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Children's Football Environment in Denmark: A Case Study from the Holistic Ecological Approach

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Abstract

This case study examines a children's football environment in Denmark through the lens of the Holistic Ecological Approach. The study's objectives were to (a) provide a holistic description of a football environment for children aged 9-12 and (b) explore the perceived factors that influence the success of the environment in facilitating positive experiences for children in sport. The study focused on the under-10 to under-12 teams within a Danish grassroots football club, comprising 184 players aged 9-12 years. Data collection methods included in-situ observations, interviews, and archival data. Holistic Ecological Approach-based working models were converted into empirical models to summarize the analysis. The findings reveal a well-functioning children's football environment characterized by educated coaching teams and parental involvement. The environment emphasizes development by ensuring equal opportunities for the enhancement of both athletic and psychosocial skills. This study contributes to the literature by identifying the distinctive features of a children's football environment, which differ from those found in successful athletic talent development environments, while also sharing some commonalities. The insights gained from this study may assist practitioners in optimizing children's football environments.

Keywords: Children's Sport, Youth Sport, Children's Football, Talent Development, The Holistic Ecological Approach, Positive Youth Development, Children's Sport Environments

The significance of the environment in talent development research has been emphasized for over a decade (Henriksen et al., 2010a; Hauser et al., 2022). Within the Holistic Ecological Approach (HEA), athlete development is conceptualized as a progression through environments that facilitate both sport-specific and personal growth (Henriksen et al., 2023). However, the majority of research has concentrated on a limited segment of this progression, the talent development years (16-20 years old), leaving earlier developmental environments insufficiently explored. This underscores the necessity to investigate how pre-academy environments contribute to children's foundational sports experiences. Participation in sports offers children numerous physical, social, and psychological advantages. Previous research has examined parental roles (Knight et al., 2017), group dynamics (Martin et al., 2012), and age-appropriate training methodologies (Güllich et al., 2021). Nonetheless, these studies predominantly focus on individuals within the environment rather than the characteristics of the environments sports environments Children's themselves. comprehensive entities remain under-researched, with only a limited number of studies explicitly addressing them (e.g., Erikstad et al., 2021; Rossing et al., 2020). This case study utilizes the HEA as a framework to explore a children's football environment (CFE) in Denmark. The

selected club was nationally recognized at the time of the investigation for its child-centered approach to football. Although CFEs may represent an initial step toward talent development, they also function as independent environments with distinct characteristics, objectives, and structures. Consequently, this study explores how the HEA can be applied to analyze and comprehend the structure, culture, and success factors of a well-functioning CFE.

The Context of Children's Football in Denmark

The organization of football in Denmark is overseen by the Danish Football Association (DFA). In 2020, the DFA introduced a children's football strategy grounded in the principles of the United Nations Children's Rights, with the objective of creating the world's best children's football by emphasizing development, inclusivity, and well-being Boldspil-Union, 2021a). The DFA responsibility for national teams, tournaments, and the club licensing system, and it functions through eight regional unions that facilitate grassroots football (Dansk Boldspil-Union, 2018). Grassroots football in Denmark operates on a non-profit and volunteer-driven basis, with clubs depending on membership fees and voluntary contributions to finance 80% of their activities (Bennicke et al., 2020). Historically, Danish sports policy has prioritized accessible football participation, mandating municipalities to provide

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playing fields since the 1937 Danish School Reform. Additional financial support has been obtained through The Leisure Act and the Public Information Act (Bennicke et al., 2022). In alignment with its dedication to children's football, the DFA implemented a club licensing system mandating all certified clubs to employ a Child Development Coach (CD-coach) (Dansk Boldspil-Union, 2022a). Furthermore, the DFA established regional talent centers, referred to as ATK+ centers, which provide supplementary training for talented U10-U12 grassroots players within elite club academies for a minimum of 12 months. ATK+ centers are founded on an age-related training concept that incorporates biological, psychological, and social development principles to ensure a comprehensive approach to early talent identification.

The Holistic Ecological Approach

The Holistic Ecological Approach (HEA) reorients the research emphasis from individual athletes to their encompassing environment, conceptualizing athletic talent development as the interaction between an athlete and their dynamic surroundings, which supports personal, psychosocial, and sport-specific skills necessary for an elite career (Henriksen & Stambulova, 2023). This approach is represented by two models (Henriksen et al., 2010a). The Athletic Talent Development Environment (ATDE) model delineates the components of an environment and their interrelationships, categorized into athletic and non-athletic domains at both micro and macro levels. The micro level encompasses daily social settings (e.g., family, sports clubs) and individuals (e.g., friends, coaches), whereas the macro level pertains to broader systems (e.g., federations and cultural contexts). The outer layer of the ATDE model encapsulates the past, present, and future of the environment, underscoring its dynamic nature. The Environment Success Factors (ESF) model identifies elements contributing to an environment's success, including preconditions (financial, human, and material), processes (e.g., training and camps), individual and team development, and organizational culture. Collectively, these models describe the environment and elucidate their efficacy in facilitating athletes' transition to the elite level.

Successful Athletic Talent Development Environments

A review of 44 studies on ATDEs from the past decade revealed that successful ATDEs enhance well-being and long-term development, whereas less effective environments correlate with ill-being and limited development (Hauser et al., 2022). Positive outcomes are facilitated by: a) preconditions such as skilled staff, role models, and system-wide support, b) organizational culture, including an empowering climate, psychological safety, and coherent values, c) integration of efforts through external social relationships and stakeholder collaboration, and d) holistic preparation focusing on personal and long-term athletic development (Henriksen et al., 2010a; Hauser et al., 2022; Larsen et al., 2013). Initial ATDE case studies concentrated on individual sports, particularly sailing, track and field, and kayaking (Henriksen et al., 2010a; 2010b; 2011). More recent research has explored football ATDEs, including case studies in Denmark (Larsen et al., 2013), the Netherlands (Larsen et al., 2020), Belgium (Ryom et al., 2020), and Norway (Aalberg & Sæther, 2016). Football ATDEs exhibit several similarities with individual-sport ATDEs, such as structured training environments that prioritize long-term development, focus on psychosocial development, team cohesion, responsibility, personal growth (Henriksen, 2010a; Larsen et al., 2013; 2020; Ryom et al., 2020), and

knowledge-sharing structures where clubs promote integrated coaching approaches and open communication with stakeholders (Aalberg & Sæther, 2016). However, football ATDEs also differ in key aspects, because academy and first team are often separated, role models are less available for the academy players (Larsen et al., 2013; 2020). Additionally, football ATDEs tend to emphasize early specialization (Larsen et al., 2013; 2020; Aalberg & Sæther, 2016) and necessitate greater stakeholder collaboration as athletes navigate club structures, school commitments, and national federation systems (Larsen et al., 2020).

The Positive Youth Development Perspective

The aim of youth sport needs to go beyond talent Development Youth development. Positive represents an asset-building paradigm within youth sports, aimed at fostering positive and healthy development. A central tenet of PYD is the facilitation of life skills acquisition through sports, with an emphasis on the transferability of these skills to various contexts, including home, school, and the workplace (Gould et al., 2008; Holt et al., 2017; Larsen & Gould, 2020). The cultivation of positive outcomes through sports participation includes personal engagement in activities, the quality of social dynamics, and appropriate settings and organizational structures (Côté et al., 2014; 2016). Childhood is a critical developmental period and activities should involve substantial amounts of deliberate play designed to the children's maturational needs (Côté et al., 2009; DiSanti & Erickson, 2019). Appropriate environments for children do develop confidence, competence, connection and character (as short-term outcomes) and participation, personal development and performance as long-term outcome (Côte et al., 2020). Empirical evidence indicates that children frequently cite 'fun' as a primary motivator for participating in organized sports, while its absence is a significant factor in youth sport attrition. Fun is a crucial predictor of sports commitment and sustained participation throughout childhood and adolescence (Scanlan et al., 1993). Visek et al. (2015) developed a theoretical framework to elucidate the concept of fun in youth sports, identifying key predictors such as learning and improvement, effort, team friendships, and positive coaching. Nonetheless, research has yet to comprehensively and ecologically investigate well-functioning sports environments for children, particularly those perceived as fun, engaging, and developmentally supportive.

The HEA and PYD are complementary as both recognize the role of the environment and advocate for thriving and personal development as central outcomes in youth sport. While PYD focuses on the development of life skills through sports, the HEA offers an ecological framework for understanding the role of social and environmental factors in athletic success. The HEA is employed as the guiding framework for this study, as it encompasses both environmental and individual factors that shape young athletes' experiences. Positive youth development is positioned as a complementary framework that helps elucidate the mechanisms through which sports facilitate positive development.

Method

The study aims to: a) provide a holistic description of a CFE for children aged 9-12 and b) explore the perceived factors that contribute to a successful environment in facilitating positive youth sports experiences. This aligns with the broader objective of demonstrating the utility of



the HEA in understanding and optimizing CFEs, through contemporary and real-time perspectives on the functioning of a Danish CFE. By "contemporary and real-time," we refer to an approach that captures the ongoing lived experiences of participants within the CFE, emphasizing present-day interactions and environmental dynamics.

This study is designed as an instrumental case study (Hodge & Sharp, 2016) to acquire knowledge of a CFE through the lens of the HEA and, in doing so, test the framework in a novel environment. A case study design was selected to explore the uniqueness and complexity of a particular bounded case, as case studies are well-suited to providing context-dependent and rich knowledge (Flyvbjerg, 2004). We position the study within a criticalreflexive realism ontology, which assumes that the CFE exists independently of our knowledge of it, while recognizing that underlying discourses influence the observed reality (Hammersley & Atkinson, 2007). Additionally, we adopt a constructivist epistemology, acknowledging that knowledge generation occurs through the interaction between researchers and the field, shaped by previous experiences, social factors, and cultural conditions. The data is generated through observations, interviews, and archival materials. The analysis applies a cyclic design involving continuous iteration between the preselected theory, collected data, interpretation, and participant responses (Maaløe, 2004).

Case Description and Selection

Founded in 1921, the football club, which includes 1,342 members, of whom 357 are children aged 4 to 12, is among the oldest in Denmark. It is situated in a tranquil and affluent residential area in the suburbs of Copenhagen, adjacent to a recreational zone. Despite its location, the club's origins are rooted in the working class, with the majority of its members being local residents. In 2020, the club attained the status of a DFA Licensed club, thereby committing to prioritize youth football. This designation led to the hiring of a CD-coach, tasked with developing and facilitating the club's CFE. The primary role of a CD-coach is to establish safe, engaging, and developmental settings for children. Furthermore, they oversee volunteer coaches and act as intermediaries between the club's board, management, and coaches (Dansk Boldspil-Union, 2021b). To qualify as a CD-coach, candidates must complete a structured program designed to equip them to support children's coaches and enhance football environments. This program encompasses guiding coaches in fostering learning understanding feedback, diverse coaching personalities, building robust developmental relationships, observing and analyzing training sessions, applying DFA's child-centered approach, and motivating both coaches and players. This program ensures that CD-coaches can elevate the quality of children's football and create positive, enriching experiences (Dansk Boldspil-Union, 2025)

During the investigation, it was assumed that a well-functioning CFE is recognized nationally within the youth ranking system, prioritizes the environment for its children (i.e., possesses a dedicated CD-coach), and adheres to the Danish Football Association (DFA) licensing regulations. The club was selected as pertinent for the study of a CFE because: it (a) consented to participate and (b) had experienced a significant increase in membership, which was perceived as indicative of a well-functioning CFE.

Although the club comprises both younger and older members, this study focuses on the U10-U12 players and relevant stakeholders (e.g., parents, coaches, and the CD-coach). The age group includes 184 male players with multiple coaches, most of whom, as is typical in the Danish

context, are the parents of the players. Voluntary parent coaches do not consistently train their own children, as the composition of match groups tends to vary throughout the season, and training groups are rotated within teams on a weekly basis.

Data Collection

Data were gathered through a combination of stakeholder interviews, observational methods (including informal interviews) and archival data. A comprehensive overview of the data collection process is provided in Table 1

Table 1: An Overview of the Data Collection

Semistructures interviews			Documents
	Activities	Informal talks	_
The Youth Chairman	Training	The Youth Chairman	The DFA's webpage
60 minutes			
The Child Developmental Coach	Extra Play	The Child Development Coach	The Clubs' webpage and Facebook-page
90 minutes			
The Head Coach of the under-10's	Winter Camp	Coaches	The Clubs' 100 th Anniversary Book
45 minutes			
The Head Coach of the under-12's	Train with the Professional Club	Parents	'Values, Mission, and Structure'- Document
60 min			
One Parental Coach			Football Philosophy and Training
75 min			Priciples
			Meeting Minutes
Total 5 hours and 30 minutes 135 hours			

Semi-structured interviews

Interviewees were selected based on their roles. management recommendations, and informal interactions to ensure representation across key stakeholders. The first author conducted interviews in the clubhouse Bistro, lasting between 45 and 90 minutes. To build rapport, the first author engaged with participants on the fields and in the facilities prior to the interviews, fostering trust through informal conversations. Interviews were conducted in familiar settings, specifically at the Bistro, with minimal interruptions. The semi-structured interview guides were thoughtfully developed to facilitate reflection, gain insights into the interviewees' values and assumptions, and ensure that the interviews addressed preselected issues derived from the ATDE and the Environment Succes Factors working models (Kvale & Brinkmann, 2015; Smith & Sparkes, 2019). For example, questions such as "can you describe the club's sense of togetherness?" and "what skills do vou hope players acquire beyond an inside-foot pass?" were included. The guide began with broad guestions and gradually narrowing in focus, and was divided into four sections, each tailored to the interviewee's role. First, the introductory section inquired about the interviewees' roles and their perceptions of the environment. Second, the descriptive section comprised questions regarding the function of the environment, the interrelationships between components at both micro- and macro-levels, and organizational structures. Third, the explanatory section included questions pertaining to values, assumptions, organizational culture, and key characteristics of the environment. Fourth, to contextualize the environment



within a broader timeframe, interviewees were asked about traditions and future challenges facing the environment.

Observations

Observations were conducted three times a week for three months during the off-season and pre-season. These included training sessions, special training days, and informal interactions around the club's facilities and clubhouse. The first author adopted an observer-asparticipant role, assisting with training equipment to integrate naturally into the environment and facilitate informal conversations with coaches and parents. The observer-as-participant research position enabled the principal investigator to observe social practices in situ, thereby acquiring an in-depth understanding of the environment and culture while maintaining a critical distance (Atkinson, 2019). Nonetheless, this position also elicited concerns regarding reflexivity and rigor. Reflexive memos were employed to document biases. Observations were systematically executed and recorded using field notes, incorporating informal interviews with parents, coaches, and pertinent club staff. The observation period commenced with an open perspective (Adler & Adler, 1994) and progressively became more deductively informed by the HEA, facilitating the exploration of the club's stated values and behavior.

Procedure

This study was conducted in accordance with the principles of the Declaration of Helsinki and adapt to the rules of GDPR (Word Medical Association, 2024). Interview participants were anonymized, and all data were stored on password protected and secured OneDrive folders which only the main research team could access. To ensure confidentiality of the participants and the case, information that reveal their identity will not be presented. All the participants provided informed consent prior participating and were provided with information about their rights (i.e., a right to withdraw, data would only be used for the purpose of this study and stored according to national guidelines) Individual names were kept confidential to the greatest extent possible, although those familiar with the club might recognize the staff and environment. The researcher reiterated the thesis's purpose, obtained written consent, informed participants of their withdrawal rights, and expressed gratitude. All interviews were recorded with participants' consent, and immediately deleted afterwords. To protect participants' data, transcripts were anonymized prior to analysis.

The data were organized according to nine predefined theoretical categories deriving from the ATDE and ESF models, inspired by Henriksen (2010). An inductive coding process subsequently identified themes characterizing specific attributes of the U10-U12 CFE the club. Data were coded line-by-line by condensing participants' statements into shorter sentences, as suggested by Kvale and Brinkmann (2015). This approach ensured the inclusion of all data in coding rounds, minimizing the risk of overlooking significant insights, and allowing for later deletion or merging of codes rather than omitting important information. Data analysis was initiated immediately upon arrival at the club and continuously informed the development of the interview and observation guides. This iterative process allowed preliminary findings to shape subsequent data collection, ensuring a dynamic and responsive research design.

Additionally, relevant documents, including club policies, historical records, and training materials, were examined to gain a deeper understanding of the environment.

Data Analysis and Interpretation

To prevent the conflation of data collection and analysis, the transition from open-ended exploration to thematic analysis was clearly delineated.

We employed Braun and Clarke's (2016; 2022) thematic analysis to identify patterns and key concepts within the datasets, consistent with the stance of critical reflexive realism.

The analytical process adhered to their revised sixstep methodology, integrating a deductive-inductive coding strategy. Data were transcribed and reviewed multiple times to ensure thorough immersion. The first author transcribed observation notes after each session, while interviews were transcribed verbatim within 24 hours, excluding filler sounds. Transcripts were refined into formal written language through synchronization with recorded interviews (Kvale & Brinkmann, 2015). A structured coding manual was utilized, comprising nine predefined categories derived from the ATDE and ESF models (Henriksen, 2010). Coding was conducted line by line in Nyivo to ensure comprehensive capture of critical elements. Data were categorized into meaning units, facilitating a nuanced understanding of emerging themes. Following the deductive organization of the data, inductive thematic analysis was conducted to identify subthemes within each category. These subthemes were refined to emphasize the specific characteristics of the club's U10-U12 CFE while maintaining alignment with the theoretical framework.

The identified subthemes underwent a cyclical review process to ensure coherence with the broader themes. Thematic consistency was iteratively assessed and refined. Themes and subthemes were merged, renamed, and structured into a thematic tree to illustrate their semantic and latent dimensions (Braun and Clarke, 2016; 2022). The findings were presented in a storytelling format, integrating themes and subthemes to construct a cohesive narrative. Figures 1 and 2 present the results.

Results

In the following sections, we present the results of our data analysis. First, we provide a holistic ecological description of the environment using the ATDE model (Figure 1). Second, we analyzed its quality as a CFE using the ESF model (Figure 2). The environment's key components, relationships, structure, and factors contributing to cultural quality are outlined below. To ensure consistency, we refer to U10-U12 players as "children", the children's football environment as "CFE", and the Child Development Coach as "CD-coach."

The Children's Environment

The Athletic Talent Development Environment (ATDE) working model outlines the components of the environment and their relationships.

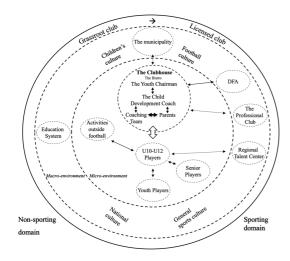
Micro-environment: Athletic Domain

The target group comprised 184 children aged 9 to 12 years who were immersed in an environment where football extends beyond structured training. Before and after sessions, they naturally form small-sided games, experimenting with the skills they have observed in youth and senior matches. On Saturdays, a group of U10 players gathered near the senior team's training ground, watched attentively, mimicked movements, and discussed their role models. The CD-coach actively fosters these spontaneous interactions. Once a week, he facilitates an extra free training session in which children across the U10-U12 teams play together. "We see the older children naturally



guiding the younger ones—demonstrating skills, offering encouragement," he shared. This informal structure allows knowledge sharing to emerge naturally, thus reinforcing both technical and social learning. During tournaments, teams are housed together, encouraging friendships to develop beyond pitch and to strengthen peer connections.

Figure 1: The Empirical ATDE Model of a Children's Football Environment in Denmark



The Clubhouse. The club house serves as the club's cultural and operational hub. The exterior is adorned with club logos, whereas the interior consists of locker rooms, a tactical room, equipment storage, and a smaller sports hall. Through the main entrance, visitors are welcomed by trophies, sponsor plates, and the portraits of honorary members, highlighting the club's legacy. The facility also houses a physiotherapy practice facility, a printing house, and the Bistro. Entering through the back leads directly to the sporting department or the Bistro.

The Bistro. A space that sets itself apart from the traditional club cafeterias. Here, attention to detail is evident: roses on the tables, barista-prepared coffee, and a menu featuring locally sourced beverages and weekend brunches. The Bistro has evolved into a central gathering space for players, parents, and local residents, seamlessly blending football with community life. The Bistro cultivates an atmosphere that extends beyond match days. It hosts private events and formal and informal meetings, and serves as a daily meeting point for stakeholders. Shortly after I arrived, the waitress handed me a coffee without needing to ask for my order. "They remember you here," I thought. This level of familiarity reflects the Bistro's role in strengthening social bonds. "Previously, only members had dined at the club. With the opening of the Bistro, guests became members," the youth chairman explained:

The Bistro has become a venue for team dinners, training days, and spontaneous gatherings. It allows for everyday contact, we talk to parents and coaches over meals, not just in meetings.

The Bistro's open design has also influenced the interactions within the clubhouse. Conversations about football take a more reflective tone. "It's not a place where you loudly ask, 'Did you win?'" the CD-coach noted. Instead, discussions unfold in a quieter, more analytical manner, especially on the terrace, where the Bistro connects to football pitches.

Coaching Team. Each coaching team consists of a head coach, volunteer-parent coach, and paid youth coaches, ensuring that no coach works in isolation. Youth coaches, who also play for the club's senior or youth teams, act as role models for the children. The club follows the Danish Football Association (DFA) coach education program, ensuring that all coaches receive foundational training. Monthly knowledge-sharing meetings for U10-U12 coaching teams provide space for refining and aligning training methodologies.

The Children - Coaching Team. The coaching team's role extends beyond technical instruction. Parent coaches, often deeply embedded in the local community, serve as a bridge between children and staff. Instead of fixed teams for the entire season, the club implements dynamic training and matches groups, ensuring that children interact with a variety of teammates, additionally preventing parents' coaches from exclusively training their own children, thereby reducing potential biases. Training sessions began long before the official start time. The head coach arrives 45 minutes early to prepare, while the children engage in peer-led games, often requesting extra football to practice finishing. Instead of giving direct instructions, the coach responds with proposing a community game. This approach empowers children to take ownership of their own development. During structured exercises, coaches establish clear guidelines and avoid error correction. Instead, they gather the group to discuss objectives, ensuring that every child understands the purpose of each drill.

Management. The club's sports management consists of the youth chairman and CD-coach, each playing a distinct yet complementary role. The youth chairman, a former player and parent coach, now oversees administration and talent management. The CD-coach, employed part-time, focuses on player development and maintains a daily presence on the pitch. Their leadership style is rooted in accessibility. With an open-door policy, they welcome discussions and debates. "We may not always agree," the youth coach admitted, "but there's trust, and that trust is what shapes our environment."

The Children - Child Development Coach. The role of the CD-coach is deeply integrated into daily training sessions. "I used to plan all sessions myself before introducing head coaches at U10-U12. Now, I focus on mentoring." His relationship with the children is built on familiarity, he knows every player's name and greets them individually. His coaching philosophy emphasizes intrinsic motivation. Instead of celebrating goals, he acknowledges technical execution. "I want them to focus on the process, not just the outcome," he explained. His presence during Extra Play on Fridays further reinforces his role as a mentor. Rather than issuing direct instructions, he posed open-ended questions: "What happens if you adjust your stance slightly?" This method encourages children to experiment with, analyze, and develop problem-solving skills. "He doesn't tell us what to do, he helps us figure it out," one player reflected.

Child Development Coach – Coaching Team. The CD-coach ensures alignment between the club's football curriculum and DFA guidelines. His on-pitch presence during the training sessions allowed for real-time feedback and mentoring. Monthly coaching meetings provide a structured, yet interactive environment for development. "I use both deductive and inductive methods," the CD-coach explained. Meetings begin with an overview of the club's playing style before transitioning to practical discussions. Coaches collaborate across teams,



presenting their exercises and critiquing each other's work. "We constantly refine, nothing is set in stone," he added.

Parents - Coaching Team. Parents play an integral role in fostering a positive football environment. Beyond logistical support, they received communication about the club's philosophy. Guidelines and newsletters outline expectations, while biannual parent meetings delve into tactical and developmental approaches. "I regularly update parents on our curriculum" a coach explained. "If you see your child juggling a football in the living room, it's because we communicated why ball mastery matters." A key aspect of parental involvement is sideline behavior. The club actively works to shape a positive support structure. "During matches, parents must not say 'shoot, dribble, pass.' They should only respond positively, even when children make mistakes," a coach emphasized. Before the season, he set clear expectations: "I welcome you here, but remember, I am the only one giving tactical instructions." Macro-Environment

The Club – The Professional Club – Danish Football Association. The club collaborates with a professional Danish club and the DFA. Together, they developed the club's Children's Football Philosophy and pursued the DFA's Children's Club certification. Through this partnership, a pathway exists for talented players to train with the regional center of the professional club. However, the CD-coach emphasized that this remains an opportunity, not an obligation. "We create possibilities, we don't push children toward an outcome," he explained. The DFA has also played a key role in the club's evolution from grassroots to licensed organizations, providing support for coach recruitment, education, and financial sustainability. *Local Sponsors*

Local sponsorships provide crucial financial stability, reinforcing the clubs' deep ties with the community. Sponsor banners display the message "THEY SUPPORT US." Businesses can opt for various sponsorship levels, including "Club Support," a symbolic monthly contribution that covers youth department expenses, ensuring accessibility for all children.

The Environment in a Timeframe

Over the past six years, the club has undergone a significant transformation, evolving from a traditional grassroots organization into a licensed club. This shift was not without its challenges. At a pivotal moment, the club faced a fundamental question: Should it continue relying on a volunteer-based system with varying levels of structure or transition to a model with paid employees to ensure consistency and development across all teams? The Youth Chairman reflected this turning point:

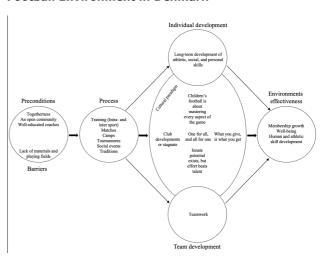
Previously, we had elitist parents who prioritized their own children while neglecting others and we did nothing. Now, we have set clear priorities: every child matters. We are building an environment where all children receive equal opportunities to grow. We have made progress, but we have not yet reached the finish line, and there is still work to be done.

This transition signifies a cultural shift toward a more inclusive, structured, and development-focused football environment, one in which every child, regardless of background or skill level, is given the opportunity to thrive

Factors Influencing the Success of the Environment

The Environment Success Factors (ESF) working model analyzes the environment's success through its preconditions, processes, and culture.

Figure 2: The Empirical ESF Model of a Children's Football Environment in Denmark



Preconditions

At the core of the club is a strong sense of togetherness. Fathers, grandfathers, and former players now watch their children follow their footsteps. The club has made a deliberate decision to define itself as a children's football club, prioritizing participation and development over talent identification and elitist training. Financially, the club operates as a non-profit organization, ensuring that all membership fees money is reinvested into hiring skilled employees and educating coaches. The Danish Football Association (DFA) plays a key role, offering financial support for coach education and club development programs. Additionally, the club receives sponsorship funds from local businesses and runs a membership-based revenue model in which families contribute monthly fees. Other sources of income include grants from the municipality, and partnerships with professional football clubs. Facility-wise, the club benefits from a clubhouse equipped with a Bistro, locker rooms, tactical room, private physiotherapy practice, and printing house. Outdoor facilities include multiple football pitches that are maintained through collaboration with the municipality, but owned by the club. If extra space is needed during renovation, the club coordinates with nearby clubs to share facilities.

Processes

Daily activities, such as training sessions, matches, social events, and parent gatherings create a structure that supports children's development.

Training. Emphasis on unity is evident in collective warm-ups, structured drills, and dynamic training groups. Children trains in both skill-based and mixed-level groups, with placements adjusted monthly based on performance, motivation, and social skills. Coaches incorporate other sports such as handball to develop motor skills, ensuring that training remains engaging, inclusive, and developmentally appropriate.

Competition. Rather than winning at all costs, the club values skill development and personal growth. Coaches encourage the children to challenge themselves, even if it comes with the risk of losing a match. Teams were divided into color-coded to ensure equal opportunities for development and growth, regardless of actual skill level. Policies guarantee equal playing times, although enforcement varies among coaches. Approaches such as minimum playing time per match or rotational substitutions are used to balance development and fairness.



Social events, tournament traditions, and special events. The club fosters camaraderie through events such as a winter camp, where children experience daily life as professional players through video analysis and position-specific training. The U10-U15 teams travel to Sweden in the summer for an international tournament, reinforcing community, peer learning, and social development.

Parents play an essential role in the club culture. They socialize at the Bistro terrace during "Extra Play" sessions, reinforcing a strong community bond. The club actively encourages positive sideline behavior and supports parents in understanding their role in fostering a healthy sports environment.

Club Culture

The club's culture is characterized by a friendly tone and open communication among stakeholders, fostering a cohesive and inclusive environment. Coaches engage in discussions on football-specific issues, such as the relative age effect, demonstrating an ongoing commitment to knowledge sharing and best practices. The club's tradition and social cohesion are further reinforced through symbolic rituals, such as the club's battle cry, which marks the start of each training session, and community-wide events, including Mardi Gras celebrations and summer parties. These elements contribute to the club's identity as an intergenerational institution where a strong sense of continuity is evident. As noted in the 100th-anniversary book, "The great-grandchildren of a former first-team player have recently started playing at the club."

A key feature of the club's cultural paradigm is its commitment to community and player development over performance outcomes. Stakeholders emphasize equal opportunities, ensuring that all children, regardless of their backgrounds, can participate in a safe and supportive environment. This philosophy is reflected in initiatives such as Extra Play, which embodies the club's inclusive ethos. The youth chairman affirmed this commitment, stating, "You will not see teams with elite branding. It is just the club's logo. We are one club. "Through analysis of the club's practices, five core cultural assumptions were identified. First, unity and inclusivity are fundamental values, with peer learning actively promoted with role models playing a key role in fostering a culture of mutual support and guidance. The club maintains a nondiscriminatory approach, ensuring that financial constraints do not hinder participation. Second, efforts are prioritized over innate talent, and while recognizing natural abilities, the club's philosophy underscores the importance of structured training and long-term development in unlocking a player's full potential. Third, the primary focus of children's football is on skill mastery. Competitive outcomes, victories and defeats, are perceived as opportunities for growth rather than as defining measures of success. Coaches emphasize learning and improvement over immediate performance results. Fourth, continuous club development is essential to sustain success. The club actively pursues ongoing improvements to maintain a high-quality learning environment and aims to achieve recognition as a DFA Children's club. Fifth, reciprocity is central to the club's sustainability. The collaborative efforts of coaches, parents, and players are crucial in maintaining a positive and development-focused environment.

The club's developmental philosophy was further reinforced by its approach to successful measurement. Instead of evaluating progress through youth competition, the club takes pride in fostering enjoyment and engagement among its members. This perspective is encapsulated in its online presence, where emphasis is

placed on children's experiences and enjoyment rather than match results.

Process - cultures - outcomes

The preconditions, process, and culture create an outcome in team/individual development and the environment's success.

Individual and team development. The club prioritizes long-term growth over short-term success, emphasizing broad skill development, autonomy, and social interaction during training sessions. One observed session involved children freely dribbling, passing, or shooting, with coaches encouraging exploration and decision-making on the children's own terms. The club also actively supports multi-sport participation, considering it beneficial for overall development, and accepts absences from training due to other activities, thereby promoting a balanced and diversified approach to youth sports.

Discussion

This study contributes to the literature in the HEA by applying it to a new context, a CFE. Identifying the specific features of a CFE is a first step towards distinguishing CFEs from ATDEs. Using the HEA framework, we examined a well-functioning CFE and identified the key factors contributing to its success. The CFE investigated in this study was characterized by the following features: (a) finacial resources and good collaboration with the Danish Football Association, enabling quality facilities, coach education, and event organization. (b) Strong local community ties with multigenerational engagement fostering a sense of belonging. (c) Equal opportunities for development, ensuring that all children, regardless of skill level, receive training and play time. (d) A familiar atmosphere fostering a giving-back mentality, where former players return as coaches or volunteers. (e) Competent and educated coaching teams led by a Child Development Coach with expertise in holistic youth development. (f) A mastery-oriented environment that prioritizes joy, play, and learning over competition and results.

A Children's Development Environment is not a Talent Development Environment

We assumed that a CFE would share some similarities with successful ATDEs but also exhibit key differences due to its unique purpose, structure, and developmental focus. In many ways, the present CFE uses many of the principles that have been found in studies of ATDEs but does so even more clearly. Both environments prioritize forming training groups based on skill levels, friendships, and cognitive development (Henriksen et al., 2010a, 2010b). They provide varied training experiences to promote skill development, social relationships, and a sense of togetherness (Larsen et al., 2013, 2020; Ryom et al., 2020). Additionally, both emphasize psychosocial development, encouraging responsibility, teamwork, and autonomy (Henriksen, 2010; Aalberg & Sæther, 2016). However, key differences also emerged. While ATDEs typically cater to older athletes (16-19 years old), the CFE focuses on pre-pubertal children, whose psychological and social needs differ significantly (Wilson et al., 2024). The CFE was even less concerned with winning matches and more with supporting diversification through multi-sport participation and with mastery (Henriksen et al., 2010a, 2011; Ryom et al., 2020). Another notable distinction concerns the role models. ATDEs often integrate elite athletes as role models, promoting a culture of knowledge sharing and openness (Henriksen et al., 2010a, 2011). In



contrast, the CFE integrates youth and senior players into coaching teams, fostering horizontal mentorship rather than vertical senior-to-novice mentorship. Finally, while both types of environments rely on parental support (Visek et al., 2013; Larsen & Alfermann, 2017), the CFE relies much more on parental involvement, informs the parents more, and strives to create spaces where parents like to spend time and can engage in club activities (the Bistro). In this particular case, parents were not only supporters, but also active contributors, integrated into the sports domain as part of the developmental ecosystem.

A Children's Environment Promotes Positive Youth Development.

Recent research suggests that PYD may be an outcome of a well-functioning sports environment (Rossing et al., 2020; Kinoshita et al., 2023). Positive Youth Development refers to the holistic development of young athletes, emphasizing personal growth, social skills, and life-skill transfer beyond sports (Larsen & Gould, 2019). The concepts of the CFE and PYD share a focus on creating an optimal environment for children to learn and develop. With its grounding in the HEA, however, we propose the focus of CFE research is to provide rich descriptions of CFEs, whereas the purpose of PYD research is to explore mechanisms by which being part of a CFE promotes personal development. future research would therefore capatilize from more clearly bridging the two.

In the CFE, social factors such as autonomy support played a crucial role in fostering joy, engagement, and learning (Kaplan, 2018; Kinoshita et al., 2023). Children were encouraged to make their own decisions during matches and training, thereby promoting a self-determined and intrinsically motivated sports experience. This was reinforced by sideline rules that prohibit parents from directing their children's actions, instead requiring them to acknowledge and support decision-making processes. Additionally, coaches actively explained their training methods to facilitate positive parental involvement, a key factor in children's sustained engagement in sports (Rouquette et al., 2021). A defining feature of the CFE is its emphasis on deliberate play, peer learning, and a flexible training structure that adapts to skill levels, social dynamics, and mental readiness. These environmental elements encourage children to engage in spontaneous play before training sessions and on weekends, thereby reinforcing social bonds and intrinsic motivation. The features identified in this CFE, including well-educated coaching teams, peer-learning, deliberate play, flexible training groups, strong economic resources, local community collaborations, and social responsibility, align with findings from Rossing et al. (2020) on a successful U12 grassroots football environment. Their study highlighted key factors contributing to a high-quality children's sports environment, such as: PYD-oriented coaching, ensuring children's development beyond sports; high coaching quality with structured, yet adaptable training methods; player dedication reinforced by social support; strong team dynamics fostering a sense of belonging; access to proper facilities; community support from parents and volunteers; long-term development focus; free, unstructured football experiences; and tournament participation, providing meaningful competitive experiences. The present CFE study demonstrates a substantial overlap with these characteristics, reinforcing the idea that a well-structured CFE can serve as a foundation for PYD while maintaining its own distinct identity and developmental objectives.

The Holistic Ecological Framework as a Lens to Understand Children's Sport

Although the children participated in the CFE for only two to four sessions per week, a holistic ecological perspective remained a relevant lens to study the nature of a CFE. The environment extended beyond structured training as children actively engaged with the setting on their own initiative between sessions and matches. Accessibility of facilities allowed for spontaneous play, reinforcing intrinsic motivation. In addition, parental involvement was a defining feature of CFE. Parents not only supported the children's participation but were also eager to contribute to daily operations. To foster a shared developmental approach, the coaching staff and management prioritized communication with parents, ensuring that they understood the training curriculum and provided constructive sideline support. These are examples of how the HEA focus on describing the structure and culture of a specific environment can help us to understand the very nature of a particular CFE.

This study applied the ATDE and ESF models without modifications, which provided a comprehensive lens but may have overlooked certain child-specific features. A key challenge within ATDEs is balancing everyday life with school and sports, making the distinction between microand macro-levels critical (Henriksen & Stambulova, 2017). However, when examining CFE for children aged 9-12, connections within the mesosystem, such as interactions between coaches, parents, and peers, appear to play a more central role. Given that the CFE appears less complex than ATDEs (e.g., Larsen et al., 2013), future research should consider adapting working models to more accurately reflect children's developmental needs. A previous study in Dual Career Development Environments (Linnér et al. 2021) have demonstrated the benefits of tailoring theoretical frameworks, and we see value in a similar approach for children's sports environments. A particularly underexplored area in this study is multi-sport participation. Focusing solely on a single CFE does not fully capture a child's entire sports environment, which may include participation in other CFEs, given the recognized benefits of multi-sport participation in youth development (Côté et al., 2014, 2016), future HEA research should examine how clubs in unison promote or hinder this approach.

Applied Perspectives

Insights from this case study can guide practitioners in optimizing CFEs. To foster well-functioning CFEs, we recommend appointing a Child Development Coach or a team of coaches responsible for developing and maintaining the environment. The effectiveness of this CFE was shaped by several key factors, including education and mentorship of coaching teams, strong connections between environmental stakeholders, and a mastery-oriented climate that emphasized enjoyment and skill development. The findings of this study can inspire the design of future CFEs, reinforcing the importance of child-centered environments that differ from ATDEs. While ATDEs focus on nurturing world-class athletes, the CFE prioritize athletic skills, life skills, and community values. Given that grassroots clubs often rely on volunteer coaches, it is essential to provide proper education to implement a childcentered approach. This includes avoiding relative age effects, discouraging early specialization, and shifting away from a results-driven mindset, all of which can hinder longterm development (Bennike et al., 2020; Wilson et al., 2024). Employing a Child Development Coach ensured continuous training and mentorship. Beyond their technical coaching role, they play a crucial role in shaping and



maintaining the culture of the CFE. Practitioners seeking to establish sustainable CFEs may benefit from adopting an integrated leadership approach.

Conclusion

This study contributes to the literature by identifying the key characteristics of a well-functioning CFE and demonstrating the value of the HEA (Henriksen & Stambulova, 2023) in analyzing children's sports environments. By applying the HEA's models, including the ATDE and ESF models, this study provided an in-depth examination of the environment, culture, and success factors of the CFE. Structurally, the CFE was characterized by strong financial resources and a well-functioning coaching staff, ensuring stability and continuity in player development. Culturally, the environment was defined by an emphasis on equal opportunities, where all children had the chance to develop in a mastery-oriented climate focused on joy, play, and learning. One of the most influential success factors was the role of the Child Development Coach, who adopted a holistic approach to support both the athletic and personal growth of the children.

This study demonstrates that the ATDE and ESF models can be effectively applied to map and understand the characteristics of a well-functioning CFE. However, it also suggests that future research should adapt these models to better capture the unique dynamics of children's football environments for ages 9-12. The insights gained from this study may provide valuable guidance for practitioners seeking to create healthy, inclusive, and sustainable sports environments for children.

Conflicts of interest

The authors have no known conflict of interest to disclose.

References

- Atkinson, M. (2019). *Etnography*. Routledge Handbook of Qualitative Research in Sport and Exercise (pp. 49-61). Routledge.
- Aalberg, R. R., & Sæther, S. A. (2016). The talent development environment in a Norwegian top-level football club. Sport Science Review, 25(3-4), 159. Doi: https://doi.org./10.1515/ssr-2016-0009
- Bennike, S., Storm, R. K., Wikman, J. M., & Ottesen, L. S. (2020) The organization of club football in Denmark a contemporary profile. Soccer & Society, 21:5, (pp. 551-571), doi: https://doi.org/10.1080/14660970.2019.169047
- Braun, V., Clarke, V. & Weate, P. (2016). *Using thematic analysis in sport and exercise research.* In B. Smith & A. C. Sparkes (Eds.), Routledge Handbook of Qualitative Research in Sport and Exercise (pp. 191-205). London: Routledge.
- Braun, V., & Clarke, V. (2022). Thematic Analysis A Pratical Guide. London: Sage Publications.
- Côté, J., Baker, J., & Abernethy, B. (2007). Practice and play in the development of sport expertise. G.

- Tenenbaum & R. C. Eklund (Eds.), *Handbook of sport psychology* (pp. 184–202). John Wiley & Sons, Inc.
- Côté, J. & Gilbert, W. (2009). An Integrative Definition of Coaching Effectiveness and Expertise.

 International Journal of Sports Science & Coaching
 INT J SPORTS SCI COACH. 4. (pp. 307-323). doi: https://doi.org/10.1260/174795409789623892.
- Dansk Boldspil-Union. (2018). *Klublicensmanual* 2022/2024, ungdom drenge. https://www.dbu.dk/turneringer-og-resultater/klublicens/ungdom-drenge/
- Dansk Boldspil-Union. (2021a). DANSK BØRNEFODBOLD SUNDE & GLADE BØRN. Report. https://www.dbu.dk/media/m0pjujhf/020221_strategi_rapport_boernefodbold_final_x.pdf
- Dansk Boldspil-Union (2021b, December 15).

 Børneudviklingtrænerens kernefunktion. DBU.

 https://www.dbu.dk/boern-ogunge/boernefodbold/strategi-for-danskboernefodbold/hvad-er-enboerneudviklingstraener/boerneudviklingtraenere
 ns-kernefunktion/



- Dansk Boldspil-Union. (2022a). DBU's Klublicenssystem.

 LICENSMANUAL FOR UNGDOM DRENGESÆSON
 2022-2024. E-book. Kan hentes via

 https://www.dbu.dk/turneringer-ogresultater/klublicens/ungdomdrenge/#:~:text=Klublicensmanual%202022/20
- Dansk Boldspil Union (2025). *DBU's Børneudviklingstræner.* DBU.

 https://www.dbu.dk/uddannelse/traeneruddannel
 se/oevrigetraeneruddannelser/boerneudviklingstr
 aener/
- Erikstad, M. K., Johansen, B. T., Johnsen, M., Haugen, T., & Côté, J. (2021). "As many as possible for as long as possible"—A case study of a soccer team that fosters multiple outcomes. The Sport Psychologist, 35(2), 131-141. Doi: https://doi.org/10.1123/tsp.2020-0107.
- Flyvbjerg, B. (2004). Five Misunderstandings About Case-Study Research. Sociologisk Tidsskrift 12, (pp. 117-142). Universitetsforlaget. doi: https://doi.org/10.4135/9781848608191.d33.
- Güllich, A., Macnamara, B. M., & Hambrick, D. Z. (2021).

 What Makes a Champion? Early Multidisciplinary
 Practice, Not Eatly Specialization, Predicts WorldClass Performance. Association for Psychology
 Science.
 doi:
 https://doi.org/10.1177/1745691620974772.
- Hammersley, M. & Atkinson, P. (2007). *Etnography Principles in Practice.* (3rd ed.). Routledge.
- Henriksen, K., Stambulova, N., & Roessler, K. K. (2010a).

 A Holistic approach to athletic talent development environments: A successful sailing milieu.

 Psychology of Sport and Exercise, 11. (pp. 212–222).

 doi: https://doi.org/10.1016/j.psychsport.2009.10.00
 5.
- Henriksen, K., Stambulova, N., & Roessler, K. K. (2010b). Successful talent development in track and field: Considering the role of environment. Scandinavian Journal of Medicine and Science in Sports, 20. (pp. 122–132). doi: https://doi.org/10.1111/j.1600-0838.2010.01187.x.
- Henriksen, K. & Stambulova, N. & Roessler, K. (2011).

 Riding the Wave of an Expert: A Successful Talent
 Development Environment in Kayaking. Sport
 Psychologist. 25. (pp. 341-362). Doi: https://doi.org/10.1123/tsp.25.3.341.
- Henriksen, K., Larsen, C. H., & Christensen, M. K. (2014).

 Looking at success from its opposite pole: The case of a talent development golf environment in Denmark. International Journal of Sport and Exercise Psychology, 12(2), 134-149. Doi: https://doi.org/10.1080/1612197X.2013.853473.
- Henriksen, K. & Stambulova. N. (2017). Creating Optimal Environments for Talent Development. Routledge Handbook of Talent Identification and Development in Sport (pp. 271-284). Routledge.
- Hodge, K. & Sharp, L. (2019). *Case studies.* Routledge Handbook of Qualitative Research in Sport and Exercise (pp. 64-74). Routledge.
- Knight, C. J., Berrow, S. R., & Harwood, C. G. (2017).
 Parenting in sport. Current Opinion in Psychology,
 16, 93-97.
 https://doi.org/10.1016/j.copsyc.2017.03.011.
- Kvale, S. & Brinkmann, S. (2015). *Interview. Det kvalitative forskningsinterview som håndværk.* (3rd ed.). Hans Reitzels Forlag.
- Larsen, C. H., Alfermann, D., Henriksen, K., & Christensen, M. K. (2013). Successful talent development in

- soccer: The characteristics of the environment. Sport, Exercise, and Performance Psychology, 2(3), 190. Doi: https://doi.org/10.1037/a0031958.
- Larsen, C. H. & Alfermann, D. (2017). *Understanding Dropout in the Athlete Development Process.*Routledge Handbook of Talent Identification and Development in Sport (pp. 325-335) Routledge.
- Larsen, C. H., Storm, L. K., Pyrdol, N., Sæther, S. A., & Henriksen, K. (2020). A world class academy in professional football: The case of Ajax Amsterdam. Dansk Idrætspsykologisk Forum.
- Maaløe, E. (2004). *In case of case research.* (rev.ed). Aarhus School of Business.
- Martin, L. J., Carron, A. V., Eys, M. A., & Loughead, T. M. (2012). Development of a cohesion inventory for children's sport teams. Group Dynamics: Theory, Research, and Practice, 16(1), 68–79. https://doi.org/10.1037/a0024691.
- Ryom, K., Ravn, M., Düring, R., & Henriksen, K. (2020). Talent development in football—A holistic perspective: The case of KRC Genk. International Sport Coaching Journal, 7(3), 360-369. Doi: https://doi.org/10.1123/iscj.2019-0045.
- Smith, B. & Sparkes, A. C. (2019). *Interviews. Qualitative interviewing in the sport and exercise.* I: Routledge Handbook of Qualitative Research in Sport and Exercise (pp. 103-123). Routledge.
- Stambulova, N. & Wylleman, P. (2015). *Dual career development and transitions*. Psychology of Sport and Exercise. 21. 1-3. doi: https://doi.org/10.1016/j.psychsport.2015.05.00
- Stambulova, N., Ryba, T. & Henriksen, K. (2020). Career Development and Transitions of Athletes: The International Society of Sport Psychology Position Stand Revisited. International Journal of Sport and Exercise Psychology. 19. doi: https://doi.org/10.1080/1612197X.2020.173783 6.
- Visek A.J., Achrati S.M., Mannix H., McDnnell K., Harris B.S., DiPietro L. (2015). *The fun integration theory: toward sustaining children and adolescents sport participation*. J Phys Act Health. Doi: https://doi.org/10.1123/jpah.2013-0180.
- World Medical Association (2024). World Medical Association Declaration of Helsinki: ethical principles for medical research involving human participants. Epub https://www.wma.net/policies-post/wma-declaration-of-helsinki/
- Wylleman, P., & Lavallee, D. (2004). A Developmental Perspective on Transitions Faced by Athletes. In: M. R. Weiss (Ed.). Developmental sport and exercise psychology: A lifespan perspective (pp. 503–523). Fitness Information Technology.
- Wylleman, P., Reints, A., & De Knop, P. (2013). *A developmental and holistic perspective on athletic career development.* In: P. Sotiaradou, & V. D. Bosscher (Eds.), Managing High Performance Sport (pp. 159-182). (Foudations of Sport Management). New York: Routledge. *Teaching & Learning Practice*, 12(2), 5.