A Successful Talent Development Environment in an Amateur Soccer Club: Redefining "Success" for the Greater Population

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PhD Thesis

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I hereby declare that I have written the present thesis independently, without assistance from external parties and without use of other resources than those indicated. The ideas taken directly or indirectly from external sources (including electronic sources) are duly acknowledged in the text. The material, either in full or in part, has not been previously submitted for grading at this or any other academic institution.

Peter Schneider

Augsburg, 08.08.2019

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Dissertation-Related Publications and Presentations

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English summary of the dissertation

There has been steadily growing interest and evidence in and around the importance of environmental factors with regards to talent development. This focus, which departs from a traditional approach concentrated on the individual, his teammates or the relationship with the coach, has given the talent development field new life and a new direction to expand in the attempt to better understand successful and long-term athlete development. This dissertation is one added piece to the puzzle in how environmental factors can contribute to a positive affect to and development within a sport by looking at how environmental models can be used in an amateur format for the first time.

Athletic talent development environments (ATDEs) and their environmental successful factors (ESF) have been researched in multiple countries and sport contexts. More recently, these contexts have included the world's most popular sport, soccer. One aspect that has remained constant, however, is the professional level under which all researched sport environments have operated. It was therefore the purpose of this thesis to adapt both the ATDE and ESF working models to an amateur environment in soccer, and if necessary, perform an intervention which might improve the positive effect the environment could have on its athletes.

Results showed many of the features and factors found within elite ATDEs could be replicated at an amateur soccer club. While differences were found in the amount of days dedicated to their sport, the quality of the facilities or financial backing the players had, fundamental similarities were identified with regards to the close connection between the players to their coaches, the importance of family in their development, and the greater cultural influences from both the country and sport-specific cultures. Furthermore, because the examined club did not compete for national titles, "success" was redefined as helping developing girls into young women and providing a space to them to be physical active. Finally, in contrary to other successful ATDEs, but in line with previous soccer club environments studied, there was little-to-no connection between the youth and senior players at the club.

In an attempt to alleviate this gap, an intervention based upon previous ecological studies involved connecting the academy and senior-level players through multiple channels, all related to and within the sport. Senior players participated at practices at the U17 level, invited them out to an away game, and involved them at activities at the club. Results showed positive experiences from both sides of the intervention, as youth players began to understand how they could still play at the adult level - balancing an education or job with their sport. Furthermore, the women were open to speaking to them on a variety of topics outside of the sport, offering support when needed. For the senior level players, this experience provided a glimpse into a possible role as a coach and role model, and gave some a stronger sense of bonding to their current club.

In summary, the results demonstrate three key concepts: 1) both ATDE and ESF models can be adapted an applied by practitioners and researchers to the amateur environment, 2) a successful ecological interventional can be as simple as providing the room and space for interaction between senior and junior-level athletes, and 3) future research into ATDEs and ESF of amateur environments could help many young female athletes stay active into their adult years.

Deutsche Zusammenfassung der Dissertation

Das Interesse an Umweltfaktoren und die Bedeutung, die diesen in Bezug auf die Talententwicklung im Sport zugeschrieben wird, hat stetig zugenommen. Dieser Fokus weicht von einer traditionellen Herangehensweisen, in welcher einzelne Athleten und deren zwischenmenschliche Beziehungen (zwischen Teamkollegen oder Trainer-Athlet) im Mittelpunkt stehe, ab und hat der Talentforschung eine neue Richtung gegeben. In Anbetracht dessen bietet die vorliegende Dissertation eine grundlegende Ergänzung der Thematik, indem sie sich mit dem Einfluss von Umweltfaktoren auf den Affekt und die Entwicklung junger Athleten innerhalb eines Sports auseinandersetzt. Sie zeigt zudem auf, wie bereits existierende Arbeitsmodelle aus dem leistungsorientierten Sport auch im Amateursport Anwendung finden können.

Umfeldbedingungen in der Talententwicklung im Sport (ATDEs) und deren Erfolgsfaktoren (ESF) wurden in verschiedenen Ländern und Sportkontexten untersucht. In jüngerer Zeit hat sich die Forschung in diesem Feld besonders mit der einer der am weitesten verbreiteten Sportarten, dem Fußball, auseinandergesetzt. In diesem Forschungsbereich– auch außerhalb des Fußballs – konzentrierten sich bisherige Untersuchungen vor Allem auf Sportumfelder, welche einem professionellen Leistungsniveau zugeordnet werden konnten. Ziel dieser Arbeit war es daher, das ATDE- als auch das ESF-Arbeitsmodell im Rahmen eines Amateurumfeld im Fußball zu erkunden. Basierend auf diesen Erkenntnissen sollte anschießend eine Intervention gestaltet und durchgeführt werden, welche potentiell positive Umfeldeinflüsse weiter fördern würde.

Die Ergebnisse deuten darauf hin, dass viele der Merkmale und Faktoren von Elite-ATDEs auch in einem Amateur-Fußballverein gefunden werden können. Obwohl Unterschiede in der Anzahl der Trainingstage, in der Qualität der Einrichtungen oder der finanziellen Unterstützung der Spieler festgestellt wurden, zeigten sich grundlegende Ähnlichkeiten bezüglich der engen Beziehung zwischen den Spielerinnen und ihren Trainern, der Bedeutung der Familie für die Weiterentwicklung und größerer kulturellen Einflüsse, sowohl aus dem Land als auch aus der sportspezifischen Kultur. Da der Verein nicht um nationale Titel kämpfte, wurde der Begriff „Erfolg“ mit Bezug auf eine gelungene Entwicklung vom Mädchen zu einer jungen Frau definiert. Dies beinhaltete auch, ihnen Raum für körperliche Betätigung zu geben. Ähnlich anderen Fußballvereinen, aber im Gegensatz zu den Empfehlungen erfolgreicher ATDEs, bestand jedoch kaum ein Zusammenhang zwischen den Teams der unteren Altersklassen und den erwachsenen Spielern des Vereins.

Um diese Lücke zu schließen, wurde eine Intervention durchgeführt, die auf früheren Umfeld-bezogene Studien basierte. In dieser wurde versucht, den Kontakt zwischen Akademie- und erwachsenen Spielerinnen über mehrere fußball- und vereinsbezogene Maßnahmen zu fördern. Zum Beispiel nahmen erwachsene Spielerinnen an Trainings der U17Mannschaft teil, luden diese außerdem zu einem Auswärtsspiel ein und beteiligten sich auch an anderen Aktivitäten des Vereins. Die Ergebnisse zeigten positive Erfahrungen von beiden Seiten: So begannen die jugendlichen Spielerinnen zu verstehen, wie sie eine Ausbildung oder einen Beruf in Einklang mit ihrem Sport bringen und ihn so auch im Erwachsenenalter weiter verfolgen konnten. Darüber hinaus waren die Frauen offen für Gespräche zu verschiedenen Themen außerhalb des Sports

und boten bei Bedarf Unterstützung an. Für die erwachsene Spielerinnen bot diese Erfahrung einen Einblick in eine mögliche Rolle als Trainerin und gab einigen ein stärkeres Gefühl von Bindung zu ihrem aktuellen Verein.

Zusammenfassend zeigen die Ergebnisse drei Schlüsselkonzepte: 1) Sowohl ATDE- als auch ESF-Modelle können (modifiziert) auf den Amateursport übertragen werden, 2) ökologische Interventionen können recht einfach gestaltet und dennoch erfolgreich sein (z.B. Platz und Zeit für Interaktion zwischen Senior- und Junior-Athleten zu schaffen), und 3) zukünftige Forschungsprojekte zu ATDEs und ESF in Amateurumfeldern könnten vielen jungen Athleten helfen, auch im Erwachsenenalter aktiv zu bleiben.

Chapter 1: Introduction

Finding new and innovative ways to improve the performance of athletes is the most basic job description of an applied sport psychologist or researcher. However, finding ways to improve the lives of everyday people through applied sport psychology could be considered a greater purpose. Indeed, improving performance under pressure or decreasing drop-out rates in elite academies does provide a necessary and often exciting service, and sometimes these same methodologies can be turned around, shaken up, and reapplied to the greater population. This "reapplication" is the case in this dissertation, as it will attempt to utilize established working environmental models on talent development in a young girl's amateur soccer club. These models are currently only being applied in elite sport environments. To begin, a quick introduction to the importance of amateur sport and the cultural significance of the sport of soccer in Germany where the research was conducted, is presented.

1.1 THE ROLE OF AMATEUR SPORT

Due to the many and long-term health benefits of an active lifestyle (Reiner, Niermann, Jekauc, & Woll, 2013), there has been a steady increase in governmental funding and interest in raising the level of sport participation within the general society (Green, 2005). Therefore, it is of great interest to the public and public health that research is conducted not only with elite athletes but with regards to non-professional athletes. It could be even argued that such research is, in fact, more socially responsible and desirable for general population.

The motivations behind participating in amateur sport can vary greatly (Mutter & Pawlowski, 2013), however five factors that are fundamental to amateur sport as identified by Eitzen (1989, p. 95) as: "…(1) the amateur derives pleasure from the contest; (2) the activity is freely chosen; (3) the process is every bit as important as the outcome; (4) the motivation to participate comes from the intrinsic rewards from the activity rather than the extrinsic rewards of money and fame; and (5) because there is a love of sport for its own sake, there is a climate of sportsmanship surrounding amateur sport."

Specifically, youth amateur sports can provide social, psychological, and many physical benefits for its participants (Côté & Fraser-Thomas, 2016). In addition, youth amateur sport has become a significant part of the entire sport industry, involving many families across a variety of cultures and nations (Warner, Dixon, & Leierer, 2015; Messner & Bozada-Deas, 2009). The importance is ever

growing and the significance of understanding how best to involve young children in sport is a question many parents ask themselves.

A healthy approach to talent development (i.e deliberate play) can provide an individual with a healthy relationship to sport (Côté & Fraser-Thomas, 2007), and current holistic models attempt to provide young athletes with well-rounded identities including a mixture school, social life, and sport. It is also been shown that the quality of early experiences with sport greatly influence an individual's motivation and involvement with sport in adult life (Kirk, 2005). In addition, Biddle and colleagues (1999) demonstrated that only around 13% of the youth population, (of that only 33.2% are female) are seriously and highly self-motivated athletes, meaning the majority of the youth population (87%) either has no interest in sport or only perceives sport as something recreational.

Due to both the long-lasting health benefits of an active lifestyle and the greater majority affected by research in the amateur sport domain, it only seems logical to conduct research in this area. By applying effective working models from the elite domain in the amateur environment, sport psychology practitioners could have a tool with which they could affect much greater change, both from a national as well as time perspective.

1.2 SOCCER AS A WORLD SPORT

Of all available sports, the reason for choosing the sport of soccer is simple. There is little doubt in the great interest in soccer world wide (Roderick, 2006). The World Cup is regularly one of the most-watched events every four years, and in Europe the UEFA European Championship is a fierce competition between the old powers of the sport. Specifically in Germany, the interest in soccer might be at it its highest, with the Deutscher Fußball Bund (German Soccer Federation) having about 25,000 clubs and over 7 million members registered (Figure 15, DFB Website, 2018). Looking further into the German population, we see that 80% of men have at least some interest in soccer, sharing this passion with about 50% of women in the country (Hansen, 2012). The interest of women in soccer is being seen in the number of young girls going out to play their favorite sport. Over the past 30 years, the number of girls and young women playing soccer in a club and at a competitive level has doubled (Hansen, 2012). Through the influence of the successes of the German Women's national team as well as Germany hosting the Women's World

FIGURE 1. NUMBER OF MEMBERS, CLUBS, STATE AND REGIONAL FEDERATIONS IN GERMAN SOCCER.

Cup in 2011, young women throughout the country had models of successful women's players brought to a variety of major cities and into their homes on TV.

This increased focus and attention has overloaded local clubs with finding spots for young girls on boy's teams or, in some cases, creating completely new all girl's teams and all girl's leagues. The rise of women's clubs at traditional German men's soccer clubs such as Wolfsburg and FC Bayern have also increased the attention on the sport, and Allianz sponsored professional women's league attracts top players from around the world. More recently, growth within the women's English and French leagues has increased, as well. Olympique Lyon has, for example, won the past four Champion's League champions in a row.

Interestingly enough, however, although the interest level in the sport stays constant, the amount of young women dropping out of the sport between the ages of 18-21 is extremely high (Pahmeier, 2012). The reasons for dropout are, like in all sports, varied, however certain trends have been determined in recent years. The most important aspect affecting a decision to remain active in soccer, seems to be the environment around the players - and more specifically, the coach leading that environment (Figure 1, Pahmeier, 2012). This is followed by the organizational

situation at the club and the level the club is playing at. Most curious is the fact that athletes cite their health and a lack of motivation as the least likely reason to drop out of the sport. It is therefore not that young soccer players find other interests, but rather desire a motivating and welcoming environment as well as a leader or coach, which continues to bind them to the club and the sport.

This then begs to question how sport psychology researchers could decrease dropout in women's sport, provide them with a healthy and long-term relationship to soccer, and increase sport participation on a grand scale. Distant from traditional and individual approaches, the ecological approach presented provides a flexible and context-dependent intervention strategy, and could alleviate symptoms of dropout and dissatisfaction currently found among young female soccer players.

To begin, the theoretical basis for how talented young players have been identified and developed is presented. This is the backbone on which the evolution of developmental and transitional models were produced, and which will eventually give way to an additional focus on an athlete's surroundings, including both the local club and national culture. Finally, the author will provide evidence for a gap in the literature and present the next logical step in the evolution of ecological talent development research, namely to expand the current sport psychological knowledge on talent development environments into the amateur environment, providing working models and applicable suggestions which can utilized for the greater population.

Chapter 2: Talent Detection, Identification, and Development

Many scientists 500 years ago spent their entire lives researching a formula to turn regular stones and materials into gold. They were convinced if they could find the correct mixture of chemicals, they would be not only create gold, but receive with it wealth and power beyond imagination. We know today there is indeed a way to create gold out of simple metals and materials, but unfortunately it requires the blistering heat and crushing gravity available only in stars and nuclear reactors. A new sort of gold has emerged in the past century, however, with major sporting leagues, their events, and the athletes who compete in them being worth billions of dollars. As an example, the average NFL team is currently valued at 2.57 billion dollars, with the wealthiest team, the Dallas Cowboys, worth an estimated 5 billion dollars (Forbes, 2018).

Perhaps is it little wonder then that research into finding and developing talented athletes has developed so radically (Abbott, Collins, Martindale, & Sowerby, 2002; Tranckle, 2004). In the present day, each team, club, or coach is looking to find the “solution” or “formula" to turn any young person into a multi-million dollar athlete. Multiple models and beliefs about where talent comes from, how it can be found, and finally be developed have been proposed, changed, thrown out, and reemerged again (Durand-Bush & Salmela, 2001). The validity of these various identification solutions, models, and talent development systems has been criticized on multiple accounts (Bailey & Collins, 2013). This does not, however, stop researchers and applied practitioners alike from attempting to better understand what it takes to reach the elite level of sport.

In this chapter, we will examine how talent development had traditionally been modeled and how “talented” individuals are identified and developed. The focus begins with basic assumptions about talent identification made by scouts, sport academies, and organizations worldwide. Flaws in these traditional types of thinking about talent will be uncovered, producing the more modern focus on talent development, rather than identification. Subsequently, we will present research on the psychological factors which are most decisive in talent development, often during transitional periods, and how these can be developed by coaches, parents, and psychologists. Finally, the current addition of research on talent development not only involving individual athletes, but the environment in which they develop will be discussed, demonstrating the need and strengthening

the argument that the key success factor is not only necessary what athletes do, but where they do it.

2.1 TRADITIONAL MODEL OF TALENT DEVELOPMENT

There is no one single model from which all current talent development models come from, however there is a central idea towards how athletes go from a basic level to the elite, namely the Standard Model of Talent Development (Bailey & Collins, 2013). This is often represented by a pyramid metaphor, which is widely accepted amongst most circles of modern talent research, specially in Western culture (Prescott, 1999). An example of this metaphor begins with basic school sport and physical education for all members of a society and narrows down to elite competitions at the very top, where only a few will ever participate (Figure 1, Tinning, Kirk, & Evans, 1993). The layers between sport for all members of society and for only a few elite include both local and regional competitions, as well as national competitions against the top athletes in a given field in a given country. The subjective question, “at what point does one become an elite athlete?” cannot be so easily answered (Swann, Moran, & Piggott, 2015), however there is a very clear understanding that the higher one goes up the pyramid, the number of athletes decreases and the fiercer the competition becomes.

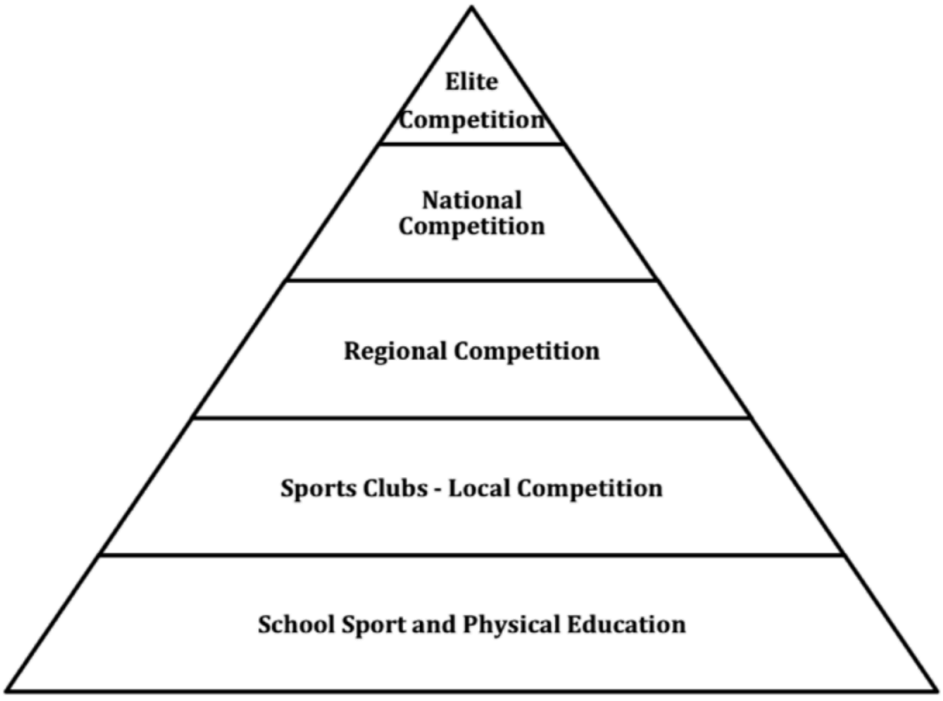

FIGURE 2. THE PYRAMID MODEL OF SPORTS DEVELOPMENT (TINNING ET AL., 1993)

The reason behind society's belief in the pyramid structure has been discussed by scholars as well. For example, Kirk and colleagues (2005) postulate the structure is based on public policy towards sport and encouraging the mass population to be physically active. This would make sense, and following this logic many governments have implemented physical activity requirements in schools. The purpose is two-fold: 1) governments introduce healthy habits to their citizens, likely lowering sedentary-related diseases in the future and thereby cutting healthcare costs, and 2) provide the basic setting for talent detection in a multitude of physical activities.

The SMTD has been shown to demonstrate the following characteristics in practice (as demonstrated by Bailey & Collins, 2013, p. 249):

- The focus is solely on progressing those identified as talented, and not on the wider group of participants, even though these may meet the necessary standards later
- Progression from one level to the next involves removal of large numbers of players from the system (and possibly from the sport)
- "Formal" threshold measures (e.g. country/state level representation for some, "ideal" body proportions for others) are often in place that select or de-select players for progression
- Once a player has been de-selected from a talent route, it is difficult or impossible to return to it
- Early specialization in one or a small number of activities is seen as necessary to achieve high performance
- It is presumed that early ability in an activity (which enables progression up the pyramid) is indicative of later success (Bailey, Leigh, Pearce et al., 2011; Kirk, Brettschneider, Auld, 2005)
-

The success (or perceived success) of the model could account for its consistent acceptance and application in sport science circles for decades (Heath & Heath, 2008). If it truly is the most effective way to find and develop talent can never truly be tested, as we are unable to know which de-selected talent could have eventually become elite (Bailey & Collins, 2013). However by

dissecting the process, we can observe the traditional talent development model at different stages: talent detection, selection, and development.

2.2 TALENT DETECTION AND IDENTIFICATION

The difficulty with talent detection begins in its definition, as it can have two meanings; ironically which are the opposite of each other. Talent can be used when referring to an individual who seems to have a "natural or innate ability" for a task, and in the same breath can define a specific skill or ability, which one has already acquired (Gagne, 1985). Therefore, we must always be clear in which way we are attempting to detect individuals for a sport: does the individual seem to have a natural ability (or "giftedness", Gagne, 1985) or does the individual already possess certain skills or physical attributes, which will help them to become successful later on?

An answer to this question was attempted by Williams and Reilly (2000b), in which they described the difference between talent detection and talent identification. Talent detection is finding an individual who is not yet involved in the sport, but likely contains the raw materials to be successful. An example would be of a soccer player who can kick extremely far, but has poor endurance, and therefore might be more suited as a kicker on a football team. Talent identification is the confirmation of those individuals already competing in their best sport, where they have demonstrated enough ability to on track to become an elite athlete. An example here would be in a professional league draft, where professional teams scout those players already competing at a lower level, and decide if they are a fit for their team.

Regardless if one follows the principal of talent identification or detection, how talent is diagnosed varies on one's approach. For example, one can try to find a talented athlete based on their physical stature or their physiological and coordinative abilities (Durand-Bush & Salmela, 2001), or – as done more recently - there has been increasing focus on psychological factors. The first steps towards psychological factors in talent identification are found in the late 70s (Morgan, 1978, as cited by Gould, Dieffenbach, & Moffett, 2002), where a focus was put on personality characteristics.

A summary of psychological factors in talent development completed by Williams and Krane (2001) revealed the following competencies / characteristics can be found across high-level athletes: 1) self-regulation of arousal, 2) heightened concentration, 3) high levels of motivation and commitment, as well as 4) coping skills in relation to distractions or unplanned events. More

recently, further evidence for the importance of psychosocial factors for elite performance in soccer was found in a review of by Gledhill and colleagues (2017), and it has therefore become an essential aspect of talent identification and detection to allow for psychological characteristics to both be revealed and measured (Henrisken, 2010). The way in which scouts, coaches, and researchers view these characteristics has evolved over the past 30 years.

Researchers began searching not only to identify, but also to measure these psychological characteristics. One of these attempts includes the development of the Athletic Coping Skills Inventory-28 (ACSI-28), which measures athletes on various sport-specific psychological skills (Smith, Schultz, Smoll, & Ptacek, 1995). This inventory measured psychological factors such as "coping with adversity" and "peaking under pressure", and demonstrated significant differences between more and less successful players. Another scale, based on the measurement of volition, otherwise known as the ability to carry out and complete tasks one is motivated for (Kuhl, 1983), was developed. This Volitional Components Questionnaire (VKS) was originally developed for the general population (Kuhl & Fuhrmann, 1998), but has since been adapted and validated for a sport-specific context (Wenhold, Elbe, & Beckmann, 2009). This questionnaire has demonstrated significant differences between successful and non-successful athletes in long-term studies, and is currently part of a battery of questionnaires to determine predictive psychological characteristics of success in soccer players (Feichtinger & Höner, 2014).

In the Netherlands, a longitudinal study of perspective soccer players was undertaken to determine which psychological factors separate those who had a successful career, and those who did not (Van Yperen, 2009). Success in this case was defined as being paid in a professional manner to play soccer for a minimum of 10 years at a premier-league level. Van Yperen based his research on Ericsson and colleagues' (1993) theory of deliberate practice, focusing on three restraints in talent development: 1) the *motivation constraint*, which refers to one's ability to stay committed to their goals, 2) the *effort constraint*, defined by the ability to only be able to give so much effort in one day, and finally 3) the *resource constraint*, referring to the coaches, staff, facilities and social support needed to train properly.

Three psychological factors emerged from study, predicting nearly 85% of the successful athletes: goal commitment, engagement in problem-focused coping behaviors, and social support seeking. In essence, each factor is an answer for the respective restraints on deliberate practice, thus allowing these athletes to obtain high amounts of deliberate practice and increase

their chances to reach the elite level of their sport. Van Yperen's study had its limitations, such as the lack of process variables during the long 15-year study, but it gave encouragement to sport psychology researchers that psychological factors could, indeed, be measured to be the determinant factor for becoming a successful elite athlete.

More recently, Elbe and Wikman (2017) also looked into which psychological skills are needed to become a top performer, and how these identified skills can be developed. They, too, mentioned motivational (i.e high dispositional hope) and self-regulatory (i.e. ability to set and achieve goals) factors as decisive for becoming an elite athlete. Moreover, as discussed in the review, Wikman 's dissertation (2015) discovered the significant importance of social factors in development. Therefore, it is not only an athlete's ability to focus and keep him or herself motivated, but their ability to utilize social support systems within their environment which can be significant on the pathway to being world class.

In reference to if and how these psychological factors can be trained, Elbe and Wikman (2017) claim that motivational personality tends to be more more stable, where as self-regulatory factors, perhaps better identified as self-regulatory skills, can indeed be developed over time during adolescence. Furthermore, they go on to conclude that the development of these skills can be influenced by the environment (Henriksen et al., 2010a), and more specifically by the people within that environment. Examples can be found in the literature on the role of elite sport schools (Beckmann, Elbe, Szymanski, & Ehrlenspiel (2006), caretakers (Richartz, 2002), peers (Elbe & Beckmann, 2002), and parents, who arguably have the highest amount of influence of psycho-social factors in a child's development (Keegan, Spray, Harwood, & Lavallee, 2014). Additionally, a sport psychologist can also play a significant role in the development of personality factors. Elbe and Wikman (2017) demonstrated findings for successful interventions in reducing the fear of failure and increasing hope for success (Wessling-Lünnemann, 1985; Wikman, Stelter, Melzer, Trier Hauge, & Elbe, 2014). They also cited and emphasized the importance of a sport psychologist's role in regulating stress and recovery due to young athletes having reduced leisure time in comparison to their non-athletic colleagues (Elbe & Beckmann, 2002). It is specifically during this leisure time in which an athlete can develop the social skills needed to cope with stressful situations.

Further support for the focus on development of psychological factors can be found in a review of sport talent identification and detection by Durand-Bush and Salmela (2002), where the

researchers understand psychological characteristics as something that is state-dependent (a learned skill), rather than trait dependent (genetically based). The argument between nature and nurture in sport ability is nothing new, but an answer to question if psychological characteristics are simple innate is summarized well by MacNamara, Button, and Collins (2010, p. 54):

> "This consideration is important given that excellence in sport *is not idiosyncratic to a specific set of attributes* but can be achieved through *a combination of skills and capabilities* (Feldman, 1988). What should be of real interest to those involved in {talent identification} is the composition of skills, behaviors, and capabilities that allow individuals to make the most of the opportunities presented during development and translate their potential into capability (Abbott & Collins, 2004; Bailey & Morley, 2006; Howe & Davidson, 2003; Lidor & Lavyan, 2002)."

This quote comes out of the first of a two-part paper looking into the Psychological Characteristics of Developing Excellence, or PCDEs (MacNamara, Button, & Collins, 2010). The major take-aways from these papers in regards to talent development are: 1) desired psychological characteristics, just like their physical counterparts, are learned, trained, and furthermore can and need to be developed; 2) psychological characteristics are seen as vital if not more important than physical components in talent development; and 3) there are multiple PCDEs, including imagery, coping under pressure, commitment, and competitiveness. These papers give hope to a new idea of talent identification and possible selection, attempting to answer the criticisms of current talent detection researchers.

2.3 CRITICISMS OF TALENT IDENTIFICATION

Regardless of the improvements in definition, methodology, or focus into physical or psychological attributes, talent detection and identification models and theories have received criticism. All things considered, talent identification and detection have developed in multiple ways over the past 50 years. The science to find the best talent has in all regards, be it in anthropomorphic, physiological, technical, or more recently psychological characteristics, greatly improved in its attempt to improve consistency and accuracy. Whether or not these improvements have led to a significantly better talent pool at the bottom of national talent pyramids, remains to be seen.

As a general criticism, most models of talent identification involve a deselection process, rather than focusing on a positive selection process (Burgess & Naugton, 2010). By following this process, coaches and scouts consistently remove potential elite athletes from a pool, rather than focusing on improving those who demonstrate the greatest potential at that moment. This methodology is a constant cat-and-mouse struggle involving the "fear of missing out" of possible young talents.

A second problem is a misunderstanding that certain traits contained in young athletes, physical or psychological, may not be retained throughout the maturation process (Vaeyens, Lenoir, Williams, et al., 2008). This expensive process of identifying specific desired traits in young individuals often leads to a very low turnout of successful adult athletes. In examples involving rugby and soccer, only small correlations have been found in regard to certain physical ability (e.g. sprint speed), but no correlation to future success was found in regards to potential body size (Malina, Cumming, Kontos, et al., 2005; Pyne, Gardner, Sheehan et al., 2005). In essence, the desired traits, physical or psychological, may not be fully matured until long after early testing protocols have deselected an abundance of potential talent.

A third major problem is found when simply observing the number of professional athletes' birthdate and locations. Such greater environmental factors have draw the attention of sport psychology researchers and have led to the discovery of unknown biases which can greatly influence the chances of an athlete's later success as an elite athlete. These phenomena are referred to as the *Relative Age Effect (RAE)* and the *Birthplace Effect*, similar to the *Big Fish - Little Pond Effect* (Côté, Baker, & Abernethy, 2007; Marsh, 1987). These biases in talent selection have little to do with the actual potential of each young candidate, but are biological and psychological advantages simply based on birthdate and birth location.

Relative Age Effect

The RAE is defined as the advantage that one athlete has over a peer within their same age group due to the time of year in which they were born (Côté et al., 2007) . This means that although two children are both born in the year 2000, if one child is born on January 1st and the other on December 31st, they would compete on the same team, even though the child on January 1st is a full calendar year older than the other child. The age-group limit is set by a sport organization, often at the federal state or country level in which the athlete finds themselves. This age-group

limit greatly affects the probability for those who are chosen for elite teams and training centers, with athletes born further away from the cut date having a disadvantage.

Birthplace Effect

The birthplace effect has been examined in multiple countries and multiple sports (Carlson, 1988; Curtis & Birch, 1987; Côté et al., 2007). It is the effect that states how the size and population of an athlete's hometown can influence his or her development. For example, Curtis and Birch (1987) discovered that athletes from between 1,000 and 500,000 inhabitants were overrepresented at the elite level. Furthermore, it was determined that in the United States, athletes from cities with populations between 50,000 and 99,999 inhabitants had the highest probability to become a professional athlete (Côté, MacDonald, Baker, & Abernethy, 2006). This can be attributed the likelihood of available resources (equipment, fields, qualified coaches) in the city. Towns that are too small do not provide ample resources and cities that are too big provide too much competition over the resources present (Côté et al., 2007).

Big Fish - Little Pond Effect

The big fish - little pond effect (BFLPE) put forth by Marsh (1987) is a direct link of how a greater environment, determined randomly by one's birthplace, can have an impact on psychological factors such as self-efficacy and motivation in sport. The BPLPE describes how two athletes with equal abilities, can have completely different levels of self-efficacy based on their surrounding environments. As an example, athlete A in a small town (small pond) may be the best player and builds his self-efficacy within his sport, increases his motivation, and spends more time practicing to become an elite performer. Athlete B in a big town (big pond) with the same abilities as athlete A, may perceive that due to the great competition in his city he is only an average player, causing a decrease in self-efficacy, motivation, and finally leads to him allocating his time and resources elsewhere (Côté et al., 2007).

The effects and biases are not limited to birthplace or biological age, but also include the scouts and coaches making the talent detection decisions. Especially within large populations, talent selection is a subjective process, relying on the experience and abilities of those who have long been involved in the sport (Henriksen, 2010; Christensen, 2009). An athlete can carry these subjective ratings throughout their careers, labeled at a young age without very little chance to change these first impressions. Humans carry with them incredibly strong biases, including

overconfidence in predicting future events and creating a narrative to justify past decisions and predictions if they are incorrect (Haselton, Nettle, & Murray, 2015).

In a general display and empirical example of possible bias in talent identification, Daniel Kahneman's (2011) speaks of a study with the Israeli army. In this study, he was asked by army officials to determine which soldiers had the greatest psychological potential of becoming officers. After evaluating the soldiers, he informed the training officers which had the greatest potential, who months later confirmed his predictions. In reality, these soldiers had demonstrated nothing significantly better to Kahneman than the other recruits. It was the simply the *belief* provided by Kahnemann to the officers, that these soldiers were superior. Due to this belief, likely greater care and increased attention was given to these recruits by their training officers. This research can be translated over to current research beliefs about talent identification, advising talent programs to focus much more on the development of talent, rather than a subjective selection of certain desired skills and personality traits which are likely to feed coaches' biases.

In summary, all of these criticisms have lead to researchers and practitioners to pull focus away from talent identification and into talent development. Unfortunately, in a review of the effects of identifying young athletes and putting them into talent development programs early, Güllich & Cobley (2017) have discovered negative correlations with long-term or senior success. Due to the many problems already listed with talent detection and identification, a logical argument among talent development researchers has arisen: if we cannot predict which individual has the most potential better than picking children at random, research must instead focus on developing models and methodologies on how to best train and develop elite athletes.

2.4 TALENT DEVELOPMENT MODELS

10,000 Hours and Deliberate Play

No modern discussion or review on talent development can begin without presenting the 10,000 hour theory to become an expert in any one field. In essence, Ericsson and his colleagues (1993), studied skill acquisition among violinists at a music school in Berlin. Their findings stated that a minimum of 10 years, or around 10,000 hours, of *deliberate practice* are required to reach an expert performance level. These findings were later recreated in subsequent studies (Ericsson, 1996, 1996b) and solidified the argument for young entry into a single ability or sport, otherwise

referred to as *early specialization*, and focusing on strict training methods, regardless of enjoyment.

Although demonstrating promising results, Ericsson's research was not without controversy or counter arguments. Acknowledging the importance of deliberate practice in skill acquisition, other researchers took a more holistic stance at athletic development and suggested that early specialization could have negative effects (Côté, Baker, & Abernethy, 2003). One criticism of early specialization is the effect it might have on the motivation of the child and lead to early drop-out (Côté, 1999). Even worse than a decrease in enjoyment, reduced physical health in adult years can be a bi-product of specializing too early in a specific domain or sport (Côté & Fraser-Thomas, 2007). To combat this, researchers have suggested following a different model known as *deliberate play*, where there has been evidence provided this model increases intrinsic motivation, positive affect to the sport, and a greater focus on improvement rather than outcomes (Smith, Takhvar, Gore, & Vollstedt, 1986). Deliberate play emphasizes the need for children to be given space to diversify their athletic development and focuses much more on enjoyment rather than strict technical development. Côté and colleagues (2003) do not argue to eliminate deliberate practice, but rather create a more holistic and inclusive transitional model, which allows young children to discover their interests and then intensify their discovered passions. In order to provide structure for practitioners working within talent development, Côté, as well as other researchers, developed models to describe the development and transitions of young athletes.

Transition Models

Côté incorporated both *deliberate play* and *deliberate practice* in his own model of talent development, called the Developmental Model of Sport Participation (Figure 2, Côté & Fraser-Thomas, 2007), and it is based off of Bloom's (1985) model of transitions in talent development. In this model, Bloom suggested there are three phases of learning and development: 1) the early years, where young athletes are introduced to their sport, 2) the middle years, where training intensifies, and 3) the later years, where they make the jump to elite performers. This scaffolding is what Côté used for his first model, since expanding to include various pathways into adulthood, including those who remain at a competitive level and those who transition to a recreational level of sport. Other models in talent development focus specifically on the transitions athletes face, with emphasis on the resources provided to them by peers or the environment.

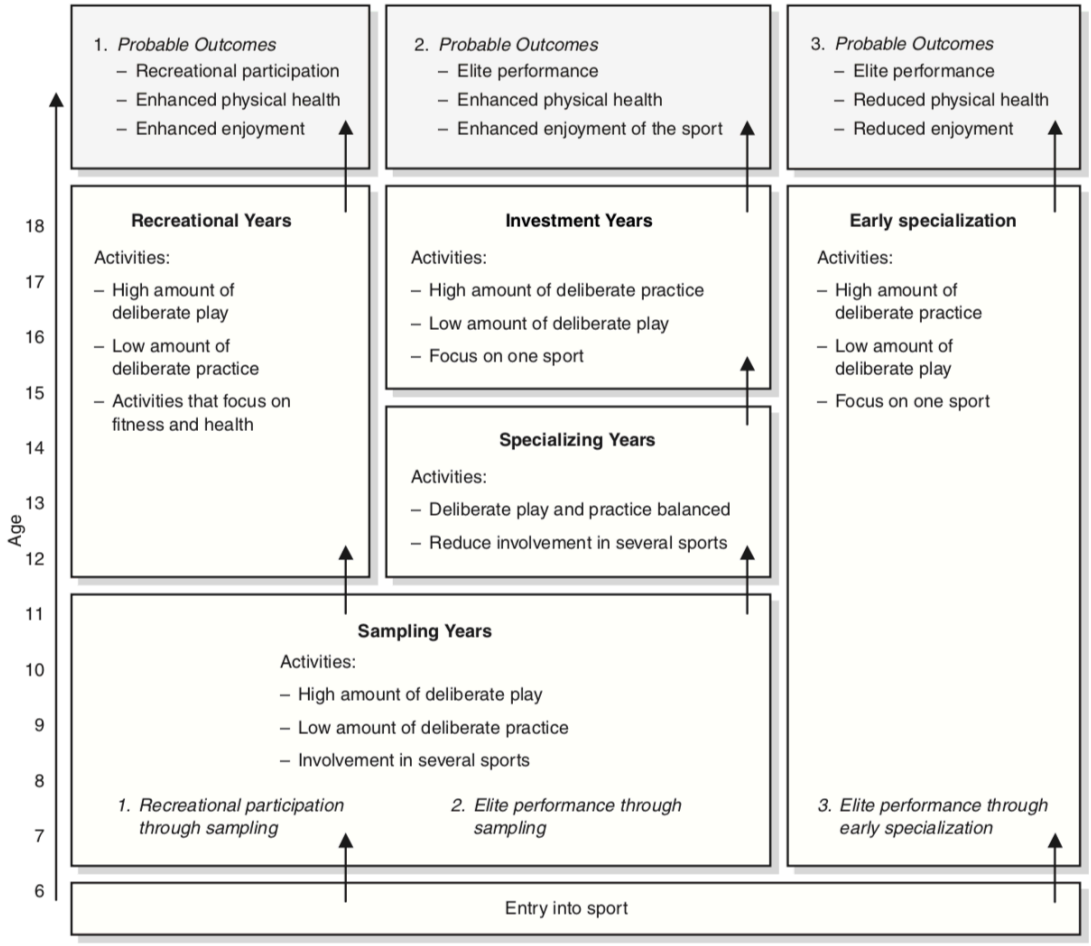

FIGURE 3. DEVELOPMENTAL MODEL OF SPORT PARTICIPATION (CÔTÉ & FRASER-THOMAS, 2007)

Resources for a successful transition

One transitional model in sport can be seen in Taylor and Ogilvie's (1994, 2001a) athletic career termination model, based off of Schlossberg's (1981) human adaptation to transition model. In this model there are four factors, otherwise known as the four "s" system, determined to play a role in a successful transition: 1) the *situation*, meaning the event or nonevent and its perceived significance by the person, 2) the *self*, defined by the idiosyncrasies of the person, 3) *support*, defined by the social system around the individual, and finally 4) *strategies,* or the skills one has acquired to deal with the transition. Taylor and Ogilvie's (1994, 2001a) model focuses on the final transition, namely the transition out of sport, otherwise referred to as career termination. The main take-away from this first athletic adaptive model is that athletes can have both healthy (successful) and unhealthy (unsuccessful) transitions, depending on the ability and application of available resources for the athlete.

Looking further into all transitions during an athlete's career, Stambulova (1997) created the athletic career termination model. This model focuses on the multiple transitions and takes a lifespan perspective, the demands of each transition and the effective transition resources and barriers. Additionally, Stambulova (2000) demonstrated how a sport psychologist might help provide resources, skills, and support throughout an athlete's transition. Moreover, in the event of an unsuccessful transition, crisis coping can be provided by the psychologist or an external psychotherapist, if needed.

Shift to holistic and environmental focus

Most recently there is evidence of a focus on ecological and holistic perspectives with the adaptation of holistic and lifespan-perspective models focusing on athletic development and transition (Alfermann & Stambulova, 2007). The inclusion of the development of non-athletic domains in an athlete's life, such as school, family, and friends is psychologically equivalent to the inclusion of biological age rather than only focusing on calendar age in an athlete's physical development. Wylleman, De Knop, and Reints (2011) have therefore included academic, psychological, physical, financial as well as psycho-social domains in their athletic career transition model (Figure 4).

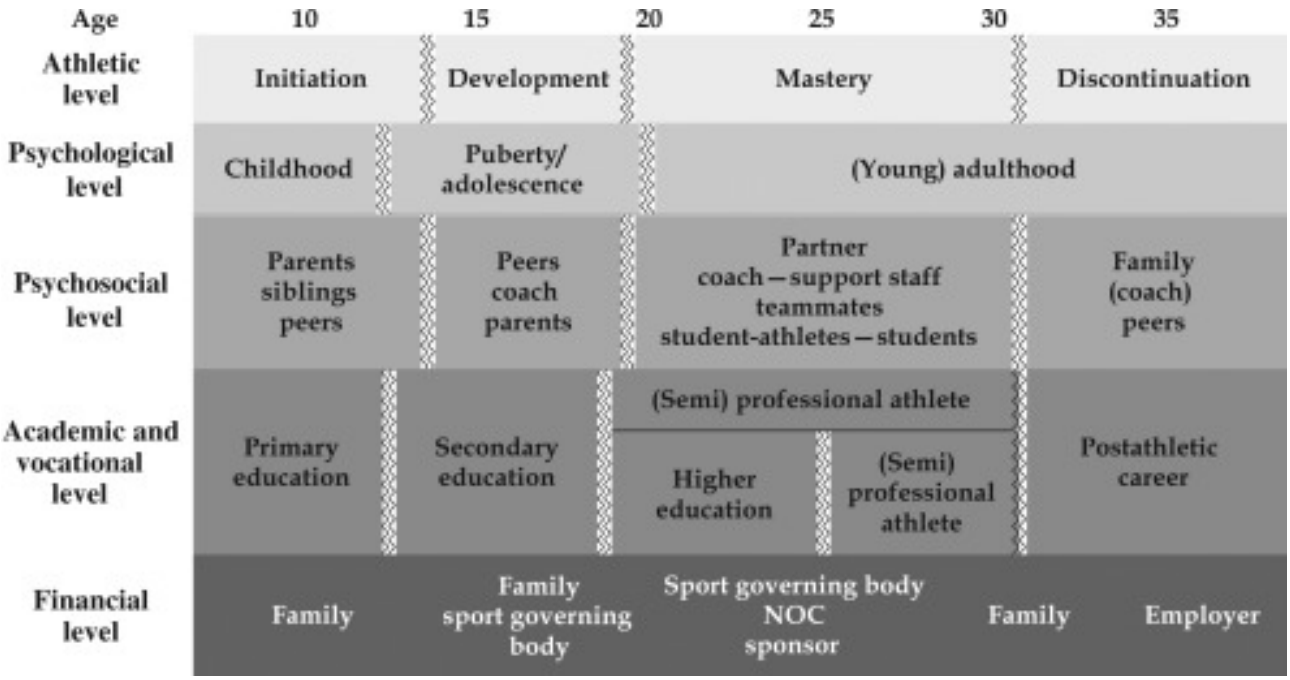

FIGURE 4. HOLISTIC ATHLETIC CAREER MODEL (WYLLEMAN ET AL., 2011)

The model allows researchers and applied practitioners alike to view the athlete's many transitions in full, taking account of the many environmental factors playing a role. Although the model is general and must be edited if needed to fit any single sport, each transition present in the model happens in a similar timeline and fashion for each athlete. Exactly this focus on the people and resources surrounding the athlete during key developmental stages pact has lead to a desire to better understand and utilize ecological models.

Due to these longitudinal and holistic trends in research, Henriksen (2010) decided to focus exclusively on ecological and environmental factors, which he postulated could be the decisive influence in successful talent development and transitions. He was not alone in believing the environment can play a crucial role in athletic development (García Bengoechea, 2002; Araujo & Davids, 2009), but did introduce three studies to the sport psychological literature, postulating exactly how important an elite athletic talent development environment and its components can be to the individual athlete (Henriksen, Stambulova, & Roessler 2010a, 2010b, 2011). Further theoretical support for an increased ecological approach and discussion of these studies, their results, and practical implications are presented in the following chapter.

2.5 SUMMARY OF TALENT IDENTIFICATION AND DEVELOPMENTAL MODELS

Three main focuses can be determined from the most recent research in talent identification and development. First, a shift from talent identification / selection to talent development can be clearly recognized in the most recent body of research. Whether 10,000 hours of deliberate practice over 10 years or sampling a variety of sports through deliberate play is the best path to a successful career, remains to be proven. However, the increased health and psychological benefits of deliberate play carry with it great weight. Additionally, the idea that one must have natural talent in order to succeed is becoming decreasingly popular as more and more examples of athletes from different backgrounds reach the elite level. Secondly, the importance of psychological factors and their development has increased dramatically over the past decades. Not only researchers but practitioners, including scouts and coaches alike, are looking for young athletes with specific psychological characteristics, and ways to develop them. Finally, the role of the long-term development, resources, and perhaps most importantly environmental factors seem to play a decisive role in young athletes' careers.

Chapter 3: Ecological Approach and Models of Development

Sport psychology has traditionally focused on the athlete or team itself and their internal processes (i.e. cognitions or team dynamics) and left the greater context out of view (Araújo & Davids, 2009). This is a logical first step, but falls short as soon as internal processes, such as cognitions, translate into external behaviors. These behaviors themselves cannot happen in a vacuum, and the environment plays in active role in shaping human cognition and the following behavior (Davids, Button, Araújo, Renshaw, et al., 2006). Such theoretical underpinning has pushed sport psychologists to therefore not only ask what behaviors an individual is doing to be successful, but what factors and which people are around the athlete influencing these behaviors (Araújo & Davids, 2009).

While some studies have focused on the context of a developmental stage (Wylleman & Lavallee, 2004), others have focused on the factors in close proximity of the athlete, such as coaches and parents (Côté, 1999; Wolfenden & Holt, 2005). Even more recently there has been an increased interest and output of cultural sport psychology papers, examining the greater macroevironment, in which athletes find themselves. This trend can be demonstrated with the publication of *Cultural Sport Psychology* (Schinke & Hanrahan, 2009), a handbook and summary for those wishing to better understand the cultural influences on athletes from various backgrounds, and more recently *Athletes' Careers Across Cultures* (Stambulova & Ryba, 2013). A mixture of context, relationships, and greater cultural influences is, in essence, what creates the ecological approach.

The ecological approach emphasizes the effects of a changing environment on people (Clarke-Stewart et al., 1985). Within sport and more specifically within sport psychology, there has been steadily growing research in the field of athletic talent development environments (ATDE), in which athletes are observed and studied as a product of many surrounding factors (Henriksen, Stambulova & Roessler, 2010a). The ATDE is defined in as, "…a dynamic system comprising (a) an athlete's immediate surroundings at the microlevel where athletic and personal development take place, (b) the interrelations between these surroundings, (c) at the macrolevel, the larger context in which these surroundings are embedded, and (d) the organizational culture of the sports club or team, which is an integrative factor of the ATDE's effectiveness in helping young talented athletes to develop into senior elite athletes." (Henriksen, 2010 p. 160).

This shift is a result of an ecological perspective becoming more relative in the field of transitional sport science research. As Nitsch (2009, p. 157) stated, "[an ecological approach] offers a systematic description of the areas and factors influencing human development." Therefore, through this approach we are allowed to see not only the individual factors in athletic development, but gain a better understanding of the surrounding factors and provide a more complete theory towards predictors of successful ATDEs.

It is important to note that although the ecological approach in psychology is not completely novel, sport science theories which specifically strive to describe environmental processes and their effects on athletes are relatively new. (Nitsch, 2009). There has been a call to increase studies focused on the ecological perspective in athletic development (Henriksen et al., 2010a; Araujo & Davids, 2009), and to include Bronfenbrenner's (2005) bioecological model of human development (García Bengoechea, 2002; Henriksen et al., 2010a).

This chapter will begin by looking at Bronfenbrenner's model and its applicability to sport psychology, specifically how an environment can affect the development of an individual. Secondly, an overview of how the ecological approach is supported by focusing on interpersonal relationships between athletes as well as between athletes and coaches. Following this review, a description of contextual factors of these relationships and the cultural paradigms in which they occur is presented. Subsequently, a review of the empirical data from Henriksen's three studies on athletic talent development environments (ATDEs) will be presented. Finally, how these ATDEs have been described in a team context, specially soccer, will be discussed. This will pave the way for the purpose of the dissertation, namely to examine these ecological models in a non-elite athletic environment and if or how the same or similar factors can be discovered in a successful amateur team sport environment.

3.1 BRONFENBRENNER'S BIOECOLOGOCAL MODEL

Bronfenbrenner's (2005) model includes the interrelationship of process, person, context and time, called the PPCT model. The process is the mechanism of development, that is, the direct interaction between environment and the individual. The person, which was originally divided into two categories: 1) force (ability, motivation) and 2) resource (skills, access to physical resources),

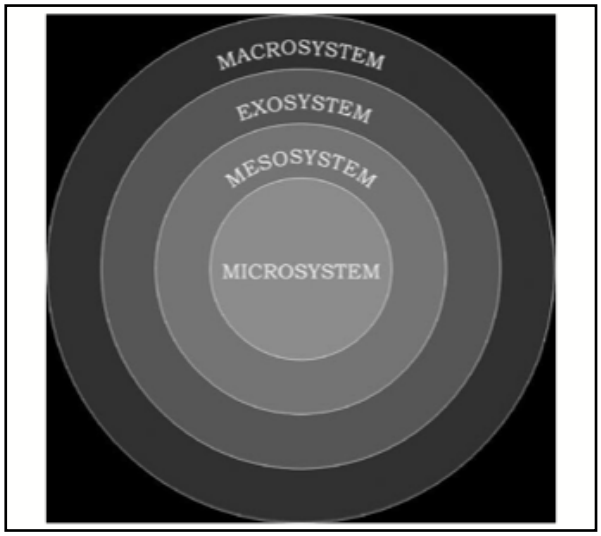

FIGURE 5. BRONFENBRENNER'S FOUR LEVELS OF CONTEXT (KREBS, 2009)

was later expanded to include a third category called, "demand", where personal characteristics, such as age or gender are included (Bronfenbrenner & Morris, 1998). The context, focusing on the system in which the event occurs (Figure 4), and the time, which takes into considering when the event is happening. This latest version of the bioecological model has been misused or misrepresented in literature, and it is therefore imperative to have a solidified understanding of the constructs before attempting to apply it within one's work (Tudge, Mokrova, Hatfield, & Karnik, 2009).

First, the "microsystem" is where individuals have the greatest amount of interaction, such as their own peer group or team. A "mesosystem" is where separate microsystems interact, which in the sport context might be the mixture of multiple teams within one club. The next level, or "exosystem", refers to influences which do not directly affect individuals, but through external interactions - such as fans or other teams in the sport context - and may cause indirect consequences. Finally, the "macrosystem" can refer to a country or state, focusing on the greater shared values of that environment. An example of the influence of a macrosystem might be a child in Germany wishing to be a soccer player while an Ethiopian child wishes to become a successful distance runner, simply as these sports are more attached to the national cultural identity.

3.1 A CALL FOR THE ECOLOGICAL APPROACH

In his doctoral thesis, Henriksen (2010) explains his push for a greater focus on the ecological perspective within sport psychology and more specifically, talent development. The goal is to examine the environmental factors in a simplified version of Bronfenbrenner's model, utilizing both the microenvironment (close relationships) and macroenvironment (cultural influences). Furthermore, these factors are not examined only cross-sectionally, but over a period of time and stages in an athlete's career as well as at different stages of development. A truly ecological approach contains all three of the aforementioned factors: the close relationships between players, coaches, and parents; the context in which these factors take place; and the greater political and cultural elements affecting individuals of a region or country. We will look at past research governing the three factors in Henriksen's approach, and then present theories, models, and results from his studies following with more recent research based from these findings.

Coach-athlete / athlete-athlete relationships

The value of the coach-athlete relationship on the development of an athlete is indisputably significant (Mallett, Rynne, & Billet, 2015). Alone the amount of time an athlete spends with a coach as well as the inherent position of leadership and power throughout his or her career allows for the coach to have great influence on the athlete's physical and psychological development (Rynne, Crudgington, Dickinson, & Mallett, 2017). Empirical evidence can be found in a study with Australian athletes, where two-thirds of them stated the relationship between them and their coaches was significantly influential and vital to their professional development (Gulbin, Oldenziel, Weissensteiner, & Gagné, 2010).

Most importantly to our study is the role in which coaches can significantly affect the sport environment in which they work. The quality of coaching is impacted by the context in which it is carried out (Côté & Gilbert, 2009), and therefore to successfully develop an athlete over time, a coach must consider the how to apply coaching knowledge in specific settings and stages of development (Rynne et al., 2017). As an "architect of sport environment" (Rynne et al., 2019, p. 286), the coach provides a setting where they can both directly (e.g. 1-on-1 coaching) and indirectly (e.g. choosing support staff) develop the athlete's behavior.

In addition to the coach, close friends and teammates can also play a significant role in an athlete's long-term development (Eys, Loughead, & Godfrey, 2017). For example, it was revealed through interviews with elite academy soccer players that teammates can both support (i.e

providing understanding) or negatively influence (i.e. leading athlete away from commitments) one another's development (Mills, Butt, Maynard, & Harwood, 2012).

Contextual factors

As stated previously, certain uncontrollable elements such as the city size (Birthplace Effect, Côté, MacDonald, Baker, & Abernethy, 2006), date of birth (Relative Age Effect, Côté et al., 2007), or the relative competition (BFLPE, Marsh, 1987) all can have significant effects on the probability of becoming an elite athlete. These contextual factors relate to the greater environment, cultural setting, and political decisions outside of an individual's control. Such factors influence the selection / deselection process and can greatly hinder or excel an athlete's development, both physically and psychologically. Furthermore, elite athletes claim that specifically the environment in which they trained had a significant impact on their development (Carlson, 1991, as cited by Aalberg & Sæther, 2016).

Cultural sport psychology

Whereas traditional talent development research has focused almost exclusively on microenvironmental factors such as coaches and/or peers, cultural sport psychology has considered national culture and the greater sport systems operating within this culture as a important factor (Alfermann, Stambulova, & Zemaityte, 2004; Stambulova, Stephan, & Järphag, 2007). Culture itself can be described as both something material, such as a specific type of building architecture or clothing style, as well as non-material beliefs, values and ways of social interaction (Si & Lee, 2007). The effects of certain cultures attributing to athletic development has been manifested in the discipline of the Chinese diving team and gymnasts or more traditionally seen in the Eastern Block countries of the Soviet Union (Girginov & Sandanski, 2004). These greater cultural values and behaviors complete the third part of the ecological approach.

3.2 HENRIKSEN'S ECOLOGICAL STUDIES

It is with the aforementioned theoretical background and understanding of an ecological and holistic approach on which Henriksen based his dissertation. In this attempt to describe talent development in a new way, he had the advantage of conducting his studies in real-time functioning environments, rather than be subject to the biases of traditional retrospective studies on talent development (Cohen, 1999). Henriksen began with prospective sailors in Denmark,

transitioned to track and field athletes in Sweden, and finally researched a successful kayak school in Norway.

Study 1: Holistic approach to athletic talent development environments: A successful sailing milieu

The first study focused on the two-man 49er sailor teams in Denmark, and paved the way for a focus shift on talent development from the individual to the environment, where the athlete lives and trains. Taking from research out of various fields such as organizational psychology (i.e. Schein, 1992), cultural psychology (i.e Alfermann, Stambulova, & Zemaityte, 2004), and athletic development environments (i.e Martindale, Collins, & Daubney, 2005), Henriksen and colleagues postulating that by combining Bronfenbrenner's ecological model and Bateson's systems theory (1973), they could successfully describe the environment as a series of of qualitatively different structures, each functioning independently while interacting with one another.

For their descriptive working model, they utilized two of Bronfenbrenner's four environments, namely the micro- and macroenvironments. The model includes two further divisions, providing a look into both athletic and non-athletic domains. Finally, the perspective of time is included into the model, looking at all aspects of an athlete's life in the past, present, and future. The end result was was referred to as the ATDE working model (Figure 6).

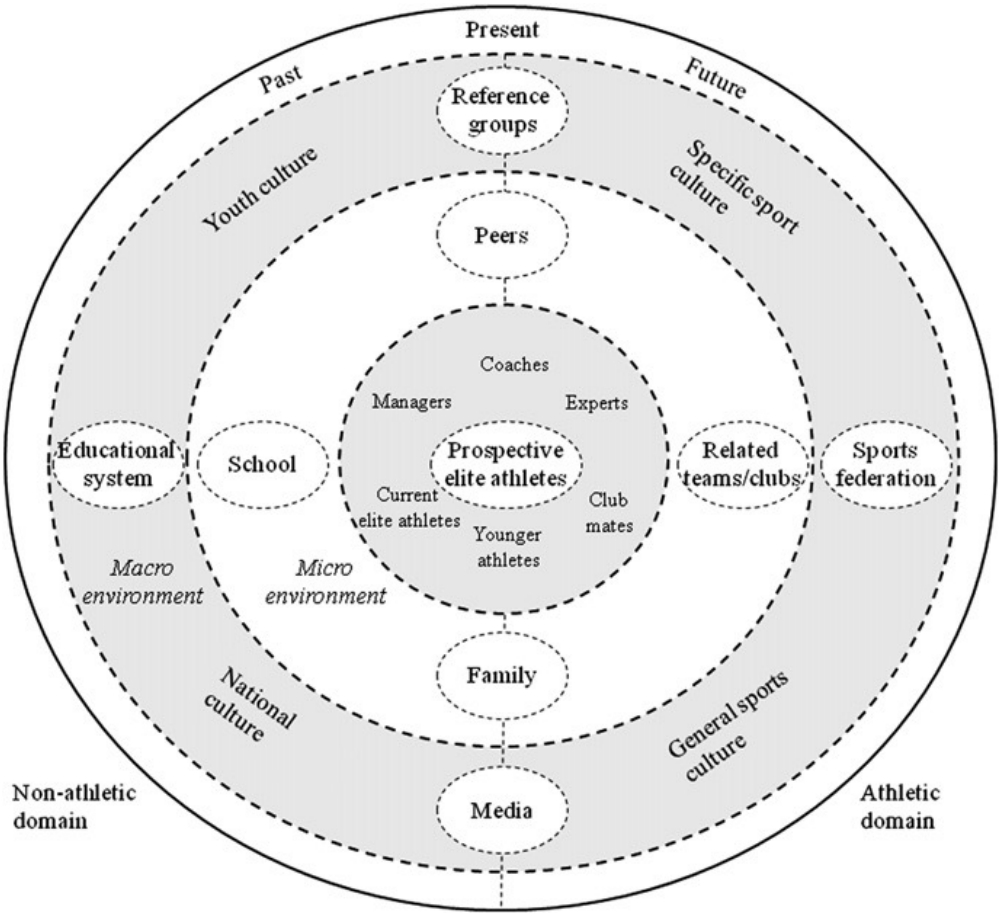

FIGURE 6. ATDE WORKING MODEL (HENRIKSEN ET AL., 2010A)

In order to describe the processes within the environment, Henriksen and colleagues needed an explanatory working model as well. For this, they developed the environment success factors (ESF, Figure 7) model. This working model takes three factors into account for explaining the effectiveness of an environment: preconditions, process, and organizational development and culture. Preconditions refer to the man-power, financial resources, and training facilities themselves, asking basically, "what exactly does an environment have?" The process encapsulates the training regiments, planned competitions, and all other daily activities the athletes undertake. Here the focus is what is being specifically invested by the athlete or which strategies are used to make him or her into an elite athlete. Finally, the organizational development and culture is the central block of the model, and is divided into three components as suggested by Schein (1992): cultural artifacts, espoused values, and basic assumptions.

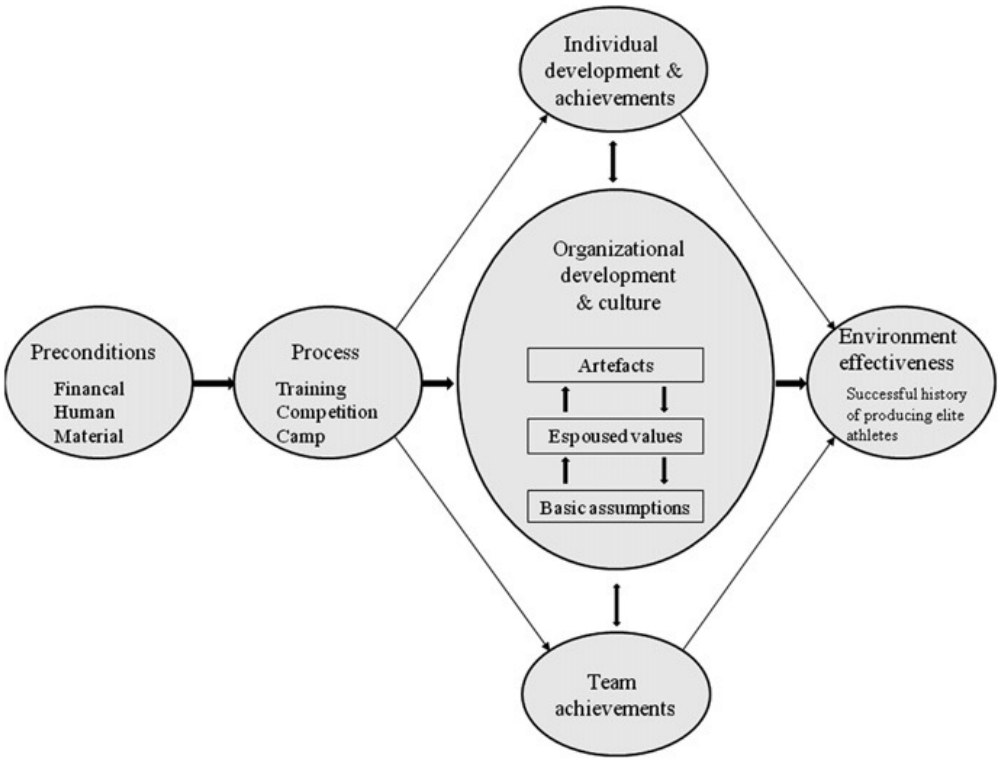

FIGURE 7. ESF WORKING MODEL (HENRIKSEN ET AL., 2010A)

Cultural artifacts are in essence all traditions, stories, and even so-called legends of a particular environment. These are also physically manifested in specific colors, posters, architecture and organizational charts founds within the environment. Second, espoused values are the norms, goals, and standards of the environment. They are the identity and belief structure the environment wishes to portray to the outside world, though actual actions of individuals within the environment may differ from these values. Finally, basic assumptions are unwritten understandings between individuals in an environment explaining the actions of those individuals within that environment. These are ideas or beliefs which are no longer questioned by those living and working within the environment. All three together create what is known as an organizational culture, providing a social scaffolding to help new members integrate quickly and a stability to help adapt to external factors. Henriksen and colleagues postulated that this ESF model would be the engine powering or halting an ATDE's success.

These working models became the methodological scaffolding for further ecological studies, including the first of two studies performed in this dissertation. These models can provide a comprehensive overview of the major and minor characters within the environment, their interactions, as well as a map of the interconnected behaviors and actions. Using these models

allowed the author to not only describe the uniqueness of the environment, but also helped to develop possible theories and hypotheses, specifically with relation to if and how an intervention might improve the environment's success.

In order to create an empirical model, Henriksen and colleagues used interviews, participant observation as well as an analysis of various documents and statistics related to the 49er sailing team to create a full description of the ATDE and ESF. In the athletic microenvironment, all elite athletes, coaches, experts, other sailing teams, and the young athletic prospects are described using descriptive statistics and their role in the environment. This is followed by the non-athletic microenvironment, the macroenvironment and its related contexts, and finally a description of the timeframe, in which this snapshot occurs. A summary of the 49er ATDE is provided as an adaption of the ATDE working model (Figure 8).

With only a quick observation, one can see the environment is much more filled by the athletic rather than non-athletic domain, with school and the educational system which are the only components not relating to sailing. Additionally, the core of the environment is the relationship between elite athlete and prospective elite athletes. In essence, the environment allows for an organic mentorship process to grow between elite hopefuls and already established and respected role models.

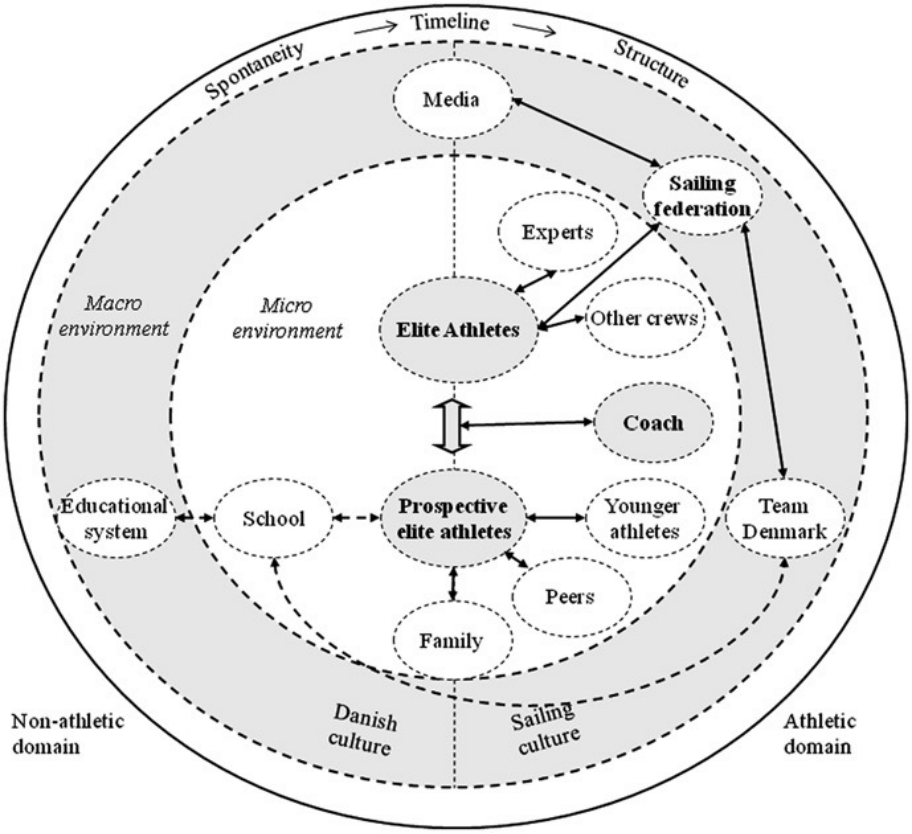

FIGURE 8. ATDE EMPIRICAL MODEL OF THE DANISH 49ER SAILING TEAM (HENRIKSEN ET AL., 2010A)

The macroenvironment speaks of two different cultures surrounding the sailors: sailing culture in the athletic domain and Danish culture in the non-athletic domain. Starting with the sailing culture, the sailing federation is that which provides funding and coaching to the young prospective athletes. Additionally, they assist in helping shape the athletes' careers, providing training centers and giving advice on which boat to sail. Team Denmark is provided as a resource to the athletes who might have issues with school, and the mass media is used a tool to generate interest in the sport. In the non-athletic domain, the Danish culture of "Jante Law" prevails. In essence, this means one displays humility above all else, and does not desire to be better than others.

The second goal of the study was to determine the factors influencing the success of the environment, and produce an empirical ESF model (Figure 9). As described above, the researchers looked at preconditions, the process, and the organizational culture found in the environment. They described the preconditions by stating there are a lack of financial resources both for coaches and athletes, but exactly this factor assists their organizational culture and

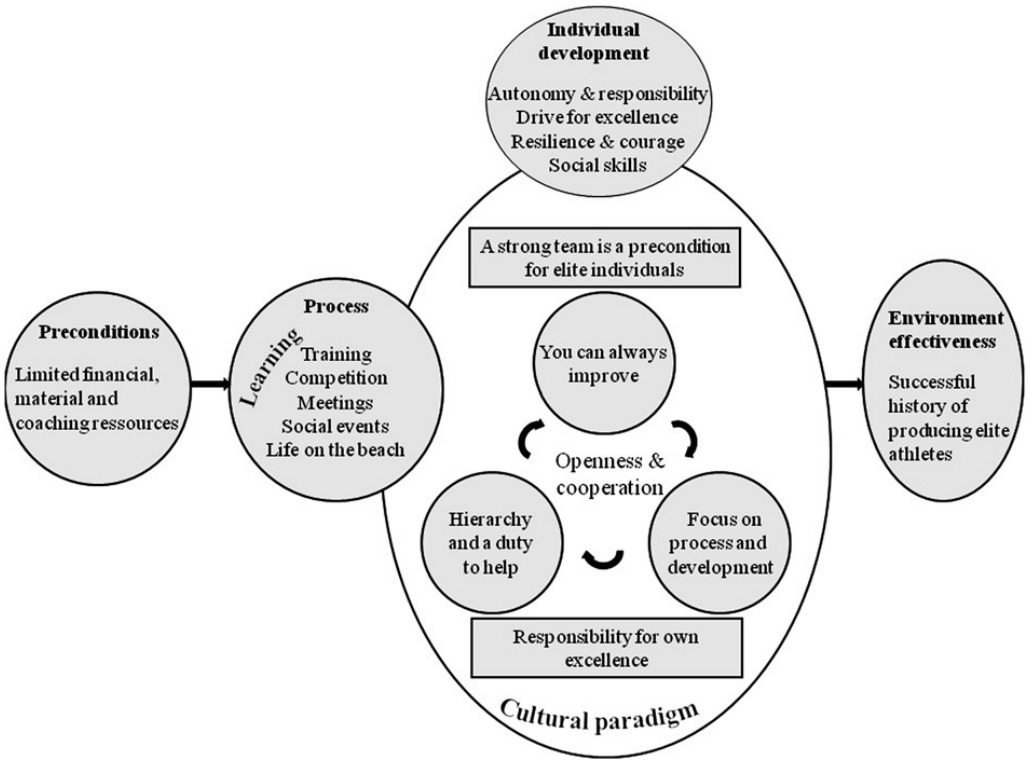

FIGURE 9. ESF EMPIRICAL MODEL OF THE DANISH 49ER SAILING TEAM (HENRIKSEN ET AL. 2010A)

teamwork. The process is broken down into the way the athletes train, how they compete, what meetings are like, that athletes live on the beach together, and finally that learning is required by everyone: coaches, elite athletes, and prospects. Lastly, the organizational culture is broken down into its three components. The most significant artifact seemed to be the verbal communication between the athletes, sharing stories both related to sailing and life. The espoused values reflect “the Danish model”, which strives to produce an identity in which Danish athletes do not compete against each other, but rather help each other to succeed. Thirdly, there were six basic assumptions identified (Henriksen et al., 2010a, p. 218-219):

1) the individual athlete must take responsibility for his own excellence

2) a strong team in a precondition for the elite performance of its members

3) elite athletes have a priority but also a dirty to help younger athletes

4) you can always improve

5) focus on performance rather than results

6) through open sharing of knowledge and co-operation, everybody improves.

In summary, the study of this successful ATDE and its ESF attempted to solve classic problems in the sport psychology of talent development and transitions in a new and modified way. It made arguments for the importance of a holistic approach to athletic transitions (Wylleman, De Knop, and Reints, 2011; Stambulova, 2009), confirmed the danger of young prospects high athletic identity (Petipas, Brewer, & Van Raalte, 2002), and provided further support for deliberate play (Côté et al., 2007) over deliberate practice (Ericsson et al., 1993). Finally, and most importantly, this study provided researchers and practitioners with an established framework to take their focus away from the way in which an athlete trains, and instead focus on where and with whom they are training. However, to see if the working model could be applied in multiple settings, the next step would be to use this framework in a new and unique successful sport environment.

Study 2: Successful talent development in track and field: Considering the role of environment

With the same theoretical underpinnings and methodology as by the first study, Henriksen and colleagues' (2010b) second study sought to view the ATDE and ESF at the IFK Växjö track and field club. As previously stated, this study sought to describe a further unique environment, and therefore it is interesting to note that perhaps in contrast to the first study, track and field athletes tend to be psychologically high motivated individuals, carrying out repetitive, tedious, and high-intensity training sessions (Dosil, 2006). Moreover, they are often responsible for their own recovery and nutritional habits (Ibid, 2006). A final interesting point is that unlike the previous study with sailors, this study increased the amount of participants and also included female athletes, which will be the sole gender studied within in this dissertation.

The results produced two new empirical models, namely one for the ATDE and one demonstrating the ESF. In slight contract to the sailors, at the center of the ATDE in track and field was the relationship between prospect athlete and the team of coaches (Figure 10). An important note is the coaches work on a voluntary basis, have a variety of experience and expertises, and are allowed great flexibility among the responsibilities. Additionally, there is a group of elite athletes in the microenvironment, meaning these prospective athletes, similar to the sailors, also have direct contact with role models. To quote an athlete cited in the paper (Henriksen et al., 2010b, p. 126):

> I believe they remind us that it is possible to become best in the world when training in this club. We train besides them and see that they also get tired, but manage to stay

focused. Sometimes they invite other world class athletes, and we see how they interact and benefit from training together.

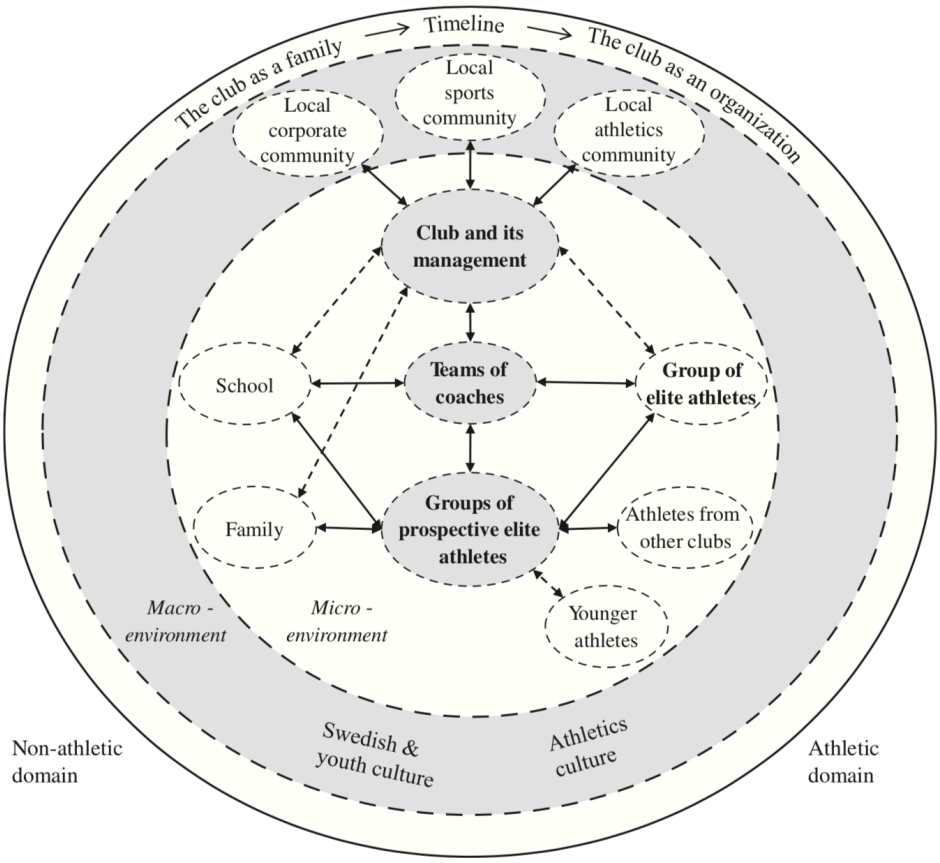

FIGURE 10. ATDE EMPIRICAL MODEL OF IFK VÄXJÖ TRACK AND FIELD CLUB (HENRIKSEN ET AL. 2010B)

In addition to their contact with older, elite athletes, the prospective athletes are encouraged to display skills and even run drills as an assistant coach for younger athletes. The idea appears to be two-fold: to push prospective athletes to not only be better athletes and role models, but also assures the club there will be future skilled coaches already familiar with the environment. This idea of mixing more and less experienced athletes, creating natural mentorships and providing role models, echos the sailors. However, the idea that these young athletes already gain coaching experience, is very novel and could be considered a valid way to encourage young women to become coaches, especially in sports where there are a lack of female coaches. A final point is the close relationship with the management at the club. It appears to be highly respected, as many of its members work voluntarily and communicate club goals to coaches, parents, and athletes.

In the non-athletic domain we find another contrast to the sailors: the connection to school appears to be different. Whereas school is a necessary part of the microenvironment of the sailors, it appears to be integral to the environment of the track and field athletes. To explain further, school is seen as a healthy addition and coordination between club and school teachers run smoothly. As an example, certain practice sessions are even allotted during school time at the high school, so that prospective athletes can remain on schedule.

The athletic macroenvironment domain speaks to a coordinated effort throughout the city of Växjö, where all institutions strive towards a common goal of producing the best talent. This includes clubs both involved in track and field *and* other sports. The non-athletic macroenvironment refers to the Swedish sport culture, which is congruent with the high demands and obedience found in the country, but often clashes with traditional party culture of young Swedes at a similar age. Moreover, female athletes have increased societal pressures, as they are expected to excel not only in the sport, but school as well, all while maintaining a positive body image.

As with the sailors, Henriksen and colleagues sought not only to describe the environment itself, but the preconditions, process, and organizational structure within that environment (Figure 11). Under preconditions, it could be argued that the town size is ideal for producing elite athletes at 80,000 inhabitants (Côté et al., 2006). Moreover, coaches are paid through personal sponsorships for elite athletes, as those who have been successful show a desire to "repay" the club for their education. This shows a high amount of identity and personal dedication to the club, which suggests that creating a strong coherent culture could help to retain talented personal. The process is highlighted by a focus on late specialization (Côté et al., 2007), and gradual buildup towards elite status. Finally, the organizational culture is characterized by the seven basic assumptions:

1) excellence can be reached through cooperation and openness
2) we are a family
3) everyone contributes
4) attitude beats class
5) an athlete is a whole person
6) successful development is more important than early results
7) the club can always improve.

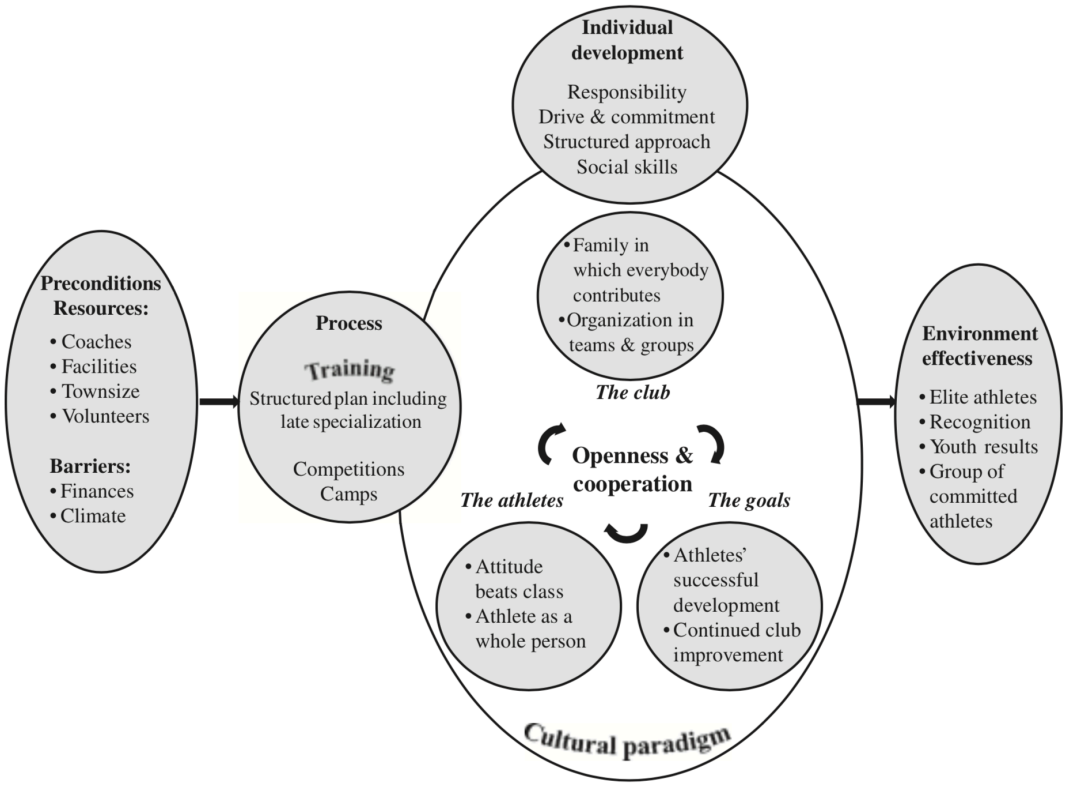

FIGURE 11. ESF EMPIRICAL MODEL IFK VÄXJÖ TRACK AND FIELD CLUB (HENRIKSEN ET AL. 2010B)

In summary, the Växjö track and field club can been seen as a successful ATDE due to its output of many successful and committed athletes, reporting low drop-out rates and maintaining a positive reputation in both Sweden and the world of athletics. Many of the qualities of the environment at Växjö combat the typical issues causing high drop-out rates in transitional track and field athletes, such training alone or negative relationships with peers (Vanden Auweele et al., 2004; McKay et al., 2008). A high amount of congruence can been found between the first two ATDEs and their ESF, suggesting both team and individual athletes require similar environments to be successful. One point of interest as it applies to this dissertation, was the role female athletes played in the difference between the two clubs, as female athletes seem to have higher demands in regards to school and physical appearance, provoking the question of a female athlete's exact effect on the ATDE. Do environments containing female athletes add consistently unique differences to co-ed or male-only environments? Further researcher would be necessary to find out. The interest generated by these two studies called for more research into ATDEs in the other high-intensity sports, as well as similar ATDEs in other countries.

Study 3: Riding the wave of an expert: A successful talent development environment in kayaking

Answering their own call for more research, Henriksen and colleagues (2011) switched back to the water, examining a successful ATDE in kayaking. In slight contrast to the previous studies, which were used to establish precedent of the importance of the ATDE, this study focuses on the potential development of many positive psychological constructs, citing examples such as volition (Elbe & Beckmann, 2006), motivation (Ryan & Deci, 2000), and coping (Poczwardowski & Conroy, 2002). The methodology is similar, offering a real-time perspective, however is described for the first time as an ethnographic study grounded in a constructivist paradigm based off of Krane and Baird (2005). As in both previous studies, the goals were to provide a holistic description of the ATDE and examine the factors producing the many successful athletes at the Wang School of Elite Sports Kayak team in Norway. It's importance to this dissertation lies in its replication of the importance of the balance between the athletic and non-athletic domains, as well as provided further evidence for low-budget trainings often led and to a point partially coordinated by senior and more experienced athletes within the environment. .

With regards to the empirical ATDE model, the most significant relationship within the microenvironment coincides with both the athletic and non-athletic domain, and is a community of current and former elite athletes comprised of mentors, school coaches, club coaches, and national team coaches (Figure 12). This connection with role models plays a significant role in the environment, as all prospective athletes are encouraged to "have someone to aspire to" (Henriksen et al., 2011, p. 349). In addition, coaches are seen more as mentors rather than authoritative beings, offering training plans and giving autonomy to the prospective athletes. Similar to the Växjö athletics club, a further connection between the athletic and non-athletic domain is the school itself, which a central part of the athlete's lives. Through school non-kayak friends are found, and a balance between sport and education can be found.

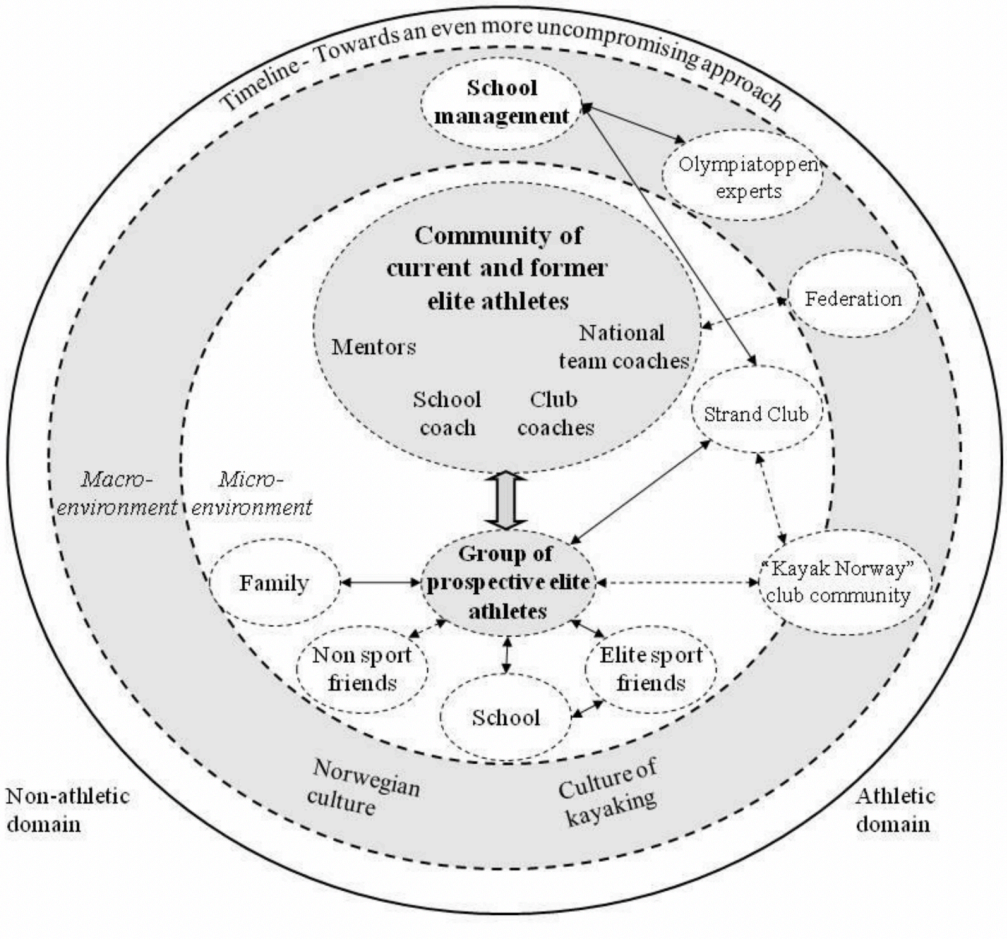

FIGURE 12. THE ATDE EMPIRICAL MODEL OF THE WANG KAYAK TEAM (HENRIKSEN ET AL., 2011)

On the macro-level, there is a Norwegian federation, which assigns prospective athletes to the national team, a challenger team, and youth national teams. The kayaking culture is said to expect distinct qualities, including discipline and patience. Moreover, the Norwegian culture itself celebrates individuals who are able to take responsibility for their own life, supporting independence and determination. Finally, from a time-perspective, as with the other successful ATDEs, the Wang school demonstrates confidence in the status quo yet strives for improvements in the future.

The ESF empirical model produced in the study offered yet another example of the preconditions, process, and organizational cultured necessary for a successful ATDE (Figure 13). Having less funding than both the sailors and track and field athletes, the Wang Kayak team benefits from a natural fjord, providing excellent conditions for flat-water racing. Funding is provided almost exclusively for traveling and entering competitions. The process is characterized by its simplicity: 12 sessions a week with a focus on interval training, and a test at the end of each week. In

addition to training and tests, athletes have between 15-20 competitions per year, where they are able to compare themselves to other competitors.

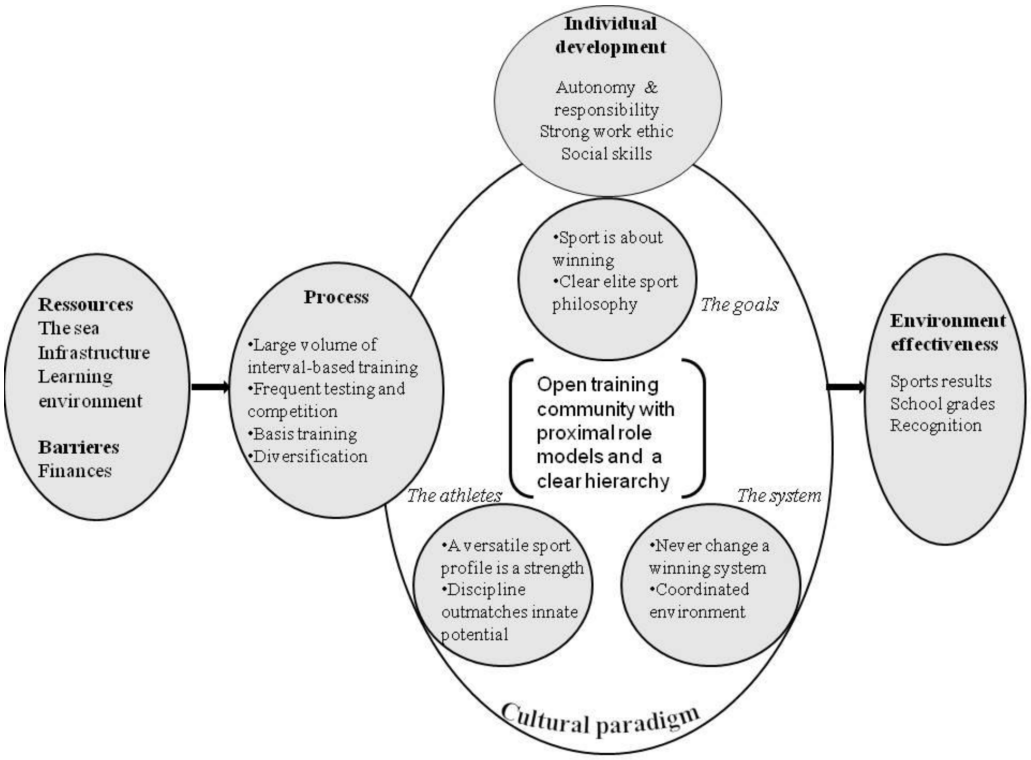

FIGURE 13. THE ESF EMPIRICAL MODEL OF THE WANG KAYAK TEAM (HENRIKSEN ET AL., 2011)

A look into the organizational culture reveals similarities to the prior two environments researched. Artifacts include the extremely simplistic weight-lifting room and the story of an olympic champion who lacked natural ability but had extreme motivation to become one of the best in the world. In regards to values, the school demands discipline and organization from its athletes from day one, and an elite athlete mindset manifests from daily training. Finally, the basic assumptions echo those from the previous ATDEs and relate to different aspects of the athletes' lives (Henriksen et al., 2011, p. 354-355):

1) an open training community is a fundamental precondition for creating elite athletes

2) athletes must have proximal role models to aspire to in daily training

3) successful training communities are hierarchical

4) a versatile sport profile is beneficial to elite performance

5) motivation, discipline, and autonomy are more important than innate potential

6) sport is about winning, but to win you need to be patient and smart

7) an elite sport environment must have a clear elite sport philosophy

8) never change a winning system

9) the training group must be complemented by a larger and coordinated environment.

All in all, the empirical models from the Wang kayak team strengthened many of the arguments presented in the two previous ATDE studies. Where this study differs is its focus on the psychological skills which can be acquired in such an environment, namely coping resources. The authors claim that at the Wang Kayak Club, the linkage of school and sport could assist young athletes in their development and specifically their transitions (Stambulova, 2009; Stambulova, Alfermann, Statler, & Côté, 2009). However, more intriguing is the congruence with the previous studies, where many factors overlap between all three environments. Henriksen (2010, p. 157-158), summarized these into 8 factors:

1) Support for the development of psychosocial skills,

2) proximal role models,

3) Training that allows for diversification,

4) focus on long-term development,

5) strong and coherent organizational culture,

6) training groups with supportive relationships,

7) support of goals by the wider environment, and

8) integration of efforts.

These factors are the foundation for the motor behind a successful environment. More specifically, the integral role of proximal role models in the success of prospective athletes becomes increasingly interesting. The authors recommended using the solidified theoretical framework in future research in team sports as well as other countries. One specific challenge would be to try and adapt the models to a team sport club, where the senior team continuously achieves positive results. In contrast, future researchers could apply an ecological intervention where the potentially good environment does not produce the desired success expected. In response to this, three studies emerged. One focusing on an ecological intervention in soccer transitions (Larsen, Alfermann, Henriksen, & Christensen, 2014), and two focusing on producing

empirical ATDE and ESF models for a successful soccer team environment (Larsen, Alfermann, Heniksen, & Christensen, 2013; Aalberg & Sæther, 2016).

3.3. ECOLOGICAL INTERVENTION AND A SUCCESSFUL ATDE IN SOCCER

As with his predecessor, Larsen and colleagues (2013) provided in a study empirical ATDE and ESF models of the boys' soccer academy. This paper, whose theory and methodology were based off of previous ecological studies (Henriksen et al., 2010a, 2010b, 2011), compared and contrasted the results of other successful ATDEs and their ESF. A main significance of this particular study is that it researches the world's most popular sport, soccer (Roderick, 2006). Additionally, as the participants in this dissertation are soccer players, this results could carry with them greater significance and generizability if comparisons between the environments are attempted.

The results indicated that the most important relationship within the microenvironment for the U-17 players was that with their own coaching staff. It was a mixture of formal and informal relationships, where players would discuss both athletic and non-athletic topics. Next, there were strong relationships to both young and older players at the club (athletic domain) and their own families (non-athletic domain). Another central part of their lives was school, were the U-17 coach organized and spoke regular with the school staff. School is taken quite seriously by the club and therefore this is reflected in the behavior of the youth players. In reference to the macroenvironment, the soccer culture (athletic domain) and danish and youth culture (non-athletic domain) were considered (Figure 14), but not explained in detail.

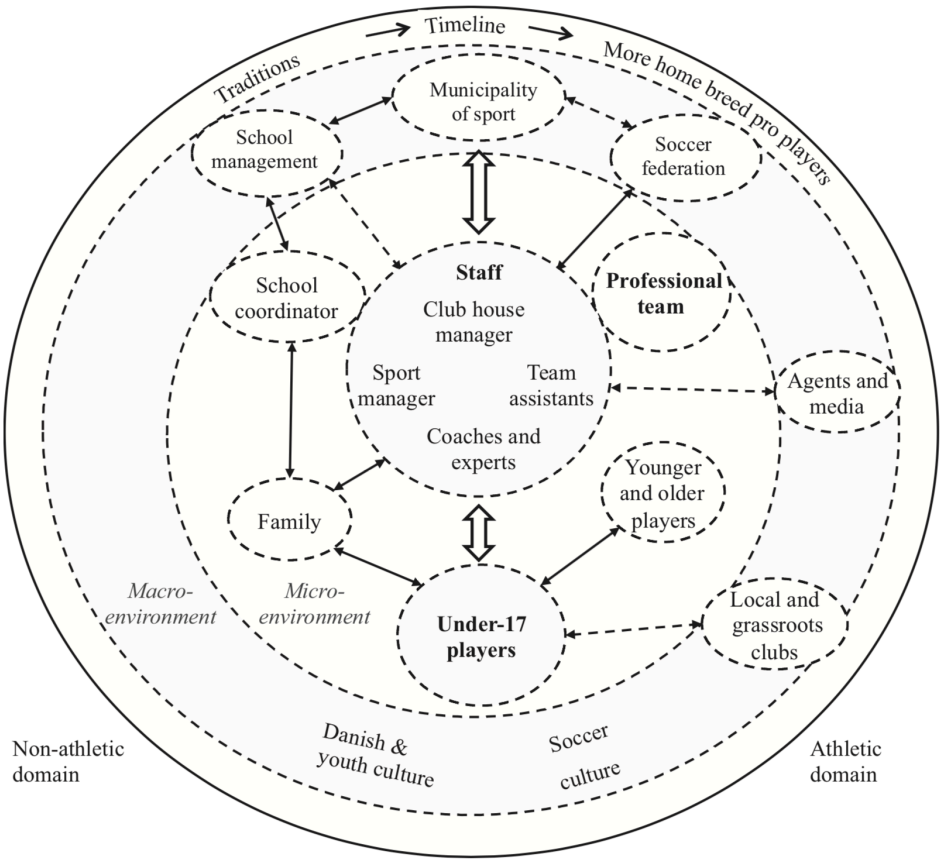

FIGURE 14. ATDE EMPIRICAL MODEL OF THE AGF SOCCER CLUB (LARSEN ET AL., 2013)

A greater focus was put onto the ESF at the club. As with the previous models, the ESF is broken down into the preconditions, process, and organizational culture (Figure 15). The size of the city (300,000), the lack of competitors for recruitment in the area, and decent financial backing all helped to establish positive preconditions. The process is characterized by highly informational and motivational feedback. Players train five to six times per week, including strength training, matches, and position-specific sessions. Moreover, to increase the recruiting rage, the club drives up to 40KM away to shuttle young prospects to and from the club. Most significant, however was the organizational culture.

Artifacts of the club's history, legends, wins, and stories were able to be seen everywhere around the clubhouse. Values typical with that of professional soccer players were manifested and lived daily by the club's leaders: focus, concentration, being ready, respect and tolerance. Finally, the four basic assumptions summarized the heart of the culture:

1) Strong family feeling,

2) a little less talent but the ability to work very hard,

3) focus on player education and development, and

4) a holistic approach.

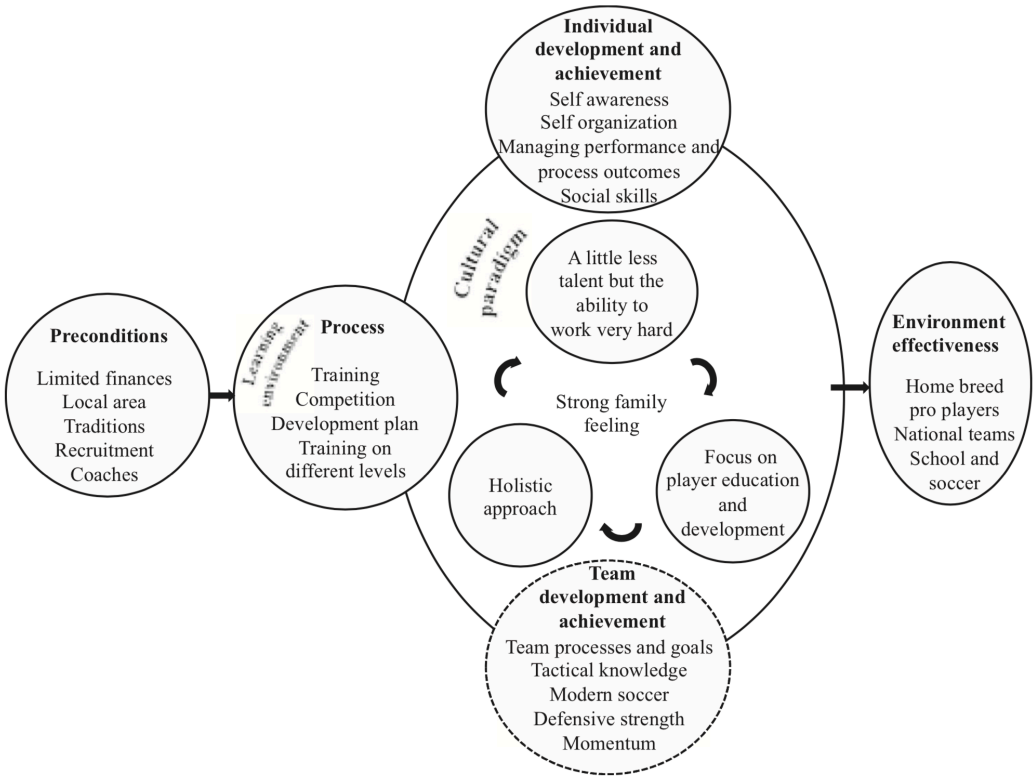

FIGURE 15. THE ESF EMPIRICAL MODEL OF THE AGF SOCCER CLUB (LARSEN ET AL., 2013)

The results led to a comparison to the previous successful ATDE and ESF models. Specifically in AGF environment, one problem was the lack of *proximal role models* which could potentially ease the transition from youth to adult soccer. Furthermore, although psychosocial development takes places, certain coping skills to assist in a transitional period seem to be learned simply by experience, rather than taught from a coach or professional. Problems with transition from the junior to adult level in soccer appears to be a general problem in European soccer, as often due to lack of communication and organization between the professional and youth departments (Relvas, Littlewood, Nesti, Gilbourne, & Richardson, 2010). There are a variety of reasons for this, which includes “protecting” the sanctity of the 1st team players or attempting to motivate youth players more, but in reality these actions cause youth players to think more individually and not cooperatively, going against the suggestions of previous researched ATDEs (Henriksen et al., 2010a, 2010b, 2011).

A much more recent study (Aalberg & Sæther, 2016) was published repeating the same methodology in an elite youth soccer environment in Norway. This study described its own unique

ATDE and ESF, however only strengthened the current theoretical and empirical evidence already presented regarding a successful soccer environment. Furthermore, the difficulty of the transition between junior and senior sport, specifically in professional soccer, was highlighted again.

To follow up, Larsen and colleagues' (2014) intervention study aimed at preparing youth soccer players for transition from junior to senior level, taking on arguably the most difficult transition within an athlete's career (Stambulova, 2009). To illustrate this point in the specific sport of soccer, the authors cite Green (2009, p.7), "of 10,000 boys who play in England's football factories (academies) each season, fewer than one percent of the boys are likely to make it as professional footballers." Therefore, to increase the chances of the boys' completing a successful transition, the authors designed in intervention to increase psychosocial education of the players, as higher psychosocial competencies have been shown correlate with successful career transitions in soccer (Holt & Dunn, 2004; Holt & Mitchell, 2006).

Firstly, in order to complete the intervention, the principal author employed a scientist-practitioner model (Lane & Corrie, 2006), wherein the intervention is based specifically on an empirically grounded theory, in this case on the backs of Henriksen and colleagues' environmental papers (2010a, 2010b, 2011). Secondly, it was deemed imperative to conduct the intervention within the athlete's natural setting, as learning is bound to the context in which the experience takes place (Barab & Plucker, 2002). Thirdly, an ecological intervention can take place only when the entire environment is considered, and seeks to involve the aforementioned elements of successful ATDEs:

1) Work with all staff (coaches, managers),
2) research strengths and weaknesses of organizational culture,
3) attempt to integrate all levels of athletes life (school, club, parents),
4) be aware of the greater cultural setting,
5) seek out positive established values and create others if necessary, and
6) view the athlete as a whole person.

While the methodology was similar to those in previous environmental studies (e.g. Henriksen et al. 2010a), however after the intervention a focus group was organized allowing participants to share experiences with each other at the club, followed by semi-structured interviews (based off of Kvale & Brinkmann, 2009). Additionally, observations were noted throughout the study, referred

to as *in situ observations* (Tanggaard, 2006), which allowed for greater contextual understanding. The entire length of observations lasted seven months, after which the intervention took place in three parts: 1) workshops spread over four months, 2) ongoing supervision of U-17 coach, and 3) numerous psychological training sessions on the training field intended to incorporate the workshop topics.

Most noteworthy and necessary for this dissertation is the way in which workshops were run and how the researchers integrated the complete environment within the intervention. First, all topics were communicated with the coach to be certain of their relevancy to the current players. Second, the coach would find a way to integrate the discussed topics on the training pitch in the following training sessions. Third, players from the first team were invited to take part of the workshops, providing a proximal role model for the youth athletes. Fourth, the researchers convinced not only the U-17 coach of the workshops' importance, but also the medical staff and management as well, creating a cohesive environment.

The general response from those within the environment to the intervention was positive and the ecological approach deemed a success. The researchers were able to conclude that the players had become more reflective of the transitional process and therefore increased their psychosocial skills, thus better prepared for a successful transition. In summary, the intervention made three important observations for future ecological interventions:

1) Stimulating relationships inside an environment are time consuming but significant,

2) the importance of the coach's acceptance and support in the process,

3) the importance of taking sport psychology to the pitch, and

4) professional players' narratives stimulate reflection and learning among younger players.

The authors criticized their own study by stating that the non-athletic domain is not involved. The authors claim therefore that although the intervention is ecological in nature, it is not necessarily holistic. Furthermore there is no control group and therefore no way to compare the development of similar-aged boys with no intervention. Finally, the principal researcher was also the practitioner who delivered the intervention. All in all, however, the researchers accomplished their goal of a subjectively successful intervention in a sport (soccer), which has traditionally rejected sport psychological influences (Nesti, 2010), unless they are short-term in nature (Johnson,

Andersson, & Fallby, 2011). This paper therefore established with it a precedent of providing an ecological intervention within the soccer context, and is the theoretical basis of the intervention carried out in this dissertation.

3.4. OTHER ATDE STUDIES

Two other interesting ATDE studies involved women's handball, focusing for the first time on an all-female environment (Storm, 2015) as well as factors relating to an unsuccessful environment (Henriksen, Larsen, & Christensen, 2014). Both offer an important look into one important aspect of the ATDE and ESF models, namely how they can be adapted and applied to research different context-dependent environments for a variety of purposes.

For example, Storm (2015) focused specifically on a "culture of practice", highlighting the importance of the interaction and coordination of youth and adult practices. Furthermore, this paper demonstrated the great impact adult female elite athletes had on their younger counterparts in a team sport environment. This factor, alongside a willingness from the coaches and staff to facilitate connections between youth and adult players, is postulated as one of the key factors for the environment's success.

Finally, taking the opposite perspective as from all previous research, a study involving a golf team academy lacking in the production of successful athletes was conducted (Henriksen et al, 2014). In their study, Henriksen and colleagues applied the same ATDE and ESF models to attempt and find why exactly the environment was unsuccessful in producing the desired amount of elite golfers. Issues regarding motivation, coordination of tasks, and prioritization of daily life were discovered. For example, only a few golfers actually were involved in elite tournaments, while others were only recreational players. School and sport were poorly coordinated and it was not always clear what is the main priority of the environment: to produce good students or good athletes. In essence, inconsistencies between the desires of the individuals and organizations involved in the environment caused it to fail. The importance of this study with regards to this dissertation is centered around the flexibility the ATDE and ESF models offer. By taking a completely different approach while both the methodology and working models remain constant, only one's creativity limits the application of the ATDE and ESF models.

3.5 SUMMARY AND FUTURE DIRECTIONS

Combining all studies covered in this chapter provides theoretical and empirical evidence for ecologically focused sport psychology research and interventions, and furthermore demonstrates the flexibility of the ATDE and ESF working models with their application in multiple cultures, team and individual sports, and with both genders (Henriksen et al., 2010a, 2010b, 2011; Larsen et al., 2013; Larsen et al, 2014; Henriksen et al, 2014; Storm, 2015; Aalberg & Sæther, 2016). Additionally, environmental methodological guidelines and precedents for ethnographical observation (*in situ observation,* Tanggaard, 2006), interview style (Kvale & Brinkmann, 2009), and ecological interventions (Larsen et al., 2012) were produced. One key element among all studies which has remained constant is the presence of young elite athletes. While this is understandable due to desire to work with elite athletes, it is also a shortcoming in its applicability to the greater population, as there are far more active amateur athletes in the world. This gap in the research creates a big hole, into which this dissertation intends to make the first step.

Furthermore, in direct application to this dissertation, eight key features related to successful ATDEs have been recognized (Henriksen, 2010), which include 1) Support for the development of psychosocial skills, 2) proximal role models, 3) Training that allows for diversification, 4) focus on long-term development, 5) strong and coherent organizational culture, 6) training groups with supportive relationships, 7) support of goals by the wider environment, and 8) integration of efforts. Larsen and colleagues (2013) discovered six of these features at an elite soccer academy, noting that both proximal role models and training diversification were not found, but postulated that these elements could further support and increase the success of the ATDE, (a summary is in Table I). This is supported by Storm (2015), who demonstrated the importance of interactions between youth and elite female athletes, claiming that this factor, along with the facilitation of interactions through the coaching staff, leads to improved social intelligence and better transitions from the junior to the elite level.

Henriksen, 2010 (Review)	Larsen et al., 2013 (Soccer)
Training groups with supportive relations	Yes
Proximal role models	**No**
Support of sporting goals by wider environment	Yes
Support for development of psychosocial skills	Yes

Henriksen, 2010 (Review)	Larsen et al., 2013 (Soccer)
Training allows for diversification	**No**
Focus on long term development	Yes
Strong and coherent organizational culture	Yes
Integration of efforts	Yes

Table I. Comparison of Henriksen (2010) and Larsen et al. (2013) ATDE Factors

Additionally, Larsen and colleagues (2013) claimed there are specifically seven environmental success factors in the soccer elite environment: 1) the preconditions - the club's location, prestige, coaches 2) the process - 5-6 highly organized training sessions per week, as well as 3) a cultural paradigm including artifacts such as trophies, posters, and legends of the club, 4) a strong family feeling, for example a close core of players, coaches, managers, 5) less talent / hard working players and a blue-collar mentality throughout the organization, 6) a focus on education and development, which balances winning and learning in soccer, and finally 7) a holistic approach, where educational, emotional, and soccer-related development are all considered. These factors were confirmed by Aalberg and Sæther (2016) in a similar soccer ATDE. These factors are of great interest for possible comparisons between elite and amateur environments.

All in all, with the success and flexibility of the environmental approach, it is not surprising that the authors of these studies have pressed for further research (Henriksen, 2010) and interventions (Larsen et al., 2014) in this area. Although much progress has been made (Henriksen & Stambulova, 2017), a demand for further exploration of the empirical ATDEs and ESF in new athletic domains remains constant. As mentioned, one such area of ATDEs which could be of great interest to society but has been untouched by publications is the non-elite sport domain.

Chapter 4: Purpose of Dissertation

In response to the call for more research on talent development environments and ecological interventions, this dissertation seeks to apply the ATDE and ESF working models (Henriksen et al., 2010a) in a new athletic domain: an amateur soccer environment. Furthermore, using the empirical models already demonstrated in soccer (Larsen et al., 2013; Aalberg & Sæther, 2016) and the scaffolding of the ecological intervention (Larsen et al., 2014) from the AGF soccer club, a comparison of results between professional and amateur clubs as well as the effectiveness of an intervention can be determined.

4.1 DISSERTATION OBJECTIVES

This dissertation consists of two separate studies over one year at a local amateur women's soccer club, Eintracht Leipzig Süd, e.V (ELS). The main gap or problem with the current literature on talent development environments and ecological interventions is that they specifically focus on elite athletes and environments, and the applicability of the ATDE and ESF models has not yet been shown in a non-elite domain. For elite ATDE, the term "success" has a much easier defined objective measurement. This being, how many athletes make it to the elite level and how many of these go on to become full-time professionals. Unfortunately, research about elite athletes is only relevant to a minority of the population. If more information about the experiences of amateur-level athletes could be obtained and examined, the applicability could be used to help the greater population.

Therefore, the researcher has set out with two concrete goals:

1) To ethnographically observe a local amateur girl's soccer academy over a period of six months, conduct semi-structured interviews with those involved in the club, create empirical ATDE and ESF models of ELS, and finally compare this to Larsen and colleagues (2013) dissection of a successful athletic talent development in a boy's soccer academy in Denmark. The goal is to determine if and how many of the environmental factors also apply to an amateur club, and determine if this environment can also be deemed successful.

2) Upon reviewing the themes gathered from the first 6 months, to decide if implementing an ecological intervention (Larsen et al., 2014) is necessary and to ethnographically study the interactions of the elite and youth players and learn about their experiences through semi-structured interviews. Upon completion of a possible intervention it is hoped that the analysis will

provide an example of a successful ecological intervention for young women's amateur soccer players and produce applications for the greater non-elite soccer population.

Chapter 5: Study I - A description of the ATDE and ESF

Both studies focus on a holistic and ecological approach in exploring the phenomena found by Henriksen (2010) and Larsen and colleagues (2013, 2014) in a successful amateur soccer environment. Study one is a 6-month ethnographical and interview-based account and of the Athletic Talent Development Environment (ATDE) and Environmental Success Factors (ESF) of the women's department at Eintracht Leipzig Süd e.V. (ELS). Upon exploration of the environment, the second study, discussed in chapter 6, focused on the effects of an intervention facilitating interactions between the women of the first team and the U17 girls' team, based on the premise of Strom (2015).

5.1 GENERAL METHODOLOGY

In the past two decades, the qualitative research approach has become more present in the field of sport psychology (Culver, Gilbert, & Sparkes, 2012). Semi-structured interviews, observations studies and ethnographic logbooks are being used in a multitude of published content of peer reviewed journals. Specifically, observations can be carried out during multiple occasions to broaden to the view and understanding of an environment, and help to more completely understand and describe norms and culturally significant events (Patton, 2015).

There is growing support that research done on talent development has focused too much on retrospective interviews, asking athletes to recall how many hours they trained or what was their personal past experiences (Holt & Morley, 2004). This approach is limited because it while it allows for a broader picture of the states of talent development, it fails to provide specific details on challenges or information whilst an athlete is experiencing a transition. Thus, these retroactive accounts may present information during two stages of development, but fail to recognize many of the emotions and strategies utilized by a developing-young athlete (Holt & Morley, 2004).

Research Design

As previously stated, the current methodology is based on the three studies compromising Henriksen's dissertation (2010) as well as the ecological intervention completed by Larsen and colleagues (2014). The goal of this case-centered research style is to ethnographically experience the environment, using the daily observations to better understand a particular group or culture, otherwise referred to as *in situ observation* (Tanggaard, 2006). Furthermore, the research intends

to describe the environment while taking into consideration the observer's biases and tendencies, accepting that the events described are not 100% replicable or generalizable, nor do they need to be (Smith, 2017).

In addition to observation, the complexity of the interactions in the environment needed further points of view. To do so, the researcher used narratives of those people within the environment (Creswell, 2012). This was imperative to try and and gain further objectivity and create a clearly more credible picture of the environment (Tracy, 2010, as cited by Larsen et al., 2013). The narratives were evaluated using narrative analysis, identifying complex themes to describe the experience of the participants. As Josselson (2011, p. 225) puts it, "Grounded in hermeneutics, phenomenology, ethnography, and literary analysis, narrative research eschews methodological orthodoxy in favor of doing what is necessary to capture the lived experience of people in terms of their own meaning making and to theorize about it in insightful ways." Moreover, the results are not necessarily a perfect representation of what happened, but rather an individual's particular construction of events resulting from a chosen setting, time, and point of view (Mishler, 2004).

After completion of the interview analysis, topics were discussed with fellow researchers to identify discrepancies in interpretations (Kvale & Brinkmann, 2009). By doing so, triangulation of data sources and data collection techniques increased objectivity and allowed for a greater understand of the chosen themes (Patton, 2015). This pattern of research is referred to as explorative integration, which is "a cyclic approach of a continuous dialogue between pre-chosen theories, generated data, our interpretation and feedback from our informants, which will hopefully lead to more inclusive theory building or even understanding" (Maaloe, 2004, p. 3). Put in a simpler way, this means that a concrete understanding of the current models and theories in relation to talent development and ecological models was used as a scaffolding to better interpret newly discovered data.

Double role as coach and researcher

The principal researcher was also employed as a coach of the U17 girl's team. As such, it is first and foremost important to understand the background and potential biases the researcher might bring into data collection and the subsequent analysis. The principal researcher is of American descent but speaks German fluently. He has 20 years experience in soccer as a player and multiple years of coaching youth, however this was his first coaching experience in Germany and first extended experience coaching a girl's team.

These experiences were seen as both advantageous, in that the principal researcher could understand standard soccer practices and norms, but also a disadvantage as he might oversimplify certain aspects which require more analytical and detailed thinking. Furthermore, as a male leader in a female-dominated environment, it is much more difficult for the male researcher to understand and empathize how young women might perceive their environment. This led the researcher to be extremely descriptive when asking questions and asking twice when something might have been unclear.

5.2 STUDY I - SELECTION OF THE CLUB AND PARTICIPANTS

In choosing a case, Flyvbjerg (2006) speaks to the value of finding a "most likely" or "least likely" scenario. In essence, the researcher must enter the environment confident of certain psychological phenomena they are likely, or unlikely, to find. These could be referred to as either as *extreme cases* or *critical cases*, depending on their context. As with all research, if the expected behaviors (or non-behaviors) are found in this extreme environment, then it is possible that they are found in similar intermediate environments. If, however, they are not present, then it is logical to conclude that these suspected behaviors will also not be found at similar intermediate environments.

Therefore, the researcher was led to the case of Eintracht Leipzig Süd e.V. (ELS), where a women's team with little to no funding was able to market itself well and consistently compete for the title in the 3rd league (Regionalliga) in Germany. In addition, the club had built up three all-girl youth teams (U13, U15, U17), which was uncommon for small local clubs in the state. This perceived success gained attention from other clubs competing at a similar level, attracting offers for the players to join clubs in the 2nd or even 1st league. However, surprisingly, none of the offers were taken as the women, the coaches, and staff seemed to have strong ties to the club and its values.

The individual participants involved in the study ranged from players from all women's and girl's teams, the coaches, staff, and parents. The central members of this study, however, were of the U17 girl's team, as the principal researcher was also the coach of this team. This allowed access to all practices, locker rooms, and events. It also brought with it formal and informal meetings with other staff and coaches as well as parents of the players.

5.3 STUDY I - RESEARCH METHODS AND INSTRUMENTS

In order to explore the elements and factors presented in the working ATDE ESF models (Henriksen, 2010; Larsen, 2013), the previously combined methodology of interview, observation, and analysis archival data was used. This allowed for a complete picture and stand-alone narrative, expanding the knowledge we know on talent development environment in a new way.

Interviews

Formal interviews were carried out in both studies with semi-structured interviews (Kvale & Brinkmann, 2009), allowing the participants to go into depth on a variety of topics. The reason for this approach was to find out various club member's perceptions and experiences within the researched environment. The interview questions were slightly amended for each group of participants within the study. This allowed them to comment on similar phenomena through their own perspective lens. Indeed, the intent of the interview was to establish the perception not only of "person x", but the perception "person x" had as a U17 player, a coach, or parent. The main goal was to reveal how participants' perceptions shape both the ATDE and ESF. All interviews were analyzed in the German language and translations of themes and quotes were completed by the primary researcher.

Players

In the first study, interviews were completed with players and coaches of the U13, U15, U17, 2nd and 1st women's teams. Players were asked to sum up their current experiences at the club, to give a descriptive picture of a normal practice, and comment on their teammates and coaches. The interviews also focused on motivations of the players, asking how they became involved in the sport and possible future interests they have in playing. For example, players were asked, "How is it to play at ELS?" to gain a general understanding of the "feeling" and preconditions at the club. In addition, to understand the process in the environment, they were asked about their relationship with the coaches and staff, "what kind of support do you receive from the coach?" and about their development as a player and person, "how do you think you've developed since playing at ELS?"

In addition to commenting on their own teams, at least two players were sent to train in two practices at the next developmental level in the club (e.g. a U15 player training with the U17 team). Players were interviewed on their expectations of training and practicing at the next level, as well as how they believe it would compare to their own practices. After training with the

advanced level, a post-interview about their experiences at the next level was conducted and targeted questions regarding behavior of the players and coaches were asked. Finally, the players were asked to compare again their expectations of playing at the next level with the reality of their recently completed experience.

Coaches

In addition to player interviews, coaches of each level were asked similar questions regarding the environment in which they coach, and the goals and structure that each team utilizes. Moreover, coaches were asked to identify specific reasons they were originally attracted to the club and to describe the culture of their specific team and that of the entire club as a whole. Questions included, “why is ELS different than other clubs?” to try and determine which culture factors, specifically spoken artifacts or espoused norms existed within the club. Finally, coaches were asked to comment on the types of families (and more specifically parents) that come to the club, as well as compare their experiences with other clubs, in order to better define the image and identity of the club within the greater macroenvironment of Germany soccer clubs.

Parents

At least one parent in all youth age groups was interviewed. The purpose of these interviews was to gain greater insight into motives for their children playing at the researched club as well as obtain a broader view of the values the parents associated with the club. Specific questions about their daughter's past experiences in soccer and their future plans were included to produce a more complete picture of the club’s values and goals, which may have been attractive for the parents. Finally, parents were also queried about their relationship with the coach and youth coordinator, giving the researcher another perspective on the role and objectives of key persons within the club environment.

Management / Staff

The last group of individuals that were interviewed were members of the management and staff at the club. These individuals included the director of soccer operations at the club (also the head women’s coach), the youth coordinator, the team sport psychologist, and the women’s team manager. Through these conversations a specific look into the “front office” of the club was won, and concrete questions about the image and identity were put forth. Another main goal of these interviews was to round out the answers of the players, coaches, and parents to see if the answers tended to overlap or differ.

Interview guides can be found in Appendix 1 and 2.

Observations

The second data collection method was done through observation. Observations were completed both formally and informally by the head researcher as well as his research assistant, who was completing her bachelor thesis under the supervision of the principal author. As Henriksen (2010, p.55-56) stated:

> "{participant observation} enables *in situ* observations of the social practices under study. Being able to directly study everyday life allows for nuanced descriptions of the social practices and gives the researcher a profound feel for the culture. Listening to the myths and stories, watching rites, customs and traditions, and seeing buildings logos and styles of clothing (cultural artifacts), gives the researcher an impression of how the environment creates and maintains its culture."

It is exactly these unspoken words, these small actions, and these small impressions which often summarize the way in which group members truly live out daily life within the studied environment. The main goal is to witness how interactions are formed between the U17 players and others, which rules are spoken and unspoken, and how does what is said about the values and norms of the culture in interview transfer into the practical world. These observations, both formally and informally, were completed on a consistent basis of all teams (U13 - U17, 1st and 2nd women's teams) over a time span of 6 months (September 2013 - February 2014).

Informal Observations

Consistent contact, defined by the researcher as 1-2 times weekly, was the basis for all informal observations. Experiences with coaches, players, parents, and staff were noted into a journal kept by the head researcher. Time was spent at practice and games of each team, with the goal to determine and identify general ideas about culture, motivation, and norms at the club. Short videos and pictures of club settings, posters, and artifacts were made to create a broader image of the aims of the club.

These informal observations allowed for "mini-interviews" with various members of the environment and were brought upon by perceived significant events. Such events included a parent speaking to their child during practice or a spontaneous pick-up game between some of

the players before practice. In essence, informal observations provided much of the "glue" material for understanding how the big picture themes fit together.

Formal Observations

All teams in the club underwent some form of formal observation from either the principal researcher or by a research assistant, under the direct instruction of the principal researcher. These observations mainly revolved around an assessment of the coaching behavior at each level of development, with a focus on conceptualizing a concrete vision of club structure, culture, and goals. The formal observations were completed using standardized observational coaching behavior questionnaires developed by the principal research, to focus on the type of communication as well as behavior of coaches before, during, and after practices at the club. These forms focused on the positive and constructive climate that the coach provided for the athletes. In addition, it provided a look into the effectiveness of feedback and the clarity and structure of the practice setting.

Specifically for the first study, in addition to the interviews, two players from each level were observed within their own teams as well as in a more developed level (e.g. U13 at U15 level). This players were chosen based on the playing level from their coach. This method allowed the observer to view the coach and player within the same club environment, but with a slight twist to measure coaches' and players' consistency in behavior.

Archival data

The data used were simple statistics in regards to the success of the women's teams as well as to comment on the rarity of girl's clubs (U13-U17) and a small club. Data were collected from web pages, including the team website and the 3rd league website.

5.4 STUDY I - PROCEDURE

Contact was made with the club through the primary researcher as the club was seeking a sport psychologist for their 1st women's team, competing for the title in the German 3rd league. Upon meeting for the first time, the club had already filled the position, but was eager to engage the services of the primary researcher as a coach for their U17 team, as he had prior playing experience. The two sides agreed that if the primary researcher would lead the U17 girl's team, then the club would agree to participate in the doctoral research.

Anonymity was offered to each athlete and coach at the club, but they insisted they were proud to have the name Eintracht Leipzig Süd e.V. take part and would welcome the results. Still, it was considered better to keep players', coaches', and staff names anonymous. Results were also to be discussed with the participants and any data would not be included if desired by the club or individual participants.

First contact with the U17 players was achieved through the head coach of the 1st team as well as the youth coordinator. Initial trust was gained though various practice sessions and team building sessions, where the primary researcher made his intentions clear: he was here to coach, observe, learn, and give a report back to the members of the club. In addition, participants were informed that if they felt uncomfortable or unwilling to participate in any of the actions within the study, they were free to inform the principal researcher directly or through one of the coaches. Moreover, a decision regarding participation would in no way affect their position as a member of the team.

Interview Procedure

The interviews were conducted in a variety of locations (e.g. at home, the club, etc.) and ranged from 9 - 30minutes, depending on the how much information the participant choose to share. All interviews were recorded using a recorder or though a cell phone and then later transcribed for analysis. Each participant was reminded of the anonymity and that their decision to participate was 100% voluntary.

A total of 20 participants were interviewed for the first study (Table II), with at least one member of each team from the U13 - 1st team present. This methodology was done to assure that all all members of this environment had a voice.

Team	U13	U15	U17	2nd Team	1st Team	Total
Players	1	2	2	2	2	9
Coaches	1	1	0	1	2	5
Parents	1	1	1	0	0	3
Staff	0	0	1	0	2	3
Total	**3**	**4**	**4**	**3**	**6**	**20**

Table II. Participants interviewed for study I

The interviews were conducted in a manner to make the participants feel welcome and open to share their honest beliefs on the environment. In addition, as the interviews first took place after a minimum of 3 months, a foundation of trust could be used to achieve to ask slightly deeper insights from those participating. A guideline of the questions asked can be found in the appendix.

Observation Procedure

Observational data were collected each time the principal author was present at the club, at least 1-2 times per week. This was achieved either during the practice sessions he coached himself or through the interactions with other coaches and their teams before or after his training. The double role of coach-researcher could be seen as having its disadvantages, but this was often solved by allowing the assistant coach to run practice and to allow full focus on the behavior and conversations of the players.

In relation to observing the other teams, being a coach had its advantages, as other coaches were eager to share information about their teams, the players, and the dynamics with the researcher. In essence, the double role ended up putting the researcher into more situations to observe than if he had simple been a sport psychologist mentoring the first team. Moreover, he was able to add his own perceptions and beliefs to the data on how his team and players fit into the club ATDE (Krane & Baird, 2005).

Archival Data Procedure

Data regarding the club and its competitive league were gathered with simple google searches. These data were gathered in preparation for interviews with the coordinators and head coach.

Analysis and interpretation

All interviews were transcribed and analyzed were evaluated using directed content analysis (Hsieh & Shannon, 2005), where the previous categories and factors determined by Henriksen (2010) as well as by Larsen and colleagues (2013) at the AGF soccer academy helped to assist the researchers in their search for themes and ultimately to create codes for the data. As an example, to look at how the ATDE is structured, codes would refer to “family”, “friends” or “colleagues”, to help figure out how each of these members of the microenvironment might fit into the focus group’s lives.

Data from interviews was combined with both the formal and informal ethnographic observation data, and themes and sub themes were created from this analysis. Any text or themes not fitting with the structured theory were to be given their own code. Finally, a node tree of the themes present both in regards to the ATDE as well as ESF was created and compared to those found by Larsen and colleagues (2013). This node tree can be found in Appendix 4.

Establishing Trustworthiness

Trustworthiness was established through three steps: 1) a previously mention, an observational guideline was created by the principal researcher to focus on specific coaching behaviors and communication. 2) Interviews were structured around general concepts and ideas of the club at first and then focused on specific and interesting aspects of the local environment. To establish better reliability of the codes chosen, the researcher assistant evaluated interview separately, after which differences could be discussed (Kvale, 1996). 3) Results were discussed with key members of the environments to determine if they matched the participants' perceptions.

5.5 STUDY I - RESULTS

The results from study I look into the most important factors of the micro- and macroenvironments at Eintracht Leipzig Süd e.V. (ELS. This will result in the ATDE empirical model for ELS. Next, the factors most significant to the success of the environment will be presented as the ESF empirical model of ELS. For the purpose of conciseness, the U17 girl's team will simply be referred to as the U17s.

Welcome to ELS - an introduction

At the most intimate level, players' relationships are highly focused on social bonding rather than their ability to perform. Many of the players are in the same school and therefore attend many of the same classes. Additionally, there are multiple friendships and small cliques within each team, often depending on geographical location of their homes. In the locker room and even during practices one can hear discussions about upcoming homework assignments or the latest gossip about a fellow classmate. Specifically, within the U17s, the main focus group of this dissertation, relationships within the club are highly determined by activities outside of the club.

FIGURE 16. THE ELS LOGO

This is seen at all levels of the club, including the adult level. The social bond remains the primary source of relationships. Many players at the adult level study or work together outside of practice and even a handful share an apartment. Furthermore, dating relationships between team members are not uncommon and are not opposed by staff or fellow members. There is, however, a sense of performance-based standing within the adult teams, especially the first team. Strong play can raise one's standing within the team as weak play can be detrimental, however it is clear that above all the social relationships are paramount in the team's dynamic. This mixture within the environment creates a living, breathing environment, which has produced three full girl's teams (U13, U15, and U17) as well as two successful adult women's teams (4th and 3rd leagues). Additionally, the presence and importance of the women's teams at the club is felt immediately upon arrival, as these teams have been the most successful representatives within the club's soccer history.

5.6 STUDY I - DESCRIPTION OF THE ENVIRONMENT

Microenvironment: Athletic domain

The central group and main focus of the environment were the U17s competing in the state league (Sachsenliga). Players of this team were aged 14-16 years and had a broad background of experience and ability in soccer. This was for nearly all players their first full-season experience in full-field soccer.

U17s - coaches

The two coaches included the principal researcher and a younger female coach, both with around two decades of playing experience. Both coaches were North American but could communicate with the girls in German, and were 28 and 22 years-old at the time of data collection. Each brought with them a certain energy and innovation which was slightly different to what the girls were used to, but was in general well received. The female coach also was a player in women's first team at the club, and often encouraged the U17s to come watch games on the weekend.

The coaches brought a very clear message to each training session: the girls were here to learn and to have fun. They would be allowed many freedoms as long as they followed two rules: 1) to always give 100% effort and 2) to never give up, regardless of results. The coaches developed a very close bond with the girls and were their main connection to soccer at the club. Open communication between players and coaches was highly encouraged, and players would often speak to coaches regarding issues both on and off the field before, during, and after practices. The close-knit relationship to the coaches can be observed in the logbook of the principal researcher, in which a video the girls produced had been sent to the coach after their first victory of the season, because he was unable to be present:

> I was traveling for work when I had received a whatsapp message from the youth coordinator, who had stood on the sideline for the game I could not attend. We had not won a single game all season, and I was expecting at best a tie. When I opened the message I realized it was a video - the captain of the team gave a speech to the camera in front of the girls, in the locker room and still in their jerseys sweating from the game. She wished me well and said they had gotten me a great gift: 3 points! After which the whole team broke out dancing and singing.

U17s - staff + coordinators

The relationship between the U17s and the rest of the staff was very feint, but existent. The greatest contact was with the youth coordinator. He was a young man in his mid-20s, had himself very little experience in soccer, but was extremely motivated and brought a lot of energy to the club. He asked many questions and was always speaking with parents when they would come to practices or games. Perhaps most importantly, he made constant attempts to remind the girls and coaches that players were also at ELS to develop, and not just to have fun. He demonstrated a great deal of pride in the club, which could be noticed in the way he spoke about the girls, and could be overheard speaking to players about the previous matches or even checking in if they have plans to stay at ELS next year.

U17s - younger players

Players at the U15 or U13 level were sometimes connected to the U17s either through family, school, or other hobby circles. These relationships were observed when players would show up to the club together or when a field was shared during practice sessions. There was a very friendly atmosphere between the teams, and it was not uncommon for U15 players to train with the U17s if they were skilled enough. An example from the logbook of the principal researcher:

> I began preparing practice in the normal way, getting the balls, cones, and a few other materials from the coaches' office. One of my players came knocking and asked if a girl from the U15 could train with us today, because she couldn't make it to her own practice. I asked her if she thought the U15 girl was good enough, and she nodded. As I walked into the locker room, she was already sitting there, speaking to the other U17s.

U17s - coaches - women's players

A connection to the first and second team's players was only established through connections created by one or both of the coaches. These were mainly informal connections, as members of the women's teams were friends of the coaches and saw each other also outside of the sporting environment. However, conversations about the potential of each player were held by the coaches with both sides, and through these conversations the need to establish a more direct

FIGURE 17. FIRST TEAM POSTER IN THE CLUBHOUSE WITH SPONSORS

connection between the youth and adult teams surfaced. The need to bridge this gap came across in one interview with a player from the first team:

> A women's team only survives because it can get players out of its own academy. In our past it is not often the case…that the girls {in the academy} had a good enough level to play at the women's level… but regardless I think it is important. For example, in my first year here we had an action with the youth players where we went to a climbing wall. Everyone needed to look after 2-3 girls. I think it was a really cool thing, and that the kids had a lot of fun doing it.

Microenvironment: Non-athletic domain

U17s - family

One of the greatest influences on the U17s development overall are the parents, as they support their children's interest both emotionally and financially. Parents are required to pay club fees and often offer support for their children's equipment. Moreover, parents are involved in the organizing car pools to drive the girls to away games, which can be at least 1.5 hours away. This is a very mutual relationship, however, as the parents recognize the value of their daughters training at

ELS. As one parent explained, “We came to [this club] because we felt there was much less pressure to perform and she could just enjoy playing the sport with her friends.”

Although some parents were seen coming to practices to watch their children play, most did not interact with the coach and waited in the parking lot after practice to drive their children home. Such an observation lead to the idea that parents are not overly involved in their child’s commitment to soccer. Specifically, “helicopter parenting” or consistent pestering of coaches was also not observed. This was especially true at the U17 level, where players were less likely to be driven to practice and were generally self-sufficient. It was also not uncommon at this level that parents did not come to games, either because another child had another event at the same time or they simply did not make the trip to an away game.

U17s - peers

Outside of direct contact from the team, the peers of the U17s seem to play the greatest role in the development of both emotional intelligence and personal interests. The peers come from a different external location within the macroenvironment, either from one of the local schools or from a different hobby (i.e. choir) that the U17s participate in. Although these peers had no direct influence on training or games themselves, they could be the reason certain U17 players missed practice and also had an effect on whether the U17s had interest in continuing to play at ELS in the next year. Such effects were witnessed at practice one day by the female head coach, as she described:

> I noticed {two of our players} weren’t speaking to each other and avoiding each other at practice. It was so obvious that during the break I pulled one aside and asked what was going on. “{she} got in an argument with my friend at school and I simply don’t want to see her.” said the player.

Macroenvironment

The context of the macroenvironment for ELS is characterized by two major cultural factors, namely the German culture itself and the specific culture of soccer clubs in Germany. In addition, four other factors play an indirect role in the ATDE, including other clubs and the state league in the athletic domain, as well as school and other hobbies in the non-athletic domain.

U17s - other clubs

Connections to other clubs was weak but existent. In particular, most U17s had a negative experience with other clubs, for a variety of reasons. Some did not appreciate the more strict and performance-focused atmospheres of the other clubs. Other U17s found they were dissatisfied with the coaching or the quality of the practices, and even others mentioned that it was simply a fact that their friends had come to ELS. As one U17 said, "I used to play at {a local club} and it wasn't any fun. Plus my friend was coming here to play and I could be closer to home." Another player came from the local elite academy and described her past experience as something negative, "at my past club it was only about practicing technique and the coaches were always serious, always yelling. I like it here much better."

This relationship to other clubs could also be found in the interview with the youth coordinator, who mentioned that many parents of young girls in Leipzig hat contacted him, and it was often a matter of space if they can accept the girls. He attributed this to the ELS's reputation for putting girl's soccer on the same level as boy's soccer, as well as the clear structures:

> We have a good image in the community and you can see this due to the players who have come to our club. We have gotten players in the last years from {the elite academy} as well as other from {surrounding cities}.

U17s - state league

The U17s competed in the full-field state league (Sachsenliga) with 4 other teams, two of which were semi-elite academies. In comparison to the other teams, the U17s at ELS had far less experience and technically good players. This led to the focus of each game being on development and fun, rather than results. As the youth coordinator commented:

> The development is clearly the focus. As I said, it is the goal that a player develops from game to game. And you can only do this when you give effort… and when you show your love of playing.

Games were lost 0:5 or even 0:10, but the girls remained generally positive as they did not measure themselves simply on the comparison with other teams, but with the effort and enjoyment they had themselves.

It is also important to note that due to the distances traveled at away games, certain players were unable to attend away games. This was simply due to the time constraints some U17s had on weekends and family engagements or other hobbies they attended.

U17s - school

The first factor in the non-athletic domain of the macroenvironment was school. As the school was different for many players and was not directly involved in the development of the U17s, it was seen as a part of the greater macroenvironment, rather than something which affected players directly at ELS. It was a main focus of the girls' lives and took priority for the majority of girls whenever there might be a scheduling conflict.

For example, school played a role in practice participation, as some players would inform the coaching staff that they could not attend practice due to homework obligations. In addition, events at school were often the focus of gossip or chit chat before, during, and after practices. U17s would share information that transpired at different local schools, comparing stories and creating interactions. These interactions defined much of the team dynamics within the team, shaping cliques and distancing some members of the team.

U17s - other hobbies

There was almost no U17 player who did not have a hobby in addition to soccer. Hobbies included choir, guitar, piano, dance, languages, martial arts, badminton, and others. As with school other hobbies caused many players to miss training sessions and even in some cases, games. However, the majority of U17s found that their hobbies gave them balance and helped them stay motivated to come back to soccer each week.

In one interview, a U17 player stated, "I do karate and paint. Sometimes I play keyboard, too." In another interview, "I play piano and do dancing. Standard dancing…I think next year I am going to do hip hop or something with other friends." This connection to other hobbies was also found in the interview with parents, where one parent stated, "I want my daughter to do what she wants to do, try different things and do that what makes her happy."

FIGURE 18. ELS FINISHING FIRST PLACE IN THE REGIONAL LEAGUE

German culture and German soccer club culture

The greater context of the German culture as well as the German soccer club culture also influence the general behavior of those at ELS. This could be particularly well observed as the principal researcher comes from a foreign country and was able to spot certain norms, which might not be seen in an American club. For example, the importance of greeting all players and their parents with a handshake when they first arrive to the club. This experience was noted in the logbook:

> Every single day I am at the field, every person I know, and even some I do not, come up to me and shake my hand. It appears to be a strict custom that, although I have lived in this country for multiple years, am just getting to know now. It is pleasing, however, as I feel it forces every person to develop basic social skills when entering an environment.

In addition to the German culture itself, soccer clubs seem to have norms of their own, including a bar in the clubhouse, which is open to all locals. This was extremely strange to the principal researcher, who could not understand how a bar could be in an athletic environment:

> After observing practice for the women's team, the head coach asked me if I wanted to grab a beer. I was a bit tired but wanted to be polite and accepting, asking where we will go. He looked at me a bit confused and said, "upstairs!". It had not occurred to be that we could simply drink a beer at the club!

Transforming a boy's club with girl's teams to a girl's club with boy's teams

One message that seemed to be ever present within the atmosphere was the importance of women's soccer at ELS. Although there was a complete men's team and boy's academy, the only posters, memorabilia, and trophies that could be found belonged to the women's and girl's teams. This was not 100% representative of the truth in some eyes, as one parent complained that the girls were still not yet on equal ground, "I'm not so close to the club because I feel that the boys' soccer teams are still preferred, and I'm not pleased about that." However this message is rebuked by the youth coordinator, who stated, "I would say it is relatively even {between the boys and girls}…I would say we are neither preferred nor disadvantaged in any way at the club" All in all, the club's women's section clearly has advantages both in league quality of their women's team and media presence.

The empirical model of the ATDE at ELS

Figure 19 is the empirical model of the ELS academy players from the central viewpoint of the U17s. Clear to see are the three greatest influences within the microenvironment, namely the family, peers, and coaches. Strong ties can also be seen between factors outside the direct influence of the soccer club, including other hobbies and school, which lead to further peers outside of the U17 group. Athletically the U17s have loose connections to the staff and coordinators as well as younger players in the club. In addition, they have a connection to the women's players through their coaches. The relationship to other clubs mostly carries with it negative connotations, and the difficult level of the state league has pushed the girls to focus on fun and development, rather than results. Finally, German culture and soccer clubs within Germany impact the players and their behavior. Over time, the leaders at the club would like to transfer ELS from a boy's club with girl's teams to a girl's club with boy's teams.

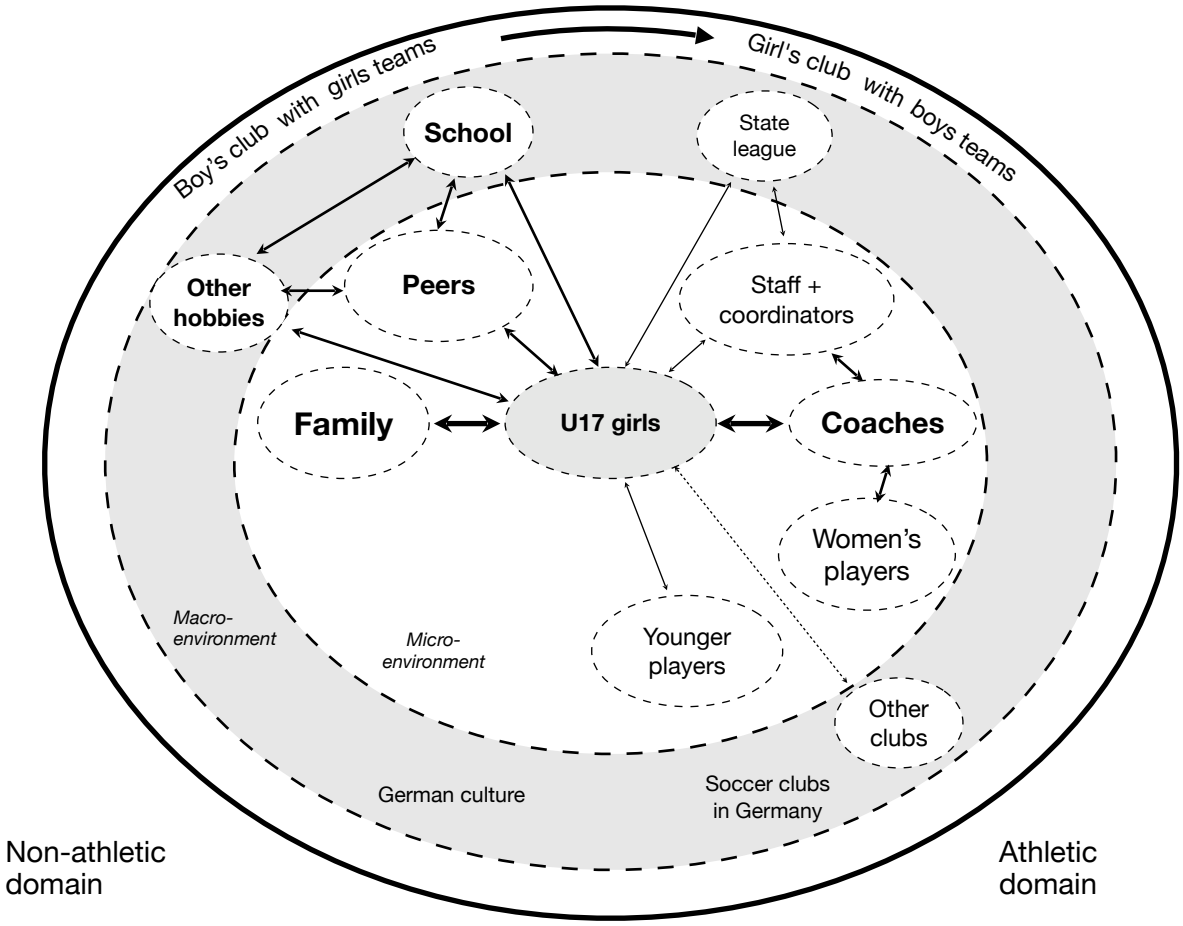

FIGURE 19. ATDE EMPIRICAL MODEL OF EINTRACHT LEIPZIG SÜD E.V.

Comparison to AGF empirical model

The AGF empirical model differs at the microenvironmental level in their strong connections to other staff members and externally to the municipality of sport, which doesn't exist in the amateur environment. Furthermore, the influence of peers and family seems to play a less significant role in the elite players' lives. Perhaps interestingly, the youth elite players also only have an indirect connection to the adult-level players. The macroenvironment also contains the greater cultural aspects, albeit Danish, and the soccer league is also present. Differences are found in the presence of media for the elite players and the importance of school and other hobbies for amateur players.

5.7 STUDY I - FACTORS INFLUENCING THE SUCCESS OF THE ENVIRONMENT

The description of the ATDE at ELS provides a look into what exactly the scaffolding is of a successful amateur girls club. However, in order to figure out the processes which are in place,

evidence for the presence of ESF based on Henriksen's working model will be presented, creating an empirical ESF model for ELS. Thereafter, a short comparison of the seven factors found at a successful soccer academy by Larsen and colleagues (2013) is presented.

Preconditions

The typical preconditions associated with an elite successful ATDE are not given. The amount of training fields are limited and they are in average shape, at best. The equipment is sub-par and the coaches are not highly qualified. The girls are all local players, something that the amateur club identifies a positive, with the youth coordinator stating that "our girls are a mix of players from the {local elite academy} and a few home-grown players". The players bring with them a variety of skills sets and abilities, and this mix is seen a positive, bringing different values together to form a team.

Secondly, the coaches and parents are seen as positive influences, bringing with them high energy and creative ideas. This somewhat can make up for the lack of finances, as the club has no ability to financially back the players other than the minimum requirements. The youth coordinator put it plainly, "we do not have the best facilities nor can we afford a nice bus like the elite academies." Although sometimes the U17s would complain about the lack of luster, they also tended to combat these shortcomings with humor and positive energy.

Process

The process refers directly to the way trainings were run and goals were set in competition. In addition, there is an attempt by the club to provide periodical challenges to individual players looking to further develop their skills.

<u>Training</u>

In contrast to elite academies, training took place only twice a week, in the evenings and after school. Certain norms were strict, such as punctuality and informing the training staff of absenteeism, whilst the training itself was focused almost exclusively on playing soccer. Trainings were run by the coaches but feedback was consistently gathered from the players to make sure the right balance was found between fun and hard work.

In general, training could be described as a social gathering with soccer-related events happening in-between. This attitude is reflected by a comment from one of the player's parents, who plainly

said, “(soccer) is not always the girls’ first priority”. This was accepted by the coaching staff as long as the players were 100% focused during the training drill itself and were willing to give 100% effort. This mantra was repeated again and again at each and every training session.

Competitions

The goal going into each match was never result-oriented. Instead, coaches insisted the players always try their hardest and most importantly remember why they play the game: for fun. Regardless of the score, this expectation was repeated multiple times, so that the girls stayed active and engaged in the match, even if they were behind five goals. An example of this can be found in the logbook of the principal author, as he spoke to his team at half-time down four goals:

> I knew they were tired already, and I could sense that many of them didn’t even want to go back onto the field. So I told a lame joke to break the ice and then after I got a few smiles I said that exactly that is our game plan for the second half. We need to smile more, lighten up, and just enjoy the experience. Even if they score 10 goals, we won’t stop.

Providing challenges

For those girls who wished to challenge themselves, they were invited to train with teams a level up. This was only done when the coaching staff felt the player was able to keep up with the quality of the team, and strictly held to practice sessions. Multiple examples of players from the U13s through the 2nd women’s team could be found, where players claimed, “I have fun playing soccer here and want to improve”, and “I’m excited to play at the next level”, and “I am ambitious…and I want to play with the first team.” To deny these girls the ability to challenge themselves was seen as daft, even if the primary focus of the club is enjoyment. Therefore an effort was made to constantly allow “try-outs” for players eager to make the jump to the next level.

Organizational culture

Artefacts

Multiple example of artifacts could be found throughout the club hallways and locker rooms. Posters for the upcoming women’s home games as well as bi-weekly videos by “ELS-TV” posted on the team’s facebook page gave the club a clear identity. The videos summarized results,

conducted interviews, and provided promotion for the club's sponsors. In addition, trophies of the women's and girl's achievements were proudly displayed. Furthermore, if one were to simply speak to any member of the club, they will explain how impressed they are with how girl's soccer has developed over the past years at the club. In particular the head coach of the women's team speaks proudly about the founding of ELS women's club, the direct promotions in the first two years, the goals they have for the future.

Espoused values

By far and large the greatest component of the organizational culture is valuing, accepting and communicating with one another. Observations by the principal researcher revealed an uncanny acceptance for players and people of all backgrounds and beliefs. This was compounded by the intense communication players, coaches, and staff had with one another, where issues were spoken about openly and honestly. Players at multiple levels commented that, " you can always talk to {the coach} before or after practice about anything." This effect was echoed by teammates, who created a strong family feeling, giving support to their teammates when needed. As one player commented, "I often get support from my teammates."

Basic assumptions

There were three basic assumptions which seem to drive the heart of the club culture: 1) *women's soccer is just as valuable as men's*, 2) *focus on effort, never give up,* and 3) *a holistic approach to development.* The first assumption was something that could be found in all aspects of daily life at the club. Not only did the women have posters or videos promoting their games, but they also were the most respected athletes at the club. This can be proven through the amount of volunteers that was involved in practices and even accompanied the team to away games for the women's team. People gave up their free time to produce the videos, to fill and carry water bottles, find sponsors, and even organize miniature tournaments. An experience from an away game with the first team is described in the principal researcher's logbook:

> I have never worked with a professional team yet, but I have to imagine this is what it is like. I am sitting in a bus on my way to Berlin, there are 4 other staff members here plus the head coach.

This behavior spills over into the academy, where the U17s and other girl's teams are reminded that they are never in no way worth less than the boy's teams. One time an argument began

because a youth boy had taken the key to the locker room assigned to the U17s. In response, the captain of the U17 went to the youth coordinator, where he immediately reacted, taking the key and instructing the boys they need to abide by the same rules as everybody else.

The second assumption, *focus on effort, never give up,* can be found in the blue collar mentality that all coaches from the U13 through the 1st women's team embody. As one coach stated, "we want our players to develop a hard-working mentality, and a desire to better themselves." This could be seen in each competition and practice match, where coaches would yell onto the field, shouting messages to "keep running", "keep pushing", or even directly "never give up!".

Finally, the adaptation of *a holistic approach* is greatly attributed to the other interests and goals of the girls themselves. Taking the women of the 1st and 2nd teams as an example, these women study, work, or are doing an education in addition to playing soccer. In essence, no one, including all the coaching staff, works in soccer full-time. The holistic approach encourages the girls to do well in school and even accepts when other hobbies might get in the way of soccer practice. This acceptance and flexibility allows many more girls to stay active within the club and keeps their interest in soccer present.

In sum, all three of these factors create an organizational culture that is spearheaded by the women and staff of the first team and trickles down to the members of the academy. They work together to create the core of support needed to sustain the success of the environment.

<u>Individual and Team development / achievement</u>

Whilst the development and achievements of the women's teams are quite clear, the development of the academy teams can be described simply by the sheer growth and interest in girl's soccer at the club. For example, at the time of data collection, it was the first time in the club's history that they had a U17 full-field girls' team. The youth coordinator also commented on this expansion:

> …we have been able to increase the amount of girls in our academy. This is a very positive development and we are very happy about it. With the (U17s) we have been able to raise the quality, I think…we started in the district league (Bezirksliga) and were by far the worst. Didn't have a chance for any victory. And {look what} the U13 and U15 have shown last year, always being one of the top teams, that is really good. That is really a development, as one can see.

Analysis of further interviews combined with observations at the various levels revealed a focus on team spirt and teamwork, all whilst improving the tactical skills and attempting to achieve better results.

With regards to individual development, there is a much greater focus on topics of emotional intelligence, self-worth, and perseverance, with soccer skills being a secondary achievement along the way. This is mostly attributed to the language the coaches use and the goals they give their players going into competition.

Finally, the effectiveness of the environment seems instead not to be measured by tactical or technical ability, but being a tool to educate young girls on psycho-social matters and spring on emotional development. Thereby the environment produces happy youngsters with satisfied parents, while provided a platform for those with in interest in playing soccer at the adult level.

The empirical model of the ESF at ELS

A summary of all the factors and findings from the ESF empirical model is presented below (Figure 20).

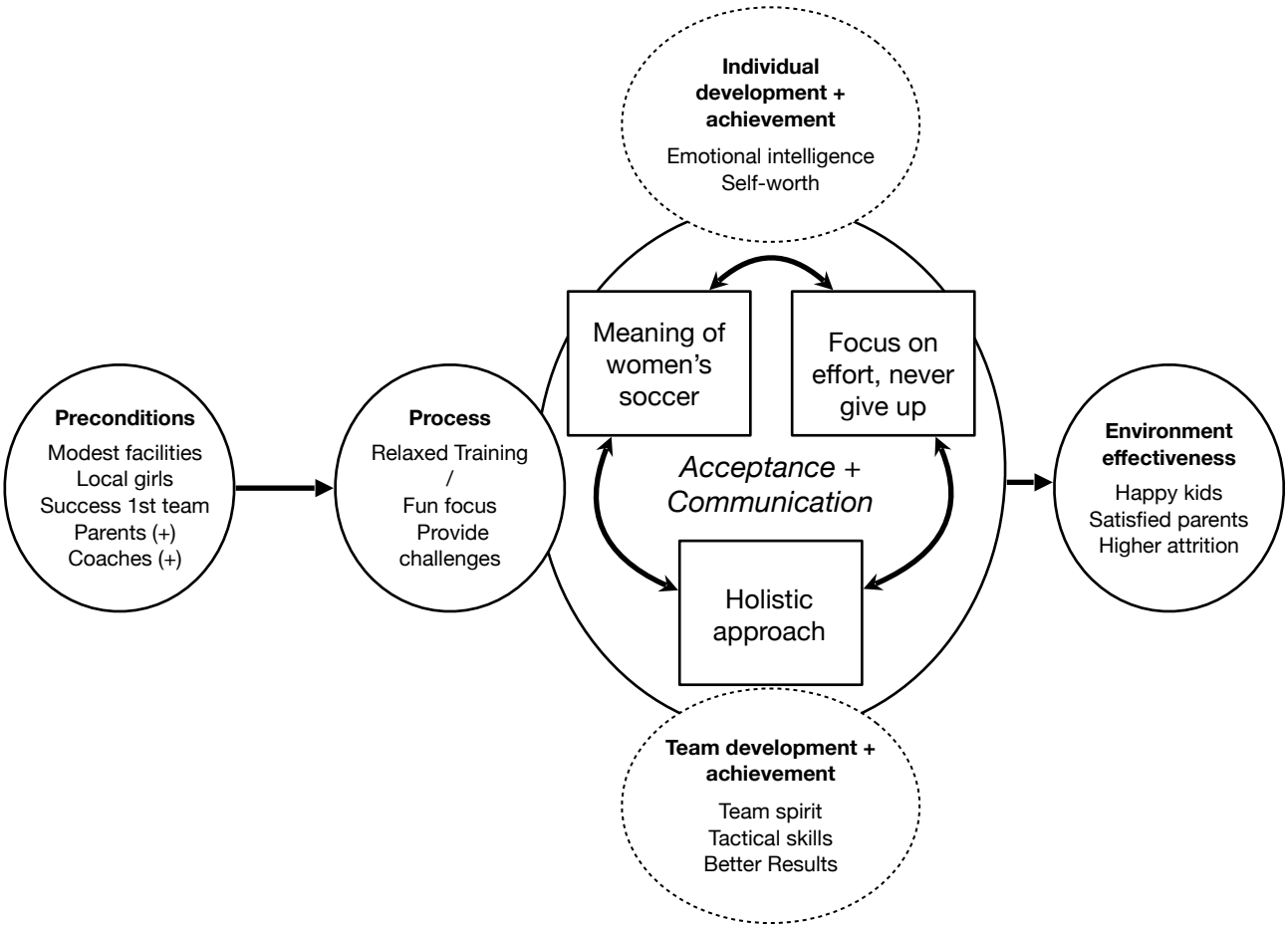

FIGURE 20. EMPIRICAL ESF MODEL OF EINTRACHT LEIPZIG SÜD E.V.

Comparison to ESF empirical model

When comparing these findings to the seven factors found in the AGF elite academy environment (Larsen et al., 2014), three strong differences can be noted. First, two elements present in the boy's academy not found at ELS are the professional preconditions as well as process of training. A lack of resources as well as qualified personnel change the way in which the sport itself is trained at the club. The major unique factor present at the girl's club is the meaning and important of women's soccer. However a similar cultural paradigm containing artifacts, norms, and assumptions (i.e. hard work, holistic approach, strong family feeling), as well as a balance of development and success can be found within both environments.

5.8 STUDY I - DISCUSSION

Reflections on data analysis

First and foremost, it is not exclusively the goal in qualitative and specifically case-study research to compare and contrast findings with other studies, nor to generalize the findings in order to find some applicability or transferable skills (Smith, 2017; Flyvbjerg, 2006). Rather the goal of the researcher in this case is to add to the general knowledge of sport science, and more specifically, to the general knowledge and understanding of ecological effects on talent development. This focus becomes of even greater importance when one considers that the working ATDE and ESF models were created and applied to only elite talent development environments (Henriksen, 2010). It was therefore vital when beginning this research that the principal researcher set out with a similar methodology as his predecessors, but with the same blank canvas allowing him to paint an accurate picture of the environment before his eyes, rather than a constant comparison of models he experienced before. Only after fully immersing himself in the environment through *in-situ* observations (Tanggaard, 2006) and conducting relevant interviews, was the researcher able to create accurate, living and breathing ATDE and ESF empirical models for an amateur women's soccer club.

The battle within the researcher alone, acknowledging personal biases and describing the environment as it is, was expected before the study began, but the experience itself caused many moments of reflection. These reflections were almost always related around the question, "how many observations or pieces of coded information are discovered or deemed important only due to the prior knowledge and attitude of the researcher?" Another issue involved gender, "how many

pieces of information am I perhaps ignoring simply due to being a man in a women's environment?" These short reflections helped the researcher to try and acknowledge his own personal lens and thereby produce a more accurate interpretation of observed behaviors and inferred answers (Fields & Kafai, 2009). Furthermore, the inclusion of discussion with fellow researchers about the experienced behaviors provided another angle and possible objectivity to the suggested themes (Maaloe, 2004). Through this combination of self-reflection and discussion with educated colleagues removed from the environment, a greater level of confidence in the final data was achieved.

Application of ATDE and ESF models in an amateur environment

One of the biggest concerns leading into the research was the applicability of the ATDE and ESF working models in an amateur environment. In essence, two issues needed to be confronted: 1) the *generalizability* of the working models in an amateur environment, and 2) how one could determine if an amateur environment was indeed considered *successful*. Tackling the first issue came easier, as the purpose of creating the ATDE and ESF working models was not simply to compare and contrast, but to describe and illuminate each environment individually, regardless of its relationship to previous researched environments (Henriksen, 2010; Larsen et al., 2013; Henriksen, Larsen, & Christensen, 2014; Storm, 2015; Aalberg & Sæther, 2016). Similar themes and / or factors discovered and described at multiple successful ATDEs simply strengthen the argument that such environmental factors appear to positively correlate with producing positive results, but in no way guarantee them. Therefore, it was imperative, first and foremost, to see and describe the environmental factors at ELS in their relation only to the players, staff, and members in-and-around the soccer club. After this idiosyncratic ATDE had been described in whole, conclusions could be drawn in how an amateur club's environment may differ from previously described ATDEs and their ESF.

Attempting to determine what is the definition of a *successful* amateur environment could really only be determined after completing the first study. Success has a variety of definitions among the sport science world, ranging from extrinsic factors such as achieving world class (Henriksen et al., 2010) to one's own personal intrinsic motivations, where, for example, developing a 15-minute exercise routine can be deemed a success (Duda, Chi, Newton, Walling, & Cately, 1995).

It was indeed the extrinsic success of the women's first team in the regional league which originally intrigued the researcher. However, the central focus of the environmental study was in the academy of the club, where extrinsic successes such as wins and losses had little meaning, and the development of intrinsic motives took precedent. At ELS, these included personal values such as acceptance and persistence, while continuing to provide a platform for young women to continue to be active in their sport in their local community. Therefore, due to the discovery of all these factors, the answer to the question, can ELS's academy be considered a successful ATDE is determined by the researcher to be a resounding "yes".

Important to note is the proven flexibility of the ATDE and ESF working models, as they were once again successfully adapted to a new and unique environment. As shown previously, the environments evaluated with the models can range in sport, gender, culture, and even levels of success (Henriksen, 2010; Henriksen et al., 2014). As themes were created through multiple observations, interviews, and analysis, it was simply a matter of determining where certain groups fit within the micro- and macroenvironment of the academy and specifically where they fit in relation to the U17s. This became further apparent as reasons and specific behaviors for the success of the environment were searched for. Schein's (1992) model of organizational culture, which is at the heart of the ESF model, proved extremely valuable when attempting to understand exactly which factors are the motor pushing and developing each individual's behavior and perceptions. This is not to say that the ATDE and ESF working models are some sort of "cookie-cutter" recipe for all environmental studies, however this researcher supports the ideas that the models provide a sound theoretical structure for intense ethnographical and qualitative research on ecological factors of talent development.

ELS ATDE empirical model: Comparisons to existing models

In this following section, similarities as well as stark differences between the ELS ATDE empirical model and previous empirical models will be presented and best explained by existing literature. Most notably will be the comparisons to the ATDEs of the AGF and Rosenborg soccer academy (Larsen et al., 2013; Aaalberg & Sæther, 2016), as these environments could be deemed most similar due to the shared age of the players and sport. The hope is that the use of existing ATDE models will allow for a clearer picture of the uniqueness of the ELS empirical model, highlighting the components of the environment that both amateur and elite youth athletes can share, and at

what points these environments drift apart. It is in using these differences that researchers can better define what it means to be an elite athletic environment, and what it means to be an amateur environment.

Similarities

The greatest overlap between the ELS and the AGF academies occurs in the strong connections to coaches and family, the weak but existent connection to younger players, the influence of both the national culture and attitude to the sport, and perhaps most notably, the lack of a connection to the senior or elite level players. Furthermore, in comparison to all successful working ATDEs models, the close connection to the coaches is also strongly represented. Therefore, this will be the first focus of the discussion.

Coaches

Coaches have arguably one of, if not the greatest, influence on the long-term development of an athlete (Mallett, Rynne, & Billet, 2015). This includes all aspects of development: physical, emotional, and psychological (Rynne et al., 2017). In a professional and elite environment, they spend countless hours with their athletes and impact the athletes' attitudes towards training and the sport itself. Furthermore, as the athlete develops into the adolescent years, it has been shown that coaches take on a bigger role as role models, teachers, and in some cases even as sort of "adoptive parent" (Wylleman et al., 2011). Coaches themselves carry a significant weight not only as part of the environment in which an athlete trains, but as one of its main architects, allowing certain influences to come in whilst preventing others they may deem as harmful to their players (Rynne et al., 2017).

It is therefore completely unsurprising that the coaches play a significant role in the microenvironment of the ELS ATDE working model, as all other successful models have had a similar connection. This appears to be regardless whether or not the athletes are striving to achieve elite status, training five-six days per week or simply two days per week. Whilst this might scare many amateur youth coaches, who feel they now carry greater responsibility, the researcher argues it should rather empower them, demonstrating their efforts to motivate, support, and play an active role in the lives of their athletes appear to reveal effective results. Evidence that coaches themselves recognize this possible impact has been shown before (Vella, Oades, & Crowe, 2011), and it then becomes a matter of how to positively impact one's athletes.

One argument is that coaches need not only focus on individuals, but rather, as suggested by Rynne and colleagues (2017), become the "architect" of their environment, taking a lead role on which influences should be allowed in contact with one's athletes and which should be kept away. It should be noted that none of the coaches interviewed spoke of strictly forbidding actions, behaviors, or contact with outside sources, but rather strongly encouraged and promoted positive actions, thoughts, and behaviors within the elements of their own control.

Further evidence for the support of the significant role coaches can play in amateur sport can be found in relation to motivational and exercise adherence research (e.g. Almagro, Sáenz-López, & Moreno, 2010). Specifically, autonomous actions being praised led to increased intrinsic motivation and a positive affects towards continuing exercise behavior. This coaching action can lead to a climate of autonomy support and help develop athletes psychologically by increasing their perception of self-control and self-efficacy. More specifically to the sport of soccer in Germany, young women stated that the coach, and the environment with which he acts, is the one of the main predictors if they wish to continue their participation in soccer at a later age (Pahmeier, 2012). Citing all these benefits of effective coaching, it is little wonder that in every successful ATDE described, include ELS, a significantly positive relationship between the core focus group its coaches can be found. The exact behaviors and reasons for this close relationship are highlighted among the ESF, which will be described further on.

Family

A further significant factor found in the ELS ATDE empirical model and represented strongly in other models, including an unsuccessful environment (Henriksen et at., 2014), is the importance of family. In fact, only in the soccer academy at Rosenborg BK in Norway (Aalberg & Sæther, 2016) was family not mentioned in connection to the focus group studied. Family has been reported as being both part of the athletic or non-athletic domain, depending on how deeply they were involved with the development of the athletes in that particular environment. However, in all cases where it was mentioned, family played a significant role in the psychological development of the athletes, providing emotional and sometimes financial support for the decisions of the young prospects.

This finding is again unsurprising but crucial to the picture of the ELS ATDE. If the support of family played no role in the active participation of the athletic environment, it would go against evidence suggesting the influence family, specifically parents, can have on their children (Côté,

1999). Indeed, at the beginning of young athletes' careers, parents are often the main financial backers and supporters of psychosocial development (Wylleman et al., 2011). Moreover, it is parents, not the coaches, staff, or teammates, who spend the greatest amount of time with their children monitoring their interest and enjoyment in the sport during the sampling years, and play a significant role in the child's decision to transition to recreational sport or begin to specialize (Côté & Fraser-Thomas, 2007).

As all U17s at ELS are now in the recreational level at a youth age (Côté & Fraser-Thomas, 2007) and have only limited contact time with coaches and teammates (in comparison to those who have taken the step towards specialization), the role of family continues to play a greater role. This is because in an amateur setting, the coach will have less influence on the development of the young athletes for a variety of reasons, most of which revolves around time and contact hours. This is perhaps due to the amateur athlete's multiple interests, where other trainers, coaches, teachers, and peers from other interests have many contact hours with the U17s, shaping their identity, and therefore motivations, due to these varied experiences (Reicher, 2000; Markus & Nurius, 1986). At ELS the connection to family is one of the strongest, if not the strongest influencer of the U17s. As is in the other researched ATDEs, family provides a balance, offering a partial or completely external support system, helping to develop self-identities outside of the athletic context (Brewer, Van Raalte, & Linder, 1993). This encouragement to connect to other hobbies and peer groups is described further below.

Weak but existent connection to younger players

A connection to other, younger athletes has been described in multiple other ATDEs. This relationship can be more coincidental, such as certain players being called up a level for a practice at the AGF soccer academy (Larsen et al., 2013) or much more systematical, where the prospective athletes themselves are asked to mentor or coach younger athletes on a consistent basis (Henriksen et al., 2010b; 2011). At ELS this connection is more coincidental, where younger athletes are either connected through family relations or they happen to train with the U17s simply because the training schedule fit better on that day.

This connection to other players does demonstrate the openness and acceptance that is found throughout the club's environment and will be later detailed in the description of the ESF. The fact this connection exists at an amateur club is yet another similarity to the fluidity and exchange of young prospects throughout the ATDE. This appears to be a common goal among effective

ATDEs, as simple and direct communication at multiple levels within the environment allow for the prospects to feel safe and cared for, creating *cooperation* instead of *competition* (Henriksen, 2010).

No connection to senior players

Perhaps the most interesting finding within the ATDE environment is the connection, or lack thereof, between the U17s and the women's team players at the club. If comparing these results to the Henriksen and colleagues' studies with regards to sailing (2010a), track and field (2010b), and kayaking (2011) or Storm's dissertation work with female handballers (2015), this would be in stark contrast to their findings. However, if one were to compare this to the ATDEs of the AGF and Rosenborg soccer academies (Larsen et al., 2013; Aalberg & Sæther, 2016), the same missing connection between youth and elite is found.

The logical conclusion is that the sport and culture of soccer, seemingly regardless of professional or amateur status, struggles to bridge the gap between youth and adult teams. These findings have been replicated in various clubs throughout Europe (Relvas et al., 2010), and are troubling, as it has been confidently stated how the transition from youth to adult is the most difficult transition (Stambulova, 2009). The typical reasons for a gap between youth and adult teams, such as "protecting the sanctity of the first team" or "trying to increase motivation of the youth players", seem almost silly or unfounded at the amateur level. Yet, as with the elite youth so is the environment at ELS.

Reasons for the gap could be completely different than those at ELS or at any amateur club, for that matter. Whilst high amounts of money and high stakes are involved in professional soccer, amateur clubs do not have this type of extrinsic motivator. The gap appears therefore to be much more *de facto*, where the two sides have not mixed because they either a) simply have not had enough time to do so or b) do not realize the possible benefits it could offer. In the past at elite academies, it is customary that the one or two best players in a team would be sent up to practice with the adult team (Larsen et al., 2014), but this contact is limited and the young players are under great pressure. One female handball club in Scandinavia addressed this problem by simply facilitating greater interaction between the youth and adult players, mixing practices or combining attendance at certain club events (Storm, 2015). This allowed the players to connect and converse in a much lower pressure environment and develop natural relationships. As many of the members of the environment are open to sharing information and cooperation, a similar

intervention would seem logical, non-invasive, and perhaps lead to an even improved environment for ELS.

Influence of national culture and attitude of the sport

As with all other previous ATDE models, the macroenvironment included elements and influences of the national culture as well as the culture and/or attitude of the sport itself. The ELS ATDE empirical model is in this way no different. Although this specific sport may differ from the importance of the sports previously researched (with exception of AGF and Rosenborg clubs), it is similar in the way that the national culture can affect the players attitudes towards participating in the sport. In regards to ELS, there can be two solid reasons for this: 1) the national culture of German and its connection to the sport of soccer and 2) the specific attitude and / or expectations of club soccer in Germany.

To start, the German National Soccer Association (DFB) has more members than any other club in the country. There is simply no other sport more popular in the country, played by more individuals or watched on television at night and on the weekends (DFB-Website, 2018). The simple availability of soccer fields and facilities plays a crucial role in providing an environment where an amateur girls' soccer club can start and develop. Without this infrastructure, it would be increasingly difficult to build and maintain a women's soccer club.

In addition, the entire system of club sport is deeply rooted within German culture. This began over 200 years ago with now fabled "Turnvater Jahn", a German sports teacher who sought to mobilize German men, pushing them to become fitter using outside gymnastic courses and even increase patriotism among Germans. This interest in joining and participating in clubs has since grown and spread throughout the country, and is a significant part of German culture. It is again this structure which helps to motivate many young Germans to join a club for both social and athletic reasons.

<u>Differences</u>

The main differences at ELS in comparison to previous ATDE models are in the strength of the connections of the U17s to various groups within their environment. These are almost exclusively due to a lack of finances and are, in essence, expected. Examples include the weak connections to the other staff at the club, the league or municipality, and finally way the club has no direct contact with the local schools.

Other staff / External coaches

Whereas the successful ATDE environments' focus groups seem to have a connection to national bodies and other important staff members within the club, this connection does not exist or is extremely weak at ELS. There are two logical reasons for this: for one, the quality of the players is at no level where an external state- or national-level coach would be recruiting them and two, the there simply is no need to overcomplicate the communication at such a small club. As the first reason is quite self explanatory, focus will be put on the second reason: size matters.

The size of the club is quite small. There is only one building, where all locker rooms, equipment, offices, and even the local pub are located. There are only three full-sized soccer fields, and they are all within sight of the clubhouse. This means that at no time does one need more than a maximum of 5 minutes to figure out where someone else is located, and communication can happen quickly. In essence, as a player, if I need information, I only need to shortly search for my coach and will likely not spend a great deal of time with anyone else. Moreover, as the finances of the club are extremely limited, there are not many existing staff to speak to. To illustrate this, the only other working member in the entire academy, outside of the two coaches per team, is the youth coordinator. Unsurprisingly, this youth coordinator is also one of the two coaches of the U15 girls' team. Therefore, as there has been little need created for such connections, the U17s spend little time trying to create them.

League / Municipality

As with the previous section, the girls have a very weak connection to the league and to the municipally of sport, in which they participate. Again, this difference can be explained through simple logic and a short needs analysis. Whilst the girls are interested in winning matches and do want enough teams in the league to continue to play at the same level, they themselves are not overly invested nor greatly connected to what is happening. The state-league in which they play is simply a product of the environment in which they live and support by choosing to play soccer, but personally they make no conscience effort in developing the league itself, nor do the responsible men and women of the league have direct contact with the U17s.

School

A final difference between previous ATDEs and ELS was the connection with school. While some ATDEs include school in the macroenvironment, others decide that it an intricate part of the young prospects lives and therefore belongs in the microenvironment. At ELS, the connection to school

is quite strong but 100% through the U17s. There is no club coordinator speaking directly to the teachers or school principals, and the girls themselves are responsible for reporting to the coaches regarding homework loads and/or issues at school.

This is again logical in nature, as previously described ATDEs with elite youth athletes also had sport or boarding schools attached to them. This is no different in Germany at elite academies, but in the amateur sports world, each athlete is responsible themselves for balancing their school work, activities, and the sport they choose to play. This has even a greater impact on the non-athletic friends, with which the U17s at ELS spend a great deal of their time, and contributes greatly to the uniquely amateur environment described in the follow section.

Unique attributes of the ELS ATDE

Balance of athletic and non-athletic domain

One of the marquee elements Henriksen (2010) proposed to be important in successful ATDEs was the holistic education of youth athletes. This meant that both athletic and non-athletic domains should receive equal amounts of attention. Henriksen (2010, p. 145) refers to this idea as "weighted environments" and warns that a "skewed environment", or one in which too much focus on sport is given, can have negative impacts:

> "Although a resource for the sports career, a predominantly athletic identity has been criticized for putting the athletes at risk of jeopardizing a successful transition away from elite sports in the case of a planned or unplanned career termination (see for example Lavallee & Robinson, 2007; Petitpas, Brewer & Van Raalte, 2002)"

Analyzing the ATDE at ELS reveals a truly "weighted" or balanced environment. The U17s receive as much important input from the athletic as they do from the non-athletic domain. This finding might be expected at an amateur youth academy, where many of the young athletes might have a variety of interests, but it is of course no guarantee. This is likely a key element to the success of the ELS ATDE, as the U17s receive a healthy balance of input and are thereby unlikely to develop an overly powerful athletic identity, leading to issues later on in their careers and lives (Petitpas, Brewer, & Van Raalte, 2002).

Influence of other hobbies

Evidence for *deliberate play* and the developmental model of sport participation (Côté & Fraser-Thomas, 2007) can also be identified with the ELS ATDE model. This is because many of the U17s not only speak of the importance they place on other hobbies, but even demonstrate it through their actions by missing soccer practice to attend other activities. High amounts of deliberate play with a focus on fun and fitness at all of the girls' hobbies, including soccer, suggest that young amateur athletes who diversify their interests seem to be happier and maintain their interests longer.

By not choosing to enter the investment years and focusing their energy on a variety of interests alongside school, the U17s become more well-rounded and better equipped to deal with change and upcoming transitions both in sport and life (Côté, Lidor, & Hackfort, 2009). While this lifestyle may not be equipped to reach elite athlete status, it could arguably be considered a healthier lifestyle choice, both physically and psychologically. This is due to the immense psychological stress and pressure elite athletes go through, not only during transitions, but in every training. Similarly, the risk of injury drops greatly when participating in a variety of sport and hobbies at a greatly reduced stress level. Whilst elite athletes constantly attempt to better themselves, perhaps at the risk of their own health, an amateur elite with multiple interests has no need or motivation for doing so, and can make more logical and possible healthier decisions.

Influence of other friends

In close relation to the previous category, the influence of non-athletic friends, or even friends from non-athletic hobbies (i.e. choir), play a much bigger role in the lives of the U17s at ELS. At the age of adolescence, parents' influence on their child continues to be a factor, but the influence of their peers grows as well. This can even been seen well in Wylleman and colleagues' lifespan perspective model (2011). Additionally, studies have provided proof that young players' decisions regarding sporting participation can be significantly affected by their peers (Eys, Loughead, & Godfrey, 2017; Mills, Butt, Maynard, & Harwood, 2012).

Although it is possible that spending less time with ELS teammates could be detrimental to team cohesion (Beauchamp, 2007) and perhaps erode away at the connection to the club, this does not seem to be the case. The girls view their outside friends as another balance to their life at ELS, where they can lead slightly different lives and try out different things. This is all part of their

psychosocial and emotional development, learning to communicate with different people from different subgroups, all while developing their own identity.

Summary

In conclusion, there are various parts of the ELS ATDE empirical model which resemble and are completely unique from the previously described models available in the literature. Perhaps most interesting is the similarity of the role coaches play in the psychological development of their athletes, both at the amateur and elite level. The staunch differences are most easily explained due to the vast differences in financial support of the club and technical ability of the players, creating an expected and much different connection to national bodies. Finally, the uniqueness of the ELS ATDE environment has to be in its simple balance between the athletic and non-athletic domains. Even through the lens of the U17 girls' team, there appears to be a harmonious and holistic balance for developing the girls emotionally, psychologically, and physically.

ELS ESF empirical model: Comparisons to existing models

As with the ATDE empirical model, the ESF model will be presented and discussed in its likeness as well as difference to previous ESF models. When comparing and drawing conclusions a greater focus will be taken using the seven factors presented by Larsen and colleagues (2013), as they had a similar sport and similar age group, and had their findings supported by Aalberg and Sæther (2016). In the final section, the unique factors of the ELS ESF model will be presented and discussed.

<u>Similarities</u>

Focus on effort

One of the strongest similarities between the previously researched environments and ELS is the focus on effort rather than raw talent. This is even more clearly stated at the AGF soccer academy (Larsen et al., 2013), where players were celebrated more for their efforts rather than simply being skilled. The interesting difference between AGF and ELS is of course that whilst one wishes to produce professional athletes, the other simply wishes to keep the motivation, interest, and enjoyment of the sport high. However this idea becomes quite obvious when we realize which type of motivation both successful environments are attempting to tap into.

The environment can be decisive when attempting to build motivation, providing the way to discovering one's need for autonomy, competence and relatedness (Deci & Ryan, 2000; Taylor &

Bruner, 2012). Moreover, it is known that through environments which provide time for deliberate play, young athletes are more likely to become more autonomous and intrinsically motivated to train and compete in their sport (Côté et al., 2007). Therefore it can be quite logical that both an elite academy and amateur club are using the same focus to try and educate their young athletes. Failure to do so could result in greater frustrations, burnout, and eventually drop-out from the sport (Côté & Fraser-Thomas, 2007). At both the elite or amateur level, the clubs live from their athletes wishing to continue their sport long into their adult years. Therefore failure to teach and demand autonomy from their players would be detrimental at any level of sport.

Interestingly enough is that the issue with external motivation often exists with elite youth soccer players, as the potential for external rewards (i.e. money) is so great. This is of course completely different in an amateur setting, but also in the other settings and sports previously researched. While sailing itself is not a cheap sport, the sailors and their coaches were often asked to make finances stretch as far as possible (Henriksen et al., 2010a). At the Vaxjö track club, they lived through a great amount of volunteer work and the contracts of a few of their successful athletes (Henriksen et al., 2010b). The Wang Kayak team was also not highly funded (Henriksen et al., 2011), but the athletes there were extremely motivated. This could be an indication specifically to soccer coaches who believe that in their elite environment they need to treat their players differently, simply because they are in an elite and possibly profitable environment. In reality, at the end of the day the young players are no different than the U17s at ELS, who need to develop the purpose of autonomy and intrinsic motivation to love playing their sport simply because they are allowed to do so.

Holistic approach

It is in the opinion of the researcher that the holistic approach, that is combining school and other hobbies along with the featured sport (in this case, soccer), can be much more effectively achieved in the amateur environment rather than the elite environment. Holistic approaches allow for diversification, providing young athletes with multiple support systems and assisting them during transition or possible career termination (Côté et al., 2007; Alfermann & Stambulova, 2007). By balancing multiple tasks and developing a plethora of skills, the young athletes have more options, can increase their self-efficacy in a variety of tasks, and learn to control the amount of time they allocate to a certain activity (Bruner, Strachan, & Côté, 2011).

The holistic approach is apparent in every successful ATDE, and as previously mentioned, for good reason. A truly holistic education is much more achievable if one is not involved in elite sport, as reaching elite status requires specialization in a certain sport with many high-intensity training hours (Ericsson et al., 1993; Côte et al., 2007). This of course can initiate a great moral and ethical debate about elite sport in general. It is moral acceptable to allow children to use so much of their time and energy to try and attempt to become an elite athlete? Or is it better that they focus on sampling many sports, activities, creating a more balanced and possible healthier lifestyle?

There is little doubt that the elite world has recognized the need for greater diversification and increased emphasis on education of young athletes (Alfermann & Stambulova, 2007). As previously stated, none of the elite and successful ATDEs exclude school from their environment, but rather integrate it as a main part of the development of their players. Even at the AGF soccer club, where school can be seen as "second rank", coaches and staff were also involved in the school lives of their players. In present-day ATDEs, amateur or elite, the holistic approach is an ESF which has become non-negotiable.

Strong family feeling / Acceptance and open communication

The *strong family feeling*, referred to in this environment as *acceptance and open communication,* has been found in some similar fashion in each and every successful ATDE. Perhaps not surprisingly, in a study involving a dysfunctional environment, this factor was missing completely (Henriksen et al., 2014). Larsen and colleagues (2013) stated that this factor was specifically important to soccer clubs, and this finding has been replicated in young ice hockey players as well (Bruner, Munroe-Chandler, & Spink, 2008). In the Scandinavian cultures, Henriksen (2010) claimed that openness and cooperation were vital to their ability to grow and survive in their various sports, as they do not have the financial resources to close themselves off from the world and work alone.

The understanding at ELS towards this idea was no different. Acceptance of all girls who wanted to play, regardless of skill level, background or language ability, was a guarantee. In addition, coaches and parents who wished to volunteer their time at team events or help drive other kids to away games were vital to the success of the team competing at the state level. This openness was seen furthermore between staff, as there as an openness to accept advice, share tactics and even lend an open ear to some personal problems. These actions translate to one simple

message, “when you are here, you belong.” This “belonging” is the first of three central themes in Coyle’s (2018) most recent book *The Culture Code,* where he interviewed and observed multiple successful groups throughout the world.

The big take-away is that building acceptance allows individuals to feel safe, share their concerns openly, and helps the group to grow. Exactly this was the goal of each and every member of ELS when someone new arrived: to make them feel safe, welcomed, and accepted into their family. It could be argued that such behavior is easier in an amateur environment, as there is little to lose with regards to money, status, or fame. Regardless, this first step is the catalyst to the successful growth of both the individuals and teams at ELS, as well as the cohesive holding the other successful factors in place. Take away the ability to share, cooperate, and feel safe, and the rest of the ESF could begin to crumble.

Differences

As with comparing the ATDE models, differences in the ESF model are listed if they exist in the environment, but are in stark contrast to the descriptions in previous empirical models. Again, special focus is placed on the comparison to the AGF and Rosenborg academies, as they have the most similar researched group.

Preconditions

The preconditions are different due to a simple and direct reason: amateur clubs do not have the finances for quality training facilities, equipment and qualified coaches. Although some similarities to the simplicity of the training facilities of the Wang Kayak Club (Henriksen et al., 2011) or perhaps how the 49er sailors lived on the beach (Henriksen et al., 2010a) can be drawn, ELS simply will fall short in quality or qualifications in one way or another.

More specifically, in comparison to the AGF environment, ELS is similar only in that it draws all its players from the local cities and municipalities. Although AGF also claims to have limited finances, it is nowhere as limited at the amateur club, nor are the coaches in any way as qualified as in the elite academies (Larsen et al., 2013; Aalberg & Sæther, 2016). However, in order to achieve its goal, ELS does not necessarily need to have the same preconditions as an elite academy.

ELS focuses instead on motivated and positive coaching, creating a climate where fun and enjoyment are a constant while playing the sport of soccer. Motivational climates like these create positive affect to the sport, improving psychological health and over the long term keep

young players more involved (Adie, Duda, & Ntoumanis, 2012). As most amateur clubs will not have great financial support, it is recommended that they invest what little finances they have into coaching education, as certain coaching programs have been shown to be effective in helping coaches create positive and motivational climates (Vella, Oades, & Crowe, 2011). In conclusion, it is not that the preconditions need to mirror an elite academy, and many amateur academies may attempt to do, but rather that the preconditions are matched to the goals and needs of the club. This is why although the preconditions at ELS are different, they are in no way hindering the success of the environment.

Process

As with the preconditions, the process flows into a similar vein at ELS. The U17s at ELS meet only twice a week, focus their training on enjoyment, with limited matches on the weekend. Only when they show extra motivation or communicate a desire for a higher challenge are they offered the opportunity to train with the women in the 2nd or 1st team. There is no strict developmental plan, as is found in the previous environments, and the process of each training is in regards to the social aspects and enjoyment of the sport. Important to note, however, is that during practice sessions there is a high demand from the coaches to focus on the task at hand.

Similar to the youth players at AGF (Larsen et al., 2013) and Rosenborg (Aalberg & Sæther, 2016), each training session attempts to create a learning environment. However this learning process is much less organized and more fluid, as girls at ELS can miss practices due to other obligations or simply forget what was previously trained due to the break between sessions. This makes a strict developmental focus unrealistic and therefore consistent themes around technical and tactical skill are often repeated over many weeks, whereas they might last only a few days at an elite academy.

The process at ELS, as with the preconditions, is matched to the environment. It carries with it a certain authenticity because those involved (coaches, parents, players) all understand the common goal of the team and the ELS academy. In this sense, the process does not differ from that of the elite clubs, but only in its content. Martindale and colleagues (2005) speak to the importance of having a clear and understandable philosophy throughout a club. Adhering to this recommendation, the process at ELS is simplistic, but is understandable and follows a clear path. This fortifies the previous recommendation for amateur clubs that it is not about matching what

elite clubs offer, but finding a cohesive, authentic, and realistic process matching attained club goals.

Unique Factors

In comparison to previous ATDE research, the following two factors are completely unique to the ELS environment, and carry with them great weight in developing the players psycho-social skills. Both novel factors will be examined within their role at ELS and how these findings may be utilized in the future in the applied setting.

Meaning of women's soccer

First and foremost is the meaning of women's soccer on a daily basis. The importance of the women's and girl's players at ELS is seen, heard, and even smelled in all locations at the club. The posters, conversations, and yes, the sweaty girls coming in from practice all show the meaning women's soccer has at ELS. This is extremely important, as women's soccer has accumulated great interest in Germany, but not always the same respect. Although ELS cannot change the entire German culture, it can and does affect those young women coming into the club. What makes this so powerful is the self-confidence and self-belief this thinking gives the young women, not only in the ELS environment, but in their regular lives. At ELS, the girls are equal to the boys, and this can set a precedent for other parts of their lives, such as at work or universities.

Second, the meaning of women's soccer appears to motivate the girls to want to remain active in soccer. This is of particular importance, as young women have been shown to be less active than young boys and spend significantly less time in moderate to vigorous sporting activities (Trost, Pate, Sallis, Freedson, et al., 2002). The simple belief that the girls are as able to play just as well as the boys increases the likelihood of their continued participation in the sport (De Bourdeaudhuij & Sallis, 2002). This active lifestyle brings with it obvious physiological and health benefits, but as stated above, also the psychological benefits which can be appeal to areas outside of sport.

In summary, it is in the opinion of the author that the importance and meaning of women's soccer can only grow if many more amateur girls' clubs follow a similar philosophy, striving to keep a balance between boys and girls representation. It is understandable that due to the practicality of many more boys being involved in the sport, there will be greater finances and likely coaching resources allocated to boys' soccer. This becomes, however, a moral and ethical issue, as the

interest and participation of young women will likely only increase if they are given equal opportunity and standing within each club.

Effectiveness of the amateur environment

Measuring the effectiveness of the amateur environment was difficult, as the researcher originally took an externally motivated approach to the problem, most likely due to his own biases as a competitive soccer player. Throughout the study, however, the focus shifted to understanding the goals and philosophy of the club, and not the researcher's own definition of success. This evolution of thinking brought with it a new understanding of effectiveness and success, and there are three major reasons the environment was deemed effective: happy youth players, satisfied parents, and higher attrition / interest in playing soccer at the adult level.

To start, the main purpose of amateur sport can be simplified and divided into two reasons: a) to improve health and b) for fun / enjoyment (Eitzen, 1989). There is little doubt that ELS is effective in attaining this goal, as the U17s are highly active two-three times per week and have explained their joy in doing so in multiple interviews. ELS, its player and coaches, provide the space for young women to be active in a sport they love in an atmosphere in which they feel comfortable returning to weekly.

Second, interviews and interactions with parents reveal that they are satisfied with the style of coaching, the philosophy of the club, and the way in which their daughters are treated. ELS is effective in gaining the trust of parents who wish to offer their children a holistic option while playing soccer. In addition, ELS offers open communication to all topics and coaches and staff are always available before and after practice.

Finally, ELS's academy fulfills its main purpose of producing young women who want to be active in soccer at the adult age. This participation ranges from competitive soccer (such as the 3rd league) or the much more recreational focused team in the 5th league. Moreover, girls in the academy are encouraged to continue to play, regardless if they stay at ELS or not. This is simply part of the ELS philosophy, which believes that the more women playing at the adult level will create a greater need for their youth academy.

<u>Summary and suggestions</u>

Considering all aspects of the ATDE and its ESF, it can be concluded that although the ELS ATDE environment appears quite different than previously described environments, it is in no way less effective or successful, if analyzed using its own philosophy and goals. Interestingly enough, in

his summary of successful ATDEs, Henriksen (2010) stated eight factors he believed can be found. A table of these features and their prevalence at ELS is listed below (Table III).

ATDE Features	ELS
Training groups with supportive relationships	Very prevalent. The U17s, as with other teams, support each other at each training and game.
Proximal role models	Not evident. There is little connection to the women's players.
Support of the goals by the wider environment	Families and friends support the girls' interest in soccer both emotionally and financially.
Support for the development of psychosocial skills	This is a key element of each coaching staff's mantra. They look to develop the person first, not the player.
Training which allows for diversification	The very nature of amateur sport allows time to divulge in a multiple of other activities. This is not only allowed by encouraged at ELS.
Focus on long-term development	In a psychological sense yes, as the players motivation to play soccer is a focus.
Strong coherent and organized culture	Absolutely evident, from the meaning attached to women's soccer to the acceptance of others and open communication at the club.
Integration of efforts	Identified as the way in which coaches, parents, and players communicate with each other openly. The barrier between academy and women's players could be improved.

Table III. Comparison of successful ATDE features (Henriksen, 2010) with ELS ATDE

A first glance at the table reveals one previously discussed issue, found both in the ELS amateur academy as well as at both elite soccer academies, AGF and Rosenborg (Larsen et al. 2013; Aalber & Sæther, 2016). A barrier between youth and adult players has been repeatedly found in soccer academies throughout Europe (Relvas et al., 2010), and is counterintuitive to both theoretical and empirical research, as it is believed that youth players could greatly benefit from being around and learning directly from their senior companions (Henriksen, 2010; Gould & Carson, 2008).

Due to this analysis, the primary researcher believed that an intervention to improve the relationship and increase the communication between youth and adult players could increase the effectiveness of the ATDE. It was decided to use Larsen and colleagues (2014) description of an effective ecological intervention as a scaffolding, as this was also performed with soccer players, where psychological interventions can often be dismissed or not taken seriously (Nesti, 2010). The intervention itself would be based on conclusions from Storm's (2015) dissertation, which stated the positive effects of facilitating interactions in the sporting environment between youth and adult members of a club. It is the belief of the researcher that this simple intervention will provide the final piece of the puzzle in fulfilling all requirements of a successful ATDE.

Chapter 6: Study II - An ecological intervention

6.1 INTRODUCTION

The second study came after the primary researcher had spent 6 months already being present and working at the club, making the barriers between him and the players or staff almost non-existent. The intervention was to last around 4 months, and follow the recommendations from Larsen and colleagues' (2014) ecological intervention, involving the head coach and other staff from the beginning. After reviewing the analysis and results of study I, it was determined that although many of the successful factors previously found in successful soccer ATDEs could be found at this amateur club, a similar issue could be found as well, namely a stark division between the adult and youth levels (Relvas et al., 2010; Larsen et al., 2014; Aalberg & Sæther, 2016).

A possible solution to alleviate this problem was demonstrated by Strom (2015), in which an elite handball club facilitated simple interactions at practices between adult and youth players. These interactions helped to teach younger athletes the psychological skills needed at the senior level through social learning (Culver & Trudel, 2008; Schein, 2010; Storm, 2015;) through a process called *communities of practice* (Wenger, 1998), where individuals collaborate and learn towards a common goal. In sport, this goal is simple: to play the sport better together. It is therefore expected that a similar facilitation could also have a positive effect on the relationship between youth and adult at ELS and provide the scaffolding to bridge the gap between the two sides.

6.2 STUDY II - DESCRIPTION OF THE INTERVENTION

To start, a meeting was organized by the head coach and held with the women and staff of the first team in their locker room before practice. Here the women and staff were explained the full concept of the intervention and of their role. A practice schedule was handed out to allow the women's players to have a structure and plan for the intervention. After this, the head coach of the 1st team , the youth coordinator, and the main researcher met with the U17 girl's players to explain that ELS felt it was important to connect prospective players with the women's team. Therefore, women would be coming down in pairs periodically to train with them, and the girls would be invite to certain events and games of the 1st team. As with the first study, anonymity was offered and no player was forced to participate. As in the previous study, in order to establish trustworthiness, a review of the results was also offered to the participants, both to

check for unwanted biases from the researcher or misinterpreted meanings, as well to remove information if so desired.

The main purpose of the intervention was to create greater contact and establish a relationship between the adult women's teams and the youth girl's teams at the club. The implementation was intended to create a type of mentorship between older, more established and experienced players and those whose careers were still only beginning. The intervention was carried out through the following factors: a) involvement in practices b) involvement in social events and c) involvement in games.

a) Involvement in practices

The most significant part of the intervention took place at the regularly scheduled U17 practice sessions. During the second half of the season, players of the 1st women's team were schedule to attend at least one practice in pairs of the U17 team. Players of the women's team were allowed to attend and participate in more youth sessions if they desired, but were only required to be present for one. A schedule was provided so that their presence was spread out over 4 months of the season.

In preparation for the practice session, players of the 1st team were asked to prepare one practice drill, which would be planed in accordance to the U17 coach's training plan for that day. This drill would be set up, explained, and led by the women's players. In addition to this drill, the adult players would participate, where appropriate, within the regularly training session itself. They were encouraged to interact with the younger players and attempt to connect with the players both in regards to soccer as well as normal everyday life.

b) Involvement in social events

Players from the youth teams were also invited to non-soccer related social events at the club. This facilitated greater amounts of interaction between the women and youth players in a setting other than on the soccer field. An example includes a small festival on club grounds, where girls from all age groups were mixed together and had different tasks to complete, such as assisting cars when parking or selling raffle tickets.

c) Involvement in games

Players of the U17 team were invited to home and away games and were invited to have a look into the preparation and experience of playing soccer at the adult level. During an

away game, they rode on the team bus, sat next to players on the bench, and were even involved with the team meal after the game.

6.3 STUDY II - RESEARCH METHODS AND INSTRUMENTS

Applying a research-practitioner approach (Lane & Corrie, 2006; Larsen et al., 2014), the principal researcher who studied the environment would also provide the intervention. This methodology carries with it risks of greater bias, but also extremely close access to the athletes, players, and environment as a whole. It also allows the practitioner to adjust the intervention as time goes on, making note of effective and ineffective behaviors. Similar to the previous study, Study II gathered data using semi-structured interviews and observation techniques.

Interviews

Interviews after the intervention were carried out with players and coaches of both the girl's U17 team and women's 1st team. Interviews were carried out in a variety of places and focused specially on the effects that the intervention might have had on their personal perceptions of the club and their involvement in the sport of soccer. For the girls, it was most interesting to find out how the contact with the 1st team role models effected their perceptions, and for the women and head coach, how successful intervention had been and what might be done to improve it. A total of 5 girls from the U17 team, 2 girls from the women's team, and the head coach were interviewed in response to the intervention. These women were chosen based on their willingness and openness to share information, both positive and negative, about their experiences with the intervention. The interview guide can be found in Appendix 3.

U17s

Girls on this team were asked questions that focused on their past and current plans for soccer as an adult and how the intervention may have had an effect on their perception of their plans. Furthermore, the U17 girls were asked about their general experiences when in contact with the women's team and if they had felt that a bond had been created.

Women's players

Certain members of the women's team players were also interviewed and asked specific questions regarding the process and experience of the intervention. Women's players were asked to identify positives they found in the interactions with younger players as well as to provide

critiques if the intervention were to be repeated at another female club. These interviews were less structured than in the first study, as the goal was to simply focus on the experiences of the players during the intervention. As an example, players were simple asked how they felt being in the locker room with the girls before practice.

Coaches

Coaches from the U17 and 1st women's team were interviewed in regard to the intervention. These interviews were implemented to gain another perspective on the effectiveness of the intervention, as well as to either support or conflict the perceptions that players had provided in their interviews. Lastly, coaches were asked for their general opinion and critique of the intervention should it be implemented at future clubs.

Observations

Observations in the second study were completely informal, with no standardized guide present, but rather a focus on the interactions between the women and girls at practice, at events, and even away from the club. The main goal of the primary researcher was not to suggest that the role models presence will cause a specific reaction, but rather just to wait, watch, and listen if any reaction comes. As relationships between role models and mentees grew, special attention to these dyads was given, attempting to understand why they were effective.

6.4 STUDY II - ANALYSIS AND INTERPRETATION

Interviews were transcribed and analyzed using a thematic analysis. Thematic analysis offers a great amount of freedom, allowing the researcher delve deep in the text and offer a detailed analysis of data (Braun & Clarke, 2016). Additionally, thematic analysis provided a simple structure to help identify themes regarding the experience of the players and head coach (Nowell, Norris, White, & Moules, 2017), producing themes both expected and unexpected. As with the first study, these themes were divided into themes and sub-themes, and discussed with fellow researchers, before being confirmed as representable and plausible by the participants. A node tree, which can be found in Appendix 4, summarizes these findings.

6.5 STUDY II - RESULTS

Analysis of the observations and interviews post intervention revealed four major themes: *Establishing a connection*, *mentorship development*, *social relationship*, and *adult soccer*. Each of

these themes were determined to be of significant separate value, and contain sub-themes further explaining their importance in context. A complete overview of all topics can be found in Appendix 4.

Description of themes

Establishing a connection

In the first theme, establishing a connection, players of both the U17 and women's team referred to the practicality of the intervention. Players and coaches from both sides felt the intervention had the advantage because it all took place in the normal setting at the club. As one women's player mentioned in an interview, "I doubt anyone really has a desire to sit down and eat a bratwurst with some kid…" Players and coaches from both sides felt the intervention had the advantage because it all took place in the normal setting at the club. Moreover, players from the first team found the demand on them was not too high, "one practice every six weeks is realistic and allows you to get into contact" and also liked that they would go to the U17 girls as opposed to the other way, keeping the quality and intensity of their own practiced assured.

Adult soccer

A second theme that emerged was a better understanding of what adult soccer is like. This was divided into two sub-categories, including the skill level of the women's players (skill level) as well as the social aspects of being in a women's team (having fun). An ambitious U17 player commented that after training with multiple members of the first team, she realized how far away she still is from their level, "we have an idea what we need to achieve (for the next level)". The difference in skill level could as well be seen by the naked and untrained eye, as the women's players often could play with massive disadvantages and still win the competitions at practice. Additionally, the women's players also demonstrated the importance of discipline at practice and improving technical skills, if the girls wanted to one day play at a level as high as the 3rd league.

Perhaps even more important, given the context and focus of ELS, was that many of the young girls always saw how much fun the women had playing soccer. This was established not simply at the practices, but especially during the away game trip to which the U17s were invited. They sat on the bus, witnessed how the women play cards, sing songs, and prepare themselves for the upcoming game. Afterwards, they celebrated with the team due to a close victory and had pizza

upon arrival back at the home club. One U17 commented, “even when you’re older, you can have just as much fun.”

Social relationships

The third theme emerging from the data collection is the founding of social relationships among members of the club. This theme also has two significant sub-themes: 1) belong, meaning a sense of acceptance and belong to a group and 2) proximal role models, where the girls found women they felt they could relate to.

The sense of belong can be best summarized by one short quote from a U17 girl, “you feel accepted for who you are.” Although acceptance is lived and breathed in the entire ELS women’s club, the U17s became even more intimate with these ideas as they had increased contact with members of the women’s team. This was witnessed by the principal researcher in one specific case, as homo- and bi-sexual members from the women’s team would openly communicate with younger girls, answering questions and encouraging them to speak up if they wanted to know about their life experiences.

In addition, the some of the women became role models to the U17s, and even met before or outside of practice and games socially. It was clear that some of the U17s admired or wanted to emulate certain aspects of women, especially as they started to repeat their catch phrases at practice or purchase a similar pair of soccer shoes.

Mentorship development

The fourth and final theme involves mentorship development. This theme looks into how the women’s players themselves developed from the experience. This is divided into two sub-themes, namely collective responsibility and “giving” mentality. The idea behind collective responsibility came up because women’s players began to remember their years as a young player when they saw the U17s. As one player put it directly, “I want them to have it better (than I did)”. This player came from an elite academy, playing in the highest league possible in Germany, but felt she was always missing the social support necessary. A fellow former junior national-team player also felt similar, stating that the experience had made her consider becoming a coach. These two were not alone, as many of the women’s players seemed to portray an interest in the girls, once they had established connection.

The second theme that arose came simply out of the observation made by the researcher, and this was the “giving” mentality that seemed to develop organically. Women’s players who were

not scheduled to come to the U17 training began showing up periodically or contacting the coach and asking what they had planed that night. Moreover, the women even showed up to two different home matches, cheering on the girls and talking to them after the game, both about soccer and about life.

Criticisms and suggestions

Although both U17, women's players, and coaches view the intervention in a positive light, some improvements were suggested. For example, one player suggest simply asking which players want to volunteer to be more involved in the U17 practices, believing that it is better to have a few motivated women's players than many who are simply doing their "mandatory visit." Another suggestion was to try and integrate a full practice session together, whereby the women would mix completely with the girls in a more fun-focused session, as this might allow for more connections between players to happen at a quicker pace. Finally, although the trip with the team to the away game ended well, the head coach of the first team feared what might have happened if they lost, and postulated such an event could have the exact opposite effect the intervention had strived for.

Summary

In summary, the general result of the intervention can be determined as positive. A simple facilitation of interaction between women's and girl's players within their own environment quickly became something of value to both parties. What is more, after the initiation, the relationships began to grow organically and the intervention took on a life of its own.

6.6 STUDY II - DISCUSSION

In contrast to the first study, the second study took direct and premeditated aim at a specifically identified issue, arguing that the effectiveness of the ELS ATDE could be improved upon if proximal role models were introduced into the academy (based off of Henriksen, 2010). However, in line with the previous study, the intervention measured its results qualitatively, relying on observations of the ethnographic researcher (Tanggaard, 2006) and the narratives which resulted from the semi-structured interviews (Kvale & Brinkmann, 2009). This discussion will dissect each of the four themes arising from the analysis from the intervention, reflect on the effectiveness and

practicality of implementing a similar intervention in another amateur sports club, and finally address some limitations encountered during the process.

Discussion of determined themes

Establishing a connection

One of the more difficult problems with connecting adult and youth teams in soccer occurs due to the "sanctity" of the adult team, where the adult teams often train at different facilities or are constantly shielded from outside influence (Relvas et al., 2010; Larsen et al., 2013). At ELS, this physical barrier did not exist, but the mental barrier was present. Therefore, finding a way, place, and most importantly a time to meet became crucial. In essence, Storm's (2015) facilitation strategy worked nearly exactly as it should. It is believed that both the women's players from the first team and the U17s felt comfortable with the intervention for two reasons: 1) the location (soccer pitch) and task (soccer) was well known to both sides and 2) the adult players knew their role and objectives clearly before arriving at practice with the U17s.

The first reason is easily explained with regards to human stress reactions. Humans charged with new tasks or who find themselves in a new environment can experience stress (Brosschot, Verkuil, & Thayer, 2018), impeding their ability to open up and create new connections. Those who have gone to any party where they only know one or two guests can quickly relate to this type of anxiety. Therefore, as the players were all familiar with the environment and task, this allowed a greater feeling of safety and allowed them to focus on building relationships.

The second reason is founded on the idea of role clarity between the women and the U17s. Higher role clarity allows for increased cohesion, communication, and can lead to improved performances (Munroe, Terry, & Carron, 2002). In this case, the performance was not a competition, but a cooperation which increased interaction between the players. The women knew it was their job to attempt to initiate contact, to take the leadership role, and to try and simply enjoy the sport with the U17s. The simple instructions allowed each person to carry out interactions at their own pace and in the own style, improving satisfaction and establishing authentic and healthy connections.

Adult soccer

The second theme, in which the U17s suggested they both understand better what it's like on and off the pitch in adult soccer, emerged likely to the social learning that was strived for throughout

the interactions. Social learning (Wenger, 1998) can be completed in four ways: through experience, by doing, by belonging, or by becoming. It is theorized by the researcher that the U17s, either at practices with the women or traveling with to games, began to learn from them in one of these four ways. Either watching, doing, feeling as a part of or actually becoming integrated into the women's lives.

These experiences are reflected in the results, as the U17s spoke of desiring to become a part of the women's team, and to not only watch but be able to play and practice with them each week for an extended period of time. The women, in turn, corroborate this story by explaining how they wished to include the girls in more events or even invited them out on a weekend to join them to share some of their personal lives. Although the extent of the interactions and amount of social learning was idiosyncratic for each player and in no way could not be predicted, it appears that each player in the U17 was in some way effected by the mere presence of the women's players at practice.

Social relationships

In general, adolescent girls have shown higher levels of stress regarding relationships with parents, partners, and peers (Moksnes, Moljord, Espnes, & Byrne, 2010). Furthermore, young girls regard social support as more important than boys (Hankin, Mermelstein, & Roesch, 2007). For exactly this reason it was an important find that the U17s developed stable and mature relationships with some of the women. These social relationships, where one feels acceptance and safety, can provide a sort of social support, assisting in transitions throughout sport (Alfermann & Stambulova, 2007). Interestingly, no relationship or partnerships were suggested at any point throughout the intervention, meaning that relationships which did arise were purely organic in nature. Many found they had similar interest or life views, causing them to carry on their conversations before and after practices.

Research into minority groups in sports, in this case those belonging to the LGBTQ community, has revealed that environments can often be hostile or unwelcoming (Sartore & Cunningham, 2009a). Additionally, LGBTQ athletes have reported that speaking about their sexual preference causes problems with team cohesion and trust (Oswalt & Vargas, 2013), although it has also been shown that there is a steady decrease in homophobia within the sporting world (Adams & Anderson, 2012). Nevertheless, this topic remains a challenge for many young athletes and their parents.

For these reasons stated above, it was impressive to see how the U17s dealt and spoke about the topic of homosexuality with some of the women's players, and also amongst each other. As some of the women's players were openly lesbian, but none of the U17s were, it was inevitable due to the openness and acceptance at the club that at one point the topic would be mentioned in the locker room, on the pitch, or one of the social gatherings. It is worth repeating that such topics were in no way, shape, or form introduced by the researcher or premeditated, but rather due to the decreased distance and increased contact time, players were able to communicate about all topics, even sexuality. Again it is important to note that not each and every girl engaged in speaking about this topic or had great interest in it. However, due to the often uncomfortable nature of speaking on such a topic like sexuality, it is worth noting how the intervention provided space and time and support for some girls who might feel insecure or disadvantaged.

Mentorship development

Over time, it became clear that as the intervention went on, certain women were more interested in being a part of the U17s' experience than others. This led them to continue to try and help out at U17 practices and become more involved as role models in the girls' lives. Throughout the span of the four-month intervention, certain women had become much like the proximal role models described in previous ATDEs (Henriksen, 2010). The role models had various goals and tasks in their interactions with the U17s, but the most significant role was their involvement in coaching.

This is significant because there is a general lack of female role models and coaches in sport (Imeson, 2017). Two reasons for this are because female athletes do not believe that coaching is a viable career option and / or females believed they were not as competent as their male counterparts (Kerr & Banwell, 2014). Through their experiences and contact with the U17s, it was clear that the women's players knew they both had the competencies in the sport and they would be able to manage their time both coaching and playing for the same club. Furthermore, for the U17s it was exciting to have same-sex role models, a cited barrier which can stop young women from taking the steps to become a coach themselves (Kilty, 2006).

For these reasons it is both beneficial to the club and the sport of women's soccer itself to attempt and create positive and proximal role models for girls clubs everywhere. This is not excluded to elite girl's academies, but to amateur clubs as well, as such an intervention could produce multiple coaches and role models for future generations of girls to come. These steps

could assist in the steady growth of women's soccer, providing important and fundamental answers to concerns regarding a lack of female representation at the coaching and managerial level.

Practicality and effectiveness

Larsen and colleagues (2014) stated that there are six elements to carrying out an ecological intervention. These included 1) work with all staff (coaches, managers), 2) research strengths and weaknesses of organizational culture, 3) attempt to integrate all levels of athletes life (school, club, parents), 4) be aware of the greater cultural setting, 5) seek out positive established values and create others if necessary, and 6) view the athlete as a whole person. Of these six guidelines, our intervention involved four of them, unable to affect all levels of the athlete's life and adding or creating positive established values.

The simplicity of the intervention provided no ability to become involved each and every aspect of the athlete's life. Furthermore, in contrast to the AGF elite academy, where their intervention was carried out, school and other functions happen completely separately from the club. Therefore, there was no possibility for the researcher to carry out an intervention at these locations. This will likely be an issue with any ecological intervention at an amateur club, as there is far less contact time with the athletes and far less control of the other aspects of their lives.

Second, as the intervention at ELS was simply to facilitate interactions between the girls and women, the primary researcher rejects the idea that positive established values need to be sought out or created. Instead, positive values should come from within the club members themselves and grow organically, reinforced through praise by the leaders within the club. A delicate balance must be found by the practitioner, as he or she should not attempt to implant foreign ideas or values, simply because they functioned in a foreign environment.

In speaking to the effectiveness and of the intervention, it can be deemed a success as the primary goal - to establish a connection between the youth and adult teams - was accomplished. The other resulting themes and topics are viewed neither as successes nor failures of the intervention, but rather a unique evolution of the ELS ATDE and its ESF. The primary researcher would highly recommend a similar intervention to other amateur soccer clubs, male or female, expecting they will help to break down barriers between adult and youth squads, all whilst achieve idiosyncratic results.

Summary and limitations

To summarize, a comparison to Larsen and colleagues (2014) four-point summary of their ecological intervention is drawn: 1) Stimulating relationships inside an environment are time consuming but significant, 2) the importance of the coach's acceptance and support in the process, 3) the importance of taking sport psychology to the pitch, and 4) professional players' narratives stimulate reflection and learning among younger players. In the ELS intervention, all four of these points are carried over and further strengthened by the results.

The intervention only took place after 6 months of contact, long after established and trusted relationships had been formed. The coaches of the women's team as well as the U17s were constantly involved with feedback sessions and even monitored some of the facilitated interactions. The entire intervention happened on the pitch, in the locker room, or even in the team bus, and none of it was called "an intervention". This dropped the guard of many of the participants and allowed them to engage in the experiment fully. Lastly, as stated above, it was the experience the women's players brought to each and every interaction which made the intervention so special. Their experiences and their world view were of more value than anything the researcher could say. The fact the primary researcher was a man and the role models were women definitely played a key factor in this element.

The greatest limitation was the short data collection phase after the intervention had taken place. Although many informal interviews and observations were gathered throughout the intervention, there was only time for limited interviews after the intervention was completed, as the season ended and many girls were unavailable. In addition, there is no longitudinal data on how the women continued their careers or the goals they had set for themselves after the intervention. Whilst the purpose and goal of the intervention was focused on the experiences of the participants during and directly after the intervention was completed, it would still be very interesting to see how these feelings and experiences might have changed and evolved over time. Additional limitations include the amount of absenteeism from the U17s. Although the women were quite strict as being present on the days to train the girls, the U17s themselves had no requirement to attend all practices. This means that some U17s simple had more contact with women's players and that it is possible certain U17s missed connecting with a related women's player. Such limitations were difficult to avoid due to the amateur status of the club.

In conclusion, even with such limitations the intervention was perceived as an extreme success, gaining praise from the U17s, women's players, coaches and even some parents. The effect itself is difficult to measure as each person has a different experience, but for those who were affected, they came away with a positive and possible significant experience.

Chapter 7: Reflections and applications for practitioners

This dissertation sought to further expand the empirical knowledge on researching athletic talent development environments (ATDEs) and if deemed necessary, provide further empirical support for ecological interventions. The significance of the presented research resides in the application and adaptation of ATDE and ESF working models (Henriksen et al., 2010a), created originally for elite athletes, in an amateur athletic environment. Moreover, evidence from these adapted empirical models led to the proposed and presented ecological intervention, which revealed evidence that effective facilitation of proximal role models (Storm, 2015) can minimize the often present gap between adult and youth soccer players (Relvas et al. 2010; Larsen et al., 2014), improving the overall effectiveness of the ATDE.

The following reflections seek to summarize the most important results and takeaway messages of the study, provide methodological considerations for future research, and offer concrete guidelines for practitioners or officials working in both professional and amateur talent development environments. Finally, remarks to the limitations of both studies as well as suggestions for the next steps in ecological research of talent development will be presented.

Key findings

The major findings involve both the confirmation of previously identified structures and processes in a new environment as well as novel suggestions, based off of the newly analyzed data. These findings and their significance are summarized below.

Importance of environmental factors in talent development

As a general statement, the importance of the addition of the ecological approach, or simply the awareness of environmental factors on talent development, was highly supported. Steps to see talent development in a more holistic manner by (other/earlier) researchers, such as Wylleman and Lavallee (2004) and later ecologically by Martindale and colleagues (2007) or Henriksen (2010), now have a further empirical example supporting their theoretical models. All members of the environment noted this in the interviews and such claims were supported with observational evidence by the primary researcher.

In a more novel way, this research presented the role the environment plays in young women who have discontinued elite sport, and have continued training using a *deliberate play* format (Côté,

1999). This provides additional support for the developmental model of sport participation (Côté & Fraser-Thomas, 2007), which avoids *early specialization,* and provides multiple pathways towards continuous participation in sport. Empirically, this study appears to demonstrate how to provide young athletes with a positive affect towards soccer and motivation to continue playing. The micro and macro structure of the club and environmental success factors seem to contribute to this behavior and could be used as models for future amateur clubs wishing to apply this model.

Holistic lifestyle positively effects athletic transitions

A major takeaway is how an amateur environment can take advantage of the holistic lifestyle carried out by its athletes. Henriksen (2010) claimed that in the elite athletes' environments, they were provided with multiple activities, both educational and athletic, to allow them to become more stress resistant. The purpose of this was to help the athletes have a greater psychological preparedness for transitions, most importantly the transition from junior to senior-level (Stambulova, 2007). Due to the nature of amateur sport, where there is a limited amount of time dedicated to training, this dissertation demonstrated how these missing contact hours at the club can be used to expand the educational and athletic portfolios of the young women.

Going further, it is suggested by the primary researcher, that do to the higher risk of injury and probability of increased athletic identity in elite athletes (Petitpas, Brewer, & Van Raalte, 2002), the non-elite athletic lifestyle could be psychologically healthier and more beneficial to an individual. This is not to say that elite sport is reckless or ill-advised, but could carry with it a higher risk of later psychological issues, from negative affect towards physical activity to more serious matters such as depression. As so few athletes will become elite in their lifetime (Green, 2009), it is worth serious consideration, both from parents and the athletes themselves, which path in physical activity they wish to pursue In other words, it is vital when entering into the world of elite sport that one not only understand the rewards, but the possible risks as well. The more holistic the development, the more paths of success an individual has available to them, and greater chance of a balanced adult lifestyle.

Definition of successful ATDE and ESF for amateur environments

This dissertation has provided an empirical model for the definition of a "successful amateur ATDE". Of the eight factors discovered in three successful ATDEs summarized by Henriksen (2010), seven were found to exist in some shape or form in the amateur environment. Of the

seven factors of the successful ATDE at the AGF elite soccer academy (Larsen et al., 2013), four were identified to exist in the same manner, two were present in a different way, and one was completely unique to the women's club, namely the meaning and acceptance for women's soccer. In defining "success" for an amateur environment, one must peel away the extrinsic biases and expectations which often come in elite athletic development environments. For example, while both the "process" and "preconditions" at the amateur club could never match up to the quality and expectations of an elite environment, an amateur club can remain successful if it has a clearly defined philosophy and carries it out accordingly (Martindale et al., 2005). In essence, an amateur club's environment is successful or not depending on its own preconceived goals and values. By adapting the working ATDE and ESF models to fit their own needs and expectations, amateur clubs can determine, as was done in this dissertation, which successful factors are present and which ones are missing. Important to note is that the club must define these factors as they relate to themselves, and not simply in a comparison to another club, as no two environments will empirically be identical.

Protocol for ecological interventions

Taking the six considerations of Larsen and colleagues' (2014) ecological intervention at the AGF elite soccer academy, this dissertation agreed with four of them while unable to comply and to disagree with the other. As stated in their own study, ecological interventions are not necessarily holistic in nature, due to the difficulty of affecting all aspects of the athlete's life (sport, school, family). This proved to be even more difficult in an amateur setting, as the ties to activities away from the club, namely school, are almost non-existent and uncoordinated by the club. Therefore, the suggestion that an intervention can be ecological in nature whilst not holistic, is supported.

In a different vein, the primary researcher disagrees with the claim that positive and established values should be sought out and created if necessary. Instead, upon analysis, it is suggested that researchers and practitioners should avoid seeking out or creating what they deem to be positive values, but rather allow these to be observed and developed organically within the club. Support for this can be found in Storm (2015), who simply observed and allowed positive qualities to develop and be defined in the space created. Therefore, practitioners do not "create positive values", but rather they create space, where positive values can emerge, develop, and be reinforced accordingly.

In summary, the protocol for ecological interventions should be updated as follows:

1) work with all athletic staff

2) research strengths and weakness of the organizational culture

3) if possible, integrate holistic elements of the athlete's life (school, parents, other clubs)

4) be aware of the greater cultural setting

5) create and facilitate space for observing established values and developing new ones

6) view the athlete as a whole person

Relationships between senior and junior players (proximal role models)

Both the confirmation of a gap between senior and junior players (Relvas et al., 2010) in an amateur environment as well as the later significance of bridging that gap through the intervention were important discoveries. As mentioned in previous ecological studies, having proximal role models can significantly assist young players in their transition to adult sport (Henriksen, 2010). However, it was demonstrated that while this practice is common among individual sport athletes, successful ATDEs in soccer also have issues with providing proximal role models to their academy players (Larsen et al, 2013; Aalberg & Sæther, 2016). As these findings were again confirmed in an amateur setting, it can only be assumed until proven otherwise that this phenomenon occurs at each and every soccer club.

In contrast, however, to the elite soccer academies, the reasons for the gap are perhaps less intentional. As shown in this dissertation, the gap exists almost excessively de facto, rather than being any motivated attempts by the staff or coaches to keep the adult players separate. This led to the idea that the staff and coaches only need be equipped with a simple intervention carried out by the primary researcher to allow for a "mixing" of youth and adult players at club practices and events, as was demonstrated by Storm (2015). Not only did the youth players benefit from the interactions, but perhaps most interestingly, many adult players enjoyed their role and the experience as well.

Perhaps most significant is the takeaway that these facilitated interactions could lead to more same-sex role models for young soccer players, increasing the amount of female coaches in the system. This idea is not entirely nuanced, as Henriksen and colleagues (2010b) discovered in an elite athletics club that even young athletes are asked to coach their younger colleagues, providing "on-the-job" coach training throughout their careers. With the lack of female coaches in the sport (Imeson, 2017), amateur clubs could highly benefit from facilitating more interaction

between their adult players and youth, as it might inspire both the adults and even youth players to one day become coaches. This pushes the positive feedback loop, creating more female role models, inspiring more players and in turn inspiring more coaches. Therefore, providing the necessary space for such development could be vital to the growth of female soccer.

Amateur sport as a tool for social education

A final and very important point derived from the two studies in this dissertation is the role of amateur sport as a tool for social education and emotional intelligence. Sport has been used as a tool to teach young people various life skills (Koh & Camiré, 2015). These life-skills can vary greatly, including goal-setting, emotional control or a positive work ethic (Gould, Carson, & Blanton, 2013) and can be built around a social learning environment (Wenger, 1998). The intervention in this dissertation provided a platform for young women to learn from their more experienced peers, both in soccer and non-soccer related topics.

One of the topics the young women were exposed to was the meaning of the LBGTQ community, which has traditionally been marginalized in the sporting community (Sartore & Cunningham, 2009a). This exposure in a safe environment, namely the club and the sport of soccer, provided a platform where conversations could happen, questions could be asked, and information could be exchanged without judgement. In essence, it is in the opinion of the primary researcher, that facilitating role models in amateur sport could lead to a multitude of important topics being discussed, allowing space for social growth and helping societies progress.

Guidelines for practitioners

Applied practitioners in sport psychology can use the scientist-practitioner model (f), whose effectiveness was once again supported in this dissertation. While such an approach is more time consuming, it allows for more complete and effective interventions. As shown by Larsen and colleagues (2014), ecological interventions include multiple levels of interaction and relationship building, but can be effective as they are rooted within the environment where the athlete lives and trains.

It is therefore suggested that practitioners allow themselves to be truly embedded and accepted by an environment before attempting to apply any intervention and to create any real changes within the environment. It should be the goal of the practitioner to begin in the scientist role, simple observing, listening, and collecting data before attempting to offer any solutions.

Furthermore, if possible, the practitioner should allow members of the existing environment to be responsible for the main tools of the intervention. This means that although the practitioner is in some way the architect of the intervention, he or she takes an observational role. It is not the objective of the practitioner to teach psychological skills, but to provide the room and space for such skills to be learned. This is done either though social interaction or by trail-and-error from the athletes or coaches themselves.

Finally, practitioners working in talent development environments need to practice a great deal of acceptance. This means that there are multiple levels or individuals, on which the practitioner will have little to no influence. It is therefore a test of patience and creativity, how to provide an intervention which maximizes the effect on members of the environment, all whilst accepting certain aspects or individuals of the environment will no longer change. Furthermore, acceptance means accepting many of the established norms, even if they seem silly or out-dated at first. It is best to find a way to work with and possibly adapt such traditional thinking, rather than fight against it. Contradicting traditional and long-held norms could lead to a quick rejection from many fractions within an environment and a low chance of successful applied work.

Methodological considerations and limitations

This dissertation's methodology drew heavily from Henriksen and colleagues' (2010a, 2010b, 2011) methodology and therefore carries with it similar considerations. These studies, and similar ecological studies since (Larsen et al., 2013; Henriksen et al., 2014; Storm, 2015; Aalberg & Sæther, 2016), hold true that a qualitative, ethnographic and real-time approach is the most effective way of properly describing talent development environments. It allows the capture of cultural phenomena (Ryba, Schinke, & Stambulova, 2012), including small details and behaviors which can demonstrate greater cultural norms and beliefs.

It is in the summation of these small details that a greater picture emerges, allowing the researcher to describe the multiple factors and structures which create the final holistic picture. In contrast, a simple retrospective and external design would likely not allow for the researcher to become aware of the basic assumptions or perhaps cultural artifacts, which athletes, coaches, and staff believe are not worth mentioning. In addition, without in-depth observation, the researcher is completely dependent on what the participants say, and not necessarily allowed to witness what they do. An example of the importance of this factor is found in the dysfuntioning

environment (Henriksen et al., 2014), where what members of the environment claimed and what they actually did, did not harmonize.

Although it was attempted to avoid the pitfalls and limitations mentioned in previous ATDE and ecological studies, some concerns remained. For example, the primary researcher, although a fluent speaker of the German language, is a non-native. This led to some misunderstandings, both vocally and observationally. Although most all of these misunderstandings could be clarified shortly after they emerged, it could be that other misunderstandings never were mentioned, as the researcher or participants assumed the other knew what was meant.

A second, as the primary researcher was a coach within the environment, he was susceptible to extreme bias in players' behavior. In addition, it could be that certain players in his own team did not wish to be completely open with him during interviews or interactions. This limitation was addressed by consistent reassurance that the information in the study and things such as playing time in a game were not correlated, but it is impossible to be 100% certain that biases did not exist.

Finally, a major issue is the lack of longitudinal information after the research was completed. Although at the time of data collection, many positive aspects of the environment led the primary researcher to determine that the environment was indeed successful, there is no evidence form the individuals to prove or disprove this statement. This is the balance one must consider with real-time research. Issues with recall bias are reduced but the inability to see into the future means one cannot fully predict what the results will be. As this dissertation was completed long after the final data was collected, it is known that the culture at ELS has since changed. With coaching changes and certain adult players leaving the environment, key factors have likely caused a shift in beliefs and norms at the club. However, this is merely speculation, as a more in-depth look into the present club culture would be required to make any definitive statements.

Future research

Further research into other amateur talent development environments as well as the facilitation of role models is sorely needed. A far greater percentage of the population is involved in sport at the amateur level and therefore any research into this area can have a much greater impact on society, by improving the health of the greater population, both physically and psychologically. As the research in this dissertation into an amateur talent development environment is the only

known example, other amateur environments should be researched and dissected to be able to add to the general knowledge of ecological influences on human athletic behavior.

Another aspect missing from the talent development environmental research is the inclusion of populations from other continents. All published research on ATDEs has come from Europe, and describing similar phenomena in other continents and cultures is necessary. It is therefore suggested that both elite and amateur ATDEs in other cultures are described using the working ATDE and ESF models. This will expand the knowledge on ATDEs and allow for additional unique environments to give new perspective on how talent can effectively be developed.

In addition to the ATDE research, further ecological interventions are also encouraged. These include not only the introduction of role models but perhaps an attempt at a truly holistic intervention, where all aspects of an athlete's environment can be influenced. This would likely only be possible in an elite environment, where aspects such as school and social life are also highly regulated. However, such an intervention could help to greater shape the psycho-social influences on a young athlete, better preparing him or her for both the transition to and life of adult sport.

Specifically, in regards to women's soccer, it is considered vital that the organizations in charge begin to research better ways to provide young girls with role models. It is suggested, therefore, that the intervention described and carried out in this dissertation be attempted in similar amateur or even elite female soccer environments. Such research could help provide better answers on how to increase the amount of female coaches, role models, and start a positive feedback loop, pushing the growth and success of women's soccer leagues. This intervention should not allow be attempted within German environments, but could be applied in a cultural-appropriate manner throughout the world.

Final remarks

There is no one way to create an elite talent, nor is there any one way to assure that a young person will be physically active for the rest of their lives. Researchers and practitioners are continuously searching for a single golden-ticket or key factor which can explain and help everything. Unfortunately, nothing in this dissertation, nor any of the 100-plus studies mentioned and cited within this document will be able to give a certain answer to either of the aforementioned problems. However, if nothing else, the data and suggested recommendations

presented in this scientific work do provide reinforcement for one specific and key piece to the puzzle: the environment and those within it, in which we live, learn, and train as children can affect the way we view and participate in sport for the rest of our lives.

Therefore researchers, practitioners, coaches, or even elder and experienced players who work and play within these environments, have a duty to assure that such environments are both supportive and demanding for the young people training there. Gone are the days where simply focusing on individual abilities, personalities or genetic predispositions will provide a country or club with talent and active citizens. If society wishes to continue to better itself, it is absolutely a requirement on all experienced and knowledgeable members of that society to create and facilitate environments, where people can grow physically, emotionally, and psychologically.

Literature Cited

Aalberg, R. R., & Sæther, S. A. (2016). The Talent Development Environment in a Norwegian top level football club. *Sport Science Review,* 25, 3(4), 159-182. DOI: 10.1515/ssr-2016-0009

Abbott, A., Collins, D., Martindale, R. J. J., & Sowerby, K. (2002). Talent identification and development: An academic review Report for Sportscotland by Edinburgh University.

Abbott, A., & Collins, D. (2004). Eliminating the dichotomy between theory and practice in talent identification and development: considering the role of psychology. *Journal of Sports Sciences*, 22, 395–408.

Adams. A., & Anderson, E. (2012). Exploring the relationship between homosexuality and sport among the teammates of a small, Midwestern Catholic college soccer team. *Sport, Education, and Society,* 17(3), 347-363.

Adie, J., Duda, J. L. & Ntoumanis, N. (2012). Perceived coach autonomy support, basic need satisfaction and the well- and ill-being of elite youth soccer players: A longitudinal investigation. *Psychology of Sport and Exercise*, 13, 1–32.

Alfermann, D., & Stambulova, N. (2007). Career transitions and career termination. In G. Tennenbaum & R. C. Ecklund (eds), *Handbook of sport psychology* (3rd Ed., pp. 712–733). Hoboken, NJ: Wiley.

Alfermann, D., Stambulova, N., & Zemaityte, A. (2004). Reactions to sport career termination: a cross-national comparison of German, Lithuanian, and Russian athletes. *Psychology of Sport and Exercise*, 5, 61-75.

Almagro, B. J., Sáenz-López, P., & Moreno, J. A. (2010). Prediction of sport adherence through the influence of autonomy-supportive coaching among Spanish adolescent athletes. *Journal of Sports Science & Medicine*, 9(1), 8–14.

Araújo, D, & Davids, K. (2009). Ecological approaches to cognition and action in sport and exercise: Ask not only what you do, but where you do it*. International Journal of Sport Psychology,* 40, 5-37.

Bailey, R., & Collins, D. (2013). The standard model of talent development and its discontents. *Kinesiology Review*, 2(4), 248–259. https://doi.org/10.1123/krj.2.4.248

Bailey, R., & Morley, D. (2006). Towards a model of talent development in physical education. *Sport Education and Society*, 11, 211–230.

Bailey, R. P., Leigh, J., Pearce, G., & Reeves, M. (2011). *National impact evaluation of the gifted and talented physical education and sport programme*. Loughborough: Youth Sport Trust.

Barab, S. A., & Plucker, J. A. (2002). Smart people or smart contexts? Cognition, ability, and talent development in an age of situated approaches to knowing and learning. *Educational Psychologist*, 37(3), 165-82. doi: http://dx.doi.org/10.1207/S15326985EP3703_3

Bateson, G. (1973). *Steps to an ecology of mind*. Chicago: University of Chicago Press.

Beauchamp, M. R. (2007) Efficacy beliefs within relational and group contexts in sport. In S. Jowett & D. Lavallee (Eds.) *Social psychology in sport* (pp. 181-193). Champaign IL, Human Kinetics.

Beckmann, J. Szymanski, B., Elbe, A.-M., & Ehrlenspiel, F. (2006). Chancen und Risiken: Vom Leben im Verbundsystem von Schule und Leistungssport. Köln: Sportverlag Strauß.

Biddle, S., Soos, I., & Chatzisarantis, N. (1999). Predicting physical activity intentions using goal perspectives and self-determination theory approaches. *European Psychologist*, 4(2), 83-89.

Bloom, B. S. (1985). *Developing talent in young people*. New York: Ballantine Books.

Borms, J. (1986). The child and exercise: An overview. *Journal of Sports Sciences*, 4, 3–20.

Braun, V., & Clarke, V. (2016). (Mis)conceptualising themes, thematic analyses, and other problems with Fugard and Potts' (2015) sample-size tool for thematic analysis. *International Journal of Social Research Methodology*, 19, 739–743.

Brewer, B. W., Van Raalte, J. L., & Linder, D. E. (1993). Athletic Identity: Hercules' muscles or Achilles' heel? *International Journal of Sport Psychology*, 24, 237-254.

Bronfenbrenner, U. (2005). Bioecological theory of human development. In U. Bronfenbrenner (Ed.), *Making human beings human: Bioecological perspectives on human development (*p. 3-15). Thousand Oaks, CA: Sage.

Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of developmental processes. In W.Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 1: Theoretical models of human development (*pp. 993-1028). New York: Wiley.

Brosschot, J. F., Verkuil, B., & Thayer, J. F. (2018). Generalized unsafety theory of stress: Unsafe environments and conditions, and the default stress response. *International Journal of Environmental Research and Public Health, 15(3):464.*

Bruner, M. W., Munroe-Chandler, K. J., & Spink, K. S. (2008). Entry into elite sport: A preliminary investigation into the transition experiences of rookie athletes*. Journal of Applied Sport Psychology,* 20(2), 236-252*.*

Bruner, M., Strachan, L., & Côté, J. (2011). Developmental transitions in sport. In I. Stafford (Ed.), *Coaching children in sport* (pp. 227–239). New York; NY: Routledge.

Burgess, D. J., & Naughton, G. A. (2010). Talent Development in Adolescent Team Sports: A Review. *International Journal of Sports Physiology and Performance*, 5(1), 103–116. https://doi.org/10.1123/ijspp.5.1.103

Campbell, D. T., & Stanley, J. C. (1966). *Experimental and quasi-experimental designs for research*. Chicago: Rand McNally.

Carlson, R. C. (1988). The socialization of elite tennis players in Sweden: An analysis of the players' backgrounds and development. *Sociology of Sport Journal*, 5, 241–256.

Carlson, R. (1991). *Vägen til landslaget*. Stockholm: Stockholm Institute of Education.

Cohen, G. (1999). *Memory in the real world*. Hove, UK: Lawrence Earlbaum.

Côté, J. (1999). The influence of family in the development of talent in sport. *The Sport Psychologist*, 13, 395-417.

Côté, J., Baker, J., & Abernethy, B. (2003). From play to practice: A developmental framework for the acquisition of expertise in team sports. In J. Starkes & K. A. Ericsson (Eds.), *Expert performance in sports: Advances in research on sport expertise* (pp .89-110). Champaign, IL: Human Kinetics.

Côté, J., Baker, J., & Abernethy, B. (2007). Practice and play in the development of sport expertise. In G. Tenenbaum & R. C. Eklund (Eds), *Handbook of sport psychology* (3rd ed., pp. 184-202). Hoboken, NJ, US: John Wiley & Sons Inc.

Côté, J., & Fraser-Thomas, J. (2007). The health and developmental benefits of youth sport participation. In P. Crocker (Ed.), *Sport psychology: A Canadian perspective* (pp. 266–294). Toronto, Ontario, Canada: Pearson.

Côté J. & and Fraser-Thomas, J. (2016). Youth involvement and positive development in sport. In P. Crocker (Ed.), *Sport and exercise psychology: A Canadian perspective* (pp. 256-287). Pearson: Upper Saddle River, New Jersey.

Côté, J., 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,* 7-17.

Côté, J., MacDonald, D., Baker, J., & Abernethy, B. (2006). When “where” is more important than “when”: Birthplace and birthdate effects on the achievement of sporting expertise. *Journal of Sport Sciences,* 24 (10), 1065-1073. DOI: 10.1080/02640410500432490

Coyle, D. (2018). *The culture code: The secrets of highly successful groups.* NY, NY: Bantam Books.

Christensen, M. K. (2009). "An eye for talent": Talent identification and the "practical sense" of top-level soccer coaches. *Sociology of Sport Journal,* 26, 365-382.

Creswell, J. W. (2012). *Qualitative inquiry and research design: Choosing among five approaches*. London: Sage Publications.

Culver, D. M., Gilbert, W., & Sparkes, A. (2012). Qualitative Research in Sport Psychology Journals: The Next Decade 2000-2009 and Beyond. *The Sport Psychologist*, 26, 261–281. DOI: 10.1123/tsp.26.2.261

Culver, D., & Trudel, P. (2008). Clarifying the concept of communities of practice in sport. *International Journal of Sport Science & Coaching*, 3, 1-10. doi: 10.1260/174795408784089441

Curtis, J. E., & Birch, J. S. (1987). Size of community of origin and recruitment to professional and Olympic hockey in North America. *Sociology of Sport Journal*, 4, 229–244.

Davids, K., Button, C. Araújo, D., Renshaw, I., & Hristovski, R. (2006). Movement models from sports provide representative task constraints for studying adaptive behavior in human motor systems. *Adaptive Behavior*, 14, 73-95.

De Bourdeaudhuij, I. & Sallis, J. (2002). Relative contribution of psychosocial variables to the explanation of physical activity in three population-based adult samples. *Preventative Medicine,* 34(2), 279-288.

Deci, E. L., & Ryan, R. M. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry*, 11, 227-268.

DFB-Mitgleider-Statistik 2018. (2018, September 20). Retrieved from https://www.dfb.de/verbandsstruktur/mitglieder/aktuelle-statistik/

Diamond, J. (1996). The roots of radicalism. *The New York Review of Books*, pp. 4-6.

Dosil J. (2006). The psychology of athletics. In J. Dosil (Ed.) *The sport psychologist's handbook: A guide for sport-specific performance enhancement*, (p. 265 - 284). New York, NY: Wiley.

Duda, J. L., Chi, L., Newton, M. L, Mary D. Walling, M. D., & Catley, D. (1995). Task and Ego Orientation and Intrinsic Motivation in Sport. *International Journal of Sport Psychology,* 26 (1), 40–63

Durand-Bush, N., & Salmela, J. H. (2001). The development of talent in sport. In R.N. Singer, H.A. Hausenblas, & C.M. Janelle (Eds.), *Handbook of sport psychology* (2nd ed., pp. 269–289.) NY, NY: Wiley.

Eitzen, D.S. (1989). The Sociology of Amateur Sport: An Overview. *International Review for Sociology of Sport,* 24(2), 95-104.

Elbe, A.-M., & Beckmann, J. (2006). Motivational and self-regulatory factors and sport performance in young elite athletes. In D. Hackfort & G. Tennenbaum (Eds.), *Essential processes in attaining peak performance* (pp. 137–157). Aachen: Meyer & Meyer.

Elbe, A.-M., & Beckmann, J. (2002). Lebenskonzepte für Sporttalente: Schlussfolgerungen und Perspektiven. In A.-M. Elbe & J. Beckmann (Eds), *Dokumentation der 1. Tagung der Eliteschulen des Sports "Lebenskonzepte für Sporttalente"* (p. 97-102). Frankfurt: DSB-Presse.

Elbe, A.-M., & Wikman, J. (2017). Psychological factors in developing high performance athletes. In J. Baker, S. Cobley, J. Schorer, & N. Wattie (Eds) *Routledge handbook of talent identification and development in sport* (p. 169-180). NY, NY: Routledge.

Ericsson, K. A. (1996a). *The road to excellence: The acquisition of expert performance in the arts, sciences, sport and games*. Mahwah, NJ: Erlbaum.

Ericsson, K. A. (1996b). The role of deliberate practice in the acquisition and maintenance of expert performance. *International Journal of Psychology*, 31, 46-61.

Ericsson, K. A., Krampe, R. T., & Tesch-Römer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review*, 100, 363-406.

Eys, M., Loughead, T. M. & Godfrey, M. (2017). Group Cohesion and Athlete Development. In J. Baker, S. Cobley, J. Schorer, & N. Wattie (Eds) Routledge handbook of talent identification and development in sport (p. 210-231). NY, NY: Routledge.

Feichtinger, P., & Höner, O. (2014). Psychological diagnostics in the talent development program of the German Football Association: Psychometric properties of an Internet-based test battery. *Sportwissenschaft*, 44, 203–213.

Feldman, D. H. (1988). Creativity, dreams, insights, and transformation. In R. J. Sternberg (Ed.), *The nature of creativity* (pp. 271-297). New York: Cambridge University Press.

Fields, D. A. & Kafai, Y. B. (2009). A connective ethnography of peer knowledge sharing and diffusion in a tween virtual world. *International Journal of Computer Supported Collaborative Learning*, 4(1), 47-68.

Flyvbjerg, B. (2006). Five misunderstandings about case study research. *Qualitative Inquiry*, 12(2), 219-245. doi: 10.11771077800405284363

Ford, P., De Ste Croix, M., Lloyd, R., Meyers, R., Moosavi, M., Oliver, J., Williams, C. (2011). The Long-Term Athlete Development model: Physiological evidence and application. *Journal of Sports Sciences*, 29(4), 389–402. doi:10.1080/02640414.2010.536849

Gagne, F. (1985). Giftedness and talent: A Reexamination of the definitions. *Gifted Child Quarterly*, 29, 103-112.

García Bengoechea, E. (2002). Integrating knowledge and expanding horizons in developmental sport psychology: A bioecological perspective. *Quest*, 54 (1), 1-20. doi: 10.1080/00336297.2002.10491763

Girginov, V., & Sandanski, I. (2004). From participants to competitors: The transformation of British gymnastics and the role of the eastern European model of sport. *International Journal of the History of Sport*, 21, 815-831.

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.

Gould, D., & Carson, S. (2008). Life skills development through sport: Current status and future directions. *International Review of Sport and Exercise Psychology*, 1, 58–78. doi: 10.1080/1750 9840701834573

Gould, D., Carson, S., & Blanton, J. (2013). Coaching life skills. In P. Potrac, W. Gilbert, & J. Dension (Eds.), *Routledge handbook of sports coaching* (pp. 259–270). London: Routledge

Gould, D., Dieffenbach, K., & Moffett, A. (2002). Psychological characteristics and their development in Olympic champions. *Journal of Applied Sport Psychology*, 14, 172- 204.

Green, C. B. (2005). Building sport programs to optimize athlete recruitment, retention, and transition: Toward a normative theory of sport development. *Journal of Sport Management*, 19, 233–253.

Green, C. (2009). *Every boy's dream. England's football future on the line*. London: A & C Black Publishers Ltd.

Gulbin, J. Oldenziel, K. E., Weissensteiner, J. R., & Gagné, F. (2010). A look through the rear view mirror: Developmental experiences and insights of high performance athletes. Talent Development and Excellence, 2(2), 149-164.

Güllich, A, & Cobley, S. (2017). On the efficacy of TID programmes. In J. Baker, S. Cobley, J. Schorer, & N. Wattie (Eds.) *Routledge handbook of talent identification and development in sport* (p. 80-98). New York, NY: Routledge.

Hankin, B. L., Mermelstein, R., & Roesch, L. (2007). Sex differences in adolescent depression: Stress exposure and reactivity models. *Child development*, 78, 279–295.

Hansen, J. (2012). Bevölkerung und Fußball. World Anti-Doping Agency. Presentation presented at Amateurfussball-Kongress 2012. Kassel, Germany.

Haselton, M. G., Nettle, D., & Murray, D. R. (2015). The evolution of cognitive bias. In D. M. Buss (Ed.), *Handbook of evolutionary psychology: Integrations* (2nd ed, pp. 968-987). Hoboken, NJ: John Wiley & Sons Inc.

Heath, C., & Heath, D. (2008). *Made to stick: Why some ideas take hold and others come unstuck*. London: Arrow.

Henriksen, K. (2010). *The ecology of talent development in sport: A multiple case study of successful athletic talent development environments in Scandinavia* (doctoral dissertation). University of Southern Denmark.

Henriksen, K., Larsen, C. H, Christensen, M. K (2014). Looking at success from its opposite pole: The case of a talent development golf environment in Denmark. *International Journal of Sport and Exercise Psychology*, 12(2), 134-139.

Henriksen, K, Stambulova, N. (2017). Creating optimal environments for talent development. In J. Baker, S. Cobley, J. Schroer, & N. Wattie (Eds.), *Routledge handbook of talent identification and development in sport* (p. 271-284). NY, NY: Routledge.

Henriksen, K., Stambulova, N. & Roessler, K. K. (2010a). Holistic approach to athletic talent development environments: A successful sailing milieu. *Psychology of Sport and Exercise,* 11, 212-222.

Henriksen, K., Stambulova, N., & Roessler, K. K. (2010b). 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.

Holt, N. L., & Dunn, J. G. H. (2004). Toward a grounded theory of the psychosocial competencies and environmental conditions associated with soccer success. *Journal of Applied Sport Psychology*, 16, 199-219. DOI: 10.1080/10413200490437949

Holt, N. L. & Morley, D. (2004) Gender differences in psychosocial factors associated with athletic success during childhood. *The Sport Psychologist*, 18, 138[?]-153. DOI: 10.1123/tsp.18.2.138

Holt, N. L., & Mitchell, T. (2006). Talent development in English professional soccer. *International Journal of Sport Psychology*, 37, 77-98.

Howe, M. J. A., & Davidson, J. W. (2003). The early progress of able young musicians. In R. J., Sternberg & E. L.Grigorenko (Eds.) T*he psychology of abilities, competencies and expertise* (pp. 186–212): Cambridge University Press.

Imeson, T. D, (2017). *Understanding the absence of female coaches in sport and the value of same-sex role models for female athletes in their coaching pursuits*. Electronic Theses and Dissertations. University of Windsor.

Johnson, U., Andersson, K., & Fallby, J. (2011). Sport psychology consulting among Swedish premier soccer coaches. *International Journal of Sport and Exercise Psychology*, 9, 308-322. doi: http://dx.doi.org/10.1080/1612197X.2011.623455

Josselson, R. (2011). Narrative research: Constructing, deconstructing, and reconstructing story. In K. Charmaz, L. M. McMullen, R. Josselson, R. Anderson, & E. McSpadden (Eds.), *Five ways of doing qualitative analysis: Phenomenological psychology, grounded theory, discourse analysis, narrative research, and intuitive inquiry* (pp. 224-240). New York, NY: The Guilford Press.

Kahnemann, D. (2011). *Thinking, Fast and Slow*. London: Penguin Group.

Keegan, R., Spray, C. M., Harwood, C. G, & Lavallee, D. E. (2014). A qualitative synthesis of research into social motivational influences across the athletic career span. *Qualitative Research in Sport, Exercise and Health*, 6, 537-567.

Kerr, G., & Banwell, J. (2014). Striving for gender equity in coaching: Female athletes' perspectives on pursuing coaching as a career. *Canadian Journal for Women and Coaching*, 14(2).

Kilty, K. (2006). Women in coaching. *The Sport Psychologist*, 20(2), p. 222-234.

Kirk, D. (2005). Physical education, youth sport and lifelong participation: The importance of early learning experiences. *European Physical Education Review*, 11, 239-255.

Kirk, D., Brettschneider, W.-D., & Auld, C. (2005). Junior sport models representing best practice nationally and internationally. Junior sport briefing papers. *Canberra: Australian Sports Commission.*

Koh, K. T., & Camiré, M. (2015). Strategies for the development of life skills and values through sport programmes: Review and recommendations. In H. Long & N. Hsu (Eds.), *Emerging trends and in sports marketing and management in Asia* (pp. 241-256). Hershey, PA: IGI Global.

Krane, V., & Baird, S.M. (2005). Using ethnography in applied sport psychology. *Journal of Applied Sport Psychology*, 17, 87–107.

Kuhl. J. (1983). *Motivation, Konflikt und Handlungskontrolle*. Berlin: Springer.

Kuhl, J. & Fuhrmann, A. (1998). Decomposing Self-Regulation and Self-Control: The Volitional Components Inventory. In J. Heckhausen & C. Dweck (Eds.), *Lifespan perspectives on motivation and control* (pp.15–99). Hillsdale, NJ: Erlbaum

Kvale, S. (1996). *Interviews: An introduction to qualitative research interviewing*. London: Sage.

Kvale, S., & Brinkmann, S. (2009). *Interviews: Learning the craft of qualitative research interviewing* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Lane, D. A., & Corrie, S. (2006). *The modern scientist-practitioner: A guide to practice in psychology*. London: Routledge.

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), 190–206.

Larsen, C. H., Henriksen, K. & Alfermann, D., & Christensen, M. K. (2014). Preparing Footballers for the Next Step: An Intervention Program From an Ecological Perspective. *The Sport Psychologist*, 28(1), 91-102.

Lavallee, D., & Robinson, H. K. (2007). In pursuit of an identity: A qualitative exploration of retirement from women's artistic gymnastics. *Psychology of Sport and Exercise*, 8, 119-141.

Lidor, R., & Lavyan, N.Z. (2002). A retrospective picture of early sport experiences among elite and near-elite Israeli athletes: developmental and psychological perspectives. *International Journal of Sport Psychology*, 33, 269–289.

Maaloe, E. (2004). *In case of case research* (Working paper 2004–2009 ed.). Aarhus, Denmark: Department of Organization and Management, Aarhus University.

MacNamara, Á, Button, A., & Collins, D. (2010). The role of psychological characteristics in facilitating the pathway to elite performance; Part 1: Identifying Mental Skills and Behaviors. *The Sport Psychologist,* 24, 52-73.

Malina, R. M, Cumming, S. P, Kontos, A. P, Eisenmann, J. C, Ribeiro B., & Aroso, J. (2005). Maturity- associated variation in sport-specific skills of youth soccer players aged 13 – 15 years. *Journal of Sports Science*, 23, 515–522.

Mallett, C. J., Rynne, S. B., & Billett, S. (2014). Valued learning experiences of early career and experienced high performance coaches. *Physical Education and Sport Pedagogy*, 19, 1–16.

Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist*, 41, 954-969.

Marsh, H. W. (1987). The big fish, little pond effect on academic self-concept. *Journal of Educational Psychology*, 79, 280 –295.

Martindale, R. J. J., Collins, D., & Daubney, J. (2005). Talent development: a guide for practice and research within sport. *Quest*, 57, 353-375.

McKay J., Niven A.G., Lavallee D., & White A. (2008). Sources of strain among elite UK track athletes. *The Sport Psychologist*, 22: 143–163.

Messner, Michael A., & Bozada-Deas, S.. (2009). Separating the men from the moms: The making of adult gender segregation in youth sports. *Gender & Society*, 23, 49-71.

Mills, A., Butt, J., Maynard, I., & Harwood, C. (2012). Identifying factors perceived to influence the development of elite youth football academy players. *Journal of Sport Sciences,* 1, 1-12. DOI:10.1080/02640414.2012.710753

Mishler, E. (2004). Historians of the self: Restorying lives, revising identities. *Research in Human Development*, 1, 1–2, 101–121.

Moksnes, U. K., Moljord, I. E. O., Espnes, G. A., & Byrne, D. G. (2010). The association between stress and emotional states in adolescents: The role of gender and self-esteem. *Personality and Individual Differences*, 49, 430–435. doi: 10.1016/j.paid.2010.04.012

Munroe, K., Terry, P., & Carron, A. V. (2002). Cohesion and teamwork. In B. Hale & D. Collins (Eds.), *Rugby tough* (pp. 137-153). Champaign, IL: Human Kinetics.

Mutter, F., & Pawlowski, T. (2013). Role models in sports – Can success in professional sports increase the demand for amateur sport participation?. *Sport Management Review*, 17(3), 324-336. DOI: 10.1016/j.smr.2013.07.003

Nesti, M. (2010). *Psychology in football*. NY, NY: Routledge.

Nitsch, J. R. (2009). Ecological approaches to sport activity: A commentary from an action-theoretical point of view *. International Journal of Sport Psychology,* 40, 152-176.

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic Analysis: Striving to Meet the Trustworthiness Criteria. *International Journal of Qualitative Methods*, 16 (1), 1-13.

Oswalt, S. B., & Vargas, T. M. (2013). How safe is the playing field? Collegiate coaches' attitudes towards gay, lesbian, and bisexual individuals. *Sport in Society*, 16(1), 120-132. doi: 10.1080/17430437.2012.690407

Pahmeier, I. (2012). *Dropouts im Sport*. Presentation presented at Amateurfussball-Kongress 2012. Kassel, Germany.

Patton, M. Q. (2015). *Qualitative research and evaluation methods. Integrating theory and practice* (4th ed.). Newsbury Pard, CA: Sage Publications.

Peattie, L. (2001). Theorizing planning: Some comments on Flyvbjerg's Rationality and power. *International Planning Studies*, 6(3), 257-262.

Petitpas, A. J., Brewer, B. W., & Van Raalte, J. L. (2002). Transitions of the student-athlete: Theoretical, empirical and practical perspectives. In E.F. Etzel, A.P. Ferrante, & J.W. Pinkney (Eds.), *Counseling college student-athletes: Issues and interventions* (pp. 137-156). Morgantown, WV: Fitness Information Technology.

Poczwardowski, A., & Conroy, D.E. (2002). Coping responses to failure and success among elite athletes and performing artists. *Journal of Applied Sport Psychology*, 14, 313–329.

Prescott, J. (1999). *Identification and development of talent in young female gymnasts* (Unpublished doctoral thesis). Loughborough University, UK.

Pyne, D.B., Gardner, A.S., Sheehan K., Hopkins, W.G. (2005). Fitness testing and career progression in AFL football. *Journal of Science, Medicine, and Sport*, 8, 321–332.

Reicher, S. (2000). Social identity definition and enactment: A broad SIDE against irrationalism and relativism. In T. Postmes, R. Spears, M. Lea & S. Reicher (Eds.), *SIDE issues centre stage: Recent developments in studies of de-individuation in groups* (pp. 175-190). Amsterdam: Royal Netherlands Academy of Arts and Sciences

Reiner, M., Niermann, C., Jekauc, D., & Woll, A. (2013). Long-term health benefits of physical activity – a systematic review of longitudinal studies. *BMC Public Health,* 13:813. DOI: 10.1186/1471-2458-13-813

Relvas, H., Littlewood, M. Nesti, M., Gilbourne, D., & Richardson, D. (2010). Organizational structures and working practices in elite European Professional Football Clubs: Understanding the relationship between youth and professional domains. *European Sport Management Quarterly,* 10, 165– 187. doi:10.1080/16184740903559891

Richartz, A. (2002). Unterstützen - anregen - Konflikte bewältigen: Grundlagen einer modernen Internatspädagogik. In A.-M. Elbe & J. Beckmann (Eds), *Lebenskonzepte für Sporttalente* (p. 54-66). Frankfurt: DSB Presse.

Roderick, M. (2006). *The work of professional football. A labour of love?* Oxford: Routledge.

Ryan, R.M., & Deci, E.L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25, 54–67.

Ryba, T. V., Schinke, R. J., & Stambulova, N. (2012). Cultural sport psychology: Special measurement considerations. In G. Tennenbaum (Ed.), *Handbook of measurement in sport and exercise psychology* (pp. 143-152). Urbana-Champaign, IL: Human Kinetics.

Rynne, S. B., Mallett, C. J., & Rabjohns, M. W. O. (2017). High performance coaching: demands and development. In Richard Thelwell, Chris Harwood, & I. Greenlees (Eds.), *The psychology of sports coaching: Research and practice* (pp. 114-126). Abingdon, Oxon, United Kingdom: Routledge.

Sartore, M. L. & Cunningham, G. B. (2009a). Gender, sexual prejudice and sport participation: Implications for sexual minorities in sport. *Sex Roles*, 60(1-2), 100–113.

Schein, E. (1992). *Organizational culture and leadership*. (1 ed.) San Francisco: Jossey-Bass inc. Publishers.

Schein, E. (2010). *Organizational culture and leadership*. (4 ed.) San Francisco,CA: John Wiley and Sons.

Schinke, R. J., & Hanrahan, S. J .(2009). *Cultural Sport Psychology.* Champaign, IL: Human Kinetics.

Schlossberg, N. K. (1981). A model for analyzing human adaptation to transition. *Counseling Psychologist*, 9(2), 2–18.

Si, G., & Lee, H. (2007). Cross cultural issues in sport psychology research. In S. Jowett & D. Lavallee (Eds.), *Social psychology in sport* (pp. 278-334). Champaign, IL: Human Kinetics.

Smith, B. (2017). Generalizability in qualitative research: misunderstandings, opportunities and recommendations for the sport and exercise sciences. *Qualitative Research in Sport, Exercise and Health.* DOI: 10.1080/2159676X.2017.1393221

Smith, R. E., Schutz, R. W., Smoll, F. L., & Ptacek, J. T. (1995). Development and validation of a multidimensional measure of sport specific psychological skills: The Athletic Coping Skills Inventory-28. *Journal of Sport and Exercise Psychology*, 17, 379-398.

Smith, P. K., Takhvar, M., Gore, N., & Vollstedt, R. (1986). Play in young children: Problems of definition, categorization, and measurement. In P.K. Smith (Ed.), *Children's Play: Research, Developments, and Practical Applications* (pp. 37–54). New York: Gordon and Breach.

Sports Money: 2018 NFL Valuations. (2018, February, 2018). Retrieved from https://www.forbes.com/nfl-valuations/list/

Stambulova, N. (1997). Sociological sports career transitions. In J. Bangsbo, B. Saltin, H. Bonde, Y. Hellsten, B. Ibsen, M. Kjaer, et al. (Eds.), *Proceedings of the 2nd Annual Congress of the European College of Sport Science* (Vol. I, pp. 88–89). Copenhagen, Denmark: University of Copenhagen.

Stambulova, N. (2000). Athlete's crises: A developmental perspective. *International Journal of Sport Psychology*, 31, 584 – 601.

Stambulova, N. (2009). Talent development in sport: The perspective of career transitions. In E. Tsung-Min Hung, R. Lidor, & D. Hackfort (Eds.), *Psychology of sport excellence* (pp. 63-74). Morgantown, WV: Fitness Information Technology

Stambulova, N., Alfermann, D., Statler, T., & Côté, J. (2009). Career development and transitions of athletes: The ISSP position stand. *International Journal of Sport and Exercise Psychology*, 7, 395–412.

Stambulova, N., Stephan, Y., & Järphag, U. (2007). Athletic retirement: A cross-national comparison of elite French and Swedish athletes. *Psychology of Sport & Exercise*, 8,101-118.

Stambulova, N., Ryba, T. (2013). *Athletes' careers across cultures.* NY, NY: Routledge.

Storm, L. K. (2015). *"Coloured by Culture" Talent Development in Scandinavian Elite Sport as seen from a Cultural Perspective (doctoral dissertation)*. University of Southern Denmark, Odense.

Swann, C., Moran, Aidan, M., & Piggott, D. (2015). Defining elite athletes: Issues in the study of expert performance in sport psychology. *Psychology of Sport and Exercise*, 16, 3-14.

Tanggaard, L. (2006). A psychological field study of learning: Analysis of methodological aspects. *Nordic Psychology*, 58, 196–214.

Taylor, I., & Bruner, M. W. (2012). The social environment and developmental experiences in elite youth soccer. *Psychology of Sport and Exercise*, 13, 390–396.

Taylor, J., & Ogilvie, B. (1994). A conceptual model of adaptation to retirement among athletes. *Journal of Applied Sport Psychology*, 6, 1–20.

Taylor, J., & Ogilvie, B. (2001a). Career termination among athletes. In R.N. Singer, H.A. Hausenblas, & C.M. Janelle (Eds.), *Handbook of sport psychology* (2nd ed., pp. 672–691). New York: Wiley.

Tinning, R., Kirk, D., & Evans, J. (1993). *Learning to teach physical education*. Sydney: Prentice-Hall.

Tranckle, P. (2004). Understanding giftedness and talent in sport. *The Coach*, 21, 61-73.

Trost, S. G., Pate R. R., Sallis, J. F., Freedson, P. S., Taylor, W. C., Dowda, M., & Sirard J. (2002). Age and gender differences in objectively measured physical activity in youth. *Medicine and Science in Sport and Exercise, 34(2), 350-355.*

Tudge, J. R. H., Mokrova, I., Hatfield, B. E., & Karnik, R. B. (2009). Uses and Misuses of Bronfenbrenner's Bioecological Theory of Human Development. *Journal of Family Theory & Review, 1,* 198-210.

Vaeyens, R., Lenoir, M., Williams, A. M., & Philippaerts, R.M. (2008). Talent Identification and Development Programmes in Sport: Current Models and Future Directions. *Sports Medicine*, 38(9), 703–714.

Vanden Auweele, Y., De Martelaer, K., Rzewnicki, R., De Knop, P., & Wylleman, P. (2004). Parents and coaches: A help or harm? Affective outcomes for children in sport. In Y. Vanden Auweele (Ed.), *Ethics in youth sport.* Leuven, Belgium: Lanoocampus.

Van Yperen, N. W. (2009). Why some make it and others do not: Identifying psychological factors that predict career success in professional soccer. *The Sport Psychologist,* 23, 317-329.

Vella, S., Oades, L. G. & Crowe, T. P. (2011). The role of the coach in facilitating positive youth development: Moving from theory to practice. *Journal of Applied Sport Psychology*, 23 (1), 33-48.

Warner, S., Dixon, M., & Leierer, S. (2015). Using youth sport to enhance parents' sense of community. *Journal of Applied Sport Management*, 7, 45–67.

Weiss, M. R., Smith, A. L., & Theeboom, M. (1996). "That's what friends are for": Children's and teenagers' perceptions of per relationships in the sport domain. *Journal of Sport and Exercise Psychology*, 18, 347-379.

Wenger, E. (1998). *Communities of practice. Learning Meaning, and identity*. New York, NY: Cambridge University Press.

Wenhold, F., Elbe, A.-M. & Beckmann, J. (2009). Testgütekriterien des Fragebogens VKS zur Erfassung volitionaler Komponenten im Sport. *Zeitschrift für Sportpsychologie*, 16, 91-103.

Wessling-Lünnemann, G. (1985). *Motivationsförderung im Unterricht.* Göttingen: Hogrefe.

Wikman, J. M. (2015). *Development of an evidence-based sport psychological training program for young elite athletes.* (Doctoral thesis). Department of Nutrition, Exercise and Sports, University of Copenhagen, Denmark.

Wikman, J. M. Stelter, R., Melzer, M., Trier Hauge, M.-L., & Elbe, A.-M. (2014). Effects of goal setting on fear of failure young elite athletes. *International Journal of Sport and Exercise Psychology,* 12, 185-205.

Williams, A. M., & Reilly, T. (2000b). Talent identification and development in soccer. *Journal of Sports Sciences*, 18, 657-667.

Williams, J. M., & Krane, V. (2001). Psychological characteristics of peak performance. In J. M. Williams (Ed.), *Applied sport psychology: Personal growth to peak performance* (4th ed., pp. 137- 147). Mountain View, CA: Mayfield.

Wolfenden, L. E., & Holt, N. L. (2005). Talent development in elite junior tennis: Perception of players, parents, and coaches. Journal of Applied Sport Psychology, 17, 108-126.

Wylleman, P., De Knop, P., & Reints, A. (2011). Transitions in competitive sports. In N. L. Holt & M. Talbot (Eds.), *Lifelong Engagement in Sport and Physical Activity* (pp. 63–76). New York, NY: Routledge.

Wylleman, P., & Lavallee, D. (2004). A developmental perspective on transitions faced by athletes. In M.Weiss (Ed.), *Developmental Sport and Exercise Psychology: A Life Span Perspective* pp. 507-527). Morgantown: Fitness Information Technologies.

APPENDIX 1: INTERVIEW GUIDELINES FOR PLAYERS, STAFF, AND COACHES IN STUDY I

Thema	Memo	Konkrete Fragen
Einleitung	Descriptive Stats	- Was ist deine Rolle beim ELS? - Seit wann bist du beim ELS? - Wie ist das entstanden? - Warum spielst/trainierst du/ arbeitest du beim ELS?
ATDE	Microenvironment	- Wie ist es bei ELS zu spielen? - Mit wem hast du hier am meisten zu tun? - Wer sind deine Freunde? - Ist deine Familie auch involviert im Verein? - Hast du Kontakt mit den Frauenmannschaften?
	Macroenvironment	- Wie ist Schule? - Was hast du für andere Hobbies? - Wie ist die Sachsenliga? - Hast du vorher woanders gespielt/trainiert/gearbeitet?
ESF	Preconditions	- Welche Unterstützung erwartest du dir von dem Trainer / gibst du als Trainer? - Welche Unterstützung ist von (deinen) Eltern gebraucht? - Was Bedingungen haben die Frauen/Mädchen beim ELS?
	Process	- Wie sieht Training aus? - Wirst du gefördert / wie fördert du die Mädels?
	Organizational culture	- Was macht ELS aus? - Wie wird Frauenfußball im Verein angenommen? - Was Werte sind hier im Fokus?
	Individual and team development	- Was sind die größte Erfolge (persönlich und für den Verein?)? - Was für andere Erfolgserlebnissen hast du hier erlebt?
	Goals	- Was sieht deine Zukunft aus? - Was will der Verein (nur Trainer und Staff)?

APPENDIX 2: INTERVIEW GUIDELINES FOR PARENTS IN STUDY I

Thema	Memo	Konkrete Fragen
Einleitung	Descriptive Stats	- Wer spielt beim ELS und bei welcher Mannschaft? - Wie lange? - Warum ELS?
ATDE	Microenvironment	- Wie ist es bei ELS zu spielen? - Hat deine Tochter Freunde vom ELS? - Hast du andere Mädchen beim ELS? - Wie ist die Bindung zu Trainern + Staff?
	Macroenvironment	- Wie wichtig ist Schule? - Was hat deine Tochter für andere Hobbies? - Wie ist die Sachsenliga? - War dein Kind bei einem anderen Verein, wie war das?
ESF	Preconditions	- Bist du mit den Bedingungen beim ELS zufrieden?
	Process	- Ist deine Tochter genug gefördert beim ELS?
	Organizational culture	- Was macht ELS aus? - Wie wird Frauenfußball im Verein angenommen? - Was erlebt man als Elternteil beim ELS?
	Individual and team development	- Wie hat sich deine Tochter entwickelt? - Wie hat sich das Team entwickelt?
	Goals	- Hast du Ziele für deine Tochter?

APPENDIX 3: INTERVIEW GUIDELINES FOR PLAYERS AND COACHES IN STUDY II

Thema	Memo	Konkrete Fragen
Intervention	General experience	- Wie war deine Erfahrung mit der Intervention? - Was hat der gefallen? Nicht gefallen? - Warst du dabei motiviert? - Was ist dir am meisten aufgefallen? - Was hast du aus der Erfahrung gelernt?
	Structure	- Wie war die Struktur der Intervention? - Hat es dich gestört / geholfen? - Was hättest du geändert an der Intervention?
	Effectivness	- Hat es dir etwas gebracht? - Wie denkst du über die Bindung zwischen den Frauen- und Mädchenteams? - Was hätte besser / anders laufen können?

APPENDIX 4: NODE TREES DEVELOPED FROM ANALYSIS OF INTERVIEWS AND OBSERVATIONS

Study I

Description of the environment

based off the ATDE model

Micro-environment

- Family
- School friends
- Coaches
- Staff + coordinators
- Women's players
- Younger players

Macro-environment

- German culture
- German soccer club culture
- Other hobbies
- School
- State league
- Other clubs

The environment in the time frame

- Boys club -> girls club

Success factors based off the ESF model

Preconditions
Modest facilities
Local girls
Success 1st team
Parents (+)
Coaches (+)
Process
Relaxed Training / Fun focus
Provide challenges
Cultural factors
Acceptance and communication
Holistic approach
Meaning of women’s soccer
Focus on effort / never giving up
Individual development + success
Emotional intelligence
Self-worth
Perseverance
Soccer skills
Team development + success
Team spirit
Communication
Tactical skills
Environmental effectiveness
Happy kids
Satisfied parents
Interest in adult soccer

Study II

Resulting themes of ecological intervention

Establishing a connection
Practicality
Mentorship development
Collective responsibility
“Giving” mentality
Social Relationships
Sense of belonging
Proximal role models
Adult soccer
Skill level
Having fun