental toughness and
21 how it is built. *International Journal of Sport and Exercise Psychology*, 9, 156-
22 172.
- 23 Wylleman, P., Alfermann, D., & Lavallee, D. (2004). Career transitions in sport:
24 European perspectives. *Psychology of Sport and Exercise*, 5, 7–20.
25



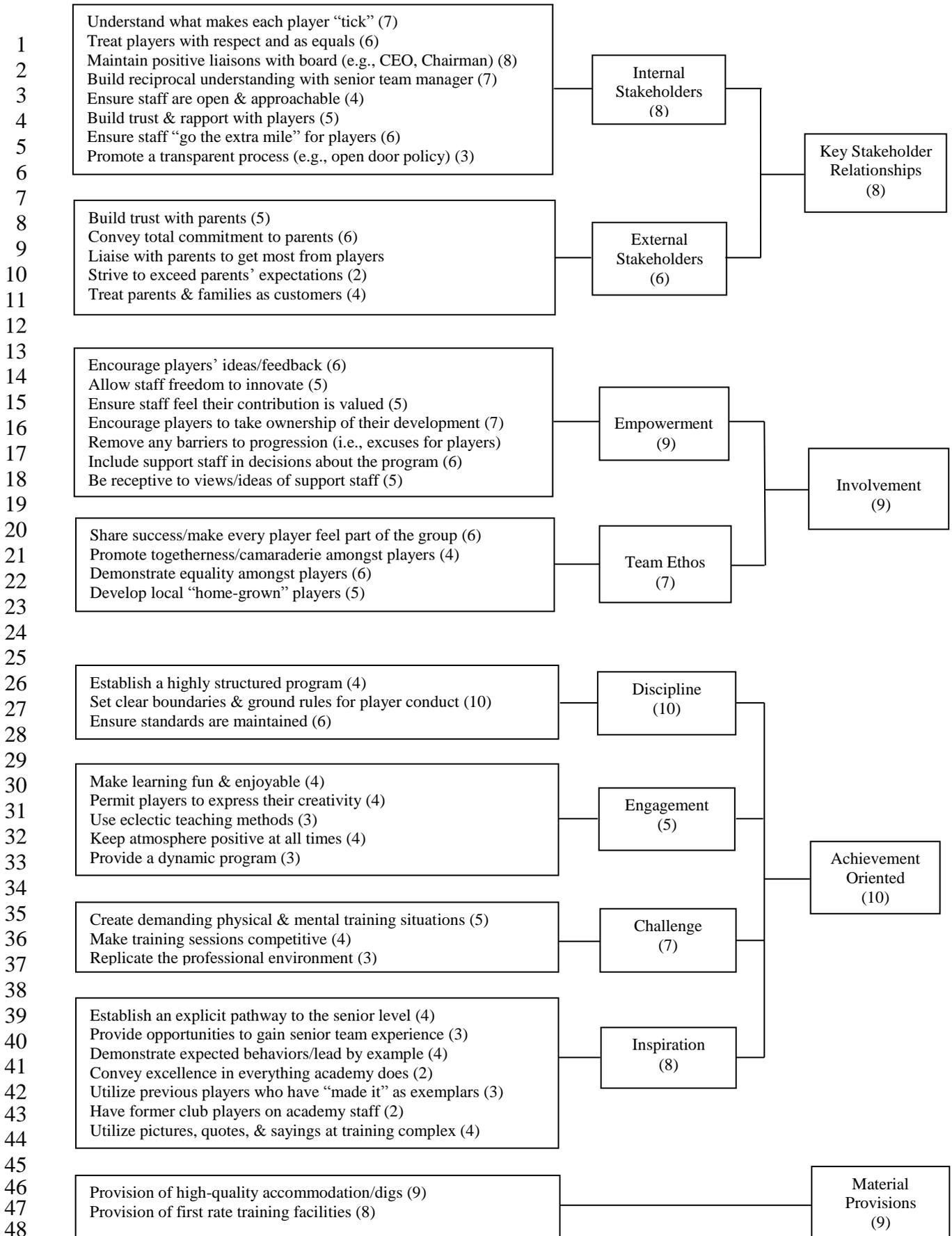


Figure 1. Toward an understanding of optimal development environments within elite English soccer academies: Higher- and lower-order themes (parentheses refer to the number of coaches cited).

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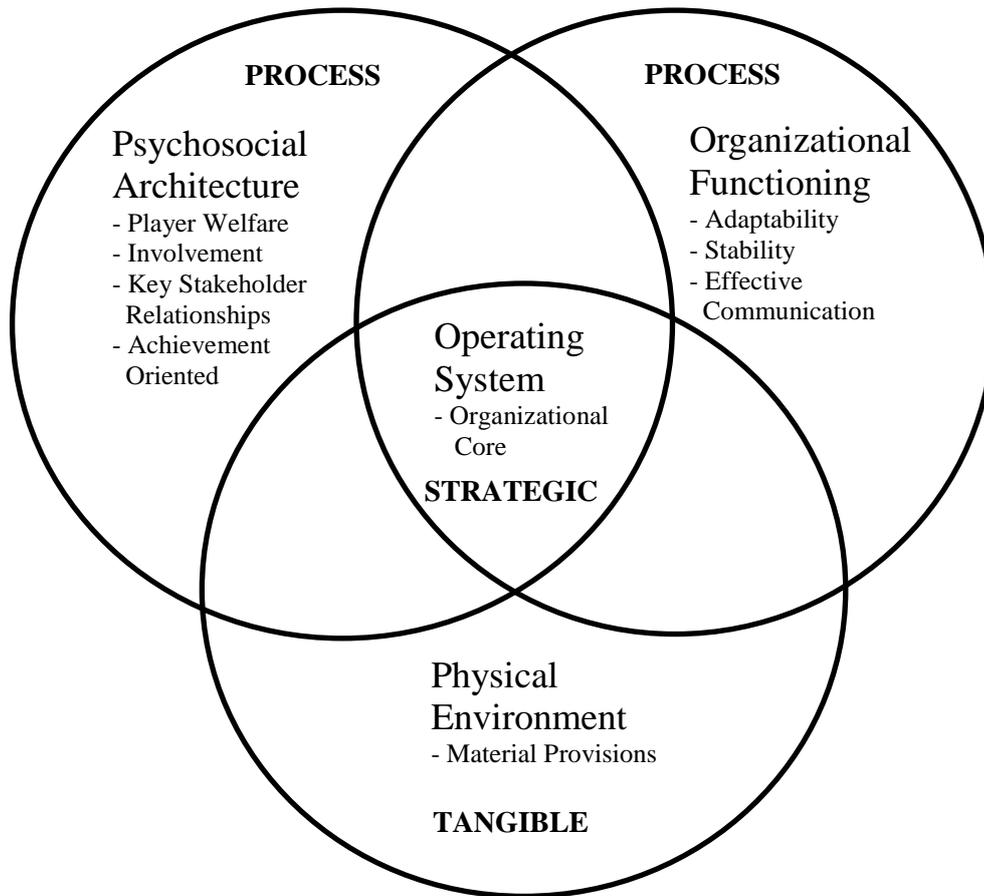


Figure 2. Toward an understanding of optimal development environments within elite English soccer academies: A conceptual model of the interrelationships between key factors.