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1 **Understanding the Leadership and Environmental Mechanisms in a Superleague Netball Club**

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1 **Understanding the Leadership and Environmental Mechanisms in a Superleague Netball Club**

2 Leadership in sport has been a prominent feature of research from an extensive array of
3 disciplinary lenses and methodological approaches for over 40 years (Welty Peachey et al., 2015).
4 Research specifically examining leadership in youth sport has also featured investigations from various
5 theoretical and empirical perspectives (e.g., Erikstad et al., 2021; Newland et al., 2019). The vast
6 majority of theoretical perspectives suggest that leadership is a complex social dynamic, requiring an
7 understanding of the leader-follower dyad and incorporating considerable strategic and power-laden
8 phenomena (Vella et al., 2011). One area of concern which has attracted substantial attention in recent
9 years has been the relationship between the leadership of youth sport environments and the resultant
10 developmental outcomes of the athletes (Newland et al., 2019). The importance of this area of interest
11 is underlined by numerous studies which have highlighted that organized youth sport requires
12 deliberate planning and quality leadership in order to facilitate positive experiences because
13 participation does not automatically confer desirable outcomes (Coakley, 2011; Erikstad et al., 2021).
14 Several contemporary models of athlete development acknowledge the dynamic and synergistic
15 relationship between the participant and the context in which they reside (Bronfenbrenner, 1999; Côté
16 et al., 2020). Sometimes referred to as ecological approaches to understanding human development,
17 these models recognize the importance of athletes' physical environment, social interactions with other
18 key stakeholders, as well as the less tangible aspects such as the respective organization's operational
19 culture (LaVoi & Dutove, 2012). Specifically focussing on youth athletes, Côté et al. (2014) sought to
20 explain the interactions underpinning positive development by proposing the Personal Assets
21 Framework (PAF; see Figure 1) which comprises three inter-related underpinning mechanisms;
22 Appropriate Settings, Quality Social Dynamics, and Personal Engagement in Activities. The PAF has been
23 subsequently updated and amended (see Côté et al., 2022; Côté et al., 2020; Côté et al., 2016). Whilst a
24 promising tool for conceptualizing development in youth sport, the framework requires further

1 empirical investigation and support (Holt et al., 2017). To understand the context of the present
2 investigation, it is first important to outline the underpinning construction of the PAF and review some
3 of the influencing frameworks and related evidence. Subsequently, we will turn to the applied context
4 of the present investigation to outline how this study has contributed to bridging the theory-to-practice
5 gap.

6 **Personal Assets Framework and Positive Youth Development**

7 The PAF (Côté et al., 2022; Côté et al., 2014; Côté et al., 2020) seeks to help leaders within youth
8 sport development systems better understand the interacting mechanisms influencing athlete
9 development for the immediate (i.e., real time), short-term (e.g., single season) and long-term (e.g.,
10 multiple seasons) benefit of the participants. The short-term benefits are characterized by the four Cs
11 (i.e., personal assets) of athletes' competence, confidence, connection, and character (see Figure 1). By
12 engaging in sport environments that facilitate the acquisition of the 4Cs over multiple seasons, the PAF
13 posits that athletes can acquire the long-term outcomes of participation, personal development, and
14 performance (i.e., 3Ps). The PAF potentially offers sport contexts a more salient approach than other
15 Positive Youth Development (PYD) systems (e.g., Lerner et al., 2014) because of its focus on processes
16 and outcomes that are derived and supported by sport research. Other attempts to model PYD in sport
17 (e.g., Holt et al., 2017) draw on a similar base of conceptual issues to the PAF but do not offer any
18 dynamic or generative relationship between processes and outcomes over time (Côté et al., 2020).
19 Accordingly, Côté et al. (2020) argued that the PAF might help to address the lack of consensus
20 concerning how the various phenomena of sport involvement interact over time to elicit positive
21 outcomes.

22 The PAF was, in part, informed by the perspective of PYD which is an inherently strengths-based
23 concept insofar as it considers young people from the perspective of their potential to become, rather
24 than considering them as problems to be fixed (Holt et al., 2017). Concomitantly, the PAF seeks to

1 understand, first and foremost, what might potentially inform the interrelationship of the gears, rather
2 than focusing too fixedly on the deficits in the system. Despite such a positive perspective, research
3 concerning PYD has highlighted the need to better understand the mechanisms and processes which
4 lead to the 4Cs and, resultantly, the 3Ps (Holt et al., 2017). Furthermore, Vella et al. (2011) argued there
5 was a substantial research-to-practice gap in terms of how the mechanisms, such as those illustrated
6 within the PAF, might be operationalized in real-world youth sport contexts. More recent research
7 contributing to addressing this gap has found PYD and the PAF to be an appropriate lens through which
8 to view positive youth sport experiences in community sport (Vierimaa et al., 2017), successful clubs
9 (Erikstad et al., 2021) and disadvantaged groups (McDonough et al., 2013), although no research to date
10 has investigated the potential of the PAF to explore the underpinning mechanisms influencing a club-
11 based talent development pathway.

12 The unique feature of the PAF is highlighted in the figurative gears of the three principal
13 components (i.e., Quality Social Dynamics, Appropriate Settings, and Personal Engagement in Activities).
14 The interlocking representation of these elements denotes their inter-dependence, that is, the
15 functionality of one gear helps drive, or hinder, the others – and vice versa. Each of the gears contains
16 three elements which feature in order of importance from proximal to distal to the centre (see Figure 2).
17 Appropriate Settings encompasses the physical contexts of the participant and comprises *playing field*,
18 *club/organization structure* and *community/league structure* (Côté et al., 2020). Considering the *playing*
19 *field* requires leaders to ensure the activities provided are developmentally appropriate for the
20 participating young people. For example, leaders might consider how the activities are sized, scaled,
21 and scored. Facilitating appropriate settings might enhance a range of beneficial outcomes including,
22 for example, intrinsic motivation and engagement (Burton et al., 2011). Within a Talent Development
23 environment, considering the *club/organization structure* might require leaders to contemplate how
24 young people are made aware of the opportunities to progress through the pathway and how their

1 position within the setting reflects the culture of the broader organization (Curran et al., 2022). The
2 *community/league structure* is also considered to be important to ensure the competition available to
3 participants is appropriate for their level of competence in that it is stretching, but not overwhelming
4 (Light & Harvey, 2017).

5 Research investigating elements related to the Quality Social Dynamics gear has affirmed the
6 importance of the three sub-components, namely *relationships, team dynamics* and *social environment*
7 (Vierimaa et al., 2017). The implications for leaders of organized youth sport suggest considerable
8 attention should be paid to enabling young people to foster positive interpersonal relationships with a
9 variety of sport stakeholders, including coaches, parents, peers, and officials (Fraser-Thomas et al.,
10 2008). Within contemporary research, a substantial degree of consensus has been reached concerning
11 the importance of providing individualized consideration, especially when considering approaches to
12 feedback and goal setting (Bowles & O'Dwyer, 2021; Newland et al., 2019). Furthermore, considerable
13 research has advocated for enabling youth athletes to have a meaningful degree of autonomy in their
14 sporting experience (Duguay et al., 2020; Vinson & Bell, 2020) and to fostering the joy of self-discovery
15 (Light & Harvey, 2017). Leadership behaviors such as individualized consideration and autonomy
16 support have been shown to be related to athletes perceiving their value to the group and also to
17 enhanced intrinsic motivation (Newland et al., 2019). The evidence concerning the importance of *team*
18 *dynamics* in youth sport is equally compelling. Transparent communication, athlete satisfaction and
19 normative expectations have all been shown to influence athletes' moral development as well as their
20 willingness to compete for the team (Smith et al., 2013). From the more distal *social environment*
21 perspective, Henriksen and Stambulova (2017) stressed the importance of leaders' understanding of
22 youth culture, the smoothness of transitions and integrated organizational-level communication. In
23 addition, an increasing volume of research has investigated the importance of care within leadership
24 settings, emphasizing the considerable onus on leaders to foster environments which athletes perceive

1 to be deeply, and empathetically, considerate of their needs as a principal concern (Cronin et al., 2019;
2 Vinson & Parker, 2021).

3 In summary, Quality Social Dynamics spans dyadic, team-based and broader organizational
4 factors related to the social environment and has been shown to positively influence PYD (Côté et al.,
5 2020). However, despite this array of research, there is discernibly little evidence to show how the
6 various mechanisms discussed here are interrelated, especially in applied settings. This is equally true
7 when considering the evidence relating to the connections between the various layers within each gear,
8 for example, between the *social environment* and *team dynamics*. Recently, Côté et al. (2022, p. 7)
9 suggested that numerous sociocultural factors may inhibit the functioning of the PAF and depicted such
10 elements as “grains of sand” falling in between the gears; however, this latest augmentation has yet to
11 be used in applied settings. Having reviewed some of the contemporary evidence concerning the
12 underpinning mechanisms driving the PAF’s key components, it is now important to outline the context
13 of the present investigation to explain how this setting will help to address a number of the research-to-
14 practice gaps identified thus far and show applied inter-relations between, and within, the gears.

15 **Context**

16 The present investigation is positioned across the second year of operation of the Severn Stars
17 (a Superleague netball club in the UK) and builds on the findings of Navin et al. (2020) who investigated
18 the club’s inaugural year. Navin et al. (2020) conducted a Participatory and Appreciative Action and
19 Reflection (PAAR, Ghaye et al., 2008) investigation focusing on how the overall leader’s values were
20 operationalized, reporting numerous positive leadership practices such as the Transformational
21 behaviors (Bass & Riggio, 2006) of most coaches and the creation of the family feel of the club.
22 However, Navin et al. (2020) also reported that there were misconceptions between teams concerning
23 their alignment to, and the visibility of, the organization’s overarching vision and values – and suggested

1 future investigations explored a broader range of club stakeholders to better explain these underpinning
2 phenomena.

3 The Severn Stars netball club incorporates a wide range of stakeholders, partly due to the co-
4 owned nature of the organization – a partnership between the University of Worcester and the
5 University of Gloucestershire. Navin et al.'s (2020) study focused solely on the on-court stakeholders of
6 coaches and players attached to the senior squad, U21 and U19 teams, and called for research which
7 incorporated senior managers and support staff from both partner institutions. Additionally, this second
8 year of operation featured the expansion of the performance pathway to include eight partner NOVA
9 academies. NOVA academies are hosted within educational institutions within, or close to,
10 Worcestershire and Gloucestershire. These educational institutions have a formal agreement with the
11 Severn Stars, use the logo, have coaches appointed with the agreement of the club, and participate in an
12 annual inter-NOVA competition. All eligible female athletes are welcome to attend a trial at a NOVA
13 academy; the coaches then take responsibility for providing regular training for the selected athletes
14 with the ultimate aim of feeding the U17 and U19 National Performance League (NPL) squads – and so
15 represent a crucial component of the Severn Stars operation (Severn Stars, 2022).

16 The aim of this second investigation into the establishment of the Severn Stars, was to explore
17 how leadership behaviors and the broader environment of the club represented an effective context for
18 youth athletes to flourish, thereby addressing Navin et al.'s (2020) proposed research agenda. The
19 present investigation particularly focused on leadership behaviors and broader environmental issues
20 which were most pertinent to the Talent Development pathway below the Superleague team, although
21 draws on a wide range of stakeholders across the club to better understand the factors driving the
22 respective gears of the PAF. In founding this investigation in this way, we are concerned with the upper
23 range of youth development commensurate with the United Nation's (2022) definition which includes
24 anyone up until the age of 24. Specifically, we sought to address the following research questions:

- 1 1. To what extent are effective leadership behaviors and positive environmental factors evident
- 2 across the operation of the Severn Stars?
- 3 2. To what extent are the club's vision and values evident to all staff and players?
- 4 3. What is the influence of the leadership behaviors and broader environment in facilitating
- 5 appropriate settings for youth development?
- 6 4. How do leadership behaviors and the broader environment evolve over the course of a season?
- 7 5. How could leadership behaviors and the broader environment within the club be enhanced to
- 8 better underpin the development of youth athletes?

9 **Methodology and Methods**

10 This investigation adopts a general, pragmatic, qualitative inquiry into the leadership behaviors
11 and broader environment of the Severn Stars. In adopting this position, we embrace Robson and
12 McCartan's (2016) perspective on pragmatic inquiry. Specifically, real-world empirical data are sought
13 as the foundation for determining truth, albeit tentatively. Furthermore, theoretical frameworks such
14 as the PAF are considered useful when they can be informed by such real-world empirical data, although
15 deterministic assertions are made cautiously, acknowledging that claims of inter-relationship between
16 phenomena are both fallible and temporal (Johnson & Onwuegbuzie, 2004; Robson & McCartan, 2016).

17 **Participants and procedure**

18 In scrutinizing the PAF, we acknowledge the gears are not static and the respective drivers
19 cannot be best understood via a single instance of time. To that end, 21 individual and group semi-
20 structured interviews were conducted in two phases – one phase near to the beginning of the
21 competitive season ($n = 6$, $M = 41.59\text{mins} \pm 6.25$) and one phase following its conclusion ($n = 15$, $M =$
22 $44.31\text{mins} \pm 10.17$). Twenty-eight stakeholders from across the different levels and operational
23 functions of the club consented to participate in the individual ($n = 13$) and group interviews ($n = 8$).
24 Individual interviews were conducted with participants with leadership responsibility (i.e., operational

1 staff and coaches). Group interviews of between two and five were conducted with participants with
2 experience of the environment of the club as a player or external stakeholder (i.e., players, parents and
3 learners on a Coach Development program). Interviews were conducted with players, parents and
4 external stakeholders in separate groups, i.e., commensurate with the methodology of the present
5 investigation, we did not conduct focus groups and so membership was not cross-pollinated (Parker &
6 Tritter, 2006). Coaches and athletes directly involved with competitive teams (i.e., those for whom the
7 leadership behaviors and the broader environment might have been particularly susceptible to change
8 due to competitive performance over the course of the season), were interviewed in the first phase,
9 whilst all participants were interviewed in the second phase. Data were only collected from those aged
10 at least 18 to ameliorate any potential perception from youth athletes that declining to participate
11 might hinder their chances of progressing through the pathway. Table 1 shows the participants, their
12 role and responsibility within the club, coaching experience where relevant, and illustrates whether they
13 participated in individual or group interviews. All names are pseudonyms.

14 Ethical approval for the study was granted by the University of Worcester College of Business,
15 Psychology and Sport Research Ethics Committee. Interview guides were constructed comprising
16 thematic topics such as individual beliefs about leadership, learning how to lead, Severn Stars' values
17 and vision, leadership behaviors and the environment of the club. For example, questions included
18 "how have you developed your beliefs about leadership?" and "what leadership behaviors are most
19 evident within the Severn Stars"? Probes were used to delve deeper into any topic requiring further
20 elucidation (Clark et al., 2021). Interviews were conducted in a quiet side-room at one of the club's
21 training venues and were subsequently transcribed verbatim yielding 167,391 words spanning 337 A4
22 pages.

23

1 **Data analysis**

2 At the completion of the project, the data were analysed in five stages featuring both inductive
3 and deductive processes following Robson and McCartan's (2016) approach to thematic coding analysis
4 which was managed via NVivo 12 Pro (QSR International, 2020). Firstly, the data were read and re-read
5 to gain familiarity. Secondly, on a line-by-line basis, the data were allocated initial meaning units
6 intended to capture the most important elements of each statement. Each segment of text could be
7 allocated more than one meaning unit depending on what was considered important. For example:

8 "What are the Seniors' values? What is their aim as a Superleague team? What do they
9 wanna [*sic*] be known as because that needs to be the same with the 21s, and the 19s,
10 and the NOVAs". (Hana, NOVA Head Coach, T2)

11 This quotation was assigned the meaning units "values" and "connections across the club". In this way,
12 740 meaning units were created. In Stage 3, 47 first order themes were created by inductively grouping
13 the meaning units together (Robson & McCartan, 2016). For example, the first order theme
14 "Accountability" comprised meaning units including (a) athlete accountability, (b) athlete responsibility,
15 (c) attribution, (d) blame, and (e) contract. Stages 1-3 were first conducted by the first author
16 independently before engaging with two other members of the authorship team separately to generate
17 reflexive discussions concerning the process to that point. These reflexive conversations resulted in
18 minor adjustments to the analysis such as renaming a first order theme or moving a meaning unit. In
19 Stage four, the first order themes were assigned deductively to one of the three gears in the PAF,
20 namely, (a) Appropriate Settings, (b) Quality Social Dynamics, and (c) Personal Engagement in Activities.
21 Subsequently, the first order themes were then assigned to one of the subcategories within the
22 corresponding gear and a map of the relationship between the various themes and PAF gears was
23 created. First order themes which related to more than one gear were explicitly discussed by two
24 members of the authorship team and were assigned to the gear which they felt the data helped to

1 explain most profoundly. In Stage 5, the map was integrated and interpreted to generate the most
2 meaningful subheadings which were then connected to the most appropriate layer within each overall
3 gear (Robson & McCartan, 2016). For example, the first order theme “perceptions of being valued by
4 coaches” was deductively assigned to the Quality Social Dynamics gear and then connected to the
5 “relationships” subcategory. Some layers of the PAF were not represented within the final process of
6 interpretation and integration of the data from this investigation because relevant subheadings were
7 not generated through the analysis process. Rather than force all layers to be represented, we
8 considered the more authentic solution was to focus on the elements of the analysis which were most
9 profound. Finally, the integrated and interpreted model was presented by the first author to the rest of
10 the authorship team who reflexively discussed the structure and main messages to agree the major
11 points of discussion to have arisen from the analysis.

12 **Rigor**

13 Smith and Sparkes (2014) argued that qualitative research in sport psychology should move
14 away from pre-ordained quality checklists and instead invite researchers to propose their own criteria
15 on which their research should be judged. Commensurate with such a “connoisseurial” (Smith &
16 Sparkes, 2014, p. 203) approach, we invite the reader to consider whether this research demonstrates
17 resonance, meaningful coherence (Tracy, 2019), understandability (Ghaye et al., 2008), analytic and
18 naturalistic generalization (Smith, 2018). Resonance will have been achieved if the concepts described
19 and the data presented enable the reader to empathize with the participants on more than a superficial
20 level. Meaningful coherence will have been achieved if the key messages of the investigation are
21 evident throughout this paper clearly connect and progress from one to the next. Furthermore, the
22 theoretical and empirical elements of the study should align and not be ill-fitting (Tracy, 2019).
23 Understandability will enable the reader to more deeply appreciate the generative and inter-dependent
24 nature of the gears of the PAF, the layers within them, and how these are evidenced within the context

1 of the Severn Stars' Player Pathway. Analytic generalization will have been achieved if the findings of
2 this study can be meaningfully related to the underpinning theoretical framework of the PAF (Smith,
3 2018). In this way, it is not the participants nor the Severn Stars organization which we consider to be
4 generalizable, it is rather how these data relate to the underpinning theory. Finally, naturalistic
5 generalization is evident when the reader can see something of their own world in the findings and is
6 subsequently better able to make sense of their reality because of this investigation (Smith, 2018).

7 **Results and Discussion**

8 This section will present a discussion of the subheadings deductively aligned to their respective
9 layers within the PAF gears beginning with Quality Social Dynamics before progressing to Appropriate
10 Settings and, finally, Personal Engagement in Activities. Subheadings are presented from the most
11 proximal to the most distal within their respective gear. Quotations will be presented and analysed in
12 relation to previous research in the field to generate an explanation of how the gears within the Severn
13 Stars' Player Pathway drive one another. For clarity of structure throughout the paper, the three gears
14 are named using upper case first letters and the respective layers are italicized. "T1" refers to interviews
15 conducted in the first phase and "T2" to the second phase.

16 **Quality Social Dynamics**

17 ***Perceptions of being valued by coaches (relationships)***

18 Côté et al. (2020) strongly asserted the importance of quality relationships between athletes
19 and coaches in facilitating appropriate social environments for the development of young people. The
20 findings from this investigation affirm the magnitude of this foundational dyad, highlighting numerous
21 beneficial aspects perceived by a range of stakeholders and uncovering several related mechanisms.

22 One such mechanism was individualized support. For example, Sophie (Pathway Head Coach, T2) said:

23 I've done three one-to-one meetings with every athlete; one pre-season, one during
24 season and then one post the NPL league. We've also done individual performance

1 plans where they've rated themselves technically, tactically, and then extra things like
2 nutrition, hydration, lifestyle ... then we sit down, and we talk about them and then they
3 re-evaluate. The girls often come to me after a game and they say, "what can I do to get
4 better?" so we sit down and go through HUDL [video analysis].

5 The types of interventions outlined by Sophie are consistent with previous research, which has similarly
6 underlined the importance of individualized support (e.g., Bowles & O'Dwyer, 2021; Newland et al.,
7 2019). However, despite the open nature of the athlete's question in Sophie's statement, the tone of
8 the question positions the coach as the knowledge-holder to future development. Vinson and Bell
9 (2020) suggested that, when encouraging an autonomy-supportive and individualized coaching
10 approach, it is challenging to re-position the coach-athlete dyad away from hierarchical, knowledge-
11 seeking behaviors – even over the course of a season. Indeed, this perspective is strengthened when
12 considering Ana's (U19 athlete, T2) perspective:

13 We need more one-to-ones because, as a team, I felt like we were given a lot of
14 information but, individually, it's how you can improve to meet your goal, make sure
15 that we know our role, what we're doing, and ensure that everyone has a clear aim.

16 Here, whilst valuing such processes, Ana considered further individual attention was required.

17 Relatedly, educators have consistently reported that individualized approaches remain prohibitively
18 labor-intensive until the information flow becomes less hierarchical and more discursive (Darling-
19 Hammond et al., 2020). Indeed, the relationship between these various elements posed some
20 challenges. For example:

21 Because Sophie was part of Severn Stars [Superleague squad], when we had a game the
22 same day it was very hard to have a de-brief ... it was hard to get individual feedback
23 when Sophie obviously has other commitments warming-up and preparing for her game

1 ... we won't see her until Monday. We'll still get the stats back, we'll still talk about the
2 game, but it's not fresh in your mind. (Bronwyn, U19 athlete, T2)

3 Bronwyn perceives Sophie's numerous roles and responsibilities across the club were potentially in
4 conflict. Whilst the connections across the club will be shown to be a principal inter-related mechanism
5 for the PAF gears (see below), Bronwyn's perspective highlights the importance of navigating potential
6 tensions between multiple roles. Additionally, for some athletes, the development of coach-athlete
7 relationships was not a particularly quick process. Carlotta (U19 athlete, T2) said:

8 It took me a while to feel valued in the step-up because although I was picked for the
9 fifteen some weeks, some weeks I wasn't picked for the game, and you didn't really get
10 an explanation. Sometimes I felt personally that in the game play and on the Thursday,
11 I'd done quite well ... but as soon as I asked her [Sophie] why I wasn't playing she gave
12 me a good explanation and said what I can improve ... [now] I actually belong to the
13 team and the [NPL] tournament really solidified that.

14 Carlotta's perspective resonates with other recent research which has also highlighted that quality
15 coach-athlete relationships are built over time and require very frequent maintenance (Foulds et al.,
16 2019; López de Subijana et al., 2021). For Carlotta, being valued was related both to meaningful,
17 individualized, interactions with the coach, but also identifying as being part of the team (i.e.,
18 connecting *relationships* to *team dynamics*). That it took time to develop a sense of perceived value to
19 the organization was not solely reserved for athletes. Hana (NOVA Head Coach, T2) said:

20 I don't think it was until I was picked to coach at the NPL tournament [that I felt valued].
21 I didn't think we were valued all year and I think that's why some of us NOVA coaches
22 get a little bit agitated because we put in so many hours and then we don't get anything.
23 We don't even get a thank you at the end of it and we don't even know who that thank
24 you should come from. At the NPL tournament – a lot of “thank yous” came, from [Club

1 Director] which was lovely, but a lot come from parents because I've got the
2 relationships with the parents all year.

3 Whilst not an athlete, Hana's experience demonstrates how *relationships* within the club were related
4 to the broader *social environment*. In this case, Hana's perception of feeling valued is related to the
5 gratitude shown by multiple stakeholders and the concomitant recognition of the high level of
6 commitment she felt she offered through the season. Indeed, the perception of being valued was
7 consistent across many stakeholders featured in this investigation and relates strongly to the broader
8 organizational structure of the Severn Stars.

9 ***"Professional" (team dynamics)***

10 The term "professional" featured strongly and pervasively throughout this investigation and
11 revealed some important mechanisms which again demonstrated the inter-connected nature of all
12 three gears, but also between their respective layers. Within the *team dynamics* layer of the Quality
13 Social Dynamics gear, professionalism was understood by participants to mean a determination to
14 ensure behavioral norms were implemented to a high standard. For example, Ellie (NOVA Head Coach,
15 T2) said:

16 I think one word that I was really keen on this year was "professional". So, whether that
17 was getting to sessions on time – which sometimes I find difficult because I might be at
18 a school match – but making sure that there's always someone there to start the session
19 ... professional with the parent communication, being professional with the girls on
20 court ... sending out information nice and early, making sure my coaches are well aware
21 of what they're doing.

22 Ellie's description of what she considers to be professional behaviors are aimed to provide a foundation
23 on which to construct the team dynamic of her NOVA squad. Ellie's intentions are consistent with
24 previous research which has reported a positive relationship between such behaviors as appropriate and

1 effective communication, and perceptions of athlete satisfaction (McLaren & Spink, 2018; Smith et al.,
2 2013). Suki (Senior Head Coach, T2) outlined some similar behaviors which she considered to be
3 important underpinnings for the norms of the senior team:

4 The behaviors in terms of being professional every training session. You try your
5 hardest, being smart, so all the small things – you turn up on time, you wear the right
6 kit, do your online well-being and your S&C training, tie-up with someone else to help
7 them out if they can't get a lift and you tidy-up your litter at the end. All those small
8 things contribute to being respectful of the venue and the people you are around ... we
9 haven't got any prima-donnas in our team.

10 Suki's list of behaviors are consistent with research investigating effective culture in elite sport teams in
11 terms of, for example, avoiding the deleterious effect of mavericks, and demonstrating respect for their
12 opponents, although do not demonstrate the commitment to autonomy-supportive behaviors also
13 advocated in such studies (Hodge et al., 2014). A further inter-related mechanism between professional
14 behaviors as a component of *club structure* and *relationships* was evident in the selection policy
15 implemented throughout the pathway. For example, Deborah (Coach Developer, T2) said:

16 We had to push the performance value and that was hard for coaches, we had to
17 manage them through it even having the selection policy. It's hard for coaches who
18 have never followed objective materials in front of them. So, with your pathway coach,
19 getting hundreds of players down to your fifteen is very difficult especially if you've
20 been working with some of them.

21 Research concerning talent identification has accelerated rapidly over the last 20 years (Williams et al.,
22 2020). It is beyond the scope of this investigation to discuss the Severn Stars' talent identification
23 system directly, other than to acknowledge Deborah's perspective that, understandably, the club was
24 starting from a relatively blank slate. Ellie (NOVA Head Coach, T2) agreed that this was indeed a new

1 system to her coaching team and suggested that this might have been made more visible from the start
2 of the season:

3 Being part of the selection process for the 17s, there was a criteria they were using ...
4 that players should be trying to hit each one of those and that would be really useful to
5 have as a coach because that's what we can base our coaching off during the season ...
6 it's the first time I've heard of it actually.

7 Ellie's admission that the process of selection criteria was new to her further affirms the inter-related
8 mechanism of *club structure* and the broader *social environment* of the Severn Stars as illustrated by
9 professional behaviors. Whilst the stakeholders within this section considered the term professional to
10 be wholly positive, it is worth noting the caution raised by Côté et al. (2022, p. 10) regarding the likely
11 exclusion of athletes from less affluent environments as youth sports seek to become ever-more
12 "professionalized" and potentially marginalized equity-deserving groups (Camiré et al., 2022). This
13 section has also demonstrated the connection between *club structure* and *team dynamics* from the
14 perspective of normative behaviors. The results demonstrate that such behaviors were also shaped by
15 the inter-relation of the broader social environment and the club's values.

16 ***The inter-relation of the social environment and club values (social environment)***

17 The broader organizational structure of the club was important because of the extent to which it
18 related to the different layers of the Quality Social Dynamics. Whilst previous sections demonstrated
19 the importance of athletes' perceiving value through *relationships*, key stakeholders in the junior teams
20 wanted assurance that being a part of the pathway was to be connected to the Superleague squad in a
21 meaningful way. Whilst the Superleague team is not the focus of this investigation, their position in the
22 club structure mattered to almost all the key stakeholders who wanted to know that there was
23 connectivity between the steps of the pathway. Being selected into the Severn Stars Player Pathway

1 was profoundly important for some of the athletes because it represented a genuine step forward on
2 the highly competitive journey to play elite-level netball. Jamie (Parent, T2) said:

3 I think my daughter was just a bit overwhelmed because it's like the highest she's ever
4 played, and she was always told she was too short, and she would never be accepted.

5 So, when she came in, it was a lot, and she felt very taken in by it all.

6 Jamie's statement underlines the momentous nature of the experience of entering a performance
7 pathway, whilst also highlighting the challenges inherent to developmental transitions. This finding
8 echoes Larsen et al.'s (2014) report that young footballers entering a talent development environment
9 required considerable help to acquire the necessary psychosocial tools to negotiate the journey
10 successfully. Nevertheless, several participants identified that the athletes were provided with a
11 positive and prosocial environment in which to develop. For example, Sophie (Pathway Head Coach, T2)
12 recognized both the prosocial dynamic and the breadth of stakeholders contributing to the club's *social*
13 *environment*:

14 It was definitely that family feel – even the parents got that feeling and even parents
15 became very close and formed relationships and I think that's really important. With
16 signing a contract that's essentially what they're trying to buy into – that value. We sat
17 down at the start of the season and did our values together ... I don't think it's
18 necessarily those values which are demonstrated across the franchise ... There [needs to
19 be] more of a connection throughout the seniors and the pathway because a lot of the
20 seniors didn't know half the girls playing in the U19s or U21s.

21 Sophie's testimony suggests that, consistent with Navin et al.'s (2020) findings from the previous season,
22 she felt that whilst the *team dynamics* were positive and founded on explicit, shared values, this still was
23 not true of the club's broader *social environment*. These findings echo Curran et al.'s (2022)
24 investigation into the Irish field hockey junior international talent development system where it was

1 reported that, even when there was communication between stages, it was largely reactive and lacked
2 strategic coherence. Similarly, Jane (Coach U21s, T2) acknowledged the lack of strategic connection
3 across the club, feeling that direction should come from higher-up in the organization:

4 I think that everything just needs to be a little clearer from the top down. I think
5 everybody needs to have their own roles and what's expected of them ... First off, we
6 need to actually recognize what the values of the Severn Stars are, to have that more
7 visible ... It's not in a handbook, it's not on a wall or embroidered on the kit ... it's not
8 visual and nobody knows it even verbally ... well, apart from that PowerPoint meeting
9 we had at the beginning which invited along the players and the parents.

10 Here, Jane wrestles between acknowledging that whilst the club values were shared in a meeting at the
11 start of the year, they did not appear to have the immediacy and tangibility she desired. Whilst
12 numerous authors have argued that cultural signalling such as adorning the walls of the training venue
13 with team slogans represents a shallow appreciation of the importance of organizational culture (see,
14 for example, Deal & Peterson, 2016; McDougall et al., 2020), Jane's perspective illustrates the potential
15 value of establishing mechanisms which enable the meaningful sharing and articulation of intangible
16 concepts such as vision and values – elements for which the senior leadership are ultimately
17 responsible. The results of this investigation demonstrate that those key stakeholders in senior
18 leadership were aware of a need to establish the glue holding everything together more explicitly. For
19 example, Sarah (General Manager, T2) said:

20 The message I'd got from year one is that there was a certain amount of friction.
21 Pockets of people were genuinely doing their thing to the best of their ability with the
22 resources they had, be it coaching, team management, events, social media,
23 sponsorship, game night delivery, schools or community engagement – but because of
24 time and resource, no-one was able to see who did what and there was limited

1 consistency. So, things were often being missed from an operational perspective and
2 people felt we kept going back to step one. That doesn't help glue anything together.
3 You're bringing together experienced, bright, intelligent people who really try hard ...
4 the glue is people and the relationship building.

5 Navin et al. (2020) reported that future research should investigate the dynamics underpinning the
6 relationship between the two supporting universities of the Severn Stars including consideration of the
7 perspective of senior leadership. The results of the present investigation show the senior leaders were
8 keenly aware of the importance of strong partnership, and of some of the issues which might cause the
9 types of friction to which Sarah alluded above. For example, two of the senior leaders outlined their
10 broader approach to the leadership of the club:

11 The most interesting one is recruitment and retention because, in some ways, we're
12 competitors ... we've worked really hard to make sure that there isn't a conflict of
13 interest ... It has been very honorable so far and trust is important on both sides ... I
14 think that we have to keep working to do what's in the best interests of the club and
15 we've been really good so far at not always looking at what's in the best interest of
16 individual universities. (Mark, General Director, T2)

17 My remit primarily is to see that the Severn Stars achieves what both institutions set out
18 together in the agreement ... making sure that we keep on track and make sure it is
19 bringing benefit to both the communities it works in ... the prime purpose of both
20 institutions are actually really quite similar – we're there for public good. (Richard, Chair
21 of the Board, T2)

22 Mark and Richard's perspectives are reflective of a full-range leadership approach (Avolio & Bass, 1991),
23 featuring their transactional focus on the contractual agreement and the avoidance of a conflict of
24 interest. Both Mark and Richard also highlight more Transformational (Bass & Riggio, 2006)

1 characteristics such as trust and setting a collective vision. Nonetheless, these high-level aspirations
2 founded on the co-owned organizational structure did not ensure that operational issues were
3 seamless. In addition to the friction previously discussed, Sarah (General Manager, T2) said:

4 You have to constantly negate self for the greater good ... I have to constantly think
5 about the two parties coming together ... if your top people can go away and talk about
6 the Worcester end and the Gloucester end independently – then you’ve not got
7 partnership. I think that’s happened loads less this year.

8 It is evident that the organizational structure (i.e., glue) which binds together these key stakeholders
9 does have an influence on the broader *social environment* of the club and might be underpinned by
10 “grains of sand” in between the PAF’s gears (Côté et al., 2022, p. 7). Indeed, Sarah’s perspective is that,
11 whilst the collective element is improving, is it not yet frictionless and requires further lubrication.
12 Akkerman and Bakker (2011, p. 134) ascribe the term “boundary interactions” – asserting the process of
13 two different organizational practices coming together as being a learning venture which is likely to
14 result in new ways of (joint) operation being established, although the extent to which this will be
15 harmonious within the Severn Stars is, as yet, unclear. The findings in this section demonstrate the
16 inter-relation between all three layers of the Quality Social Dynamics gear and that these elements are,
17 to some extent, connected. The issues highlighted so far have predominantly been concerned with
18 elements relating to Quality Social Dynamics. Taking a further step back enables a more strategic view
19 of the inter-related mechanisms impacting the Appropriate Settings gear.

20 **Appropriate Settings**

21 ***Connections through NOVAs and to the community (community/league structure)***

22 The addition of the NOVA academies represented a considerable step in the development of the
23 Severn Stars, more than tripling the number of youth athletes officially connected to the club. Whilst
24 the principal aim of the NOVA academies was to develop an effective Talent Development system, Lorna

1 (Director of Netball, T2) considered they represented an opportunity to build connections both within
2 and across the club:

3 My personal aim was that the Super NOVA tournament ... be a big success. I wanted it
4 to be a celebration and I wanted it to generate noise regionally, I wanted it to help build
5 our relationship with West Midlands Netball. I wanted to make the most out of having
6 that venue [the Arena] and I wanted it to be an opportunity where county academy
7 coaches, NOVA coaches, staff, volunteers, parents, players, umpires, no longer felt that
8 they were working in isolation. That it was a chance to see that everyone else has been
9 busy training and practicing throughout the year. So that tournament was a big target
10 for me to have eight counties represented.

11 Lorna's acknowledgement of the strategic value of the NOVA academies demonstrates how the club and
12 *community structure* (i.e., Appropriate Settings) can be utilized to drive the broader *social environment*
13 (i.e., Quality Social Dynamics). Lorna highlights her perception of the importance of using the academy
14 tournament as a mechanism to tackle potential isolation in the workforce, but also to generate
15 connections to the local regional netball association. Whilst the limited previous research in this area
16 has acknowledged the importance of: (a) connections to external stakeholders, (b) shared
17 understandings of athletes' development needs, and (c) an alignment of expectations (Curran et al.,
18 2021), our findings extend previous studies by providing a tentative first step in identifying inter-related
19 mechanisms. For example Burgess and Naughton (2010, p. 111) suggest that factors such as media and
20 culture should be "appropriately mediated"; Lorna's use of the Super NOVA tournament to bring various
21 stakeholders together demonstrates an applied and tangible example. One strategy deployed by the
22 club to further connect the Superleague team with the community was player presence – where a
23 member of the squad makes an appearance at a local school or event. Suki (Senior Head Coach, T1)
24 highlighted some challenges in this regard:

1 Leadership comes with responsibility. The players aren't great at doing appearances, so
2 I think the leadership develops with the off-court stuff as well as the on-court stuff ... it's
3 about encouraging players to really understand what you get for being a Superleague
4 player – this is what you take from us, but this is what you must give. I think that's still a
5 work in progress. I think the work we're doing about making the players more
6 responsible and accountable is really good and we've got a number of players that are in
7 a coaching environment and giving back to the community.

8 Suki highlights some of the tensions within the Severn Stars which are illustrative of the still-emerging
9 nature of top-level netball in the UK and the challenges this presented in terms of connecting the
10 Superleague squad to the community. Almost all the Severn Stars Superleague squad were juggling two
11 or three significant occupational roles (e.g., elite athlete, postgraduate student, and coach at local
12 private school) and thus, were not full-time professional athletes. McCarthy et al. (2021) reported the
13 New Zealand national netball team, the Silver Ferns, struggled with similar kinds of multi-role tensions
14 which are likely to exist for some time to come. It is this kind of issue which could also be considered a
15 sociocultural "grain of sand" that potentially hindered the slick operation of the PAF's gears (Côté et al.,
16 2022, p. 7). Our findings demonstrate that the connection between the Superleague squad and the rest
17 of the club is crucial – although also fraught with numerous challenges. Indeed, Gabby and Hephzi
18 (Senior Players, T2) said:

19 Gabby: Last year, we were very very separate from the club as a whole. Part of that is
20 perhaps due to the fact that we had a change in team managers, the fact that some of
21 the stuff off-court at times maybe felt a bit chaotic, or the miscommunication stuff. That
22 made [former Senior Coach] pull us back a bit, maybe we did it subconsciously to
23 protect our little bubble – pulling the team away from the chaos. The fact that we

1 weren't training at our home arena actually makes you feel like you're not part of the
2 club.

3 Hephzi: Integrate, integrate, integrate – for the future of Stars that's so important
4 because I think we did that one or twice last year and there were definitely
5 developments from the two sessions.

6 Gabby and Hephzi highlight that one of the most challenging elements emanating from the
7 *organizational structure*, and that affected the club's broader *social environment* (i.e., Quality Social
8 Dynamics gear), was the tension between performance and development, which has been extensively
9 reported across many different contexts (e.g., Henriksen & Stambulova, 2017; Larsen et al., 2014). Our
10 findings highlight the importance of person-centred approaches which recognize and value
11 stakeholders' lives beyond their immediate sport experience (Litchfield & Elliott, 2020). Furthermore,
12 our findings are consistent with many such reports which often highlight the need for effective
13 communication between stakeholders and the maintenance of seamless, integrated, pathways as far as
14 is possible (Henriksen et al., 2010; McLaren & Spink, 2018). The importance of integrated pathways was
15 reinforced by the powerful draw of the Superleague squad and was evident across the various key
16 stakeholders. Sophie (Head Pathways Coach, T2) said:

17 Being part of the Severn Stars is going to be a lot different to just playing for your club
18 side. These girls come in and train alongside the Superleague team so they know there
19 is a pathway and there's a ladder and there's a stepping stone ... My U19s all very much
20 fan girl the senior team ... [but] I can tell you now that half the girls in my pathway
21 wouldn't have a clue who the Director of Netball is or who does the media, so I
22 definitely think that needs to be better ... The U21s and U19s had a really good bond but
23 I feel that there needs to be more work from the senior's end ... there definitely needs
24 to be more of a community feel [across the club].

1 The findings in this section have demonstrated that whilst there are clear connections between the
2 gears of Appropriate Settings and Quality Social Dynamics, most notably relating to the *club structure*
3 and *social environment*, there are many elements which are not producing the frictionless movement
4 which might see the gears turning more smoothly in this context. The power of the Superleague to act
5 as an inspirational incentive was also reported by Navin et al. (2020), and remains strongly in evidence in
6 this second year of the club's operation. Navin et al. (2020) also reported that investigating the roles
7 and perceptions of a broader range of stakeholders would provide further insight into the club's overall
8 connectivity.

9 **Personal Engagement in Activities**

10 For many youth athletes in the Severn Stars Player Pathway, netball represented their principal
11 sport, although the findings of this investigation demonstrate the importance of considering the various
12 other activities which were important to them. Our findings demonstrate how the Quality Social
13 Dynamics, Appropriate Settings, and Personal Engagement in Activities gears are inter-related.
14 Specifically, the athletes' commitment to the pathway was sometimes in tension with the suitability of
15 the *playing field, club structure and league structure*. For example, Jane (Coach, U21s, T2) said:

16 They knew the league was probably too high but that's what they wanted to aim for ...
17 Having had a break after NPL there were a couple that disengaged. Having a
18 conversation about not wanting to look silly ... There were mixed feelings about how
19 much emphasis to place on this tournament – what does it mean if we do badly?

20 Within the club's first year of operation, Navin et al. (2020) reported that both U21 and U19 squads
21 struggled to compete in their respective competitions and acknowledged that it would take some
22 considerable time to bridge the gap to more established franchises. Our findings demonstrate this
23 deficit remained evident in the second year of operation and how the inability to compete detracted
24 from some athletes' intrinsic motivation and commitment to the club (Light & Harvey, 2017). Carlotta

1 (U19 athlete, T2) described how the extensive commitment required was mediated through coaches
2 promoting a balanced perspective in terms of winning and development:

3 I feel like Stars expect a lot of commitment, which is good at this level. I go to school in
4 [town approximately 70 miles away], so it takes ages to get to Gloucester. Sophie
5 appreciated that and still gave me the opportunities even if I couldn't make sessions ...
6 its tiring traveling, playing was quite tiring, it was good to have a laugh at the
7 tournament ... the coaches understood and played games and it was just fun ... we have
8 to promote the fun side of netball because you can't put this much pressure on our age
9 to perform all the time.

10 Carlotta's perspective reflects previous research which has promoted a carefully considered balance
11 between the demands placed on athletes, winning, and enjoyment (Côté et al., 2020; Curran et al.,
12 2022). Erdal (2018) argued that the positive balance struck alluded to by Carlotta is increasingly rare in
13 contemporary youth sport which commonly reflects adult models of competition complete with an
14 over-emphasis on winning over development. Carlotta's intrinsic motivation has been protected by the
15 acknowledgement by the coach of her individual circumstance, set within a social environment which
16 promoted enjoyment and a league structure which was somewhat out-of-reach. Jane (Coach U21s, T2)
17 explained how these elements of the Appropriate Settings and Quality Social Dynamics gears were inter-
18 related with some of the athletes' Personal Engagement in Activities:

19 A couple made decisions they weren't going to play at a tournament because they're
20 going on holiday – its booked and they're not cancelling ... but I did have one girl that
21 completely changed all her holidays round so they she could attend training and play.
22 Another girl – she decided to no longer carry on with netball because she had an
23 opportunity to look at rowing Olympically ... ultimately it's their playing career and I

1 level had some influence over how the various elements of the PAF gears were related to one another.
2 This investigation has revealed particularly strong connections within and between Appropriate Settings
3 and Quality Social Dynamics, whilst the prominent features of the Personal Engagement in Activities
4 gear were less prominent but still connected to the social and physical environment of the club. The
5 leadership behaviors most important to the positive environment of the Severn Stars were those related
6 to individualization and generating perceptions of value. These elements were inter-related with the
7 *club structure* and *league structure* because of the importance of the Superleague and the various
8 stakeholders' desire to see the relationship between their individual contribution and the elite netball
9 that Superleague represents. For pathways players (and coaches) this investigation has emphasized the
10 importance of the clarity of the stepping stones in the developmental pathway. Administrators of
11 similar Talent Development pathways may want to consider what factors, above and beyond the
12 prosocial foundations of intrasquad dynamics, might be important to ensuring the "grains of sand" (Côté
13 et al., 2022, p. 7) do not prevent youth athletes' progress through the 4Cs and ultimately to the 3Ps over
14 an athletic career. Specifically, administrators can build on individualized programme delivery to ensure
15 each athlete understands the journey to the next stage of the process and are working within an aligned
16 system of actions and values that, ultimately, allow athletes to achieve their long-term outcomes while
17 maintaining their health and interest in the short-term.

18 Although the clarity of the structure of the pathway was important within the Severn Stars, the
19 perception of a coherent and consistent vision and set of values reflected by every team within the club
20 remains a work in progress. Consistent, clear vision and values remain challenging to establish because
21 of the ongoing difficulties in balancing the demands of athletes' multiple roles and activities within a
22 university-based co-ownership model. Senior operational leaders and managers of organizations
23 featuring multiple stakeholders may want to consider how their practice may facilitate, or hinder, the
24 effective integration of the activities that athletes engage in within the constraints of specific physical

1 and organizational settings and particular social dynamics. Specifically, senior operational leaders need
2 to ensure that the vision and values of the organization are sufficiently clear and tangible to all
3 stakeholders, and meaningfully shape the athletes' daily activities in an organizational and social
4 environment that is caring and supportive This investigation has shown the mechanisms underpinning
5 PAF did indeed shift over the course of the season, but not equally. Indeed, the Appropriate Settings
6 gear appears to be more stable across time and more difficult to change than the activities that in which
7 the athletes engage or the social dynamics. Furthermore, interventions on the more proximal layer of a
8 specific gear (e.g., relationships) can be implemented more clearly and directly than interventions on a
9 more distant layer of a gear (e.g., social environment). Given these observations, it may be useful for
10 sport organizations to understand that interventions on different gears and layers of the PAF will lead to
11 direct or indirect outcomes over different timelines.

12 Future research should continue to investigate the evolution of the inter-related mechanisms
13 discussed here both through the continued immersion within the Severn Stars and in other applied
14 settings. In particular, further attention should be given to the Personal Engagement in Activities gear
15 and how the various activities of sport and life are inter-related to Quality Social Dynamics and
16 Appropriate Settings. Furthermore, future research should seek to establish the connection in applied
17 settings between the underpinning inter-related mechanisms of the PAF, the 4Cs, and the 3Ps.

References

- 1
- 2 Akkerman, S. F., & Bakker, A. (2011). Boundary crossing and boundary objects. *Review of Educational*
3 *Research, 81*(2), 132-169. <https://doi.org/10.3102/0034654311404435>
- 4 Avolio, B. J., & Bass, B. M. (1991). *The Full Range of Leadership Development Center for Leadership*
5 *Studies*.
- 6 Bass, B. M., & Riggio, R. E. (2006). *Transformational Leadership* (2nd ed.). Lawrence Erlbaum Associates.
- 7 Bowles, R., & O'Dwyer, A. (2021). Identifying learning in a coaching community of practice: a
8 collaborative self-study. *European Journal for Sport and Society, 1*-18.
9 <https://doi.org/10.1080/16138171.2021.1930943>
- 10 Bronfenbrenner, U. (1999). Environments in developmental perspective: Theoretical and operational
11 models. In S. L. Friedman & T. D. Wachs (Eds.), *Measuring Environment Across the Life Span:*
12 *Emerging methods and concepts* (pp. 3-28). American Psychological Association.
- 13 Burgess, D. J., & Naughton, G. A. (2010). Talent development in adolescent team sports: A review.
14 *International Journal of Sports Physiology and Performance, 5*(1), 103-116.
15 <https://doi.org/10.1123/ijssp.5.1.103>
- 16 Burton, D., Gillham, A. D., & Hammermeister, J. (2011). Competitive engineering: Structural climate
17 modifications to enhance youth athletes' competitive experience. *International Journal of Sports*
18 *Science and Coaching, 6*(2), 201-218. <https://doi.org/10.1260/1747-9541.6.2.201>
- 19 Camiré, M., Newman, T. J., Bean, C., & Strachan, L. (2022). Reimagining positive youth development and
20 life skills in sport through a social justice lens. *Journal of Applied Sport Psychology, 34*(6), 1058-
21 1076. <https://doi.org/10.1080/10413200.2021.1958954>
- 22 Clark, T., Foster, L., Sloan, L., & Bryman, A. (2021). *Bryman's Social Research Methods* (6th ed.). Oxford
23 University Press.
- 24 Coakley, J. (2011). Youth sports: What counts as "Positive Development?". *Journal of Sport and Social*
25 *Issues, 35*(3), 306-324. <https://doi.org/10.1177/0193723511417311>
- 26 Côté, J. (1999). The influence of the family in the development of talent in sport. *The Sport Psychologist,*
27 *13*(4), 395-417. <https://doi.org/10.1123/tsp.13.4.395>
- 28 Côté, J., Murata, A., & Martin, L. J. (2022). The personal and social development of children in sport. In P.
29 K. Smith & C. H. Hart (Eds.), *Wiley-Blackwell Handbook of Childhood Social Development* (3rd
30 ed., pp. 386-404). John Wiley and Sons. <https://doi.org/10.1002/9781119679028.ch21>
- 31 Côté, J., Turnnidge, J., & Evans, M. B. (2014). The dynamic process of development through sport.
32 *Kinesiologia Solvenica, 20*(3), 14-26.
- 33 Côté, J., Turnnidge, J., Murata, A., McGuire, C., & Martin, L. J. (2020). Youth sport research: Describing
34 the integrated dynamic elements of the Personal Assets Framework. *International Journal of*
35 *Sport Psychology, 51*(6), 562-578. <https://doi.org/10.7352/IJSP.2020.51.562>
- 36 Côté, J., Turnnidge, J., & Vierimaa, M. (2016). A personal assets approach to youth sport. In K. Green &
37 A. Smith (Eds.), *Routledge Handbook of Youth Sport* (pp. 243-255). Routledge.
- 38 Côté, J., & Vierimaa, M. (2014). The developmental model of sport participation: 15 years after its first
39 conceptualization. *Science & Sports, 295*, S63-S69. <https://doi.org/10.1016/j.scispo.2014.08.133>
- 40 Cronin, C., Walsh, B., Quayle, L., Whittaker, E., & Whitehead, A. (2019). Carefully supporting autonomy –
41 learning coaching lessons and advancing theory from women's netball in England. *Sports*
42 *Coaching Review, 8*(2), 149-171. <https://doi.org/10.1080/21640629.2018.1429113>
- 43 Curran, O., MacNamara, Á., & Passmore, D. (2021). Singing off the same hymn sheet? Examining
44 coherence in a talent development pathway (part 1). *Journal of Sports Sciences, 1*-8.
45 <https://doi.org/10.1080/02640414.2021.1896456>

- 1 Curran, O., Passmore, D., & MacNamara, Á. (2022). Singing off the same hymn sheet? Examining
2 coherence in a talent development pathway (part 2). *Journal of Sports Sciences*, 1-8.
3 <https://doi.org/10.1080/02640414.2021.2021702>
- 4 Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for
5 educational practice of the science of learning and development. *Applied Developmental*
6 *Science*, 24(2), 97-140. <https://doi.org/10.1080/10888691.2018.1537791>
- 7 Deal, T. E., & Peterson, K. D. (2016). *Shaping School Culture* (3rd ed.). John Wiley & Sons.
- 8 Duguay, A. M., Loughhead, T. M., Hoffmann, M. D., & Caron, J. G. (2020). Facilitating the development of
9 shared athlete leadership: Insights from intercollegiate coaches. *Journal of Applied Sport*
10 *Psychology*, 1-22. <https://doi.org/10.1080/10413200.2020.1773576>
- 11 Erdal, K. (2018). *The Adulteration of Children's Sports: Waning health and well-being in the age of*
12 *organized play*. Rowman & Littlefield.
- 13 Erikstad, M. K., Johansen, B. T., Johnsen, M., Haugen, T., & Côté, J. (2021). "As many as possible for as
14 long as possible" - A case study of a soccer team that fosters multiple outcomes. *The Sport*
15 *Psychologist*, 35(2), 131-141. <https://doi.org/10.1123/tsp.2020-0107>
- 16 Foulds, S. J., Hoffmann, S. M., Hinck, K., & Carson, F. (2019). The coach-athlete relationship in strength
17 and conditioning: High performance athletes' perceptions. *Sports*, 7(12), 244.
18 <https://doi.org/10.3390/sports7120244>
- 19 Fraser-Thomas, J., Côté, J., & Deakin, J. (2008). Understanding dropout and prolonged engagement in
20 adolescent competitive sport. *Psychology of Sport & Exercise*, 9(5), 645-662.
21 <https://doi.org/10.1016/j.psychsport.2007.08.003>
- 22 Ghaye, T., Melander-Wikman, A., Kisare, M., Chambers, P., Bergmark, U., Kostenius, C., & Lillyman, S.
23 (2008). Participatory and appreciative action and reflection (PAAR) – democratizing reflective
24 practices. *Reflective Practice*, 9(4), 361-397. <https://doi.org/10.1080/14623940802475827>
- 25 Henriksen, K., & Stambulova, N. (2017). Creating optimal environments for talent development: A
26 holistic ecological approach. In J. Baker, S. Cobley, J. Schorer, & N. Wattie (Eds.), *Routledge*
27 *Handbook of Talent Identification and Development* (pp. 370-386). Routledge.
- 28 Henriksen, K., Stambulova, N., & Roessler, K. K. (2010). Successful talent development in track and field:
29 Considering the role of environment. *Scandinavian Journal of Medicine & Science in Sports*, 20,
30 122-132. <https://doi.org/10.1111/j.1600-0838.2010.01187.x>
- 31 Hodge, K., Henry, G., & Smith, W. (2014). A case study of excellence in elite sport: Motivational climate
32 in a world champion team. *The Sport Psychologist*, 28(1), 60-74.
33 <https://doi.org/10.1123/tsp.2013-0037>
- 34 Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., MacDonald, D., Strachan, L.,
35 & Tamminen, K. A. (2017). A grounded theory of positive youth development through sport
36 based on results from a qualitative meta-study. *International Review of Sport and Exercise*
37 *Psychology*, 10(1), 1-49. <https://doi.org/10.1080/1750984X.2016.1180704>
- 38 Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time
39 has come. *Educational Researcher*, 33(7), 14-26. <https://doi.org/10.3102/0013189X033007014>
- 40 Larsen, C. H., Alfermann, D., Henriksen, K., & Christensen, M. K. (2014). Preparing footballers for the
41 next step: An intervention program from an ecological perspective. *Sport psychologist*, 28(1), 91-
42 102. <https://doi.org/10.1123/pes.2013-0015>
- 43 LaVoi, N. M., & Dutove, J. K. (2012). Barriers and supports for female coaches: An ecological model.
44 *Sports Coaching Review*, 1(1), 17-37. <https://doi.org/10.1080/21640629.2012.695891>
- 45 Lerner, R. M., Wang, J., Champine, R. B., Warren, D. J., & Erickson, K. (2014). Development of civic
46 engagement: Theoretical and methodological issues. *International Journal of Developmental*
47 *Science*, 8(3-4), 69-79. <https://doi.org/10.3233/DEV-14130>

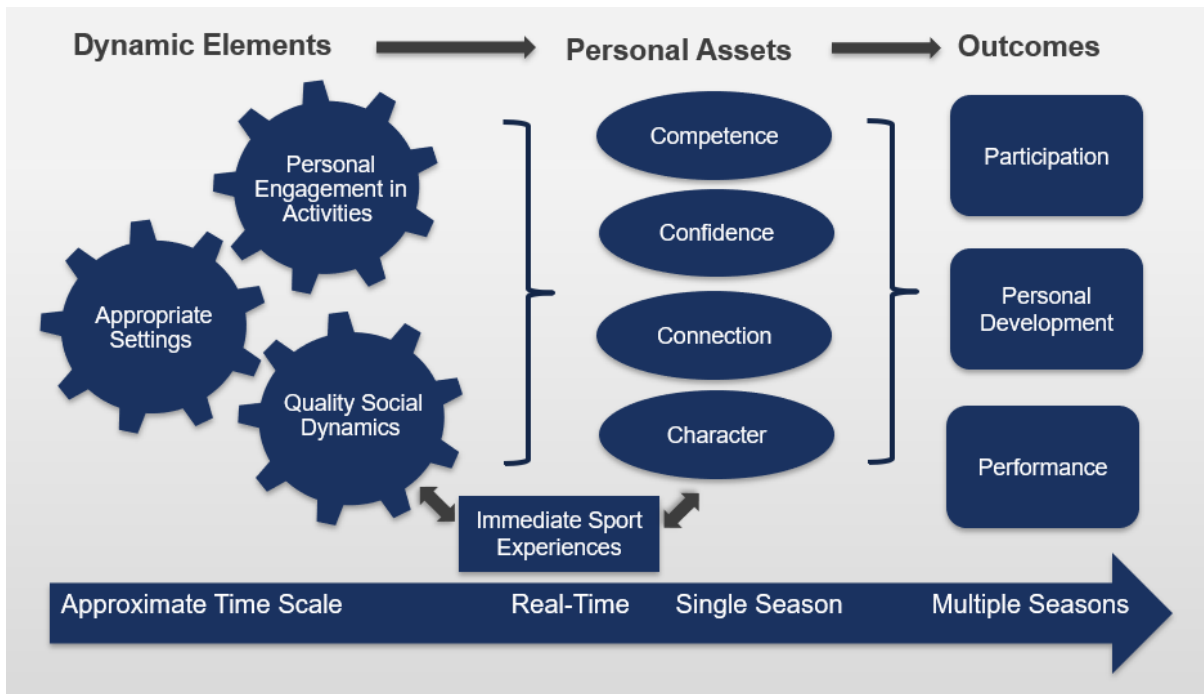
- 1 Light, R. L., & Harvey, S. (2017). Positive Pedagogy for sport coaching. *Sport, Education and Society*,
2 22(2), 271-287. <https://doi.org/10.1080/13573322.2015.1015977>
- 3 Litchfield, C., & Elliott, S. (2020). Maximising enjoyment to sustain girls' sport participation: A unique
4 case study of netball in Australia. *Qualitative Research in Sport, Exercise and Health*, 13(5), 781-
5 799. <https://doi.org/10.1080/2159676X.2020.1778063>
- 6 López de Subijana, C., Martin, L. J., Ramos, J., & Côté, J. (2021). How coach leadership is related to the
7 coach-athlete relationship in elite sport. *International Journal of Sports Science & Coaching*,
8 16(6), 1239-1246. <https://doi.org/10.1177/17479541211021523>
- 9 McCarthy, L., Martin, A. J., & Watson, G. (2021). Developing winning ways for women's sport: New
10 Zealand's national netball team. *The International Journal of the History of Sport*, 1-16.
11 <https://doi.org/10.1080/09523367.2021.1912025>
- 12 McDonough, M. H., Ullrich-French, S., Anderson-Butcher, D., Amorose, A. J., & Riley, A. (2013). Social
13 responsibility among low-income youth in physical activity-based Positive Youth Development
14 programs: Scale development and associations with social relationships. *Journal of Applied Sport*
15 *Psychology*, 25(4), 431-447. <https://doi.org/10.1080/10413200.2012.751563>
- 16 McDougall, M., Ryba, T. V., & Ronkainen, N. J. (2020). Is culture a (still) useful category of psychological
17 and social analysis? *International Journal of Sport Psychology*, 51(6), 626-645.
18 <https://doi.org/10.7352/IJSP.2020.51.626>
- 19 McLaren, C. D., & Spink, K. S. (2018). Examining communication as information exchange as a predictor
20 of task cohesion in sport teams. *International Journal of Sport Communication*, 11(2), 149-162.
21 <https://doi.org/10.1123/ijsc.2018-0004>
- 22 Navin, A., Vinson, D., Croad, A., Turnnidge, J., & Côté, J. (2020). The birth of the Stars: Transformational
23 Leadership in a superleague netball club. *The Sport Psychologist*, 34(3), 220-231.
24 <https://doi.org/10.1123/tsp.2019-0087>
- 25 Newland, A., Newton, M., Moore, E. W. G., & Legg, W. E. (2019). Transformational Leadership and
26 Positive Youth Development in basketball. *International Sport Coaching Journal*, 6(1), 30-41.
27 <https://doi.org/10.1123/iscj.2018-0002>
- 28 Parker, A., & Tritter, J. (2006). Focus group method and methodology: Current practice and recent
29 debate. *International Journal of Research & Method in Education*, 29(1), 23-37.
30 <https://doi.org/10.1080/01406720500537304>
- 31 QSR International. (2020). *NVivo qualitative data analysis software (version 12 pro) [Software]*. QSR
32 International. www.qsrinternational.com
- 33 Robson, C., & McCartan, K. (2016). *Real World Research* (4th ed.). Wiley.
- 34 Severn Stars. (2022). *Severn Stars Player Pathway*. Retrieved 2nd February 2022 from
35 <https://www.severnstars.co.uk/player-pathway/>
- 36 Smith, B. (2018). Generalizability in qualitative research: Misunderstandings, opportunities and
37 recommendations for the sport and exercise sciences. *Qualitative Research in Sport, Exercise*
38 *and Health*, 10(1), 137-149. <https://doi.org/10.1080/2159676X.2017.1393221>
- 39 Smith, B., & Sparkes, A. C. (2014). *Qualitative Research Methods in Sport, Exercise and Health: From*
40 *process to product*. Routledge.
- 41 Smith, M. J., Arthur, C. A., Hardy, J., Callow, N., & Williams, D. (2013). Transformational leadership and
42 task cohesion in sport: The mediating role of intrateam communication. *Psychology of Sport and*
43 *Exercise*, 14(2), 249-257. <https://doi.org/10.1016/j.psychsport.2012.10.002>
- 44 Tracy, S. J. (2019). *Qualitative Research Methods: Collecting evidence, crafting analysis, communicating*
45 *impact* (2nd ed.). John Wiley & Sons.
- 46 United Nations. (2022). *Youth*. Retrieved 20th April 2022 from [https://www.un.org/en/global-](https://www.un.org/en/global-issues/youth)
47 [issues/youth](https://www.un.org/en/global-issues/youth)

- 1 Vella, S., Oades, L., & Crowe, T. (2011). The role of the coach in facilitating Positive Youth Development:
2 Moving from theory to practice. *Journal of Applied Sport Psychology, 23*(1), 33-48.
3 <https://doi.org/10.1080/10413200.2010.511423>
- 4 Vierimaa, M., Turnnidge, J., Bruner, M., & Côté, J. (2017). Just for the fun of it: Coaches' perceptions of
5 an exemplary community youth sport program. *Physical Education and Sport Pedagogy, 22*(6),
6 603-617. <https://doi.org/10.1080/17408989.2017.1341473>
- 7 Vinson, D., & Bell, J. (2020). Athlete-centred coaching: An applied example from junior international field
8 hockey. In E. Cope & M. Partington (Eds.), *Sports Coaching: A theoretical and practical guide* (pp.
9 40-52). Routledge.
- 10 Vinson, D., & Parker, A. (2021). Christian sports coaches and Servant Leadership. *International Journal of*
11 *Sport Science and Coaching, 16*(2), 304-316. <https://doi.org/10.1177/1747954120951768>
- 12 Welty Peachey, J., Zhou, Y., Damon, Z. J., & Burton, L. J. (2015). Forty years of leadership research in
13 sport management: A review, synthesis, and conceptual framework. *Journal of Sport*
14 *Management, 29*(5), 570-587. <https://doi.org/10.1123/jsm.2014-0126>
- 15 Williams, A. M., Ford, P. R., & Drust, B. (2020). Talent identification and development in soccer since the
16 millennium. *Journal of Sports Sciences, 38*(11-12), 1199-1210.
17 <https://doi.org/10.1080/02640414.2020.1766647>

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1 **Figure 1**

2 *The Personal Assets Framework* (Côté et al., 2014; Côté et al., 2020; Vierimaa et al., 2017)

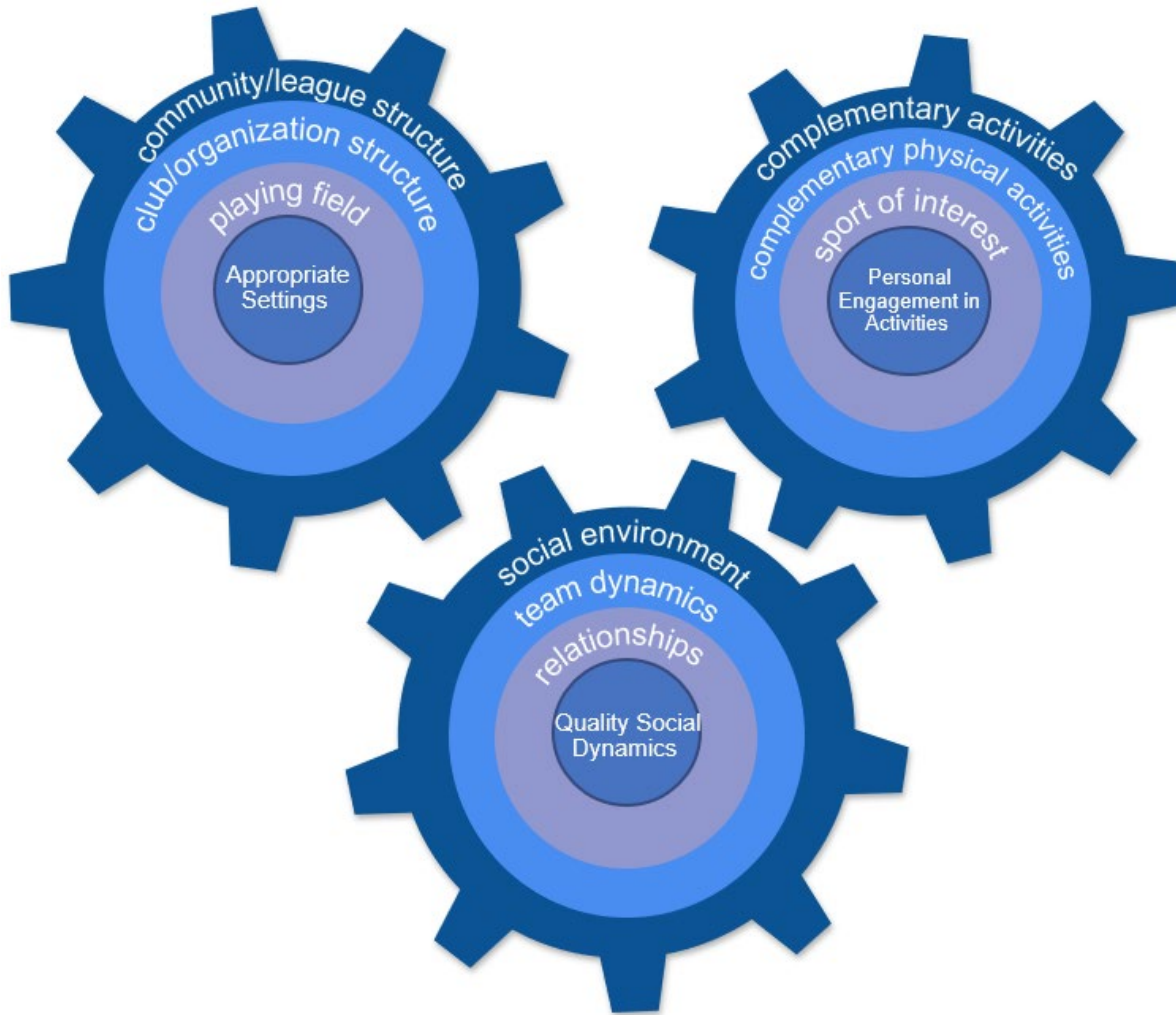


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1 **Figure 2**

2 *Dynamic Elements of the PAF (Côté et al., 2020).*



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Table 1: Participant roles and responsibilities

Type of role	Interviewees	Role	Responsibility	Phase
Players	Superleague Players (Dani, Hephzi, Gabby)	Athletes	Playing	1 & 2
	U21s athletes (Katie, Liv, Josie, Emmie)	Athletes	Playing	1 & 2
	U19s athletes (Ana, Bronwyn, Carlotta, Martha)	Athletes	Playing	1 & 2
Coaching	Sophie (10 years coaching experience)	Pathway Head Coach	Oversees U21 and U19 selection and coaching in training and match days. Also a player in the senior squad.	1 & 2
	Jane (12 years coaching experience)	U21s coach	Contributes to U21s selection and coaching in training and match days	1 & 2
	Suki (20 years coaching experience)	Superleague Head Coach	Senior selection and coaching in training and match days	1 & 2
	Hana (11 years coaching experience)	NOVA Head Coach	Operational management and running of one NOVA academy	2
	Ellie (10 years coaching experience)	NOVA Head Coach	Operational management and running of one NOVA academy	2
Operational	Lorna	Director of Netball	Oversight of the NOVA academies including appointment of coaches and coordination of the inter-NOVA competition	2
	Deborah	Coach Developer	Oversight and mentoring of all NOVA coaches and coaches enrolled on the Coach Development program	2
	Mark	General Director	Oversight of the whole club operation	2
	Richard	Chair of the Board	Chairing Executive Board meetings	2
External stakeholders	Sarah	General Manager	Operational logistics of the performance teams	2
	Parents (Jamie, Lisa, Beth, Dave, Clare)	Parents of U21/U19 pathway athletes	Holistic care of their children	2
	Coach Development Group (Bryony and Jackie)	Learner coaches	Engagement with the Coach Development program including observation of a range of Severn Stars coaching environments	2