

# **Holistic and Ecological Approach to Talent Development: A Turkish Volleyball Setting.**

Sarp Kiper

Master's Thesis  
Sport and Exercise Psychology  
Faculty of Sport and Health Sciences  
University of Jyväskylä  
Spring 2024

## TIIVISTELMÄ

Kiper, S. 2024. Holistinen ja Ekologinen Lähestymistapa Lahjakkuuden Kehittämiseen: Turkkilainen Lentopalloympäristö. Liikuntatieteellinen tiedekunta, Jyväskylän yliopisto, Sport and Exercise Psychology pro gradu -tutkielma, 74 s.

Holistinen ja ekologinen lähestymistapa urheilun lahjakkuuden kehittämiseen korostaa kokonaisympäristön merkittävää vaikutusta urheilijan kasvuun. Tämä viitekehys ehdotettiin ottamaan huomioon ympäristön ja urheilullisen lahjakkuuden kehittämisen kokonaisvaltaisen luonteen, siirtäen painopisteen yksittäisistä urheilijoista. Aiemmissä tutkimuksissa eri urheilulajeissa on tutkittu menestyksekkäitä ympäristöjä holistisesta ja ekologisesta näkökulmasta. On ehdotettu, että menestyksekkäät lahjakkuuden kehitysympäristöt ovat niitä, jotka saavuttavat korkeita tasoja tuottaessaan senioriurheilijoita nuorisojoukkueistaan. Nämä tutkimukset ovat osoittaneet, että vaikka menestyksekkäät ympäristöt ovat ainutlaatuisia, niillä on myös yhteisiä menestystekijöitä kehittyvien urheilijoiden siirtyessä eliittitasolle. Tämä tapaustutkimus tarkasteli mies- ja naisurheilijoiden lahjakkuuden kehittämistä turkkilaisessa lentopalloseurassa, nimittäin Arkas SK:ssa. Seuralla on ollut menestyksenkäs historia akatemiapelaajien siirtymisessä senioriammattilaislentopalloon. Ensisijaiset tiedonkeruumenetelmät olivat osallistujien päivittäisen ympäristön havainnointi, haastattelujen tekeminen ja asiaankuuluvien asiakirjojen analysointi. Arkas SK:n ympäristö keskittyi kehittyvien urheilijoiden ja valmentajien, henkilökunnan ja johtajien tiimin väliseen vuorovaikutukseen, ohjaten pelaajia heidän urheilumatkoillaan, tasapainottaen kaksoisuraa urheilussa ja akateemisessa maailmassa sekä edistäen vastuullisuutta harjoittelussa ja kunnioitusta muita kohtaan. Tulokset osoittavat, että ympäristöllä on monia keskeisiä piirteitä, jotka ovat yhteisiä muissa urheilulajeissa havaittujen menestyksekkäiden ympäristöjen kanssa, kuten 'psykososiaalisen kehityksen tuki' ja 'läheiset roolimallit'. Tulokset viittaavat siihen, että Arkas SK:n tapaus, jossa on uusi korkean intensiteetin urheilu ja maantiede, ei ainoastaan jaa aiemmin tunnistettuja piirteitä menestyksekkäiden ympäristöjen kanssa muista urheilulajeista, vaan tarjoaa myös uusia esimerkkejä ja näkökulmia menestyksekkäiden ja ainutlaatuisten ympäristöjen yhteisiin piirteisiin. Tämä puolestaan osoittaa holistisen ja ekologisen lähestymistavan laajemman yleistettävyyden ja sovellettavuuden eri maantieteellisissä ja kulttuurisissa yhteyksissä.

Avainsanat: urheilulahjakkuuden kehittäminen, holistinen ja ekologinen lähestymistapa, lentopallo, tapaustutkimus.

## ABSTRACT

Sarp Kiper, 2024. Holistic and Ecological Approach to Talent Development: A Turkish Volleyball Setting. Master's Thesis in Sport and Exercise Psychology. Faculty of Sport and Health Sciences, University of Jyväskylä. 74 p.

The holistic and ecological approach in talent development in sports underscores the significant influence of the overall environment on an athlete's journey of athletic growth. This framework was proposed to account for the environment and the holistic nature of athletic talent development shifting the focus away from individual athletes. Previous research in different sports has explored successful environments from a holistic and ecological perspective. It is suggested that successful talent development environments are those that achieve high levels of accomplishment in producing senior athletes from among their youth teams. These studies indicated that while successful environments are unique, they also possess common success factors in transitioning developing athletes to the elite level. This case study examined the athletic talent development of male and female athletes in a Turkish volleyball club, namely Arkas SK. The club has a successful track record in transitioning academy players to senior professional volleyball. The primary methods for data collection include observing participants in their daily environment, conducting interviews, and analyzing relevant documents. The environment of Arkas SK revolved around the interaction between the developing athletes and a team of coaches, staff members, and managers guiding players in their athletic journeys, balancing dual careers in sport and academics, and fostering accountability for training and respect for others. The results indicate that the environment shares many key features with successful environments observed in other sports such as 'support for psychosocial development' and 'proximal role models.' Results suggest that the case of Arkas SK with a new high intensity sport and geography, not only shares previously identified features with successful environments from other sports, but also provides new examples and perspectives to the shared features of successful and unique environments. In turn showing the wider generalizability and applicability of Holistic and Ecological Approach in different geographies and cultures.

Keywords: athletic talent development, holistic and ecological approach, volleyball, case study.

# TABLE OF CONTENTS

## TIIVISTELMÄ

## ABSTRACT

1 INTRODUCTION .....	5
1.1 Holistic Ecological Approach.....	6
1.2 ATDE Working Model .....	7
1.3 ESF Working Model .....	8
1.4 Bioecological Theory.....	8
1.5 Systems Theory.....	12
1.6 Organizational Culture.....	13
2 LITERATURE REVIEW .....	15
2.1 Definition and Criterion of Success .....	15
2.2 Training Groups with Supportive Relationships .....	16
2.3 Proximal Role Models .....	17
2.4 Integration of Efforts .....	19
2.5 Support for Development of Psychosocial Skills .....	19
2.6 Training that Allows for Diversification ....	21
2.7 Focus on Long Term Development .....	22
2.8 Strong and Coherent Organizational Culture .....	24
2.9 Gender Data Gap .....	25
3 PURPOSE OF THE STUDY .....	28
4 METHODOLOGY .....	29
4.1 Participants .....	29
4.2 Procedure .....	30
4.3 Analysis .....	30
4.4 Case Study and Selection of Arkas SK.....	33
4.5 Participant Observation .....	36
4.6 Document Analysis.....	38
4.7 Interviews and Qualitative Data.....	38
5 RESULTS .....	41
5.1 Training Groups with Supportive Relationships.....	41

5.2	Proximal Role Models.....	43
5.3	Support of Sporting Goals by the Wider Environment.....	44
5.4	Support for Development of Psychosocial Skills.....	47
5.5	Training That Allows for Diversification.....	49
5.6	Focus on Long Term Development.....	50
5.7	Integration of Efforts.....	51
5.8	The ESF Empirical Model of Arkas SK.....	54
6	DISCUSSION.....	55
6.1	Practical Implications .....	60
6.2	Future Research .....	61
6.3	Limitations.....	61
6.4	Conclusion.....	60
7	REFERENCES.....	63

## 1. Introduction

There are two main approaches to viewing athletic talent. The *talent identification approach* (Baker et al., 2017) is founded on the belief that there is a natural store of young talent and a systematic method of assessing and selecting these talents will lead to a more efficient utilization of resources (Howe, Davidson, & Sloboda, 1998). On the other hand, the *talent development approach* (Ford & Williams, 2017) focuses primarily on the quantity and the quality of training necessary to achieve elite level performance (Côté et al., 2009). However, not all talented athletes successfully make it to professional level, many factors influence the attainment of potential (Malina et al., 2017). There is a poor predictive validity between youth performance and professional success which is highlighted in Bolloom's (1985) statistics where less than 10% of successful elite adults were at performance levels predicting their adulthood success at the ages of 11 or 12. The main reason for this negative correlation in volleyball is thought to be the different rates of maturation among children (Sturm & McGown, 2012). Hence, the importance of the athlete-environment relationship becomes more important, especially among the four steps of talent selection process in volleyball, namely, talent detection, talent identification, talent development, and talent confirmation (CEV, 2022).

Within the talent development domain, the main step of talent selection process for this study, researchers have put importance on the person-environment relationship for decades. Examples of this relationship are Talent development phases (Bloom, 1985), The differentiating model of giftedness and talent (DMGT; Gagné, 2013), communities of practice (Wenger, 1998), and the influence of family (Côté, 1999). This type of research recognizes that the process of development does not happen in isolation from the environment (Davids et al., 2017). Therefore, it is crucial that researchers on talent development consider the bidirectional adaptation that occurs between the developing athletes and their surroundings. This type of adaptation is thought to have a greater effect in situations where the environment is stable and advantageous (Bronfenbrenner, 1999). Araújo et al., (2010), therefore, proposed talented athletes may be those who have developed exceptional abilities to interact effectively with their surroundings. Consequently, athletic talent development environments (ATDE) will have varying degrees of success in guiding developing athletes to professional level (Henriksen & Stambulova, 2017). However, while holistic ecological approaches (HEA) mainly revolve around the *talent development*

*approach*, it is crucial to not forget to involve the crucial elements of *talent discovery approach*. The so-called opposing approaches of *talent discovery* and *talent development* can be viewed to be integrated within HEA as it centers around how the athletic environment governs the balance of these two approaches along with focusing on the environment's identity created by this balance.

### 1.1 Holistic Ecological Approach

The Holistic-Ecological Approach (HEA) has been a significant development in the field of talent development in the past decade. HEA advocates for a shift in research attention from the individual athlete to the developmental context, the environment in which the young athlete develops (Henriksen, 2010; Henriksen et al., 2010a, 2010b, 2011). HEA is expanded upon the idea of exploring the surroundings or circumstances in which athletes grow and evolve (Araújo et al., 2010; Martindale, 2005). Generally, this type of research centers on the environmental focuses on three different approaches (Li et al., 2014). Firstly, 'all aspects of the coaching situation' (Martindale, 2005, p. 354). Second, it may emphasize the transformation process of developing aptitude into exceptional abilities over a long period of time in a specific domain (Gagné, 2011). Lastly, the following ecological definition of athletic talent development is proposed by Henriksen and Stambulova (2017):

“... the progressive mutual accommodation that takes place between an aspiring athlete and a composite and dynamic sporting and non-sporting environment that supports the development of the personal, psycho-social and sport-specific skills required for the pursuit of an elite athletic career (p. 272)”.

HEA was developed in part to respond to the demand for research on talent development in sports guided by a theory concerning ecological perspectives. Therefore, the focus point of HEA becomes the whole environment of the developing athlete including the sport context and non-sport context, and it proposes that certain environments are more successful in their ability than others in terms of guiding junior athletes in their transition to becoming elite senior athletes (Henriksen & Stambulova, 2017). The HEA has overtones for redefining the fundamental aspects of talent research. Mindful of HEA, Henriksen (2010) proposed a new and an ecological definition of athletic talent as a collection of competencies and skills shaped through innate and predispositional as well as extensive interactions with the environment – such as training and competitions – along with the ability to leverage environmental strengths, compensation for weaknesses, and actively contributing to



environment's advancement. In line with HEA and the previous definition by Henriksen (2010) athletic talent development is defined as the continuous reciprocal adaptation present between a striving young athlete and a complex, ever- evolving sporting and non- sporting contexts, positively effecting the development of personal, psychosocial, and sport- specific abilities required for pursuing an elite athletic career.

HEA is built around two working models (Feddersen et al., 2021). Namely, the *Athletic Talent Development Environment Model* and the *Environmental Success Factors Model*, and is inspired by the bioecological theory (Bronfenbrenner, 2005), systems theory (McMahon & Patton, 1995) and organizational culture (Schein, 1990). In conjunction, these models help researchers 'in viewing ATDEs as systems with certain functions, components, structure and development' (Henriksen et al., 2010a, p. 213).

### 1.2 Athletic Talent Development Environment (ATDE) Working Model.

ATDE is built around and inspired by two theories, the bioecological theory (Bronfenbrenner, 2005), and systems theory (Lewin, 1936). In conjunction, these theories help researchers 'in viewing ATDEs as systems with certain functions, components, structure and development' (Henriksen et al., 2010a, p. 213). Within HEA, the first working model, namely ATDE is presented as a useful tool for explaining how the various components and relationships within a talent development environment work together (Henriksen et al., 2011). Bioecological theory inspired by Ecological Psychology (Bronfenbrenner, 1979) and the systems theory (Lewin, 1936) make the underpinnings of the ATDE working model respectively helping researchers viewing athletes as embedded in a nested environment ranging from micro to macro levels (Henriksen & Stambulova, 2017). Previous studies on the HEA to talent development have a clear inconsistency in their references to the underpinning theory in relation to the ATDE working model (Feddersen et al., 2021). Research on HEA has used Bronfenbrenner's (1979) work (Aalberg & Sæther, 2016; Henriksen et al., 2010a), Bronfenbrenner's (1994) work (Seanor et al., 2017), Bronfenbrenner's Bioecological theory (2005) (Henriksen et al., 2011), and the biological framework by Kerbs (2009) (Henriksen et al., 2014; Larsen et al., 2013). Furthermore, five papers (Flatgård et al., 2020; Haukli et al., 2021; Henriksen et al., 2010b; Larsen et al., 2020; Mathorne et al., 2020; Ryom et al., 2020) cited different underpinning theories. In line with Feddersen's (2021) suggestion this study uses the Bioecological framework (Bronfenbrenner, 2005) as an underpinning theory for the ATDE working model

### 1.3 Environmental Success Factors (ESF) Working Model

The second working model within the HEA to talent development is presented as the environmental success factors (ESF) (Henriksen et al., 2010b). The ESF working model places significant emphasis on the *organizational culture* as a key aspect, and it is a crucial element in thriving environments (Henriksen et al., 2010a). Schein's (1990, 2010) work on organizational culture is consistently used as the underpinning theory of the ESF working model throughout the HEA to talent development research. The model begins with preconditions, human, material, and financial resources supplied by the environment. To illustrate the model views a successful environment as one that can provide the developing athlete with the right personnel such as coaches and health professionals, sufficient materials such as training equipment and facilities, and financial resources. An example to the latest can be the financial burden families can go under to support their children in the sport they are developing in. If the family struggles financially they will be less capable to support their child in their pursuit of elite athletic career. A club who can ease the financial burden of the families can allow the families to show more support to their children in their athletic careers. Subsequently, the model demonstrates how daily routines and processes such as training and competitions lead to three outcomes: individual development and achievements of athletes including psycho-social competencies and athletic skills, team achievements, and the further development of the organization and its culture.

### 1.4 Bioecological Theory

Scholars studying human development began investigating the beginnings of development during early infancy and prenatal stages in the 1970s. These researchers also began to differentiate between elements of development that were relatively impervious to the influence of the environment and those that were more susceptible (Krebs, 2009). In the 1980s, human development research and theory went through a transformation, giving rise to new perspectives, one of which was the ecological approach. The ecological approach put emphasis on investigating how individuals adapt to the changes in the environment they encounter throughout their lifetimes (Clarke-Steward et al., 1985).

Bronfenbrenner and Crouter (1983) put forth an examination of existing models as well as the formulation of two novel ones: the person- process- context and chronosystem paradigm which were subsequently integrated by Bronfenbrenner (1995) into the Process-

Person- Context- Time (PPCT) model, later, termed as the Bioecological Model. This research paradigm was designed to be used as a theoretical framework to help explain research on developmental processes as well as contextual influences, aiming to comprehend the outcomes of the interaction between development and its surrounding context (Krebs, 2009).

Bronfenbrenner and Morris (2006) further explain that Bioecological Model includes specific types of interactions between the organism and its environment, Bronfenbrenner and Morris calls this interaction ‘proximal processes’, operating continuously and considered as the main drivers of human development. However, characteristics of the developing individual, the immediate and broader environmental contexts, and the timeframes during which the proximal process occur are believed and demonstrated as the factors that significantly vary the development for each individual. Yet another characteristic that causes differences in development was introduced earlier to the Bioecological Model, namely “demand” (Bronfenbrenner & Morris, 1998). “Demands” or the motivational force of the social environment could cause responses that can be either facilitative (positive) or hindering (negative) to the functioning of proximal processes (Bronfenbrenner & Morris, 2006, p.796). The authors created the terms developmentally- generative to explain responses from the environment that can be positive to proximal process and developmentally- disruptive to explain the negative effects of environmental factors on proximal processes. In a developmentally- generative scenario athletes would demonstrate willingness to engage in group drills and exercises, actively supporting their teammates and contributing to the overall improvement of the team’s performance. Bronfenbrenner and Morris’ (2006) view is also represented in HEA to talent development in a success factor established in earlier studies with ‘training groups with supportive relationships.’ Athletes within training groups with supportive relationships or a developmentally- generative scenario show positive disposition towards teamwork and collaboration. Conversely, in a developmentally- disruptive scenario, athletes would exhibit a negative disposition towards teamwork. They may resist participating in team drills or show little to no cooperation with their teammates. Furthermore, “resources” constitute biopsychological liabilities and assets that influence the capacity of the organism to engage effectively in proximal processes” (Bronfenbrenner & Morris, 2006, p.812). Once again, this category is also divided into its positives and negatives. Genetic defects, low birth weight, and physical handicaps may be considered as examples of negative resources (Krebs, 2009). An example of a negative resource can be

obesity in sports such as gymnastics and figure skating. On the other hand, a tall volleyball player has their height as a positive resource to be selected for the team. Most of the research in sports sciences, focusing on the personal characteristics of athletes has analytical designs, in which, typically the researchers investigate one dependent variable, such as motivation at a time (Dunn, 2000; Kavussanu & Roberts; 1996; Papaioannou, 1998; Seifriz et al., 1992; Vlachopoulos & Biddle, 1996). The bioecological model presents an opportunity to employ novel research designs for more effective investigations aimed to assess athletes' dispositions, classified by Bronfenbrenner as developmentally- disruptive or developmentally- generative categories.

Bronfenbrenner (1995) examined “time” once again by using two criteria. First, the historical period in which an individual lives, and second, the timing of biological and social transitions relative to culturally defined age, expectations, and opportunities across the lifespan (Bronfenbrenner, 1995). Bronfenbrenner's concept of time, particularly regarding historical period and timing, can be exemplified by the American boycott of the Moscow Olympic Games. This political action by the American government had a significant impact on all American athletes chosen to participate in the games. It illustrates how external events, occurring at specific points in time, can influence individuals' developmental experiences and opportunities (Krebs, 2009).

Although Bronfenbrenner's bioecological theory is not very popular among researchers of sports sciences there are studies designed to research multiple topics in sports psychology, mainly centering their focus on proximal processes, personal attributes of the athletes, structure of the environment, and dimensions of time (Krebs, 1995, 2003; Fiorese-Vieira, Vieira & Krebs; 1998; Fiorese-Vieira, 1999; Vieira, 1999; Bengoechea & Johnson, 2001; Copetti, 2001; Krebs & Sartori, 2003). When Bronfenbrenner introduced his *Bioecological Theory of Human Development* (Bronfenbrenner, 2005), he put forward new propositions to make clear the characteristics of the bioecological model. In his first proposition, he underscored the importance of “experience” as a crucial component of the model. When this proposition is looked under the development of a career in athletic talent, it becomes feasible to mitigate potential negative outcomes that are associated with early specialization in sports, such as burnout. Within the HEA perspective to talent development, this idea is represented in the success factor ‘training that allows for diversification,’ where sports organizations and academies provide developing athletes chances to sample different sports and include drills from different sports. Another proposition was strictly dedicated to

explaining how proximal processes impact human development. Examples such as learning new skills, engaging in athletic activities, nurturing others, and undertaking complex tasks were given to illustrate these proximal processes. This proposition holds significant potential as a guiding principle for creating programs aimed at developing athletic talent (Krebs, 2009). Bronfenbrenner (2005) proposed that for positive development to take place, individuals must actively participate in activities such as learning new sports. This underscores the importance of involvement in developmental process in the context of athletic talent development programs. A successful system for developing athletic talent should provide a diverse range of sports activities to make sure the inclusion of all children. Ignoring this proposition and subjecting young athletes to highly intensive and specialized training programs may increase the risk of jeopardizing a promising career in sports (Krebs, 2009). To apply Bronfenbrenner's model in understanding proximal processes within athletic talent development, it's crucial to consider his proposition that "over the life course, human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving biopsychological human organism and the persons, objects, and symbols in its immediate external environment" (Bronfenbrenner, 2005, p.5). Bronfenbrenner underscores the bidirectional interaction between individuals and their environment over time where the individual's actions influence the environment and vice versa through everyday interactions and activities individuals engage in within their environments, namely, proximal processes. Training, competition, coaching, and interaction with teammates are all proximal processes that a developing athlete engages in. These interactions, in turn, can provide the developing athlete with opportunities to develop their skills, physical abilities, psychological attributes (motivation, confidence, resilience), and knowledge of the sport. Lastly, influence of parents on children's participation in organized sports programs have been highlighted in numerous studies (Copetti, 2001; Andrighetto & Krebs, 2006). These studies show that a child's initial experience with exercise activities often begin with playing at home and carry forward with deliberate play and organized training (Ward et al., 2017) based on parents' decisions and expectations regarding their children's athletic careers.

Within the HEA to talent development, bioecological theory based on ecological psychology (Bronfenbrenner, 1979) influences researchers to observe the environment as a hierarchy of interconnected structures spanning from micro- environment (environments the athlete has direct contact with e.g. school, club, family, coaches etc.) to the macro-

environment (environments that effect the athlete without a direct contact e.g. sport federation, youth culture, media etc.). Furthermore, this perspective also views athletes as integrated within their surroundings (micro- and macro- environments).

### 1.5 Systems Theory

The systems theory framework (Patton & McMahon, 2006) of career development has been applicable in practice since its inception, particularly in the fields of career counseling and qualitative career assessment. Systems Theory Framework for career development (McMahon & Patton, 1995; Patton & McMahon, 2014) has sown considerable capability in bridging the perceived gap between theory and practice in the field of career development (Savickas & Lent, 1994). Systems Theory Framework (STF) has effectively provided a solid foundation for translating theoretical insight into practical application within career counseling. While STF offers help for practitioners, “it is the client who furnishes the specific intricacies of their journey” (McMahon & Patton, 1995, p.20). This statement lays the groundwork for constructivist methodologies in the field of career counselling, in which the clients are motivated to narrate their own experiences and construct their own realities, this type of constructivist methods has become widely promoted (McMahon et al., 2015). Within HEA case studies, this remark is incorporated in the data gathering with implementation of semi-structured interviews with developing athletes, coaches, and managers.

McMahon and Patton (2015) introduced examples of genograms such as, sociodrama, social atoms, structured peer interviews, adolescent- parent interviews based on STF which were the leading cause of STF application being so important. Moreover, the structured interviews underscored the significance of content and process of career development by utilizing different questions. Essentially, the questions starting with ‘what’ and ‘who’ centered on the contents of career development, while questions beginning with ‘how’ highlighted the process of career development. Using the STF perspective, the career development of various demographic groups has been examined, including Australian Aboriginals (Sarra, 1997), gay man and lesbians, individuals with disabilities, and gifted adolescents (Patton, 1997a). STF was also applied to the conceptualization of evolving organizational structures (Dunn, 1997), traditional practices in career development (McMahon, 1997a) and computer- assisted career counselling (Denham, 1997). Lim (1997) stated that STF was a useful tool in multicultural career counselling. McMahon et al. (2014) highlighted the efficacy of STF in terms of integrating theory with practice through its

emphasis on the individual in context approach, which underscores the framework's capability to explain the career development of clients with diverse backgrounds and in varied settings. Drawing from the principles of constructivist learning, enacted through experiential learning theory (Kolb, 1984), STF views individuals as learners emphasizing that individuals, amidst their interactions and experiences with their social and environmental contexts establish knowledge. This longstanding emphasis on experiential learning has been regarded as an important strength of STF (McMahon et al., 2015). Fundamentally, within the experiential learning theory, learning is seen as an ongoing and a comprehensive process that comes forth from individuals' experiences as they interact and adjust to the contextual influences they encounter where it becomes a process in which knowledge is actively created (Kolb, 1984).

STF emphasizes that the counselor must be aware of their own systems of influence while at the same time acknowledging the wider organizational and environmental systems within which they work at. Although STF was initially formulated for the realm of career counseling, its conceptual insight and pragmatic considerations are just as essential to qualitative career assessment and research tools, as well as their practical implementation for the practitioners (McMahon et al., 2015). In the light of HEA to talent development systems theory prompts researchers and practitioners to view the athletic environment as an intricate system comprising of nested structures. For example, in a youth volleyball academy, an example of the athletic talent development environment viewed through the lens of STF would include components within a sporting environment such as players, coaches, and facilities. Furthermore, the environment could include structural aspects such as scheduled matches and competitions, and functional aspects such as performance evaluation, team cohesion building, skill development, and talent identification and recruitment. Lastly, development could include the evaluation of player skills over time, continuous improvement of coaching techniques and training methods, and adaptation to changes in the competitive landscape. This view is represented in a success factor established in the earlier case studies of HEA in athletic talent development, namely, "support for long term development." Within this example of an environment consisting of nested structures, STF helps with the understanding of the volleyball academy as a complex system with various interconnected components, organized structure, specific functions, and ongoing developmental processes.

## 1.6 Organizational Culture

Schein's (1992) Organizational Culture Model is a widely recognized framework for understanding and analyzing organizational culture. The idea of organizational culture finds its roots in cultural anthropology and has gained prominence across different disciplines such as organizational behavior, management, and marketing (Harris et al., 2009; Homburg & Pflesser, 2000; Schein, 1992). Organizational culture involves the values and beliefs that establish the expected norms that guide the behavior of employees (Schein, 1992). Organizational culture is viewed as a potent but usually an unseen social force (Schein, 1992). Research indicates that it has a substantial effect on fields such as market-oriented behaviors and financial performance (Homburg & Plesser, 200), employee attitudes, and organizational effectiveness (Gregory et al., 2009). Furthermore, Zheng et al. (2010) found that organizational culture plays a more significant role compared to organizational strategy and structure when it comes to knowledge management and effectiveness. An organization's culture can exert profound influence on employees' behaviors, surpassing the impact of formal control systems such as authority and procedures (O'Reilly et al., 1991). Consequently, organizational culture serves as an effective tool for achieving desired organizational outcomes (Hogan & Coote, 2014). In a sport setting, an organization that values teamwork is more likely to see players supporting each other on and off the field and maintaining a positive attitude even during challenging times. This behavior is not only driven by the coaches and their instructions but also by the ingrained cultural norms of the team. Conversely, if the team's culture is characterized by individualism, players may prioritize personal achievements over team success and may behave in a way that undermines team cohesion. In both cases, the organization's culture plays a significant role in shaping the behavior of individuals within the sports team and ultimately may impact the team's performance and success.

Fundamentally, organizational culture includes the values communicated through norms, artifacts, and observed behavioral patterns within an organization (Schein, 1992). Values are seen as social principles and philosophies that guide behavior and establish a framework of routines and practices (Hatch, 1993). For example, values communicated by the management can influence coaches on which players to draft, sign, or cut from the team. Therefore, values offer a crafty mechanism through which management can exert influence (Mumford et al., 2002). Thus, managers can shape organizational culture by emphasizing values and corresponding norms for expected behaviors. This deliberate effort can form a culture that significantly influences employee behavior (Tellis et al., 2009). In turn, values



and norms can transform to artifacts (e.g., rituals and stories) and lead to desired behaviors such as teamwork.

Values make the foundation of norms and artifacts present in an organization, ultimately shaping the observed patterns of behavior within the employees of the organization (Hogan & Coote, 2014). Expectations of acceptable behaviors by the organization, such as norms of behavior carry the weight of social obligations or pressures experienced by the members of the organization (Schein, 1992). These organizational norms originate from values that are important to the organization (e.g., respect and fair play) and are expressed through artifacts such as team mascots or slogans. While norms are less visible, artifacts represent the most visible layer of organizational culture (Schein, 1992).

Organizational culture is seen as an important background theory to the ESF working model. Within the ESF working model, three levels are adapted as a sign of a successful athletic environment. *Cultural Artefacts* include clothing and team logos along with nonphysical manifestations such as myths, customs, and stories told. *Espoused Values* are the goals and standards the sporting organization shows to the world in the form of social values. Lastly, the *basic assumptions* can be considered as underlying reasons for actions consisting of no longer questioned beliefs and assumptions often taken for granted (Henriksen & Stambulova, 2017).

## 2. LITERATURE REVIEW

### 2.1 Definition and Criterion of Success

A recent meta-analysis found that *talent development environments* were classified as successful if they were associated with positive features such as supportive relationships and coherent culture (Feddersen et al., 2021). In the contrary, not-so-good things such as competing beliefs in long term development might be the indicators of unsuccessful talent development environments (Henriksen et al., 2011). *Successful talent development environments* are suggested to be those holding a successful report card in transitioning the members of their junior teams into the elite senior level. Moreover, a key criterion in the definition of success is the environments' ability in developing skills for young athletes to use when they face challenges in sports and other domains of life (Stambulova, 2009). However, very small percentage of young athletic talent proceed on to have successful professional careers. With this in mind, focusing on developing psychosocial skills that will benefit the young athletes in the face of adversity outside of the sporting domain also becomes

important, all the while still concentrating on skill acquisition and athletic talent development to give the best chance to strive to those young athletes with potential to become professional athletes. When the previous case studies of successful environments are compared it is apparent that each environment is unique. However, successful environments also share numerous features and factors (Henriksen & Stambulova, 2017). Below is the list of success factors established in previous case studies and their explanations. Presence of these success factors would entail that the case at hand, that of Arkas SK, is associated with positive features and a successful talent development environment from HEA perspective.

## 2.2 Training groups with supportive relationships

In prior studies, social support has been identified as a crucial factor in various key aspects within the realm of sports. Among these are managing competitive stress (Crocker, 1992), overcoming performance slumps (Madden et al., 1989), prevention of burnout (Gould et al., 1996), and facilitating recovery from injuries (Smith et al., 1990). Social support has also been linked with the underlying processes of performance (Rees & Hardy, 2004) as well as the outcomes of performance (Rees et al., 2007). Therefore, athletes have been urged to use social support with Rosenfeld and Richman (1997) advocating for the integration of support mechanisms within team-building framework. Social support is viewed as an intricate concept (Bianco & Eklund, 2001), involving both the structural and the functional dimensions of interpersonal connections (Cohen & Willis, 1985). Functional aspects are concerned with the specific roles fulfilled by these connections, or relationships (Cohen & Willis, 1985). Functional support can be categorized both as perceived support and received support, and research indicates that they may exhibit distinct associations with various outcomes such as self-confidence (Rees & Freeman, 2007).

In the field of sport psychology, research shows perceived support has positive correlations with self-confidence (Rees & Freeman, 2007), performance outcomes (Freeman & Rees, 2008), and different performance related aspects in tennis (Rees & Hardy, 2004). Cutrona and Russel (1990) found four dimensions of support, namely, emotional, esteem, informational, and tangible. These four dimensions align with those found in a later study by Rees and Hardy (2000) through interviews with elite athletes on their social support encounters.

Teammates, as well as friends, family and coaches build up the support network of athletes within their micro-environments. However, they may differ in the type of support

they provide (Rosenfeld et al., 1989). Rosenfeld et al. (1989) identified teammates as a major source of esteem support. Teammates of injured skiers are known to offer emotional, informational, and tangible support (Bianco, 2001). Furthermore, emotional support is seen as the most commonly accessible dimension of support from teammates, while tangible support is the least accessible (Corbillon et al., 2008). Further studies show social support as an important source of self-confidence (Bawde, 2007) as well as esteem support positively associating with self- confidence (Rees & Freeman, 2007).

Within social support research, stress and coping theoretical perspective stands as the predominant framework. Within this framework, social support is theorized to act as a moderator between outcomes such as self-confidence and stressful life events (Lakey & Cohen, 2000; Rees & Freeman, 2007). In particular, support is theorized to mitigate the negative impacts of stressful events (Cohen et al., 2000). Cohen et al. (2000) stated the possible direct effects of perceived support on health and performance outcomes as evidence of direct effects is presented with the establishment of a statistical main effect of support and performance related outcomes (Holt & Hoar, 2006). These direct effects are also known as main effects. Studying direct effects as well as stress-buffering effects could help identify the different circumstance in which the support offered by teammates may be of benefit to athletes. Stress- buffering effects would suggest teammate support mainly predicts self-confidence in situations where an athlete feels high stress, on the other hand, direct effects would indicate teammate support predicts self-confidence no matter the level of stress the athlete experiences (Freeman & Rees, 2010).

In the case of HEA to talent development, training groups with supportive relationships are considered to be those providing chances of inclusion in the training community and supportive relationships in spite of performance levels (Henriksen et al., 2010a). In the opposite pole, individualized training programs at an early age and performance as an inclusion criterion were listed as a feature of unsuccessful talent development environments (Henriksen & Stambulova, 2017). However, while in Henriksen et al. (2010b) this particular feature is considered as a factor influencing the strength of the environment, in Henriksen et al. (2014) it was deemed negative and ‘too inclusive.’ A more thorough description of the features leading to successful environments is needed to clarify the relationship of the features with the environment.

### 2.3 Proximal Role Models

Career theory puts forth the significance of role models in guiding individual development. Researchers in the fields of organizational behavior and career theory have proposed that presence of a role model of which one can identify with as crucial for individual growth and development (Erikson, 1985; Dalton, 1989). This perspective is promoted through popular media as well, attributing a successful career with having “good role models,” while associating “lack of role models” with career failure (Girona, 2002). Individuals are promoted to find role models that can assist them in achieving their goals (Lockwood & Kunda, 1997), while managers and organizational leaders are advised to serve as role models for their employees (Deal & Kennedy, 1982). The phrase “role model” encompasses two important theoretical concepts. Firstly, the notion of roles and individuals’ desire to identify with those who hold an important social role (Katz & Kahn, 1978). Role identification theories underscore the idea that individuals are drawn to others whom they see to share similarities with, especially regarding attitudes, behaviors, and goals (Kohlberg, 1963). Secondly, the concept of modeling that involves the psychological alignment of cognitive skills and behavioral patterns among an individual and an observer (Bandura, 1986). Modelling theories propose that individuals pay attention to models as models can be an accommodating tool in learning skills, tasks, and norms (Wood & Bandura, 1989). Thus, while role identification theories place more emphasis on the self-definitional and motivational aspects of role modelling (Flum, 2001), modeling theories prioritize the learning aspect.

Behavioral modelling emphasizes aligning certain actions and attitudes between a person and a model (Decker, 1980). Within the organizational setting, an example of behavioral modelling includes supervisors or trainers demonstrating a specific task skill (Rakestraw & Weiss, 1981). In a sport setting, behavioral modeling might involve a coach demonstrating the proper technique for a particular skill, such as shooting a basketball or executing a tennis serve. In both cases, the coach’s demonstration serves as a model for the athletes to observe and emulate, helping them learn and refine their own skills. Individuals can develop behavioral rules and patterns that are encoded into verbal representations or symbols by observing the actions of others, which can then be translated into guidelines for future behavior (Bandura, 1986). In essence, the core concept of the behavioral model of relationships revolves around helping individuals in learning specific tasks and skills through observing others vicariously.

This feature, in the perspective of HEA to talent development emphasizes the importance of training environments including current and prospective elite athletes to allow ‘passing of knowledge.’ Larsen et al. (2013) reported the lack of opportunities for youth athletes to get in contact with proximal role models as a pivotal problem that was, in general, part of soccer culture. Moreover, the strong presence of boundaries between elite athletes and prospects is identified as a feature of an unsuccessful environment (Henriksen & Stambulova, 2017). The presence of proximal role models is identified as the key factor in the success of young athletes in Henriksen et al. (2010a) and Henriksen et al. (2011).

#### 2.4 Integration of Efforts

Integration of Efforts focuses on the support received by the young athlete from anyone within their environment who acknowledges the athlete’s dedication to sport. *Integration of Efforts* focuses on the coordination and communication between the environmental components around the athlete such as the school, family and the team. Ryom et al. (2020) consolidated these two features into a single feature called *integration of efforts* as both features were considered to capture the same aspects of the talent development environment. In previous studies on athletic talent development environments in individual sports, the separation of the features was critical in understanding the environment’s success. Nevertheless, as team sports training is mostly organized as group events, the two features when separated lacks distinction as being responsible for the environmental success (Ryom et al., 2020).

#### 2.5 Support for the development of psychosocial skills.

Transforming innate or acquired talent into productive and innovative accomplishments requires more than exertion, access to expertise in a specific field, and extraordinary aptitude. At each phase of talent development, ranging from initial potential to greatness, non-cognitive and psychosocial abilities such as motivation and resilience play an important role in sustaining engagement and fostering advancement (Worrell, 2018). In high level sports, psychosocial competencies such as effectively managing anxiety and distractions, successful self-promotion, and possessing insider knowledge have become significant factors in attaining individual success (Jarvin & Subotnik, 2010). Accordingly, among accomplished athletes, those with greater innate talent but deficient motivation to commit to practice and preparation for competitions, or lacking the resilience to bounce back from poor performances are less likely to attain higher levels of performance (McNamara et

al., 2010a, 2010b). Experts in different domains, such as sports and organizational psychology, as well as experts such as coaches are capable of reporting crucial psychosocial skills relevant to success in their respective fields. Sport is one field where highly advanced mental skills programs are present (Portenga, 2019). However, even in sport the emphasis on fostering important psychosocial skills begins at a later stage in an athlete's career and is aimed at individuals who have already shown promise in attaining elite status (Olszewski-Kubilius et al., 2019).

Psychosocial competencies such as effective communication and emotional management are crucial for everyone to acquire as they become more important for navigating our progressively more interconnected and social environment. Psychosocial skills in talent development are crucial, however, specific psychosocial skills required and deemed significant may vary across different domains. This variation occurs not only in type but also in the timing of their necessity in an individual's development (Barabasi, 2018). For example, upon entering the conservatory, students experience a drop in confidence as they witness the talents of their peers. Thus, an important objective for both the individual and the conservatory is to build self-assurance to a level where they can impress the audience and their instructors with a captivating performance. The crucial psychosocial skills of self-promotion and understanding the dynamics of the field are thought to be the students in the later stages of the conservatory education, with varying degrees of success for different individuals (Subotnik & Jarvin, 2005). For talent development in sport, a similar model was developed with four stages, namely, foundations, talent, elite, and mastery (Gulbin et al., 2013), with point of references for psychosocial skills and athletic performance. Rudimentary experiences that support sport-specific physical skills are at the heart of the *foundational* step. Young athletes must show a dedication to a sport and be able to look forward to practice and competition to move on to the talent stage. The *talent* stage requires the athlete to show potential for high level performance in the chosen sport and psychosocial skills such as stress management and effective communication. In the *elite* stage athletes are expected to adapt to deliberate practice as well as self-monitoring and scheduling for expected levels of high performance and success. At the *mastery* stage regulating the outside factors such as fans, media and sponsors for performance gains as well as showing creative and risk-taking behaviors become central.

Support for the development for the psychosocial skills puts an emphasize on the opportunities young athletes get to improve their skills outside of the sporting domain, such

as, autonomy, responsibility, and commitment (Henriksen & Stambulova, 2017). Larsen et al. (2013) named support for the development of psychosocial skills as a key factor in the environmental success of the under- 17 Aarhus soccer team as the club put a heavy focus on the holistic development of the players, developing prospects as people and not just athletes. On the other hand disagreements and failures on naming the skills and competences that are needed to be developed is seen as the opposite pole of this feature as athletes learn that autonomy means not taking responsibility for one's own development (Henriksen et al., 2014).

## 2.6 Training that allows for diversification

In certain regions and countries, talented children in specific sports are chosen at a young age to participate in structured athletic talent development programs that focus on systematic training and formal competitions. This execution commonly referred to as early specialization involves children dedicating themselves to one sport (Malina, 2010). Additionally, this type of athletic talent development implementation focuses on participating in a significant volume and intensity of training specific to the sport as well as engaging in fierce competition such as tournaments, matches, or leagues dedicated to that sport (Baker et al., 2009).

Children often participate in sports outside of structured programs as well, engaging in informal activities focused on a single sport, occasionally supplemented by participation in other sports or recreational activities. These informal activities in sports are self-directed and pursued essentially for fun and enjoyment (Côté & Hay, 2002). Engaging in such self-directed activities is theorized to promote the enhancement of intrinsic motivation (Imtiaz et al., 2016) and decision-making (Roca et al., 2012). On the contrary to early specialization lies a pathway termed *early diversification*. *Early diversification* involves participating in different sports in informal settings as well as in formal settings. This approach delays specialization into a single sport until adolescence (Côté et al., 2007). Sports Science research seems to have reached a consensus in sports activity in childhood echoing the sentiments of George Orwell in his novel *Animal Farm* (1946), implying that 'early diversification good, early specialization bad.' Olympic Committee Consensus Statement on youth development (Bergeron et al., 2016) puts forth the same idea advising young athletes to steer clear of early specialization. Exploring multiple sports is more beneficial for overall development and

athletic ability, reduces injury risk, and provides more opportunities for children to identify the sport they find enjoyment and potential success in (Bergeron et al., 2016, p.845).

Many researchers have advocated for *early diversification* as the pathway to achieving professional status in adulthood all the while avoiding the adverse outcomes associated with early specialization such as burnout and higher injury risk (Baker et al., 2009; Wojtys, 2013; Côté & Hancock, 2016). Studies examining the developmental trajectories of young athletes in team sports at the highest professional level shows the most productive pathway is involvement in a combination of early diversification and early engagement strategies (Aust & Güllich, 2016; Berry et al., 2008). In other words, athletes reaching the elite level of team sports typically initiate their involvement during childhood where they take part in varying degrees of activity within their primary sport. However, during this developmental stage they also participate in other sports and sporting activities, mainly in other team sports. Additionally, research suggests participation in other team sports can act as a tool for transferring of skills between sports (Causer & Ford, 2014).

When considering developmental pathways, Ford et al. (2009) stated that early specialization in football leads to expert performance. Early specialization has grown more popular since then (Storm & Nielsen, 2012) in terms of more intense specialization starting at an earlier age (Aalberg & Sæther, 2016; Larsen et al., 2014). On the other hand, Henriksen et al. (2010) reported that successful environments are those promoting late specialization and early diversification, for example, 16 year old kayakers also competed in skiing events during winter and sailors with Olympic aspirations would sail different boats before aiming for a medal at one of them. This difference may be due to the culture, traditions, and the competitive levels of the sports. Football is a complex sport that requires a range of “open” and “closed” skills to be acquired in path to performance excellence (Ryom et al., 2020). Sports such as kayaking, skiing, and sailing do not require a number of changes in competitions and in training, therefore, usually involve “closed” skills such as the correct technique of a paddle stroke (Schmidt & Lee, 2011). In contrast, “open” skills are those where the athlete must change and adapt their performance on a given situation based on different variables such as the opponents, teammates, and surroundings (Schmidt & Lee, 2011). In this sense, volleyball training may require a diverse set of trainings to develop a variety of skills putting emphasis on early specialization.

## 2.7 Focus on long term development.



It is widely acknowledged that elite athletes achieve success due to the type of their training in terms of both quality and quantity. Training patterns for successful long-term development, however, remain a subject of debate in the literature. The extent and diversity of training across various stages of athletic career are debatable. The concepts of early specialization involving intense and domain specific practice starting at an early age and diversified involvements involving later specialization have been solidified in the frameworks of *deliberate practice* (Ericsson et al., 1993; Côté et al., 2007). Ericsson et al. (1993) stated that high levels of performance correlate with the amount of domain-specific deliberate practice undertaken where the development to high level performance is characterized as an input-output dynamic with the duration dedicated for deliberate practice at a specific domain is deemed an important input source. The authors saw early start to specialized practice as a prerequisite for maximization of deliberate practice. Ericsson et al. (1993) further stated that early advantage in performance would remain through all stages of development, especially if access to top-tier resources was present. On the other hand, many athletes participate in different sports during childhood and adolescence. Côté et al. (2007) stated that early diversification followed by specialization in later stages of athletic development was an alternate trajectory to athletic expertise.

Certain studies have found a negative correlation among time spent on primary domain sport and time allocated to other sports for successful athletes (Baker et al., 2003; Gagne et al., 2004), which suggests a certain level of functional role of participating in different sports. The diversification approach proposes that participation in a variety of sports during childhood can foster long-term athletic development by inhibiting the negative consequences of early specialization with positive motivational outcomes, minimizing the risk of burnout and overuse injuries, and cultivating a diverse set of transferable motor skills (Côté et al., 2009). Furthermore, Schmidt and Wrisberg (2000) have stated skills and physiological capacities such as strength and endurance across similar sports share commonalities in movement, perceptual, conceptual, and conditioning elements. Substantial amount of research has documented the practice histories of athletes at different stages of their careers detailing both volume of domain-specific practice as well as engagement in activities other than their primary sport (see; Güllich & Emrich, 2013). However, these results are inconsistent. For instance, while in some studies the volume of practice in either the domain sport (DS) or other sport (OS) activities correlated positively with success, in other studies this correlation is not observed. Moreover, among senior athletes, a consistent

impact of DS practice volume on distinguishing between world-class athletes and national-class athletes have not been reliably shown. On the other hand, analysis conducted on individual sports, namely, tennis, Nordic skiing, and swimming showed that world-class athletes distinguished themselves from national-class athletes by engaging in more OS activities during childhood and adolescence (Carlson, 1990; Ronbeck et al., 2009; Johnson, 2006).

In the perspective of Holistic and Ecological Approach to Talent Development ‘focus on long term development’ feature emphasizes the importance of focusing on long term development of athletes rather than short term success where prospective athletes are seen as ‘miniature elite athletes’ with harsh expectations such as no time to heal when injured and without the presence of age-appropriate amount of training (Henriksen & Stambulova, 2017). The lack of focus on long term development can lead to stress, burnout, and eventual dropout of the young athlete from the sport (Ford & Williams, 2017). Espoused focus on developing athletes for first team football at a professional level was indicated as a good use of long-term development in a successful talent development environment. On the opposite pole, a constant attention on young golfers’ “handicap” as a current measure of performance was given as an example for lack of *focus on long term development* in an unsuccessful talent development environment (Henriksen et al., 2014),

## 2.8 Strong and coherent organizational culture

Organizations play an important role as social mechanism structuring the relationships among individuals. They are socially constructed systems of human activity being goal-oriented and boundary- maintaining (Aydin & Ceylan, 2009). This perspective underscores the significance of social processes in shaping the emergence of organizations which fulfill the individuals’ needs through collaborative working.

Even though each individual possesses unique talents as well as personal preferences, individuals within the same organization often exhibit common behaviors and beliefs, which in turn assists the creation of cultural properties of each organization (Aydin & Ceylan, 2009). As members within an organization collaborate to fulfill their roles, the established culture fosters mutual understanding among members and enhances the effectiveness of teamwork. Schein (1992) stated organizational culture helps organizations with addressing internal integration and external adaptation challenges by fostering a shared pattern. When individuals become part of an organization they perceive and approach challenges within the

shared pattern of the organization. In sports, for example, during training sessions, players may be expected to demonstrate teamwork by supporting and communicating with their teammates. In matches, they are expected to show discipline by adhering to the team's tactical strategies and maintaining focus all throughout the game. As new players integrate into the team, they adopt these shared patterns of behavior and thinking. In turn, the new players contribute to the team's ability to adapt to external challenges such as facing different opponents with varying playing styles, and they integrate internally by fostering cohesion and unity among team members. Understanding how different members of the organization behave in similar circumstances can create a sense of unity among the members of the organization.

*Strong and coherent organizational culture* within the Holistic and Ecological Approach to Talent Development is characterized by the harmony between espoused values, artifacts, and basic assumption. This provides stability to the environment by creating a shared philosophy with collaboration (Mathorne et al., 2020) which is a key aspect of a supportive learning environment (Henriksen & Stambulova, 2017). In the opposite case, a disjointed and fragmented culture in which the espoused values, artifacts, and basic assumptions do not parallel the actions there will be a lack of common vision and uncertainty among players and coaches (Henriksen & Stambulova, 2017).

## 2.9 Gender Data Gap

Feminist theorizing in sports often investigates acts of equal opportunity such as Title IX of the Education Amendments (1972), a federal legislation prohibiting sex discrimination in athletics in the USA, and examines various barriers constructed by the patriarchal structures within different social contexts and discourses. These barriers may limit the female athlete to interact with their environment as effectively compared to male athletes. Lack of effective interaction with the talent development environment will hinder an athlete's development. Mönks (2000) suggested that the interaction between the environment and the hereditary personality factors dictates the development of talent and giftedness. Furthermore, more texts are starting to present the athletes interaction with their environment as an underlying attribute in talent (see; Baker et al., 2017). Presence of barriers that limit the athletic development of female athletes subsequently creates additional hurdles on the path to achieving elite-level performance, largely attributed to the environment shaped by the patriarchal structures.

There is a scarcity of research and resources available to support sport psychologists who are interested in addressing gender issues in their research. Additionally, the existing literature in sport psychology lacks comprehensive frameworks for understanding gender issues (Gill, 2001). In terms of previous research in *Holistic and Ecological Approach to Talent Development*, among the 12 studies that were part of Feddersen et al's (2021) qualitative meta-analysis, eight studies had only male participants, four had both male and female participants (heavily male participants), and there was no case study examining the environmental factors for developing female athletes only. Which shows an example of the limited nature of gender in sports psychology and talent development. Gender is an important aspect within sports and exercise environments, shaped by the complex and ever-changing social context. Integrating feminist viewpoints and relational analyses into sport psychology and talent development research would enhance our understanding in research and practice (Gill, 2001).

The limited presence of gender discussions within talent development is not a unique problem only present in *Holistic and Ecological Approach to Talent Development*, the lack of data pertaining to females is problematic in all fields of talent development. Evidence-practice is systematically reviewing the best available evidence to make informed decisions about practice (Titler, 2008). However, a notable challenge arises within sports where data collection tends to focus predominantly on the male experience while neglecting the female perspective. The underrepresentation of female athletes in research poses difficulties when generalizing data from male-dominated research domains to inform policies and practices relevant to female athletes (Curan et al., 2019). To support evidence-based practice in female youth sport, it is necessary to enhance the representation of young female athletes in talent development literature. The extensive literature regarding talent development in sports encompasses various types of research such as empirical studies (Forsman et al., 2016), theory driven papers (Davids et al., 2013), and talent development models (Bailey & Morley, 2006). These resources provide researchers, practitioners, and policymakers with comprehensive understanding of existing knowledge and guide them to make informed policy decisions. In light of this, the lack of female participants in the literature body becomes a mistake considering women make up roughly half of the population (The World Bank 2022). It is crucial to take into account the gender data gap with women's and girls' sport participation as more prominent and gender-specific talent development pathways are being established, such as The Football Association Girls' England Talent Pathway (The FA,

2017). Researchers often overlook gathering data from female athletes, however, findings from research are generalized to females without considering the implications of this generalization (Perez, 2019).

Lack of consideration of female experience in talent development can lead to inefficient development systems and suboptimal experiences for developing female athletes (Curan et al., 2019). The past two decades has produced substantial growth in literature examining various facets of talent development (Coutinho et al., 2016; Rongen et al., 2018; Bennett et al., 2019). This body of literature made advances in variety of factors when it comes to athletic talent development including the important factors within talent development environments (Wang et al., 2016; Li et al., 2017; Gledhill and Harwood, 2019), psycho-behavioral factors (Höner and Feichtinger, 2016; Erikstad et al., 2018a, 2018b; Tedesqui and Young, 2018, 2018), early experiences (Ford et al., 2009; Schorer et al., 2010), and the importance of physiological factors (Arazi et al., 2013; Jones et al., 2018) on young athletes' development from youth participation to elite level. Nonetheless, for the research-practice gap to be effectively closed and for practitioners to supply all athletes with applicable recommendations it is important to evaluate the evidence and its relevance to both male and female athletes. The frameworks established for female athletes have been often adapted from those designed for male athletes, on numerous occasions without a thorough examination of the potential similarities and differences between the two groups (Curan et al., 2019).

Drawing from evidence presented by Curan et al. (2019), existing talent development pathways for females have been constructed predominantly by using data from the male experience. There is a pressing need for documenting the experiences and perspectives of female athletes within talent development environments and pathways. The data gap concerning developing female athletes undermines the comprehension of the experiences of women and girls in sports, as well as the barriers they may encounter. The gender data gap prevents complete understanding of the experiences, perspectives, and needs of females in path to becoming professional athletes and limits the researchers to a partial understanding in this domain. Lastly, diligent gender data will enable sports organizations to make informed decisions regarding females in sports and allow for monitoring the effectiveness of talent development approaches and interventions (Curan et al., 2019).

### 3. PURPOSE OF THE STUDY

The purpose of this study was to (i) present a holistic and ecological description of the Arkas SK volleyball academy with the two working models, namely, ATDE and ESF. (ii) Establish the presence of success factors that unique and successful organizations share, which were established in earlier case studies in holistic and ecological approach to talent development and are presented in Table 1 with their descriptors. (iii) Further explore the generalizability and applicability of holistic and ecological approach to talent development as historical, cultural, and environmental factors differ compared to Northern and Western Europe. Lastly, (iv) compare the female athletes' relationship with the talent development environment with that of the male athletes' relationship with talent development environment through the holistic and ecological approach to talent development perspective. A club was selected that has achieved considerable success in fostering players and successfully transitioning them to senior professional volleyball. However, Arkas Volleyball Club is an atypical (or even an extreme case; Flyvbjerg, 2006), in the HEA to talent development context, because this will be the first case study done on volleyball and in a Turkish setting.

## 4. Methodology

This master's thesis was arranged as an explorative, integrative, and a mixed methods case study in a successful Turkish Volleyball setting (Maaløe, 2004). The research utilizes the HEA established by Henriksen et al. (2010a) for a case study of the talent development environment of Arkas Volleyball Club, in particular the male U-18 and U-21 groups, and the two women groups as a whole. Three main sources of data were used – Firstly, participant observations were done during training sessions and competitions investigating the relationship between players, coaches, and the management. Secondly, document analysis was concluded by investigating the club's website as well as Turkish Volleyball Federation's website on pages related to talent development, youth teams, and mission statement. Lastly, Qualitative data was gathered through focus group interviews with athletes, semi-structured one on one interviews with athletes, and loosely structured interviews with coaches and managers.

### 4.1 Participants

A total of 56 participants took part in the study, of which, 51 were developing athletes consisting of 23 female athletes, part of two developmental groups (age:  $16.0 \pm 4.0$  years; average time participating in volleyball: 7.25 years). The remaining 28 athletes were developing male athletes divided into two training groups with 16 participants in U-18s (age:  $16.25 \pm 3$  years; average time in volleyball: 5 years), and 12 participants in U-21s (age:  $18.3 \pm 3$  years; average time in volleyball: 7.25 years). At the time of the study, all participants were active players and members of their respective athletic developmental groups and engaged in a regular training and competition program. The remaining 5 participants, four coaches and one manager (all male) were involved in loose interviews. Arkas Volleyball Club was selected for the study because it has a successful record of producing elite senior athletes. Six of the current squad members were part of the younger teams of the Arkas Volleyball Club. These numbers are supportive of the definition of success coined by Henriksen et al., (2010a). The club won its first European championship in 2008-2009 season and made it to the final four tournament in 2011-2012 season. Arkas Volleyball club has also become the Turkish National Champions four times and stores multiple trophies in younger age groups both for boys and girls, consistently providing athletes for national teams in different age groups. The club reports a steady flow of athletes from their junior ranks to elite training squads. Furthermore, Arkas Volleyball Club is represented with a team in each of the three

highest tiers of men's volleyball in Turkey. The year of the study, four Arkas Volleyball athletes represented their countries in the 2023 FIVB Volleyball Men's Olympic Qualification Tournaments.

#### 4.2 Procedure

Data were gathered in an integrative approach and from various viewpoints, predominantly within the microenvironment, encompassing the school, friends from and outside of volleyball, affiliated teams, coaches, and club members. Initially, participant observation served as the primary method for gathering data for this case study through observations of social practices present in the setting. Observations were done during training sessions, off times in the training facilities, and competitive matches in real time to have a clearer idea on the interpretation of actions and the relationships between the different parts of the environment. During the observations, descriptive field notes and photographs were taken to capture varying information from participants and to have a sense of the athletes' perception based on the logos, posters, and other artefacts. Second, semi structured interviews were conducted with three developing athletes (one male, two female athletes) which lasted 25 minutes on average. Another focus group interview connected to the micro-environment was held with female athletes which lasted 35 minutes allowing athletes to discuss problems they face as student-athletes as well as their perception of the environment they are part of. Lastly, document analysis was treated as an important aspect of data gather. Documents included were club's social media pages, website pages relating to youth, and the website of the Turkish Volleyball Federation on youth related pages to have a better understanding of the effect of the macro-environment on the athletic talent development environment. The interviews were held during specified time periods arranged by the coaches and taken place at the team's training grounds before or after the day's practice sessions after giving their informed consent. Participants of the interviews were consisting of athletes who coaches believed represented the club well. Assurance of anonymity and full confidentiality was provided, ensuring the identities of the participants remained protected. The voluntary aspect of the participation to the study was emphasized and openly discussed, allowing participants to engage in the data collection process at their discretion. Importantly, the process occurred without the presence or influence of the coaches, maintaining privacy and autonomy for the athletes' responses.

#### 4.3 Analysis



The overarching method for this case study was an exploratory integrative approach characterized as an interconnection between data collection and analysis; "a cyclic approach of continuous dialogue between predetermined theories, generated data, our interpretation, and feedback from our informants, which will hopefully lead to more inclusive theory building or even understanding" (Maaloe, 2004, pp. 8). The interviews were recorded in audio format and transcribed verbatim. Complete anonymity was assured for all participants involved in the study. The data analysis was done on TAGUETTE analysis tool. Firstly, what developing athletes said during interviews were deductively categorized to explain the environment in the ATDE model. The analysis produced an empirical report of the ATDE model, aimed at explaining the talent development environment within the Arkas SK volleyball club. Secondly, the interviews were read to create topics of themes for the ESF model. This analysis led to the development of an empirical explanation of the ESF model describing the factors contributing to the talent development success of Arkas SK.

**Table 1***Features of Successful Athletic Talent Development Environments (ATDEs; Henriksen, 2010)*

Features of successful ATDEs	Descriptors	Opposite poles
Training groups with supportive relationships	Opportunities for inclusion in a training community; supportive relationships and friendships within the group regardless of performance level; and good communication	Individualized training programs at an early stage; training alone; low cohesion in the group; intergroup rivalry; and performance as a criterion for inclusion
Proximal role models	Community of practice includes prospective and current elite athletes; opportunities to train with the elite athletes; and elite athletes are willing to pass on their knowledge	Airtight boundaries between athletes at different levels; and elite-level athletes keep their secrets and regard prospects as future rivals
Support of sporting goals by the wider environment	Opportunities to focus on the sport; and school, family, friends, and others acknowledge and accept the athletes' dedication to the sport	Non-sport environment shows a lack of understanding of elite sport and the demands involved
Support for the development of psychosocial skills	Opportunities to develop skills and competences that are of benefit outside the sporting domain (such as autonomy, responsibility, and commitment); and considering athletes as "whole human beings"	Focus solely on sport and winning at any cost; excessive control from coaches; and focus not on personal improvement but on relative performance level, which devalues learning and development
Training that allows for diversification	Opportunities to sample different sports during early phases; integration of different sports in the daily routines; and appreciation of versatile sport profiles and basic sport skills	Promoting early specialization; focus solely on developing sport-specific skills; and considering athletes' interest in trying different sports a potential threat
Focus on long-term development	Focus on long-term development of the athletes rather than early success; and age-appropriate amount and content of training	Focus on short-term success; young athletes are seen as miniature elite athletes; and no time to heal when injured
Strong and coherent organizational culture	Organizational culture characterized by coherence between artifacts, espoused values, and basic assumptions; and culture provides stability to the group and supports a learning environment	Fragmented culture in which espoused values do not correspond to actions; uncertainty and confusion among coaches, athletes, and others; and lack of common vision

#### 4.4 Case Study and The Selection of Arkas SK

A case is generally considered as a specific instance of a phenomenon for research (Schwandt, 1997, p.12). It is defined by its boundaries in time and place. In the case of Arkas SK, the study focuses on the groups with their current squads in the 2023-2024 season. This time period allows for the analysis of the environment within that context. Furthermore, the current research also focuses on a single team during their activities such as training sessions, team meetings and competitions. In social science research, the two terms, namely, 'case' and 'unit of analysis' can be used interchangeably. However, within qualitative research, the term 'case' has a deeper meaning than simply representing a single data point often denoted as 'n' (Hodge & Sharp, 2016). The focus within a case study is on the boundedness of the case rather than just conducting an in-depth analysis of one data point. The term 'case' often refers to various phenomena such as events, communities, individuals, groups, or organizations (Schwandt, 1997). The aim of the case study is to capture the complexity present in a single bounded case. Therefore, case studies must delve into understanding all appropriate aspects of the case (Yin, 2009). This bodes well for talent development research from the viewpoint of holistic and ecological approach, as both in case studies and previous research on holistic and ecological approaches to talent development the relevant aspects of the case include its context, dynamics, and interrelationships.

It is important to realize what qualifies as a case for research. Stake (2005) suggested that a case must be seen as a functioning unit, a system that is distinct and bounded. Holistic and Ecological Approach to Talent Development views each talent development environment as unique but sharing certain features that lead to successful talent development. In case studies, certain features are recognized as being within the bounded system, such as the case of Arkas SK, while others fall out of it, such as other prominent volleyball academies in the region and how Arkas SK compares to them in their talent development approaches. A case study is comprised of two essential elements, namely, the subject of the case study and the object of the study (Thomas, 2011). The subject of the case study refers to the historical unity being studied, in this case, Arkas SK and its players, coaches, organizational structure etc. On the other hand, the object of the study refers to the analytical or theoretical framework used to study the object, in this case, the holistic and ecological approach to talent development environments. Another crucial aspect of the case study is its particularity (Hodge & Sharp, 2016). The particularity of a case study highlights that the research is on a specific, discrete,

bounded, and preferably a unique research phenomenon which aligns well with the idea that the functioning unit is the subject of the study (Stake, 2005).

There are different perspectives when it comes to how case studies are conceptualized in research. Gomm et al. (2000, 2002) defined a case study as a method, a specific approach to gather and analyze data. Others viewed case studies as a methodology, a broader framework guiding the entirety of the research process (Baxter & Jack, 2008). Furthermore, Gerring (2004) viewed case studies as a research design, outlining the overall plan and the structure of the study. However, case studies should not be confined to being seen only as a method, methodology, and research design. Case studies provide an adaptable framework in which researchers can use various methods, methodologies, and research designs accommodating to their needs to achieve their objectives (Simons, 2009). Viewing the case study as a design frame allows for a flexible framework leading to the accommodation of different approaches and methods to investigate complex phenomena in-depth (Hodge & Sharp, 2016). In a similar viewpoint, Stake (2005, p 443) stated that case studies were not “methodological but a choice of what is to be studied.” Other qualitative methods also aim to explore research in-depth. However, with its emphasis on boundedness and particularity. As case studies are centered around a bounded and single case, they can offer a greater degree of depth compared to other qualitative methods (Hodge & Sharp, 2016) because intricacies of the case and nuanced insights are less apparent in less focused approaches.

The primary reason for employing a case study for this research is due to the capacity of case studies to develop an in-depth and a holistic understanding of the Holistic and Ecological Approach to Talent Development Environments in a particular context. This aspect of case studies has been emphasized in many research (Ragin & Becker, 1992; Simons, 2009; Thomas, 2011, 2012). Furthermore, this type of research has never been done in a volleyball setting and in Turkey, the results can have larger implications for athletic talent development environments in the Balkans and the Middle East compared to previous studies in majority taking place in Northern and Western Europe.

Founded in 2001, Arkas Volleyball Club is one of the most successful men’s volleyball clubs in Turkey. It is located in Izmir, a city on the Aegean coast with about 3 000 000 inhabitants. The club has an indoor training facility with several courts and a weight training gym as well as club offices, a small merchandise shop and a café. The overall environment was considered as the object of the study including the elite athletes, managers,

coaches and more, however, the target participants of the study are prospective elite athletes aged 15-20.

#### 4.5 Participant Observation

Observations as a method of collecting data revolves around gathering data with a structured and organized approach by watching and recording human behavior in specific environments related to sports science. Gold (1958) arrived at four classifications to describe the participant-observer roles in social settings with varying degrees of involvement when it comes to the observer immersing themselves to the environment they research. Researchers in certain previous studies in Holistic and Ecological Approach to Talent Development have opted to use the ‘complete participant’ stance (Ryom et al., 2020), in which the researcher aims to immerse themselves into the social setting as much as possible (Gold, 1958). However, Gold (1958) suggests that this approach may cause scientific validity issues due to high subjectivity. As a result of Gold’s suggestions, as well as the availability of degree of interaction with the social setting in the case of Arkas SK, the observation approach implemented in this case study can best be described as ‘Participant-as- Observer’ where the observer maintains a degree of observational distance while participating in limited activities.

Through a systematic observational approach to collect data, researchers can identify common patterns and themes emerging from observed interactions, actions, and events. Through additional research methods, in this case, interviews, desk research, and questionnaires researchers can delve deeper into common patterns and themes with more information on personal experiences and perspectives (Thorpe & Olive, 2016). Observations and interviews interact with each other during the research process. Interviews can lead to new prompts for observations directing the researchers to specific phenomena occurring in the environment, similarly, observations can suggest unplanned questions for interviews aiding the researcher to explore further topics based on what they have observed (Tjora, 2006). Observations provide insight that may complement, or contrast information gathered through other data collection methods allowing observations to hold a value as a standalone method for collecting data and not just as a complementary method to other means, such as interviews or questionnaires (Adler & Adler, 1994). Adler & Adler (1994) further explain that having a diverse set of data collection methods enriches the research process and improves the understanding of the social phenomenon under study.

The integrative approach of the case studies examining talent development environments from a holistic ecological perspective allows for different data gathering methods not limiting the researcher to depend solely on what participants say they do during interviews. Participants may not always accurately report their perspectives and experiences due to memory bias, social desirability bias, or not being aware of their behaviors. Observations can capture behaviors as they occur in a natural manner and offer a more objective perspective compared to self-reported interviews. Using the interactive nature of observations and interviews allows researchers to cross-reference and validate findings from both sources. This triangulation enhances the interpretation of the data, leading to a more comprehensive understanding of the participants' lives (Smith, 2013). In postpositivist (observational) research paradigms, as is the case with Arkas SK, researchers combine qualitative and quantitative methods, integrating interviews and observations with the use of scales in order to systematically quantify results and report a need for methodological adjustment if needed (Thorpe & Olive, 2016).

Past experiences of the author with coaches from different nationalities and the correlations of these past experiences with previous studies on Holistic and Ecological Approach to Talent Development constructed the 'coach-athlete' relationship as a leading factor to be explored for this study. Therefore, observations during practice sessions and competitions were deemed more important compared to group cohesion and dynamics. So, places such as the locker room or the café was placed outside of the observational area. Data on team culture and group cohesion were provided during the interviews and the two quantitative surveys.

When the times and spaces for conducting an observation is identified, the next logical step is to know what the researcher will observe in these locations. Denzin advocates that observations should focus on individuals involved in the setting, how individuals interact with each other, routines and rituals that occur in the environment, the sequence of events, attitudes and perceptions of the participants, and the social structures such as power dynamics and group norms (cited in Tjora, 2006). Furthermore, observations in the case of Arkas SK were also done on list of success factors that unique environments share as well as their opposite poles (see: Henriksen & Stambulova, 2017).

Yet another important aspect of capturing relevant information from the environment is the process of recording observations. Usage of diaries or other recording devices to

capture field notes play a key role in observational data gathering approaches as they are the primary way of documenting observations. These documentations supply the researcher with a detailed record of what was observed to later analyze and interpret. It is impossible to record every single detail happening on the field. This forces researchers to make decisions about what is significant enough to take notes of, which involves prioritizing observations that are relevant to the research questions. In the case of Arkas SK, Henriksen & Stambulova's (2017) list of shared success factors as well as the interest on the 'coach-athlete' relationship facilitated the prioritization of the events occurring during the observations. In addition to the efforts of recording objective observations, personal reflections on events were also recorded as well as feelings and thoughts which adds depth to gathered data by providing insight of the observer's subjective experiences and interpretations of the environment (Thorpe & Olive, 2016). While some researchers decide to separate their reflectional data into a different document and record them during observation period, others incorporate them within their fieldnotes. Furthermore, recording data to a journal or diary may seem or become culturally unsuitable (Thorpe & Olive, 2016). Early in the observation phase in the case of Arkas SK, an athlete during a water brake asked "(Big) brother, are you a statistician?"

In an effort to not seem culturally ill-fitting the recording of personal reflections were further continued after leaving the environment to decrease the observation recording time and increase the time spent observing. The time that elapsed between observation and recording, and recording of personal reflections on the observations provided an opportunity to take notes on real events naturally occurring in a more understandable and legible way. Additionally, Thorpe & Olive (2016) stated that when working with an epistemological perspective that views knowledge, memories, and observations as inherently constructed, having a time period between observations and recording personal reflections does not make diary notes any less valid. Essentially, the notes taken during observations of trainings and competitions were a tool for recording observations, reflections, feelings, and space for early analysis which is in line with views of different researchers (Hammersly & Atkinson, 2007, Okley, 2008; Thorpe, 2011).

This approach facilitated *in-situ* observation of the social behaviors being studied and provided a deep understanding of the prevailing culture. Additionally, engaging in participant observation allowed for the examination of athletes across different contexts, such as training sessions and social gatherings. The observation guide was flexibly structured, loosely

following predefined areas of interest derived from the ATDE and the ESF working models. These observations involved multiple informal discussions with athletes, coaches, and management. Notes were taken both during and after the immersion to the environment and the notes were used to reflect on the observations and experiences on consistent basis. The notes were further analyzed once the data collection phase was completed.

#### 4.6 Document Analysis

Secondly, the case study incorporated documents and archives providing substantial data. These documents included various materials such as the club's website and statements on its vision, objectives, strategies, and principles as well as the pictures hung along the wholes of the building and the books on the shelf inside the coaches' room. Furthermore, the relevant pages about talent development and young athletes on the website of Turkish Volleyball Federation was also part of this collection of documents. Employing a document analysis method was aimed to gain an encompassing understanding of how the club aimed to present themselves in diverse sources such as websites, strategies, and social media, considering both internal and external perspectives, as well as to see how much of it is in a similar perspective with the views of the federation (part of the macro environment) on young athletes.

#### 4.7 Interviews and Qualitative Data

Researchers in the sports science field commonly rely on interviews to explore and understand various phenomena and interviews are seen as the most popular method for gathering qualitative data, sometimes referred to as the epistemological lingua franca (Jachyra et al., 2014). Interviews are described as social activities between two or more individuals actively engaging in embodied talk (Smith & Sprakes, 2016). This definition of interviews suggests that they involve more than just verbal communication but also entail non-verbal cues and gestures as well as interactions between participants. This last part can be evident in focus group interviews and interviews where the researcher engages in embodied talk with two participants in which participants collaborate to construct information and knowledge about themselves and for the purposes of this study the environment that surrounds them. The interview approach helps researchers to explore the subjective experiences and understandings of the participants in relation to the research questions being investigated (Jachyra et al., 2014). The complicated and varied nature of interviews underscores how the embodied talk as part of the interview is shaped by different



social factors (Ellis et al., 1997). An example of such social factors can be the reasons or incentives driving both the participant and interviewer to engage in the interviewing process. The interviewer selection process for this study was done by the coaches who selected the developing athletes to be interviewed, the idea coming from the management of Arkas SK which captures the idea of motivations shaping an interview process. Memories, discursive resources, emotions, literacy, and culture can be further examples of social factors shaping an interview process. Effects of social factors on interviews are inescapable due to their intertwined nature with the interview process affecting what participants say and how the conversation unfolds over time (Randall & Phoenix, 2009). It is common among researchers to select interviews as a data collection method without explicitly justifying this decision (Potter & Hepburn, 2005).

As stated by Jachyra et al. (2014), this problem is present among researchers of sports and exercise science as well. A common logic for using interviews as a data collection method is that interviews provide an opportunity for conversation. These conversations allow the participants to explain their perspectives and share their experiences and insights all the while researchers can guide the interview to gain further understanding of the phenomena (Binkmann, 2013). In addition, interviews can be a rich source of new information about personal and social aspects of the context being studied as they provide a platform for researchers and participants to engage in rich dialogue revolving around personal stories. Sourced by the ability to ask unplanned questions based on the direction of the interviewing process interviews possess a flexible nature, which gives researchers the opportunity to adapt their questioning strategies to gain in-depth information which can provide novel insight (Jachyra et al., 2014).

The interview guide consisted of four parts. The first part included questions to motivate the athletes to describe their perspective and relationship to the talent development environment they were part of such as asking the athlete if the environment was a successful one and further explaining the reasons and secrets for its success. The second part of the guide included questions relating to the description of the environment based on the ATDE model, the questions consisted of were about both the micro- and the macro-environments (e.g., “How would you describe your coach and their values?” and “How would you describe the general youth culture?”). Thirdly, the athletes were asked about the success factors based on the ESF models. The questions included were about preconditions (“In daily training, do you feel the club has sufficient resources, in terms of coaches and equipment, for example?”),

processes (“Please describe the daily life in your team.”), and organizational culture (“Do you have specific symbols such as logos or styles of clothing that are salient to your team?”). Lastly, the athletes were asked about the time frame, the past, and the future. Athletes were asked to explain what can be done to make the environment more successful and what previous traditions should be changed or kept. However, people are influenced by discourses from society and culture to make sense of a conversation which makes these discourses an important tool for composing experiences (Papathomas, 2016). Therefore, other qualitative methods of data collection such as observation, autophotography, and diaries also offer insight into experiences and meaning that people construct (McGannon, 2016). Due to this reasoning, along with semi structured interviews with developing athletes, observations, autophotography, diaries, online desk research, and loose interviews with coaches and team managers were also part of the qualitative data gathering process for the case of Arkas SK. Yet another reasoning for using interviews was the success of the interview process in capturing participants’ voice. Within an interview process individuals can express their experiences in their own words which allows the researcher to delve deeper into individual perspectives and experiences. This engagement between the researcher and the participant allows in- depth understanding of the nuances and complexities of the narrative provided by the participant. Once further interviews are conducted researchers can collect diverse set of voices to be compared, contrasted, and analyzed to identify themes, patterns, and discrepancies.

Lastly, Lichtman (2013) emphasized several practical considerations for the justification of using an interview process to collect qualitative data. One of these considerations included is the level of degree. Different levels of study may have different requirements, expectations, and resources (Lichtman, 2013). As the case of Arkas SK is a research study for a master’s degree, replication in terms of data collection methods based on previous research on holistic and ecological approach to talent development including conducting interviews with developing athletes was seen as a justification for using interviews.

Semi- structured interview guides based on ATDE and ESF models were obtained from Larsen et al. (2012). These guides were an encouraging tool for the interviewees to discuss personally significant topics openly and freely. Using a semi-structured format and open-ended questions such as “How do you see the way in which the club interacts with the environment around it?” interviewees’ expectations, perceptions, and knowledge of the

environment were elucidated. Three in-depth interviews were conducted on average lasting 20 minutes. In addition, there was one focus group discussion with U-16 girls' group which lasted 30 minutes. The young athletes selected for the interviews were chosen by the coaches and were thought to be positive representatives of the environment in line with the club's views. Common themes of the interviews were later analyzed through the program *TAGUETTE*.

## 5. Results

Arkas SK has been identified as a successful environment with a strong report card in developing young athletes and regularly transitioning them to the professional level. Figure 1 displays ATDE empirical model of Arkas SK volleyball club arranged into micro- and a macro-environment, athletic and non-athletic domain, and the perceptions of male and female athletes in regard to the environment's development. Although the focus here is on an elite sport perspective, besides a professional career in volleyball, personal development outside of sport is also an important aspect of *Holistic and Ecological Approach to Talent Development*. Following is an examination of the environment viewed through the framework of previously accepted success factors of successful ATDEs shown in the introduction.

### 5.1 Training groups with supportive relationships

The coaching staff at Arkas SK were a close-knit community with their working desks placed at the same room and had clear communication which helped morale and created close and supportive relationships. The value of support also seemed firmly inherent among the players, as the male athletes were regularly outspoken in the importance of supporting one another which led to a level of respect that athletes believed were not present to such an extent in other volleyball organizations in the region:

*"We are not like other clubs here. Thanks to our coaches, thanks to our (other) youth coaches, there is a friendly brotherhood atmosphere here. No one here sells each other out. That's why everyone supports each other, and we achieve more success."*

Male Athlete 1.

Such values as support and respect were clearly put to practice during training sessions with all players motivating each other during warmups as well as applauding and showing appreciation when a player performed to the standard the coach wanted after couple failed attempts. Male athletes in Arkas SK viewed supportive relationships as very important,

making way for respect, something the athletes viewed as a source of pride. The source of such increased level of support within training groups seems to originate from the values and ethics of the coaches. During the interviews, Male Athlete 1 stated *“The coach values friendship a lot. No one betrays each other and everyone is supportive. He pays attention to that.”* These remarks were also present during the observations of the training sessions. When a hard hit in practice dropped a basket with all the volleyballs, four players nearest to the balls dove as to dig a well hit spike, collected and replaced all the balls back into the basket within seconds and gave each other high fives.

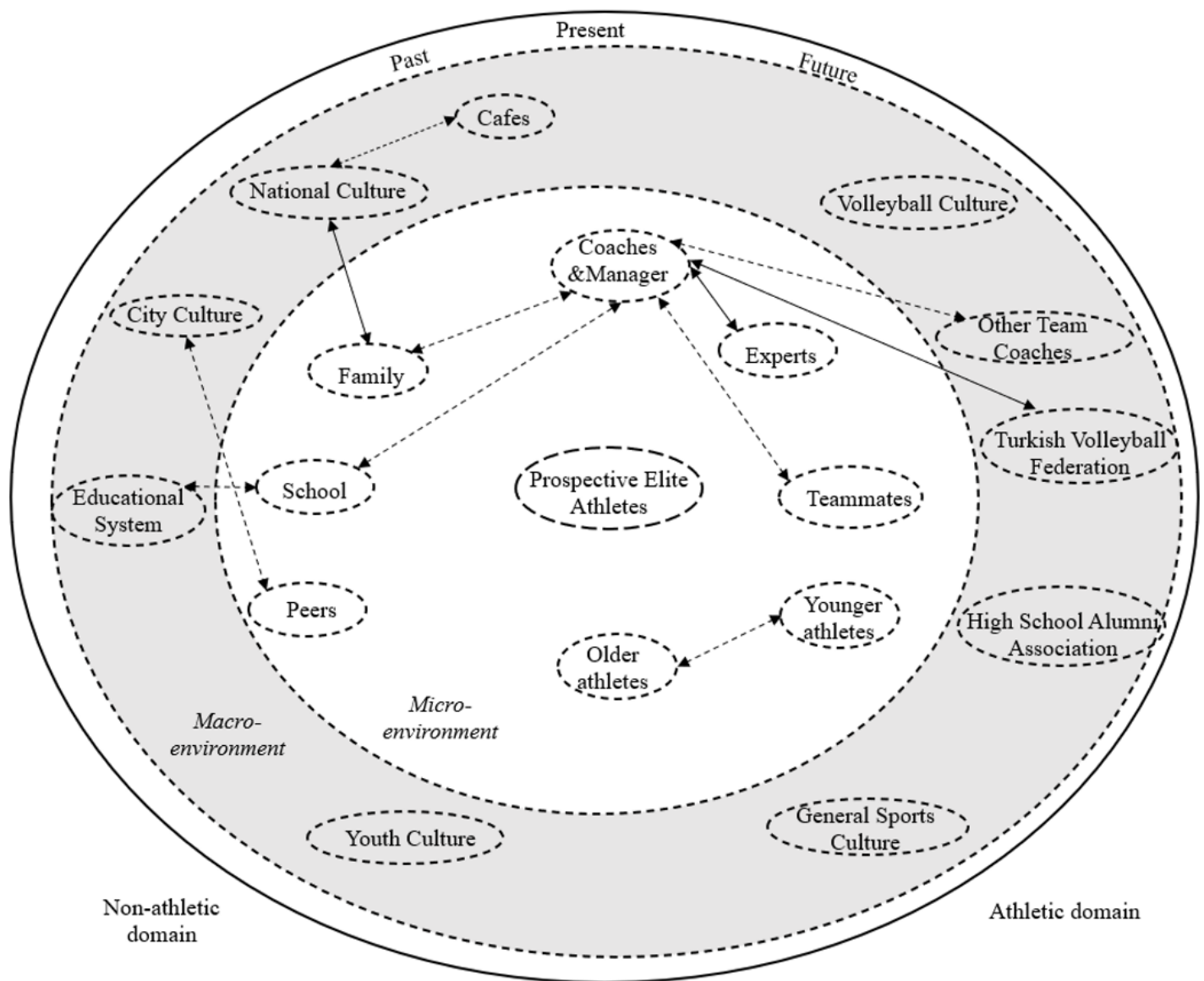
The role of the coach in establishing training groups with supportive relationships was also present in the female athletes:

*“Generally, our coaches and families show support, we are able to walk (develop) further with their support and perform better. He (the coach) puts a lot of importance to unity and solidarity. You know, as a team, no matter what, he says, that we should always support one another, whether it be in competition or trainings. He constantly gives us advice, ideas, and information on becoming a united group.”* Female Athlete 2.

Supportive training groups is a vital strength of Arkas SK observed all throughout the training groups and interviews of both male and female athletes. This value seems to have a top-down approach with managers in close contact with coaches and coaches having good and supportive relationships with one another which transfer to the athletes and provide further values such as respect, friendship, unity, and solidarity.

**Figure 1**

*The athletic talent development environment empirical model of Arkas SK.*



## 5.2 Proximal role models

Throughout the data collecting process, there were no observed instances of developing athletes training with the first team even though the training facilities overlap. However, this seemed to be more of a scheduling issue rather than lack of proximal role models. Developing male athletes of different age groups are familiar with one another and try to help each other out as much as possible in passing down experience as well as increasing motivation and confidence as Male Athlete 1 stated “*They (A- Team players) try to*

*be supportive of us. More experienced players on the team also help us. They increase our experience. There is no belittlement whatsoever.*” During observations of training sessions, younger athletes would come and watch the training sessions of the older players. They were encouraged to do so and in return they were asked to collect volleyballs that were spread around the court and bring it back to the coach or put it in a basket which helped with the progress of the training. This procedure puts younger athletes in closer proximity with their possible future teammates and coaches as well as creating communication opportunities with them.

The walls and training grounds of Arkas SK are full of banners, flags, and framed photographs of athletes showcasing the important moments of Arkas SK’s rich history. Furthermore, jerseys of important players from Arkas SK’s history are put up on the walls of the café located inside the training grounds, all things that can be perceived by developing athletes as sources of motivation from role models. However, all these moments of success, pride and cult hero jerseys belong to the male side of Arkas Volleyball. Historically, the women branch is a newer addition to Arkas SK and not yet has reached the success levels the male team has. While male athletes did not have any difficulty naming proximal role models, among the 19 female athletes who were asked to name a proximal role model only one named a proximal role model, an older brother. Furthermore, among female athlete, different age groups did not communicate with one another or have as supportive of a relationship between training groups in comparison to the male athletes. Female Athlete 1 stated *“I mean we use the same locker room, so sometimes we hear what they (younger athletes) talk about, and they may hear what we talk about. But apart from that we don’t really come across them.”* This relationship among female athletes of different training groups is completely different than the experience of the male athletes. Strong communication and relationship among different age groups could lead to younger athletes viewing older athletes as role models which is present in the male athletes but not present in female athletes in Arkas SK.

### 5.3 Support of sporting goals by the wider environment.

Overall, the wider environment around Arkas SK consisting of staff members from within and outside of the club seemed supportive of the organization’s and developing athletes’ sporting goals. In previous studies (Ryom et al., 2019) some challenges in regard to dealing with parents were present. Ryom et al., (2019) presented money involved in football as a reason for such struggles, as elite footballers make a lot of money this put an extra

pressure on players coming from family members. This was not the case in Arkas SK, athletes presented their families as an important source of support as Female Athlete 1 stated *“the support from families is actually very important. My family, to be honest are very supportive. If there is ever a problem or a difficulty they really run for help. And this is very important.”*

However younger athletes in the focus group interview (16 female athletes) seemed to struggle more dealing with the responsibilities of both school and volleyball, where pressure to do well in school may be a reason for that as they are still at the beginning stages of their volleyball careers compared to some of the older developing athletes. One of the female athletes in the focus group interview said, *“I mean school in the mornings and training in the evening, we go back home at night around ten or even 11 o’clock.”*

Arkas SK and schools are in contact with one another, and the players’ input strengthens this relationship. Training schedules are designed weekly based on the information given by athletes and schools about the school schedule. However, this process seems to be more challenging for younger developing athletes than older ones. One of the older female athletes mentioned that everything in her volleyball career was going a lot smoother now that she had graduated from high school:

*“I used to struggle a lot back when I went to school. I have not started university. But if I start, I am sure it will get very difficult once again. It becomes tough to chase after two things. Based on school schedule we usually have our training sessions in the evening, so that everyone can make it after school. And then we have matches on Saturdays or Sundays.”* Female Athlete 1.

The relationship between the club and schools are ran in the same way for both male and female athletes and both groups of athletes seem to benefit from said relationship. In terms of the support the school shows, athletes mentioned that the schools were helpful, but athletes had to plan things ahead.

Friends also seemed to play a big role for athletes. As mentioned before, the male athletes were a lot closer with one another compared to female athletes as some of them were housed together and spent more time socializing outside of volleyball, however, both groups had positive and negative experiences in terms of support from non-volleyball friends as Male Athlete 1 said *“We do have friends from outside volleyball that we socialize with. But it*

*is not the same as the ones here. Here we have more of a brotherhood. The relationships are different.”*

The same male athlete mentioned that general youth culture as something that could be seen as hindering to their volleyball journey with a lot of non-volleyball friends making choices that would potentially negatively affect their sporting goals, in such cases the athletes opt to walk away from creating such relationships:

*“I personally don’t think youth culture is in a good path. Kids at small ages start smoking cigarettes, they drink alcohol. I see people with not much discipline, they think themselves as cool, but it’s not like that, it’s not nice. I don’t get in contact with those people whatsoever, so it doesn’t affect my career.”*

Similarly, female athletes mentioned some friends from outside of volleyball could show more support:

*“There are a lot of people who just talk from the outside (of volleyball). Those who are outside have no idea what kind of lives we are living, and they just talk, but we have got to shut that noise off. So that is what we do.”* Female Athlete 2.

However, the opposite pole was also present, where friends’ support and acknowledgement of the athlete lifestyle resulted in supportive behavior. If the relationships athletes built were not supportive, female athletes, similar to male athletes, chose to walk away from such friendships:

*“Well, my friends have become more interested with time. They really follow volleyball now, they come to my games, show support and such. But of course, we sometimes end up befriending those who don’t fit our lifestyle, in that case we end our relationships with them.”* Female Athlete 1.

Both male and female athletes further mentioned different staff members in Arkas apart from the coach as a source of support helping them with their goals in achieving elite level, Female Athlete 1 stated *“Yeah, everyone helps. If we are going through something they talk with us and try to figure it out. So, we are very comfortable when it comes to support from the Arkas staff.”*

Athletes also felt that the environment in Izmir was supportive for them in progressing in their volleyball careers. For a Male Athlete 1, the value of respect was more



visible in Izmir than other cities which he believed helped his future goals in volleyball “*Well firstly it is very comfortable (relaxing) to be in Izmir, for example the environment and the people. I think compared to other cities people are more respecting here. I definitely feel a lot more comfortable here.*”

Finally, the Arkas B team, mean age 18.33, playing in the second division of Turkish Men’s Volleyball and fighting for promotion to the top tier had support from an alumni association of a local, prominent high school whose logos and colors are present in the training shirts and game jerseys. Male Athlete 1 stated “*We actually went there once as a team, everyone got together, it was the Alumni Association of the school. The alumni on the association give us talks and give their support.*” During a competitive match, much of the supporters on the stands were members of this association and wearing their school merch and jerseys:

The support of such associations is important to the club and the players. Volleyball is not as financially gaining as some of the other sports in the region such as football or basketball, and presence of or lack of support from such organizations can be detrimental to the developmental opportunities players get. A club manager mentioned last year that their third division team, the youngest in the league were promoted but the club chose to stay in the third division as the federation were looking for certain financial incentives.

#### 5.4 Support for the development of psychosocial skills.

During observations there was no specific staff member responsible for young athletes’ psychosocial development. However, the staff clearly valued holistic development and approached athletes in a way that would help develop long term set of attributes that would assist them not only on the volleyball court but also in everyday life. As mentioned above, young athletes had a big part in the decision-making process when it came to scheduling practices. This added responsibility to personal development seemed to help athletes with planning ahead which in turn can help with prioritization of responsibilities and goals, Female Athlete 2 said “*That is how they schedule our training sessions, based on communications with the schools. (And) you know we have to plan things ahead.*”

Respect for teammates, coaches, and the surrounding in general were also aspects of player progression. Male athletes had been playing together as a group for multiple years now and the environment was able to help them develop positive relationships with one another. This positive relationship would present itself in the practice as supportive training groups

and would develop into a close friendship among teammates away from volleyball which Male Athlete 1 mentioned as something positive and helpful to their volleyball careers *“Our coach has a big effect on determining the culture. Also, the assistant coach. I mean, I guess, since we know one another for a really long time now everyone treats each other nicely.”*

Male Athlete 1 also mentioned that although the players had friends from outside of volleyball the friendship among teammates were more special and they were happy to try to spend as much time together as possible, which, once again was perceived by the male athletes as beneficial to their development:

*“Well, every morning we do ball training and fitness and then take a break. We do team activities, maybe rest, we go to drink coffee. Then we come back at 3 p.m. and do another training session. After training, 4 of us live together, when we go back home, we are once again all together, we cook and eat, and depending on the situation maybe go out for coffee or tea again.”*

It is important to mention that the level of comradery among male athletes were not present to the same extent in the female group. Female athletes did not have the same longevity in their group and did not spend as much time together off the volleyball court. Female Athlete 1 said, *“Yeah, I guess sometimes we meet outside for coffee.”*

Furthermore, it is important to mention the Turkish culture, where respect towards elders in the environment is seen as a lot more important than other cultures in western and northern Europe. Furthermore, Male Athlete 1 mentioned the level of respect within the organization could not be found in other clubs in the region to the same extent. This was clearly visible in the relationships between coaches and athletes among both female and male athletes. Athletes would refer to the coaches and mention them in interviews as *abi* (older brother):

*“I really don’t think other teams have what we have here in terms of respecting others. For example, I have friends playing in different teams, they do not even say “hello” to their head coach if they see them outside.”* Male Athlete 1.

The level of respect and the friendship that results from it, in the case of Arkas SK seem to be produced by the values coaches try to implement to their athletes. Both male and female athletes have mentioned friendship, team cohesion, unity, and never giving up as skills the coaches try to instill in the players. Furthermore, among male athlete, the coach

seemed to have a different role outside of the volleyball court where his responsibilities were no longer about technical development. Figure 1 underscores the same sentiment as coaches and managers hold a heavy workload in making sure different aspects of the environment around the developing athlete are all on the same page for ultimate talent progression. An example of this is the English lessons arranged by the head coach for the players of U-21s. U-21s is the last step before the A-Team and the A-Team head coach is Canadian. The presence of support for psychosocial development in this example further explains the organizations' view on their developing players as future A-Team players underscoring yet another success factor, focus on long term development.

*“For example, B. (big) brother (head coach) helps us more as an elder brother. Off the field, we’re (acting) different with him; we have another dynamic. On the field, he switches more into ‘coach mode’, but off the field, we’re constantly chatting, laughing, and having fun. (Also), for example we are now taking English lessons which is very important.”* Male Athlete 1.

The support Arkas SK provides athletes in terms of psychosocial development puts importance on players with attributes that are not limited to volleyball skills. Among these, the most important are organization and respect. This in turn, creates tolerance for others, creates supportive training groups, and allows players to take responsibility of their own athletic development, beliefs that are mentioned in the club's website.

### 5.5 Training that allows for diversification

There was no observable or mentioned signs of training that allowed for diversification with respect to other sports. Arkas SK is one of the top volleyball organizations in the nation and that may require athletes to be devoted to a single sport. Furthermore, in the field of sports science, various actions in a sport are categorized based on their unique environmental conditions and specific tasks, resulting in a spectrum of variability in how these movements are performed, said spectrum ranges from closed skills to open skills (Jacobson et al., 2014). Volleyball typically falls under the category of sports with open skill sets. In volleyball, and other sports with open skills, players must constantly adapt their movements and strategies based on the trajectory of the ball, the positioning of teammates and opponents, and the dynamics of the game (Heilmann et al., 2022). The fast past nature of volleyball and the need for quick decision-making make it an open skill sport compared to kayaking or sailing where the environment is relatively stable, and the

performance of athletes are usually pre-planned and not influenced by external factors. In such cases as open skilled sports, the idea of diversification may not be suitable to develop elite athletes (see; Baker et al., 2017).

#### 5.6 Focus on Long term development.

In athletic development, the emphasis is on long term development, focusing on appropriate training content and volume for each age group rather than seeking immediate success from athletes (Ryom et al., 2019). That being said, Arkas SK teams that play in the second and third divisions of Turkish male volleyball are both the youngest teams in their leagues (mean ages; 18.33 and 16.25 respectively). In Arkas, the vision of the club is to help improve Turkish sports and develop healthy generations as well as developing professional players from their ranks that will achieve success and championships in the Turkish leagues and Europe. Arkas SK's A team currently has five players that were developed through their academy which provides developing players with a trajectory to aim for. Additionally, the male athletes have been playing and developing together for a long time, all of which shows Arkas SK's focus to long term development, Male Athlete 1 said, *"We are all very similar in age and have been playing volleyball together since childhood. Last season we played against couple ex-Olympians. It was indescribable."*

Long term athletic development is a must in cases such as Arkas SK who are developing athletic talent to improve the general state of the sport in the nation and aiming to develop successful athletes that are future champions. The focus and work in long term development begins at the earlier age groups with holistic development concentrating on such values like team cohesion and respect and continues in older groups with examples such as English lessons as mentioned above, all the while continuing to develop technical volleyball skills which female athletes believed were important for future success.

*"In terms of technical development, they (coaches) pass on a lot to the players, a lot of knowledge. I think that is really going to help us improve our winning percentages in the future. During training sessions my coach always tried to make sure I was learning things that can be useful outside of the sport as well. Especially in younger groups, helped me see things that are important in life, for example, never giving up and things of that nature. They really change a person when you learn them."* Female Athlete 1.

## 5.7 Integration of Efforts

The entrance to the facilities displays trophies and achievements the club has received in the past in different age groups. Such displays emphasize the importance of success the club envisions while developing athletic talent. Throughout the fieldwork there were many verbal displays of this vision by one of the club managers as well as pride in what ex-athletes had achieved. Another way Arkas SK reinforces their vision was through their clothing. Figure 2 showcases the environment success factors empirical model of Arkas SK. Prior to travels to away games athletes were instructed to dress in a certain way which further increased team cohesion and the comradery athletes experienced:

*“We have logos on all training shorts. As we are a team, if we are travelling somewhere we dress in the same fashion. You know they tell us to wear black tights and the hoodies. Yeah so, we all dress the same. At the end of the day, we carry this team’s logo on us, that is valuable to us.”* Female Athlete 2.

Furthermore, training shirts had slogans behind them which motivated the athletes to strive for their goals and ambitions on their paths to elite volleyball, Male Athlete 1 described how these shirts were a motivating factor, *“Arkas has the training shirts, at the back it says, ‘Everything begins with dreaming.’ – I think it’s a great quote, triggers (produces) motivation.”*

Inclusion of the athletes for the goal setting process was another characteristic of Arkas SK’s strong and coherent organizational culture. This inclusion of players in the decision making progress within the organization and especially within their training groups exemplifies the mutually accommodating nature between the environment and the players within Arkas SK, which is an important part of the ecological side of holistic ecological approach to talent development. Male athletes were deeply rooted in the goal setting process along with their coaches and this was also another factor mentioned by Male Athlete 1 as something that increased motivation for them *“Yes! Yes, we are part of the goal setting process. To qualify to the 1st division (smiles).”*

The same can be said for female athletes although not to the same extent. Female athletes mentioned that they were part of the goal setting process, and this helped them understand what they were playing and training for. However, they were not as clear on the goals they had set and were not as much part of the goal setting process as the male athletes. The final decision on what goal to set seemed to be on the hands of the coaches.

*“Uhh... the goals are set based on the player performance so they might say “we got a good group of players this season, we can make it to the playoffs.” That’s how they set the goals. And we do believe that these goals can be achieved in a timely manner. That’s what motivates us to train. For now, we can say, to make it to play offs of the third division. I mean that seems like the next goal ahead. Moreover, in the younger teams to go to the national championships and get a medal there. We work and train according to the goal set before the season starts.”* Female Athlete 1.

Organizational culture of Arkas SK provided both groups of athletes with ‘comfort.’ Athletes continuously mentioned how the support they received from the organization and the organizational culture provided them with comfort to concentrate more on their athletic careers:

*“I definitely feel a lot more comfortable here. I think it’s good, as I said we feel very comfortable here. Our houses are real close to here, in the same neighborhood. We can socialize around here between training sessions, there is (another) beautiful café real close to here, we go there to drink coffee or tea.”* Male Athlete 1.

The feeling of comfort seems to be strengthened by the location of the club as well. Athletes mentioned that they were happy with the neighborhood and the culture of the city was supportive of their development.

*“Well as a neighborhood, this is a calmer place which really has positive effects on us. It is a lot better for us to be in a place like this compared to a more busy and crowded part of the town.”* Female Athlete 2.

The organization had close ties with other clubs around the city and the country. These close relationships were mostly based on the relationships of coaches with other coaches in different teams. The close ties of the organization also allowed them to see what was being done differently among different clubs:

*Arkas is one of the most popular clubs in Izmir. Any club you go to they may already have heard of you or are aware of what kind of training you do. And the same goes for coaches. Coaches exchange ideas here and there. I mean of course during a match it’s competitive and they don’t do that but outside of competition, they do. They don’t lose communication. In pre-season coaches arrange matches and I am sure they exchange ideas.* Female Athlete 1.

*“Couple years ago, coaches from a team in Ankara (Playing in the 1st division with multiple Turkish championships and European champions) came to visit, they studied how we do practice sessions and studied the environment. So, it’s not just clubs from Izmir but there is I guess a network with different parts of Turkey.” Male Athlete 1.*

Arkas SK’s organizational culture created an environment for athletes in which they felt comfortable and the close ties with other teams created opportunities for the coaches and the management team to exchange ideas with those of other volleyball organizations. However, especially younger female athletes were vocal of the struggles they faced dealing with responsibilities from both school and sport. This is a problem not specific to the athletes of Arkas SK but most student-athletes around the world. Organizations such as Arkas SK need to implement better strategies to help younger athletes deal with the responsibilities of being a student-athlete.

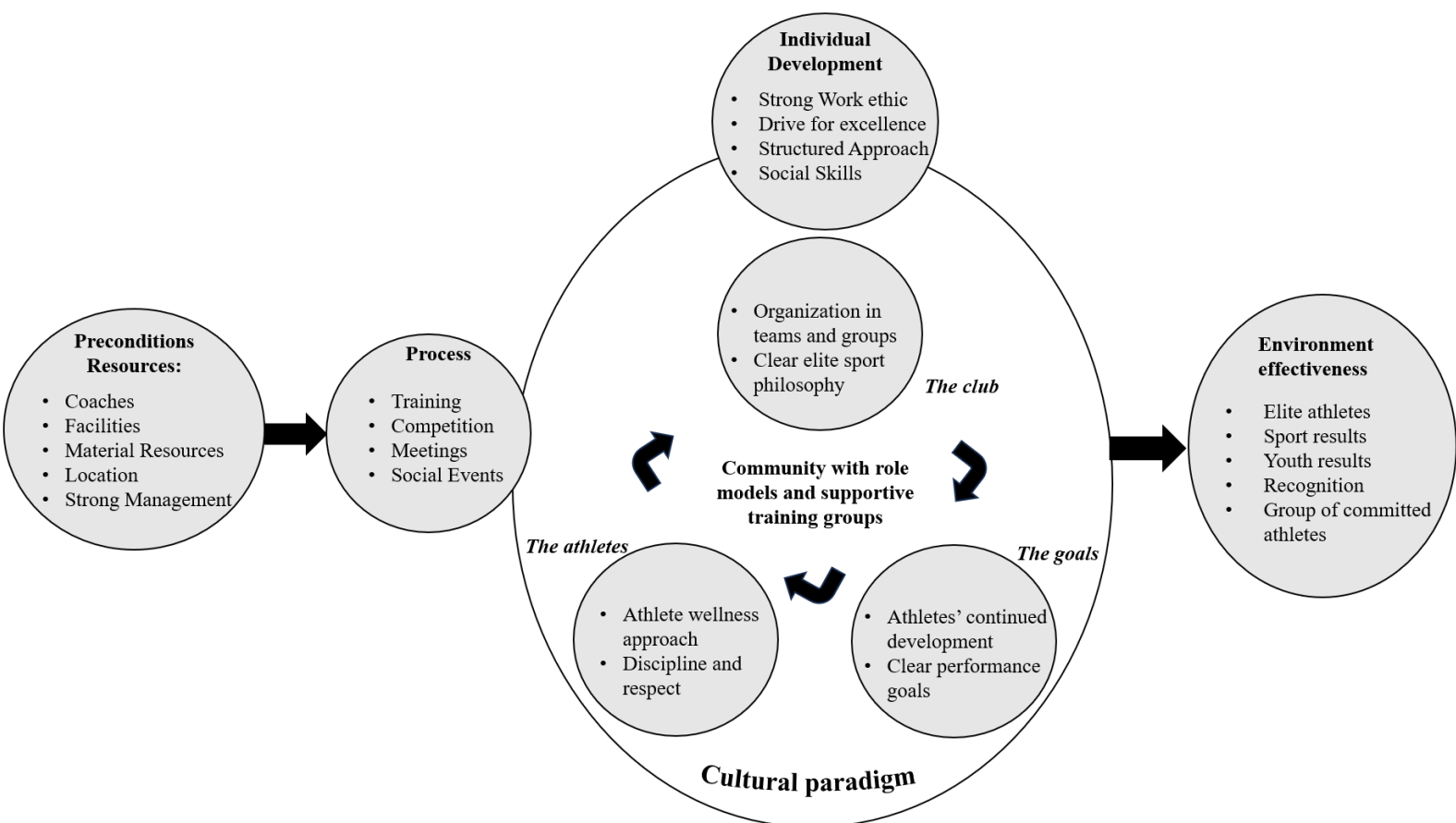
Although the athletes were verbal on their struggles to stay on top of both sport and school, they also mentioned the communication pathways between the organization and the school. Athletes acknowledged and appreciated the effort of the schools to support their athletic development as well as having a say in when the practices are scheduled:

*“They ask us to send our free times and they schedule the training sessions based on that. We get a different training schedule every week, on Mondays. We can see the training times there. The times for each team’s practice sessions are visible there, coaches decide on that amongst themselves.” Female Athlete 2.*

In addition, the organization and the family members were in contact with each other discussing the development of the athletes. This ensures that all adults around the environment of the developing player work towards the same goal. Furthermore, all interviewed athletes were happy with the support they received from their families. Communication among the organizations and the family members that create a group effort for the same goal may be important for the athletic development and the psychological wellbeing of athletes who are part of a culture where strong family ties are important such as in different Mediterranean nations.

**Figure 2**

*The environment success factors empirical model of Arkas SK.*



5.8 The ESF empirical model of Arkas SK.

Figure four illustrates the empirical iteration of ESF model displaying the factors shaping the Arkas SK volleyball club’s success as an athletic talent development environment. Arkas SK’s resources for developing athletic talent include the youth coaches and their close connection with one another, with their athletes, and their skill level, its first-rate facilities, adequate material resources (number of courts, volleyballs etc.), calm and comfortable location, and strong management organization. Because the coaches, location of the town, the training facility, and the management have been already described, it is important to detail the material resources available for use in young athletes’ development. The training facilities include a large gym for athletes to use for weight training and strength and conditioning training. The equipment in the gym is very well taken care of and in great condition. This allows athletes to use the gym within the facilities of the club which is an



advantage most other volleyball clubs in the region do not have, in such cases, athletes have to look for and sign up to possible gyms they can use for strength and conditioning training. Furthermore, both male and female athletes stated that the club had more than enough material resources in terms of training equipment (e.g. volleyballs, baskets, boxes, setter training nets).

Daily routine of the developing athletes include training, up to twice a day with older developing athletes, competitions, meetings, and social events. Competitions are arranged in pre-season as training matches and league games once the season starts. Male athletes participate in more social events compared to the female athletes with the coach being part of some of these social events. Furthermore, for male athletes, camps are organized as team activities with more emphasis on socialization rather than skill development. On the other hand, for female athletes, camps were interpreted as multiple day tournament or play-off qualifying games:

*“The camps... you know, they happen if we have a semi-final or a final match. Three to four days a certain city hosts the finals, they do a draw there, we go and stay there. Play three to four games and then come back.”* Female Athlete 2.

As previously indicated, Arkas SK is an elite volleyball club in Turkey striving for success in all age groups. However, long term skill development and holistic development of athletes are still part of the developmental process.

## 6. Discussion

This study investigated a talent development environment in volleyball with the purposes of providing a holistic description of Arkas SK volleyball club, assessing the factors influencing its effectiveness in nurturing future elite volleyball players, and analyzing the presence of eight key success factors associated with successful player development environments identified in earlier studies. On this respect, this master’s thesis study adds to the existing literature on the athlete career transitions. The participating athletes in this study are transitioning from specializing to the investment years (Côté et al., 2007) or from investment to maintenance years (Durand et al., 2002). The progression from one stage to another can be influenced positively or negatively by both internal and environmental factors as highlighted by many developmental models of athletic careers (Alfermann & Stambulova, 2007). Even though volleyball varies in several respects from previously studied environments (Henriksen et al., 2010a, 2010b, 2011; Ryom et al., 2020), there were similar

characteristics and differences. This was achieved by investigating the talent development system in Arkas SK as an ATDE and determining the success factors that lead to the transition of young athletes to the professional level by comparing the environment with success factors identified in previous studies. However, the case of Arkas SK provides new examples for these success factors and helps expanding their definition and presents an additional factor that was important for the development of young athletes of Arkas SK, namely, respect for surroundings which as the construct of respect seemed to help young athletes with their development in terms of cultural competency, creating strong bonds with teammates leading to supportive training groups, and a strong relationship between training groups, coaches, and management leading to a stronger organizational culture.

Ultimately, the research found that the environment of Arkas SK is (a) rooted in an exceptional training facility; (b) focused primarily in developing volleyball skills without disregarding the gathering of holistic skills useful in non-volleyball life and academics; (c) seen as a family environment by the athletes; (d) effectively integrated as there is frequent communication among the management with coaches and coaches with each other, as well as open dialogue between the club and other elements of the micro-environment such as the school, family members, and other clubs; (e) focused on long term development of young athletes; and (f) present with visible trajectories for young athletes to make it to the first team.

Arkas SK shared many of the success factors previously identified and exemplified in earlier studies relating to successful talent development environments. However, some of these factors were approached differently by Arkas SK allowing for a wider range of features within previously mentioned factors. For example, *training groups with supportive relationships*, are often considered to involve the organization providing ample opportunities for inclusion in the training community no matter the performance level of the developing athlete as well as supportive relationships and friendships within the training group (Larsen et al., 2013). In the case of Arkas SK, the features explaining a supportive training group were considerably more on the friendships created within the training group. Male athletes were part of the same training group for multiple years and had created strong bonds that were supportive of talent development and strong team cohesion, many athletes describing their relationships with volleyball friends as different compared to relationships with non-volleyball friends and calling it a brotherhood. Although this strong bond among teammates were not present to such an extent in female athletes both male and female athletes had a relatively large range of ages in the training groups leading to supportive relationships and

opportunities for inclusion across age- groups. Furthermore, previous studies have mentioned instances where all players being promised playing time (Ryom et al., 2020). This was not observed in Arkas SK. In cases where success and performance achievements are deemed important it can be difficult to allocate equal playing time for all athletes. To restate Arkas SK is represented in the three highest divisions of Turkish male volleyball, and with volleyball considered as a sport largely involved with open skill sets it becomes more difficult to promise all players playing time in competitions and providing inclusion for athletes without considering their performance levels. Although this type of development may seem to lead towards the requirement of early specialization from athletes potentially resulting in burnout, injuries, and narrow athletic identities (Côté, Lidor, & Hackfort, 2009; DiFiori et al., 2015), the age range among participants are 15 -18 with the male team in the third division, 17-20 in the male team in the second division, and 15-19 among the female group. These results suggest a good level of relationship across age and training groups which is identified as a feature of the training groups with supportive relationships success factor and possibly bio-banding, where players are organized into groups according to their developmental characteristics rather than their age in years (Cumming et al., 2017). Furthermore, although there are male athletes who are active in volleyball for as little as only two years many female athletes have been active almost for a decade. So, in the case of Arkas SK, the female group may be more susceptible to the negative attributes of early specialization. In sports like kayak sprint, there is often minimal variation in training and competitions, leading to closed skills such as the technical mastery of a paddle stroke (Schmidt & Lee, 2011). The open skills, on the other hand, are those in which athletes must adjust their performance according to the ever-changing conditions influenced by surroundings, opponents and teammates (Schmidt & Lee, 2011). Therefore, volleyball training might require a more specialized approach to cultivate a wide array of skills important for the game of volleyball. Despite that, further research needs to be implemented to see if early specialization is a norm and a prerequisite to reach elite level for volleyball as it is in football (Aalberg & Sæther, 2016; Larsen et al., 2014), both sports consisting of mostly open skills. In the case of Arkas SK, the athletes, although still developing, were well into their late teen years, older than most participants in previous studies, therefore further in their developmental pathways where due to commitment may have to pick one sport to further specialize in. In any case, an approach more inclusive of different aspects of varying sports at younger age groups may still offer long-term benefits to younger players, especially considering that many of them do not make it to the elite level. In such scenarios, having a

wide array of skills will facilitate transitioning into another sport or engaging in volleyball at a recreational level (Côté et al., 2009).

Encouraging the growth of various psychosocial abilities, compared to exclusively emphasizing volleyball skills, aligns with prior research indicating its importance in positive developmental pathways (Larsen et al., 2014). Environments with positive youth development allow the developing athletes to learn life skills, outside of volleyball that are helpful in various aspects of life (Holt et al., 2017). Wylleman and Lavallee's (2004) developmental framework for athletes underscores the necessity of viewing athletes not solely within the confines of their sport, but also within the wider contexts of their psychological, psychosocial, and academic growth. Developing athletes in Arkas SK had a big input in the scheduling of practices, a form of autonomy athletes emphasized was useful in achieving their sporting goals and with planning ahead. Qualities like autonomy and decision-making abilities have previously been linked to successful youth development in other team sports such as football (Gledhill et al., 2017). Furthermore, the presence of support of psychosocial development success factor in previous studies were vague, often assumed to be present based on what the management or coaching staff said during interviews. However, players themselves may not be aware of the psychosocial development plans of the organization and important psychosocial skills may be acquired through environmental contingencies as circumstances surrounding a developing athlete shape their behavior based on desirable and undesirable outcomes rather than being thought by the organization (Skinner, 1974). In the case of Arkas SK, developing athletes were asked about their own psychosocial development. Players stated that different aspects of psychosocial development mainly never giving up, unity, team cohesion, and affective communication were a big part of training, especially at younger age groups.

Certain shared success factors were either not as prominent, or exemplified in different ways than as listed by Henriksen (2010) in the case of Arkas SK. For instance, Henriksen (2010) emphasized the significant role of proximal role models for developing athletes in successful environments, acting as mentors, training companions, and sometimes even as coaches for developing talent in sports like sailing, kayaking, and track and field, offering developing athletes a well-defined pathway to elite level, guidance, and motivation. In Arkas SK this success factor was less noticeable among the female athletes. Female athletes had a difficult time naming a role model, few of those who did, mentioned family members outside of volleyball like an older brother. Although training groups had a wide

range of age, different female training groups were not in close relationship with each other. The little relationship they had was limited to sharing the same environmental spaces within the training facility such as overhearing conversations in the locker room. On the other hand, different male groups had a closer relationship allowing the older developing athletes to pass on their experiences and knowledge as well as creating opportunities for younger athletes to spend time with their potential future coaches and teammates. Throughout the observation period, there were no instances of the first team spending time with developing athletes. However, athletes mentioned during the interviews that they did get chances to interact with the first team players and these interactions were always very helpful for their development. Finally, as mentioned earlier, the walls of the training facilities are filled with pictures and banners of past achievements of the club as well as jerseys of important players in club's history which can all act as a source of motivation from a role model for developing athletes. However, all these banners, pictures, and jerseys belong to the male athletes and their achievements from which female athletes may not find it as easy to be motivated from as developing male athletes. Martindale et al., (2007) stated mixing age groups for activities within the club and video or autobiography as forms of creating role models, all of which Arkas SK could arrange to create an environmental role model presence for the female developing athletes. Furthermore, coaches of the female athletes can encourage players to occasionally train with groups at a higher level, which can create stronger relationships among the athletes of different groups (Christensen, Laursen, & Soerensen, 2011), and help developing athletes with their transition to a new training group while preventing a serious "cultural shock" as they aim to reach the elite level (Henriksen et al., 2010a). Currently, for the younger female developing athletes at Arkas SK, the transition to a higher training group can be more challenging compared to the transition of male developing athletes due to a lack of strong relationship among different training groups. The family feeling between the players and Arkas SK could ease this transition to higher training groups in route to professional level. However, the family feeling between players and the organization should also be present among developing female athletes in different training groups to ease future potential transitions.

Developing athletes who perceive their talent development environment as being of high quality tend to report greater levels of overall well-being (Ivarsson et al., 2015). Ryom et al., (2020) suggested that talent development environments have the potential to actively promote athletes' mental health and their well-being. They further proposed that these

environments should incorporate the mental well-being of the developing athletes into their assessments, regarding it as a criterion of success. The same can be done in defining what a successful athletic talent development environment is in the perspective of holistic and ecological approach. In addition to successfully transitioning young athletes to elite level, the academies or organizations also concentrate on the development of mental well-being of their young athletes (Feddersen et al., 2021). The importance of environmental factors and the social relationships are not limited to athletic talent development in HEA approach but crucial for individual development in general. In comparison with the male athletes, female developing athletes did not have as strong of a relationship between and within training groups. Furthermore, presence of proximal role models was not present among female athletes, pointing out the lack of effective interaction with the development environment, which can hinder and athlete's talent development progression and general individual development. Furthermore, terms like giftedness and talent, which are difficult to explain, define, and prove are starting to be seen as a product of athletes' interaction with the environment. Male athletes in Arkas SK were adamant on the positive influence the Arkas SK's environment had on their volleyball careers. On the other hand, female athletes believed that the individual's motivation, willingness to excel and mind set were a lot more important to reach elite level in volleyball compared to what the environment provides for them. This suggests that the male athletes had created a stronger bond with the environment and are able to benefit more from what it has to offer. The female branch of Arkas SK is historically a newer addition and the talent development system may have been borrowed from the historically older and successful male branch, an issue seen far too often in the gender data gap of sport psychology.

### 6.1 Practical Implications

The principles outlined in the HEA (Larsen et al., 2014) assist and encourage sport psychology practitioners in the applied aspects of the field. Using the HEA sports psychology practitioners can implement interventions within the natural settings of athletes, such as, the volleyball court, rather than in a solely office environment. Secondly, sport psychology practitioners can have the opportunity to engage the different constructs surrounding the athlete within these interventions, such as coaches, teammates, and managers. Furthermore, sport psychology practitioners can shift the focus away from the individual athlete and strive to enhance the overall environment surrounding the individual athlete or the team. Lastly, HEA allows sport psychology practitioners to view athletes as complete individuals,

facilitating the development of a comprehensive set of psychosocial skills that can be beneficial for athletes both within and outside of the sporting realm.

HEA suggests that sport psychology needs to be incorporated into athletes' environment rather than confined to the practitioner's office, a call for a fundamental shift in how the practice is organized. This may involve the sport psychology practitioner to accompanying teams, regularly attending training sessions and competitions, and becoming a part of the performance staff, hired directly by the entities such as clubs, federations, or national Olympic committees, rather than operating as independent contractors. Furthermore, the HEA proposes expanding the scope of applied sport psychology to include strategies designed to optimize athletic environments across various performance levels, especially the need to foster organizational cultures that support athletes and staff in their pursuit of excellence.

## 6.2 Future Research

HEA to talent development can benefit with a case study done specifically on a female competition group to adjust the success factors and their descriptors to make it more generalizable including the needs of female athletes' talent progression and explain developing female athletes' relationship to their talent development environment if necessary. Furthermore, additional research in volleyball is important to implement to see if early specialization or early diversification is the norm for transitioning young athletes to professional level. Developing volleyball players at Arkas SK had a large range in terms of years playing volleyball, moreover, initial ability and final ability are not highly correlated making it difficult for coaches to predict which athletes will make it to professional level. Therefore, coaches and researchers need to create many different programs for developing athletes to maximize talent progression. Future research could benefit athletic talent development and the role of the environment by examining athletic talent development environments by including theory-testing research on the definitions of previously established success factors.

## 6.3 Limitations

The case of Arkas SK relies on a restricted collection of observational data as well as one on one and focus group interviews. Through an ethnographic lens, this limited interaction with the environment may be viewed as a limitation as it does not entail prolonged immersion in the cultural context of others to fully understand their way of life (Atkinson, 2016).

Furthermore, the data gathered is tailored to the specific case of Arkas SK, potentially limiting the generalizability of conclusions to other talent development environments within different regions and competitive tiers of volleyball.

#### 6.4 Conclusion

Holistic ecological framework provides understanding of the intricate process of talent development as it acknowledges the fact that young developing athletes are immersed within their athletic talent development environments. The case of Arkas SK, with the presented holistic and ecological description shows the applicability of the holistic ecological approach in a new high intensity sport with volleyball. Furthermore, this case study shows the generalizability of the holistic ecological framework in a different geography and culture with the presence of success factors established in earlier case studies. The case of Arkas SK also provided volleyball organizations and coaches practical methods to nurture their developing athletes holistically and how female and male developing athletes may differ in their perception of the same ATDE. All four outcomes of the study help researchers further understand the intricate dynamics of athletic talent development and the influential environmental factors at play.



## REFERENCES

- 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.
- Adler, P. & Adler, P. (1994). Observational techniques. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 377–392). Thousand Oaks, CA: Sage.
- Andrighetto, M. S., & Krebs, R. J. As estruturas interpessoais familiares e o desenvolvimento moral de adolescentes do Vale Vêneto [The interpersonal and familiar structures and the moral development of teenagers in Vale Vêneto]. (2006) *Revista Catarinense de Educação Física*. 2, 18-25.
- Araújo, D., Travassos, B., & Vilar, L. (2010). Tactical skills are not verbal skills: a comment on Kannekens and colleagues. *Perceptual and motor skills*, 110(3\_suppl), 1086-1088.
- Atkinson, M. (2016). Ethnography. In *Routledge handbook of qualitative research in sport and exercise* (pp. 71-83). Routledge.
- Baxter, P. & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13, 544–559.
- Bengoechea, E. G., & Johnson, G. (2000) Ecological systems theory and children's development in sport: Toward a process-person-context-time research paradigm. *Avante*, 7, 20-31.
- Bloom, B. (1985). Developing talent in young people. *BoD—Books on Demand*.
- Bronfenbrenner, U., & Crouter (1983). The evolution of environmental models in developmental research. In P. Mussen (Series ED.) & W. Kessen (Vol. Ed.), *Handbook of child psychology: Vol. 1. History, theory, and methods* (4th ed., pp. 357-414). New York: John Wiley.
- Bronfenbrenner, U. (1979). Contexts of child rearing: Problems and prospects. *American psychologist*, 34(10), 844.

- Bronfenbrenner, U. (1994). Ecological models of human development. *International encyclopedia of education*, 3(2), 37-43.
- Bronfenbrenner, U. (1999). Environments in developmental perspective: Theoretical and operational models.
- Bronfenbrenner, U. (2005). Making human beings human: Bioecological perspectives on human development.
- Bronfenbrenner, U. (1995 a). The bioecological model from a life course perspective: Reflections of a participant observer. In P. Moen, G. H. Elder & K. Lüscher (Eds.) *Examining lives in context: Perspectives on the ecology of human development* (pp. 599-618). Washington, DC: American Psychological Association.
- Bronfenbrenner, U., & Morris, P. (2006) The bioecological model of human development. In W. Damon & R. M. Lerner (Series Eds.) & R. M. Lerner (Vol. Ed.) *Handbook of child psychology: Vol. 1. Theoretical models of human development* (6th ed. Pp.793-828) New York: John Wiley.
- Bronfenbrenner, U., & Morris, P. (1998) The ecology of developmental process. In W. Damon (Series Ed.) & R. M. Lerner (Vol. Ed.) *Handbook of child psychology: Vol. 1. Theoretical models of human development* (5 th ed. Pp.993-1028) New York: John Wiley.
- Christensen, M. K., Laursen, D. N., & Sørensen, J. K. (2011). Situated learning in youth elite football: a Danish case study among talented male under-18 football players. *Physical Education and Sport Pedagogy*, 16(2), 163-178.
- Copetti, F. (2001) Estudo exploratório dos atributos pessoais de tenistas [Exploratory study of personal attributes of tennis players]. Unpublished Doctoral Dissertation, Universidade Federal de Santa Maria, Brazil.

- Côté, J. E. A. N., Lidor, R., & Hackfort, D. (2009). ISSP position stand: To sample or to specialize? Seven postulates about youth sport activities that lead to continued participation and elite performance. *International Journal of Sport and Exercise Psychology*, 7(1), 7-17.
- Côté, J. (1999). The influence of the family in the development of talent in sport. *The sport Psychologist*, 13(4), 395-417.
- Clarke-Stewart, A., Friedman, S. & Koch, J. (1985) Child development: a topical approach. New York: John Wiley.
- Cumming, S. P., Lloyd, R. S., Oliver, J. L., Eisenmann, J. C., & Malina, R. M. (2017). Bio banding in sport: applications to competition, talent identification, and strength and conditioning of youth athletes. *Strength & Conditioning Journal*, 39(2), 34-47.
- Dauids, M. S., Roberts, A. W., Seymour, J. F., Pagel, J. M., Kahl, B. S., Wierda, W. G., ... & Gerecitano, J. F. (2017). Phase I first-in-human study of venetoclax in patients with relapsed or refractory non-Hodgkin lymphoma. *Journal of Clinical Oncology*, 35(8), 826.
- Dunn, J. C. (2000) Goal Orientations, Perceptions of the Motivational Climate, and Perceived Competence of Children with Movement Difficulties. *Adapted Physical Activity Quarterly*. 17(1), 1-19.
- Durand-Bush, N., & Salmela, J. H. (2002). The development and maintenance of expert athletic performance: Perceptions of world and Olympic champions. *Journal of applied sport psychology*, 14(3), 154-171.
- Ellis, C., Kiesinger, C., & Tillmann-Healy, L. (1997). Interactive interviewing: Talking about emotional experience. In R. Hertz (Ed.), *Reflexivity and voice* (pp. 119–149). London: Sage.
- Fedderson, N. B., Morris, R., Ronkainen, N., Sæther, S. A., Littlewood, M. A., & Richardson, D. (2021). A qualitative meta-study of a decade of the holistic ecological approach to talent development. *Scandinavian Journal of Sport and Exercise Psychology*, 3, 24-39.

- Fiorese-Vieira, L. (1999) O processo de desenvolvimento de talentos paranaenses de atletismo: Um estudo orientado pela teoria dos sistemas ecológicos [The process of development of Paraná State athletics talents: a study supported by the ecological systems theory]. Unpublished Doctoral Dissertation, Universidade Federal de Santa Maria, Brazil.
- Fiorese-Vieira, L., Vieira, J. L. L., & Krebs, R. J. (1998) A trajetória de desenvolvimento de um talent esportivo: estudo de caso [The trajectory of a sport talent: A case study]. Pôster session presented at the of the VI Congresso de Educação Física e Ciências do desportodos Países de Língua Portuguesa, Coruña, Spain.
- Flatgård, G., Larsen, C. H., & Sæther, S. A. (2020). Talent development environment in a professional football club in Norway. *Scandinavian Journal of Sport and Exercise Psychology*, 2, 8-15.
- Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative inquiry*, 12(2), 219-245.
- Ford, P. R., Ward, P., Hodges, N. J., & Williams, A. M. (2009). The role of deliberate practice and play in career progression in sport: the early engagement hypothesis. *High ability studies*, 20(1), 65-75.
- Ford, P. R., & Williams, A. M. (2017). Sport activity in childhood: Early specialization and diversification. *Routledge handbook of talent identification and development in sport*, 116-132.
- Gagné, F. (2013). The DMGT: Changes within, beneath, and beyond. *Talent Development & Excellence*, 5(1), 5-19.
- Gagné, F. (2011). Academic talent development and the equity issue in gifted education. *Talent Development & Excellence*, 3, 3–22.
- Gerring, J. (2004). What is a case study and what is it good for? *American Political Science Review*, 98, 341–354.
- Gledhill, A., Harwood, C., & Forsdyke, D. (2017). Psychosocial factors associated with talent

- development in football: A systematic review. *Psychology of Sport and Exercise*, 31, 93-112.
- Gledhill, A., & Harwood, C. (2019). Toward an understanding of players' perceptions of talent development environments in UK female football. *Journal of applied sport psychology*, 31(1), 105-115.
- Gold, R. (1958). Roles in sociological field observation. *Social Forces*, 36, 217–223.
- Gomm, R., Hammersley, M. & Foster, P. (2000). Case study method. London: Sage.
- Gomm, R., Hammersley, M. & Foster, P. (2002). Case study and generalization. In R. Hammersley, M. & Atkinson, P. (2007). *Ethnography: Principles in practice* (3rd ed.). Abingdon, UK & New York: Routledge.
- Haukli, J. S., Larsen, C. H., Feddersen, N., & Sæther, S. A. (2021). The athlete talent development environment in the best ranked football academy in Norwegian football: The case of the U16 team in Stabæk football club. *Current Issues in Sport Science*, 6.
- Heilmann, F., Weinberg, H., & Wollny, R. (2022). The impact of practicing open-vs. closed skill sports on executive functions—A meta-analytic and systematic review with a focus on characteristics of sports. *Brain Sciences*, 12(8), 1071.
- Henriksen, K., & Stambulova, N. (2017). Creating optimal environments for talent development: A holistic ecological approach. In *Routledge handbook of talent identification and development in sport* (pp. 270-284). Routledge.
- Henriksen, K., Stambulova, N., & Roessler, K. K. (2010). Holistic approach to athletic talent development environments: A successful sailing milieu. *Psychology of sport and exercise*, 11(3), 212-222.
- Henriksen, K., Stambulova, N., & Roessler, K. K. (2010). Successful talent development in track and field: considering the role of environment. *Scandinavian Journal of Medicine & Science in Sports*, 20, 122-132.
- Henriksen, K., Stambulova, N., & Roessler, K. K. (2011). Riding the wave of an expert: A successful talent development environment in kayaking. *The sport psychologist*, 25(3), 341-362.
- Henriksen, K. (2010). *The Ecology of Talent Development in Sport*. In PhD Thesis. University of Southern Denmark.

- Hodge, K., & Sharp, L. (2016). Case Studies. In *Routledge handbook of qualitative research in sport and exercise* (pp. 62- 74). Routledge.
- Holt, N. L., Neely, K. C., Slater, L. G., Camiré, M., Côté, J., Fraser-Thomas, J., ... & Holt, N. L., & Hoar, S. D. (2006). The multidimensional construct of social support. *Literature reviews in sport psychology*, 199-225.
- Howe, M. J., Davidson, J. W., & Sloboda, J. A. (1998). Innate talents: Reality or myth?. *Behavioral and brain sciences*, 21(3), 399-407.
- Ivarsson, A., Stenling, A., Fallby, J., Johnson, U., Borg, E., & Johansson, G. (2015). The predictive ability of the talent development environment on youth elite football players' well-being: A person-centered approach. *Psychology of Sport and Exercise*, 16, 15-23.
- Jachyra, P., Atkinson, M., & Gibson, B. (2014). Gender performativity during interviews with adolescent boys. *Qualitative Research in Sport, Exercise and Health*, 6, 568– 582.
- Jacobson, J.; Matthaeus, L. Athletics and executive functioning: How athletic participation and sport type correlate with cognitive performance. *Psychol. Sport Exerc.* 2014, 15, 521–527.
- Kavussanu, M. & Roberts, G. C. (1996). Motivation in Physical Activity Contexts: the relationship of perceived motivational climate to intrinsic motivation and self efficacy. *Journal of Sport & Exercise Psychology*. Vol. 18, n. 3, pp.264-280.
- Krebs, R. J. (1995). Urie Bronfenbrenner e a ecologia do desenvolvimento humano [Urie Bronfenbrenner and the ecology of human development]. Santa Maria, RS:Casa Editorial, 189 p.
- Krebs, R. J. & Sartori, R. (2003). Children sport program in São José: an ecological perspective for sport development at a Southern Brazilian community. In. I.
- Krebs, R. J. (2009). Bronfenbrenner's bioecological theory of human development and the

- process of development of sports talent. *International journal of sport psychology*, 40(1), 108.
- Krebs, J. R., & Davies, N. B. (Eds.). (2009). Behavioural ecology: an evolutionary approach. *John Wiley & Sons*.
- 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.
- Larsen, C. H., Louise, S. K., Pyrdol, N., Sæther, S. A., & Henriksen, K. (2020). A world class academy in professional football: The case of Ajax Amsterdam. *Dansk Idrætspsykologisk Forum*.
- Li, C., Wang, C. K. J., & Pyun, D. Y. (2014). Talent Development Environmental Factors in Sport: A Review and Taxonomic Classification. *Quest*, 66(4), 433-447. <https://doi.org/10.1080/00336297.2014.944715>
- Li, C., Wang, C., & Pyun, D. Y. (2017). The roles of the talent development environment on athlete burnout: A qualitative study.
- Lichtman, M. (2013). Qualitative research for the social sciences. SAGE publications.
- Lewin, K. (1936). A dynamic theory of personality: Selected papers. *The Journal of Nervous and Mental Disease*, 84(5), 612-613.
- Maaløe, E. (2004). In case of case research. Department of Organization and Management, Aarhus University. Aarhus.
- Martindale, R. J., Collins, D., & Abraham, A. (2007). Effective talent development: The elite coach perspective in UK sport. *Journal of applied sport psychology*, 19(2), 187-206.
- Martindale, R. J., Collins, D., & Daubney, J. (2005). Talent development: A guide for practice and research within sport. *Quest*, 57(4), 353-375.
- Mathorne, O. W., Henriksen, K., & Stambulova, N. (2020). An “organizational triangle” to coordinate talent development: A case study in Danish swimming. *Case Studies in Sport and Exercise Psychology*, 4(1), 11-20.

- Malina, R. M., Cumming, S. P., Coelho-e-Silva, M. J., & Figueiredo, A. J. (2017). Talent identification and development in the context of “growing up”. In *Routledge Handbook of Talent Identification and Development in Sport* (pp. 150-168). Routledge.
- McGannon, K. R. (2016). Critical discourse analysis in sport and exercise: What, why and how. In *Routledge handbook of qualitative research in sport and exercise* (pp. 252-264). Routledge.
- Okley, J. (2008). Knowing without notes. In N. Halstead, E. Hirsch & J. Okley (Eds.), *Knowing how to know: Fieldwork and the ethnographic present* (pp. 55–74). New York: Berghen Books.
- Papaioannou, A. (1998). Students’ Perceptions of Physical Education Class Environment for Boys and Girls and the Girls and the Perceived Motivational Climate. *Research Quarterly for Exercise and Sport*, 69(3), 267-275.
- Patton, W., & McMahon, M. (2014). *Career development and systems theory: Connecting theory and practice* (Vol. 2). Springer.
- Potter, J. & Hepburn, A. (2005). Qualitative interviews in psychology: Problems and possibilities. *Qualitative Research in Psychology*, 2, 281–307.
- Ragin, C. C & Becker, H. S. (1992). *What is a case? Exploring the foundations of social inquiry*. Cambridge, UK: *Cambridge University Press*.
- Randall, W. & Phoenix, C. (2009). The problem with truth in qualitative interviews: reflections from a narrative perspective. *Qualitative Research in Sport, Exercise and Health*, 1, 125–140.
- 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.
- Schein, E. H. (1990). Organizational culture (Vol. 45, No. 2, p. 109). *American Psychological Association*.
- Schein, E. H. (2010). *Organizational culture and leadership* (Vol. 2). *John Wiley & Sons*.
- Schmidt, R., & Lee, T. (2011). *Motor control and learning: A behavioral emphasis* (5th ed.). Champaign, IL: *Human Kinetics*.



- Schmidt, R. A., & Wrisberg, C. A. (2008). *Motor learning and performance: A situation based learning approach*. Human kinetics.
- Schwandt, T. A. (1997). *Qualitative inquiry: A dictionary of terms*. Thousand Oaks, CA: Sage.
- Seifriz, J. J., Duda, J. L. & Chi, L. (1992) The Relationship of Perceived Motivational Climate to Intrinsic Motivation and Beliefs about Success in Basketball. *Journal of Sport and Exercise Psychology*. 14, 375-392.
- Simons, H. (2009). *Case study research in practice*. London: Sage.
- Skinner, B. F. (1974). *About Behaviorism: By BF Skinner*. Knopf.
- Smith, B. (2013). Disability, sport, and men's narratives of health: A qualitative study. *Health Psychology*, 32, 110–119.
- Smith, B., & Sparkes, A. C. (2016). Interviews: Qualitative interviewing in the sport and exercise sciences. In *Routledge handbook of qualitative research in sport and exercise* (pp. 125-145). Routledge.
- Stake, R. E. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The handbook of qualitative research* (3rd ed., pp. 443–466). London: Sage.
- Stambulova, N., Alfermann, D., Statler, T., & Côté, J. E. A. N. (2009). ISSP position stand: Career development and transitions of athletes. *International journal of sport and exercise psychology*, 7(4), 395-412.
- Storm, R. K., & Nielsen, K. (2012). Soft budget constraints in professional football. *European sport management quarterly*, 12(2), 183-201.
- Talent identification steps discussed at latest School Project webinar | InsideCEV. (n.d.). Retrieved April 17, 2023, from <https://inside.cev.eu/articles/development/talentidentification-steps-discussed-at-latest-school-project-webinar/>
- Thomas, G. (2011). A typology for the case study in social science following a review of definition, discourse, and structure. *Qualitative Inquiry*, 17, 511–521.
- Thomas, G. (2012). *How to do your case study: A guide for students and researchers*. London: Sage.

- Thorpe, H., & Olive, R. (2016). Conducting observations in sport and exercise settings. In *Routledge handbook of qualitative research in sport and exercise* (pp. 146-160). Routledge.
- Thorpe, H. (2011). *Snowboarding bodies in theory and practice*. Basingstoke, UK: Palgrave Macmillan.
- Tjora, A. (2006). Writing small discoveries: An exploration of fresh observers' observations. *Qualitative Research*, 6(4), 429–451.
- Vieira, J. L. L. (1999) O processo de abandono de talentos de atletismo do Estado do Paraná: Um estudo orientado pela teoria dos sistemas ecológicos [The process of drop out of Paraná State athletics talents: a study supported by the ecological systems theory]. Unpublished Doctoral Dissertation, Universidade Federal de Santa Maria, Brazil.
- Vlachopoulos, S. & Biddle, S. (1996) Achievement Goal Orientations and Intrinsic Motivation in a Track and Field Event in School Physical Education. *European Physical Education Review*. 2(2), 159- 164.
- Ward, P., Belling, P., Petushek, E., & Ehrlinger, J. (2017). Does Talent Exist?: A re evaluation of the nature–nurture debate. In *Routledge handbook of talent identification and development in sport* (pp. 19-34). Routledge.
- Wenger, E. (1998). Communities of practice: Learning as a social system. *Systems thinker*, 9(5), 2-3.
- Wylleman, P., & Lavallee, D. (2004). A developmental perspective on transitions faced by athletes. *Developmental sport and exercise psychology: A lifespan perspective*, 507-527.
- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). Thousand Oaks, CA: Sage.