

**KNOWLEDGE AND COACHING EFFECTIVENESS: AN EXPLORATORY  
STUDY OF TWO SUCCESSFUL FINNISH AMERICAN FOOTBALL COACH-  
ES**

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## **ABSTRACT**

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This study examined successful Finnish American football coaching practices to understand their perceptions of successful coaching knowledge. The study was used to examine two successful head coaches from Finland who have run the most successful American football teams in the highest leagues for the past 10 years. To determine what specific coaching knowledge is perceived to be effective and how some of the information matches the current literature on coaching effectiveness and expertise, semi-structured interviews were conducted in a hermeneutic fashion. The significant themes emerged from the study: Stories, Creating climate, culture, and collective thinking; the Importance of planning and decision-making, Interpersonal development, and learning. An integrated coaching effectiveness framework developed by Jean Côté and Wade Gilbert (2009) was used to examine the current context. Based on the framework, results indicated that head coaches had established an environment that consisted of common goals, team culture, values, and a collective mindset as these characteristics were proposed to guide their teams to success. Furthermore, based on interpersonal knowledge characteristics, coaches placed importance on building trust with their players, additionally emphasizing communication being of the most critical coaching skills in this category. Further results indicated that Head coaches' knowledge based on professional knowledge components that emphasize planning and decision-making abilities in American football coaching.

Key words: Coaching, coaching effectiveness, coaching expertise, coaching success, coaching knowledge, American football.

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## 1. INTRODUCTION

Coaching plays a significant role in American football (AFCA 2002), but from a research perspective, little attention has been paid to coaching processes in American football. Furthermore, there is a large research gap between the coaching literature and the Finnish-American football context. This study will be one of the first to examine coaching in this specific context using a theoretical framework that has been in use for less than 30 years. Although the coaching literature has expanded and the available knowledge about how coaches can improve the performance of their teams has increased, there are no findings from an effectiveness perspective, nor have there been previous attempts to understand the coaching process in depth in the current context.

The current study examines what coaching knowledge is perceived as effective and important in the Finnish-American football context. The goal is to understand what coaching characteristics, qualities, and knowledge of two of the most successful head coaches have led to shaping successful teams that have won multiple championships over the past decade. The reason for studying successful coaches was to get their perspective on what worked and what they felt were the most important aspects during their active coaching tenure. The second objective of this study was to evaluate the fit of Jean Côté and Wade Gilbert's (2009) integrative model of coaching effectiveness with the construct of coach knowledge, and whether the model can be utilized to examine successful coach knowledge. A qualitative method was chosen as the approach because interviewing and studying successful coaches has also been the primary way to gather data and evidence in qualitative research from a coaching effectiveness perspective (Horn, 2008). I hope that this research can be extended to the existing literature on coaching effectiveness and that official governing bodies, teams, organizations, and stakeholders will understand the importance of knowing about effective coaching to improve the status of Finnish American football coaching.

## 2. SPORTS COACHING AND RESEARCH

Sports science research has expanded but is still in a young stage (North et al., 2021). About 70 sport science research articles are published annually, and sport science research has added many different disciplines over the past 50 years. Because sports science research comes from multiple scientific disciplines such as psychology, sociology, education, and sport science, it is a complex area of research to grasp as such due to the multitude of different concepts (Callary & Gearity, 2020; Lyle, 2018). Sports science research has also expanded into more specific subfields, one of which is sports coaching research. According to Callary and Gearity (2020), the coaching process, practice, education, relationship development, and coach development are the focus of this field. Sports coaching research aims to examine a matrix of attributes and factors that explain characteristics, phenomena, and processes at various levels of coaching practice.

A large body of research has also been devoted to expanding theoretical and practical knowledge about the process and practice of coaching through various coaching models (e.g., Côté et al, 1995; Côté & Gilbert, 2009; Horn 2008; Lyle, 2018). Exploring specific knowledge, behaviors, skills, and roles that effective coaches have is an important aspect for researchers to promote and support more efficient and effective coaching practices in sports (Gilbert & Trudel, 2004). Indeed, athletes are the primary stakeholders, but the process of developing an athlete's or team's performance is not justified without emphasizing the coach's role (Lyle, 2002), knowledge and behaviors (Côté, 2006), and influence on athletes through interpersonal relationships (Jowett & Shanmugam, 2016). Finally, the study of effective coaches seems logical from a research perspective, as Gilbert and Trudel suggest the following:

"If the ultimate goal of research with coaches is to improve coaching practice, a logical starting point would be to study effective coaches. The study of effective coaches, whose tacit knowledge and overall experience can then be passed on to young, developing coaches, is critical to the application of coaching science"

(Gilbert & Trudel 2004 pp. 23).

Although there is widespread agreement on the terminology of "coaching," careful description of the process, the role of the coach, the practice, and the behaviors associated with coaching is still needed (Lyle, 2002). According to Lyle, key questions in coaching are, (e.g. what is the central purpose, what are the essential characteristics, to whom does it apply, and where can it be found?). Lyle's work supplies a framework and definitions that have been used to model sports coaching. He has suggested that sport coaching is an activity that can be analyzed through the coaching process. The coaching process refers to the "contract or agreement that is made between the athlete(s) and the coach and the operationalization of that agreement" (Lyle, 2002 pp.40). It is based on direct, indirect, formal, and informal activities that can enhance the athlete's development and competitive performance. The second definition refers to a sport coach or "a person who performs a leadership role in sport that is tied to specific goals" (Lyle, 2002 pp.40). Finally, coaching practice refers to "a set of behaviors, activities, interactions, processes, people, and organizational functions that result from operationalizing the coaching role and process" (Lyle,2002, pp. 40-41).

The central aspect of coaching refers not only to the practical delivery, but also to the roles, elements, and interactive components associated with coaching practice (Lyle, 2002). Coaching practice can be described as a "complex, dynamic, social, domain- and context-dependent enterprise with often conflicting goals and values" (Cushion & Lyle, 2010 pp.xv). Lyle has suggested that coaching practice is constrained by the boundaries and skills specific to the coach's process and roles. These roles are distinguished primarily by the goals the coach has for the role, based on specific performance-related outcomes at various levels of competition and performance profiles (Lyle, 2002). The coaching process skills include the skills of planning, implementation, and management.

In a sense, coaching presents a variety of functions that are difficult to define in a simple way. Therefore, the definition must include an assessment of the role and purpose of the function, which can be better understood through the coaching process. Based on the distinct types of coaching, Lyle (2002) has divided these into two main categories, participatory and performance coaching. According to Lyle (2002), participation coaching is characterized by irregular participation and enjoyment of athletic activity, with coaching outcomes measured primar-



ily by the athlete's enjoyment, satisfaction, and sense of competence. In contrast, performance coaching involves more stable relationships with the athlete, specific performance outcomes, strategic planning, and commitment to preparation. Participation coaching includes instructional, pedagogical, and motivational skills, while performance coaching emphasizes planning, monitoring, decision-making, and management skills (Lyle, 2002).

Moreover, coaching is not only based on processes and a set of behaviors. It includes sub-aspects related to coaching style, traits, leadership behaviors, mentoring, philosophy, and interpersonal aspects such as the humanistic coaching perspective (Lyle, 2002). Coaching as a simple definition is broad and consists of multidimensional categories that explain the entire process in which a coach influences the basic psychological needs of athletes and enables the athlete to achieve planned goals in a particular sport (Lyle, 2002). Other perspectives of the interpersonal aspects of coaching relate not only to the coach-athlete relationship, but also to interpersonal aspects related to others, such as other coaches, parents, and stakeholders (Côté & Gilbert, 2009). Altogether, the general description suggests that the central goal of sport coaching is to develop athletes to achieve specific performance goals and to help them achieve their primary goals in sport (Cushion & Lyle, 2010).

## **2.1 Definition of coaching effectiveness**

Due to the comprehensive nature of sports coaching and the various models used to categorize the process behind it (e.g. Bennie & O'Connor, 2011; Côté & Gilbert 2009; Horn, 2008; Jowett et al, 2017; Lyle 2002 & 2018), this review focuses on coaching effectiveness. Coaching effectiveness is typically associated with aspects such as "good" coaching or a coaching process that is portrayed as "positively affecting" athlete outcomes and success.

Effective coaching can be assessed by the win-loss record (performance) of teams or individuals, but authors point out that this does not explain the entire phenomenon due to the multifaceted nature of coaching (Bennie & O'Connor, 2011; Lyle 2020). Lyle (2002) has differentiated concepts by distinguishing the terms commonly associated with "effective coaching". In reference to Lyle's definition of effectiveness, he has made a connection be-

tween practice, goals, and effectiveness. He notes that "effective coaching performance" (as evidenced by the achievement of the goal-directed coaching process) is limited by time and place and by the constraints that apply to the process. It is assumed that the coach "acts effectively, that is, that the accumulation of coaching behaviors achieves the desired effect" (Lyle 2002, pp. 259). There are various explanations of the term, and under the umbrella term, the following terms are usually distinguished: effective; having an intended effect or achieving a desired purpose, expert; a person who possesses a high degree of effectiveness, success; achieving a goal or winning a game (Lyle, 2002).

From a research perspective, the main aim of coaching effectiveness is used to identify commonalities (e.g. identifying shared effective coaching characteristics, competencies, cognitions, behaviors, or leadership styles) that can be validated as common components of effective coaching (Horn, 2008). Overarching themes may well become ambiguous, so it is important to distinguish what is meant by the terms and what their function in coaching is (Lyle 2020). The term "coaching effectiveness" has received much more attention in the last decade because of its complex construct, but also because of its importance in sport psychology (Horn 2008). According to Côté and Lyle, a concept as "simple" as coaching, which encompasses behaviors and perceptions from the perspective of athletes and coaches, cannot be explained without an appropriate framework (Côté 1995, Lyle 2002). To date, there is still no single term for coaching effectiveness. The reason for this seems to lie in the different approaches that attempt to conceptualize coaching effectiveness from theoretical and foundational approaches (Horn, 2008), as what the term conceptually means in terms of sport coaching settings (Lyle, 2020). Based on coaching expertise and effectiveness, authors suggest that an effective coach cannot be considered an expert until he or she has shown a track record of coaching effectiveness over many years (Côté & Gilbert, 2009). However, they argue that not many coaches will ever reach a point where they can be called experts because they drop out of coaching (Côté and Gilbert, 2009). Other definitions of coaching effectiveness in relation to coaching leadership behaviors include coaching context, coach personal characteristics, athlete outcomes, athlete characteristics, and coaching behaviors (Cotterill & Fransen, 2021). Lyle's definitions of effective coaching and the aspect of "an intended effect or the achievement of a desired goal" has been used as the end result of effective coaching (Lyle, 2002).

## **2.2 Theoretical models of coaching effectiveness**

This part of the thesis focuses on the theoretical constructs of the coaching effectiveness. These models are used to explain the theories from a broader perspective to better understand the essence of the topic. Since these frameworks encompass multiple aspects and independent studies that are beyond the scope of this review, I will discuss the broad outlines and general perspectives that underlie them, and finally justify why I choose to focus on a particular category of the construct of coaching effectiveness. Renowned scholars Jean Côté, Wade Gilbert, John Lyle, and Thelma Horn are considered leading researchers in the field of coaching effectiveness, as this literature review will draw on their previous work.

### **2.2.1 Working Model of Coaching Effectiveness**

Horn has proposed a theoretical working model for coaching effectiveness. She suggests that since coaches not only have a lot of influence over athlete's performance and outcomes, but psychological and emotional well-being, the motivation to understand and identify common coaching characteristics, behaviors, practice strategies, leadership styles and behavioral patterns which are most effective, should be acknowledged and applied by both research and coaching community (Horn, 2008). Effective coaching may be assessed through performance outcomes (win-loss percentage, individual player development, national or international success) or positive psychological outcomes (athlete self-esteem, intrinsic motivational orientation, or elevated levels of enjoyment and satisfaction). Notably, research conducted on coaching effectiveness outcomes have been based on psychosocial growth and athlete development perspectives, yet little less research studies have examined coaching effectiveness related to performance outcomes (Horn, 2008).

Horn's model stems from both grounded theory and theoretical research that have been used to configure the multidimensional working model of coaching effectiveness. Horn has proposed that context and environment (sociocultural context, organizational climate, coaches'

personal characteristics; expectancies, values, beliefs and goals) shown in Figure 1 have an effect on coaches' behavior, which affect athlete's personal characteristics; perceptions and interpretation of coaches' behavior; athletes' self-perceptions, beliefs and attitudes; level of motivation; and athletes' performance and behavior. The sociocultural context, organizational climate and personal characteristics may have meditational, but not direct effects on coaches' expectancies, values, beliefs, and goals. These attributes then mediate the behaviors that coaches would use in sport settings. The actual behaviors are therefore not solely based on coaches' perception of their behavior or knowledge, but are modified by the context, values, beliefs, goals and expectations of the coach. Horn suggests that coaching behaviors are context dependent as they relate to the performance, behaviors, and feelings of their athletes (Horn, 2008).

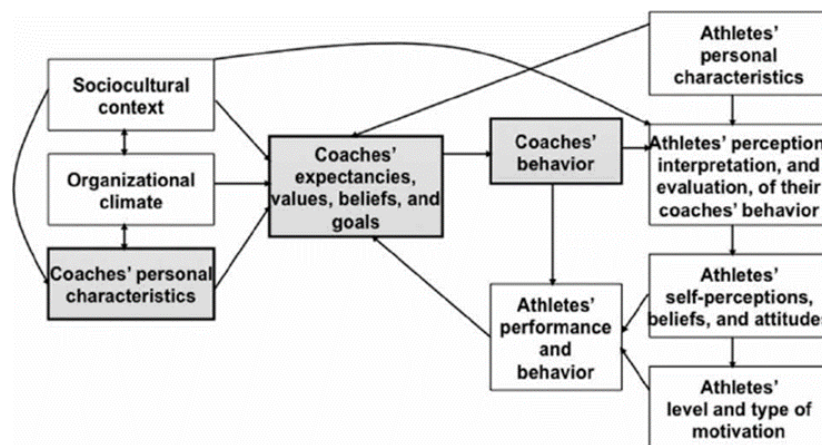


Figure 1. Working model of coaching effectiveness

### 2.2.2 The Coaching Model

The Coaching Model was developed by studying 17 Canadian expert gymnast coaches' perceptions and knowledge (Côté et al., 1995). The main emphasis was to develop a model which would explain the coaching concept more holistically, since other models have been primarily used to investigate specific coaching leadership behaviors, coach-athlete interactions (see Chelladurai, 1980; Smoll & Smith 1984) and athlete satisfaction and responses related to these models (see Kim & Cruz, 2016; Riemer & Chelladurai, 1995). From their analysis, Côté and colleagues (1995) identified six components of the coaches' knowledge, which they proposed as a model of the cognitive processes of expert coaches. Shown in Fig-

ure 2, the Coaching model integrates three central components: competition, training, and organization. In addition to these central components, the researchers also found three variables that influenced the coaching process: the coach's personal characteristics, the athletes' personal characteristics, and their level of development. They also named some contextual factors that could affect coaching, which they defined as peripheral components. Overall, the researchers proposed this model to aid in the development of athletes by providing a framework for understanding how expert coaches function. By identifying the key components of coaching knowledge and the factors that influence it, they hoped to improve coaching practices and enhance athlete performance (Côté et al., 1995).

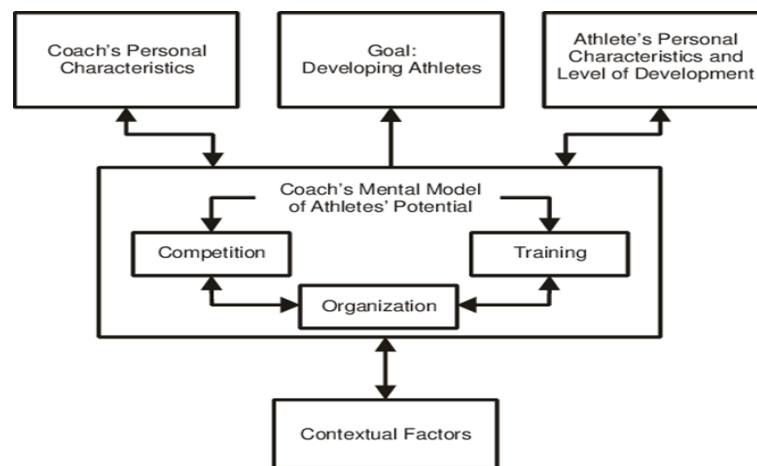


Figure 2. Coaching Model

### 2.2.3 The Conceptual Model of Coaching Effectiveness

The conceptual model of coaching effectiveness by Côté and Gilbert (2009) proposes an integrated, conceptually grounded definition of coaching expertise and coaching effectiveness. Based on their review on 113 different research articles stemming from education, sport psychology and coaching expertise literature, authors underpinned and developed a three-tier model that explains determinants for coaching effectiveness and expertise through coaches' knowledge, athlete outcomes and coaching contexts from a grounded theory perspective. The first part of the model highlights coaches' knowledge. The model consists of three main categories which are coach's professional (sport-specific and procedural), -interpersonal (individual and group interaction) and -intrapersonal (introspection and self-reflection) knowledge

which affect and influence athlete outcomes (Côté and Gilbert, 2009). According to Côté and Gilbert, coaches' knowledge mediates behaviors which affect athlete outcomes known as athlete's competence, confidence, connection and character, or "4Cs". Effective coach who utilizes all three forms of coaching knowledge, should be able to affect, improve and develop athletes 4Cs in different coaching contexts (Côté & Gilbert, 2009).

Coaching context regards the athlete's age, developmental level, needs and goals. Since coaching occurs in different contexts, authors have integrated different participation levels in the model, which allows the framework to be integrated at different participation levels (Côté & Gilbert, 2009). Based on the research work by Trudel and Gilbert (2006), the framework integrates three specific coaching contexts: recreational, developmental, and elite sport, pointing out that coaching is context dependent, and based on coaching objectives in given time and place. Coaching objectives are framed in four different areas in which coaches should emphasize specific features to develop athletes' competence, confidence, connection, and character. In all levels, coaches' main behaviors should include teaching, assessing, training, and developing athletes in these levels with a certain focus on the needs of an athlete's overall development, not just the sport related technical and tactical skills. Each of these contexts can help coaches to assess what type of behaviors they should apply and promote in their coaching shown in the Figure 3 (Côté & Gilbert, 2009). Lastly, their definition sums up the concept of coaching effectiveness in one phrase: "The consistent application of integrated professional, interpersonal, and intrapersonal knowledge to improve athletes' competence, confidence, connection, and character in specific coaching contexts." (Côté & Gilbert, 2009 pp.316).

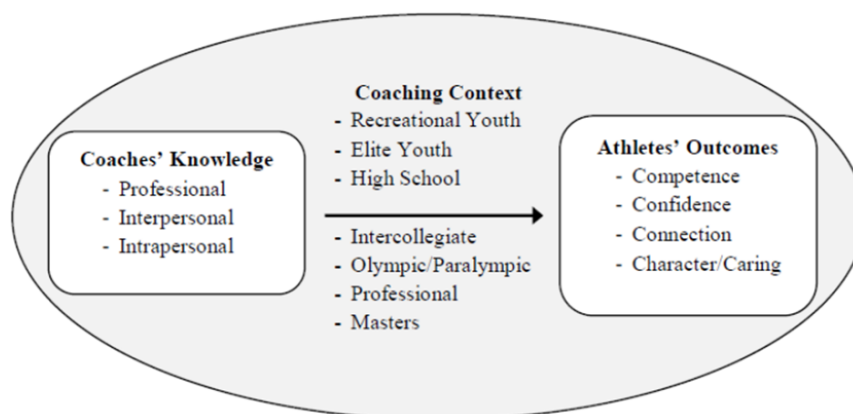


Figure 3. Integrative and conceptual model of coaching effectiveness

## 2.2.4 Effective Coaching Model

Based on qualitative research by Bennie & O'Connor (2011), who studied professional rugby and cricket coaches and athletes' perceptions from six professional teams in three different sporting contexts. This study highlighted the interpretivist approach to understand what, how and why effective coaches do what they do specifically in the Australian sports context. By using both semi-structured interviews and observations to understand what type of effective coaching is in Australian professional sports, an effective coaching model was developed as a result. (ECM) shown in Figure 4. According to the model, three higher tier concepts related to the overall structure of coaching effectiveness: the coach, coaching skills, and the environment. Under these constructs, eight lower tier concepts were presented; coaches own specific characteristics, skills, and qualities as well as coaching philosophy and direction for the team. Effective coaches according to the authors' findings have their own unique leadership and player management style, communication and planning skills which help coaches to create optimal team environment and culture, which allows the team to work together towards a common goal (Bennie & O'Connor, 2011). More in depth, each of these categories are not working exclusively, but congruently influencing effective coaching outcomes. The outcomes are then assessed holistically: on and off-the-field individual, and team development and performance, which in return helps the team to achieve its primary goal of winning games (Bennie & O'Connor, 2011).



Figure 4. Effective Coaching Model

### **2.3 Research on coaching effectiveness**

Numerous studies have been used to examine coaching effectiveness. Most of these have been based on leadership styles, behaviors, and feedback patterns (Horn, 2008). Current observational tools and questionnaires to assess coaching effectiveness construct have been based on coaching efficacy (see Feltz et al., 1999), coaching leadership behaviors (e.g., Cheladurai & Saleh 1980;), coach-athlete relationships (e.g. Jowett, 2017; Jowett, 2020; Mageau & Vallerand, 2003) and coaching behaviors (e.g. Baker, Côté, & Hawes, 2000). In conjunction, coaching education has been associated influencing coaches behaviors and interactions (Callary et al., 2014; Côté, 2016; Côté, 2006; Erickson et al., 2008; ICCE & ASOIF, 2013; Malete & Feltz, 2000; Stoszkowski & Collins, 2016; Walker et al., 2018). Effective coaching outcomes have been assessed through increased team cohesion (e.g. Jowett & Chaundy, 2004), intrinsic motivation, joy, and confidence (Horn, 2008). Conversely, Lyle has suggested that athlete performance outcomes should be used when measuring effective coaching (Lyle, 2020) though this has been under debate between the scholars in the field (Côté & Gilbert, 2009; Horn, 2008; Jowett, 2017; Lyle, 2002). Additionally, Côté and Gilbert extensive research has focused on coaching expertise through gymnastic coaches' knowledge (see Côté et al., 1995), expert rowing coaches behaviors (see Côté et al., 2003) and coaching education and development pathways (see Gilbert et al., 2013). Notably, their work highlights the prerequisites or determinants of effective coaching as they have tried to identify commonalities more concretely through coaching expertise and education literature. These determinants and knowledge competencies have been used in International Coaching Frameworks to guide educators and organizations to promote quality coaching behaviors, ethics, and values in sport settings (e.g. Bernsten & Kristiansen, 2019; ICCE & ASOIF, 2013). Later on, Quinaud et al., (2013) have also validated a questionnaire which is used to measure three forms of coaching knowledge to explain how much coaches display each of the three forms of knowledge, and how this is used to understand the coaches' knowledge basis. No further studies have emerged after the questionnaire has been published.



In summary, coaching effectiveness is a complex construct associated with positive athlete outcomes and success. It can be assessed through performance outcomes or positive psychological outcomes. The determinants of coaching effectiveness have been based on predispositions of coaching practice, such as experience and coaching knowledge. Several theoretical models, such as Horn's working model (2008) of coaching effectiveness and Côté and Gilbert's model (2009), have been presented to better understand coaching effectiveness, by identifying common coaching characteristics, behaviors, practice strategies, leadership styles, and behavioral patterns that are most effective. However, there is still no single term for coaching effectiveness, and the different approaches to conceptualizing it from theoretical and foundational perspectives remain ambiguous and elusive (North, 2017).

## **2.4 Current research context**

### **2.4.1 American football**

American football has evolved and much of the research has focused on physiological aspects such as performance, injury prevalence and rehabilitation processes of the athletes (Saal, 1991; Pincivero & Bompa 1997). Less research emphasis has been placed on the actual American Football coaching practice from a psychological perspective.

American Football is the most popular sport in Northern America (Pielke, 2019), and is also played worldwide. American football is a team sport where two teams play against each other for four 12- or 15-minute quarters. The aim of the game is to get to the opponent's end-zone and score points (touchdowns). Each team has an offense and defense which will take alternative turns during the game. The offense has four attempts to deliver the ball for ten yards on a 100-yard field to get to the opponent's end zone by either passing the ball or running the ball on the ground. After achieving ten yards on four plays, the offense will gain a new set of tries to get closer to the opponent's end-zone. Alternative scoring options involve kicking a field goal or causing a safety on an opponent's offensive drive by forcing a ball carrier or ball at the end of their own end-zone. (2022 NFL Rulebook)

In Finland, American Football is considered as a very marginal sport, where there are estimated about six thousand participants across Finland. The leagues are divided into four divisions of which the primary league, Vaahteraliiga (in English Maple League), is set to operate at a semi-professional or amateur, non-elite level overseen and governed by the American Football Finnish Association (Suomen Amerikkalaisen Jalkapallon Liitto, SAJL). The team and the number of athletes varies from 30 to 60 roughly players (SAJL 2019a). Teams also involve multiple staff members, coaches, assistant coaches, physicians, managers, stakeholders, and support staff members. The roles vary across teams because most of the staff role engagement is voluntary, and teams do not have the financial resources to hire full-time employees in their teams. Almost all the players are also playing voluntarily and work regular jobs outside of the sport. The league operates somewhere between amateur and semi-professional level. The league is set to play twelve regular-season games in which teams play against each other two times. After the regular season, post-season standings determine the playoff spots and the final spots for the two teams that will compete in Vaahteramalja (Maple Bowl) for the championship game of the league (SAJL 2019b).

#### **2.4.2 Coaching hierarchy in American football**

American football teams are relatively big and require attention to a variety of coaching processes across the team. In collegiate level, teams require multiple positions which consist of combining over 80 players on a roster, coaching staff made of a head coach, three coordinators (offensive, defensive, special teams coordinators) and additional coaching staff, including around twelve assistant coaches depending on the team (Erhardt et al., 2014). The number of coaches seems atypical for most sports, but since American Football involves multiple playing positions, such as quarterbacks, wide receivers, running backs, tight ends, offensive line (on offense), and safeties, linebackers, cornerbacks, defensive linemen (on defense). In addition, special teams include kickers and holders, special team players, coaching for each position is required for effective and successful performance outcomes (Rathwell et al., 2014). Research also points out that American football assistant coaches should have expertise and knowledge in specific areas of strategy, technique, playing positions, and player performance in order to adapt to different demands of the sport (Rathwell et al., 2014). Also,

some assistant coaches have more of a role in the administrative side of coaching. Administrative work may be based on recruiting, scheduling practice, scouting, analyzing film, game planning, whereas some coaches may solely focus on the performance aspect of developing athletes and position groups (position coaches, strength and conditioning coaches, physicians, sport psychologists, graduate assistants, quality control) (Braddock et al., 2012; Gilbert et al., 2006; Rathwell et al., 2014). The range of different coaching functions and environments makes American football coaching an extremely complex phenomena to capture as such. Therefore, research studies have been primarily focused on the role and knowledge of head coaches (see Holmes, 2011; Humphreys & Weinbach, 2016; Mielke, 2007; Rathwell et al., 2014). To help to understand and visualize the hierarchical structure of coaching in Figure 5 presents an example of coaching hierarchy in the National Football League (NFL).

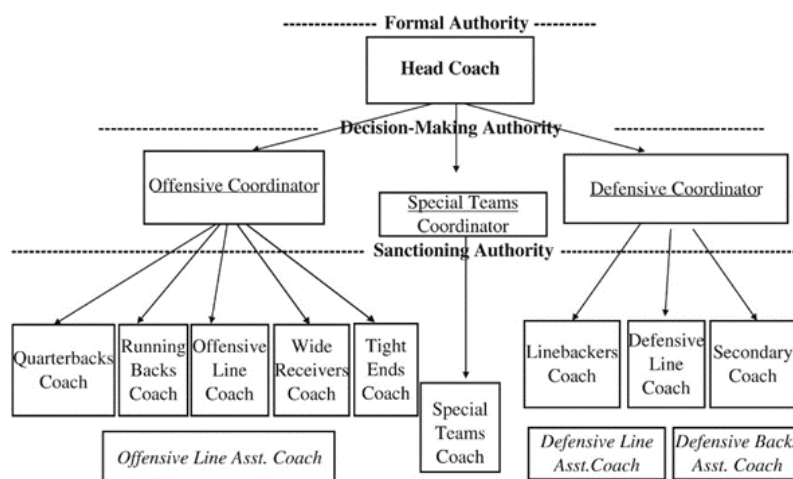


Figure 5. National Football League coaching hierarchy

### 2.4.3 Role of the Head coach

Peter Horton (2015) suggests that having a single role within a coaching is almost impossible to determine due to multiple demands that the coaching environment poses. Horton has argued that since responsibilities change based on the context, athlete's needs, coaches and the stakeholder's vision, careful description of these four categories need to be made prior to making an estimate of what the central role of the coach has in a team (Horton, 2015). Lyle (2002) has proposed that coaching roles need to be defined based on functionality of the

coaching process and that these roles need to be divided into several subsidiaries. The reason for this is that roles themselves represent more of ideological and statement value positions but don't represent the actual working definition of the coaching process (Lyle, 2002).

The coaching process in a team starts from the top, usually from the head coach's leadership role. In a professional and collegiate settings, aspects such as developing team structure, assigning roles, implementing value and rules, enhancing motivation and leadership, sharing vision and strategy and goal setting, improving cohesion and teamwork, scheduling and time management, ethical conduct, and decision-making, just to name the few that are part of head coaches job description. Delegating responsibilities to assistant coaches as well to players in the team is also one of the main tasks involved in head coach job description (AFCA, 2002; Rathwell et al., 2014). Additional research tends to also support the notion that head coaches seemingly serve a role as leader of the team who is also able to fulfill psychological needs of assistant coaches (Zakrajsek et al., 2020). Lyle's notion of "the chief coach" refers to the American football head coaching role overseeing other coaches, and the methods used by a group of expert assistant coaches to handle most of the direct intervention (Lyle, 2002 pp.66).

### **3. DETERMINANTS OF EFFECTIVE COACHING**

Côté and Gilbert suggest that determinants of effective coaching are based on behaviors, dispositions, education, knowledge and experiences (Côté, 2006; Côté & Gilbert, 2009; Gilbert & Côté, 2013). These attributes may be understood as a base of knowledge, or mental models which explain how coaching behaviors influence athlete and team performance outcomes (Côté et al., 1995; Jones et al., 2013). Based on work by Schempp (1993) it has been argued that professional knowledge, like the concept of education expertise knowledge is based on real world experiences, and that “the degree of success that professionals experience in meeting societal demands is largely dependent upon the knowledge they generate and accumulate for the tasks and obligations they undertake” (Schempp, 1993 pp.3).

#### **3.1 Sources of learning**

Mallett et al., (2009) found that coaches' learning occurs through informal and formal pathways. Coaches' preference for informal learning has been examined by Maclean & Lorimer (2016). Results based on semi-structured interviews from eight multi-sport coaches suggest that these coaches prefer coach-to-coach, learn-by-doing learning over a formal education program (Maclean & Lorimer, 2016). Coaching knowledge development in American football seems to be highly elaborated through informal learning. Valuable research study by Rathwell et al., (2014) studied six accomplished Canadian Football (like the game of American Football) head coaches and gathered insights during the hiring process of their assistant coaches. Key findings from their interviews highlight that Head coaches value and stress coaching knowledge and pedagogical skills from their assistant coaches. In addition, head coaches noted that they want to educate and keep enhancing their assistant coach's knowledge by sending them to annual coaching conferences and workshops, as well as to offer them opportunities for open feedback sessions about their performance (Rathwell et al., 2014). Findings also from this study suggests that coaching knowledge development was based on within team head coach-assistant coach interactions, as well as appliance of external sources of knowledge like mentorship. Other authors have argued that coaching education

programs cannot solely be relied on to increase or enhance coaching knowledge on its own (Callary et al., 2014; Côté, 2016) as the central argument is that coaching education programs lack in the transferability of knowledge into real-world settings and that information provided by formal education settings do not support every coach's own personal coaching philosophy and style (Côté, 2006, Lyle 2002). Rynne & Mallett., (2014) have also pointed out that learning through education programs seems sub-optimal and insufficient on their own, an aspect that has been pointed out by Gilbert and Côté's extensive research on coaches learning (Gilbert & Côté, 2009). Therefore, coach-to-coach learning highlights the important aspect of coaching expertise. Coaches learn from one another and gain contextual insights for their work through dialogues, mentorships, workshops and watching others do coaching in specific context (Côté, 2006). Also, one of the reasons for the disliking formal education programs seems to be the inability to transfer the taught knowledge into a specific context (Côté, 2016; Lyle 2002). Based on career development and informal learning to become a coach is also based on athletic background. Former athletes tend to have the available skills and knowledge from their careers, which in turn helps them to transfer knowledge during a career transition phases of becoming a coach (Chroni et al., 2021) However in American Football, an interesting finding revealed that most of the National Football League (NFL) head coaches in a study by Mielke (2007) had little to none of experience as a professional athlete before becoming a coach in the team, thus suggesting that skills and knowledge may transfer through experiential learning in American Football (Mielke, 2007). This is also in line with work-based coaches experiential learning by Côté (2006) who suggest that coaches gain skill and knowledge through actual coaching experience (Côté, 2006).

Though much of the sources of knowledge tend to subside more on the in-world and experiential learning categories, studies are showing that coaches learn cumulatively coaching skills from both coaching education programs and experiential, real-world learning experiences from being a former athlete and a coach (Côté, 2006). Coaching education programs have been implemented world-wide to help coaches to become certified professionals (ICCE & ASOIF, 2013). Based on the formal education, some coaches have expressed the need to mandate education programs and courses to establish professional identity within the coaching industry (MacLean & Lorimer, 2016). Certificating coaches was also one of the themes

emerging from study which showed that some American football Head Coaches wanted their assistant coaches to receive official coaching certificates to improve their extensive knowledge and establish a professional status among peers (Rathwell et al., 2014). This is also in line with the current framework of creating coaching practices that are set on ethically guided principles (ICCE & ACOIG, 2013). Though coaching programs have been applied by sport governing bodies globally, and they have shown to have positive effects, for example on perceived coaching efficacy (Malete & Felt, 2000) and overall development of coach's knowledge (Callary et al., 2014), they are still unpopular due to their application to the coaching practice.

Coaches learning is still mostly emphasized through reflecting and interacting with other coaches, educators and mentors through informal, real-world learning environments (Carter & Bloom, 2009; Côté, 2006; Rynne & Malett., 2014; Walker et al., 2018). Research points out that learning and sources of coaching knowledge vary, but it is acknowledged by scholars that coaches engage in different learning environments and educate themselves in order to become more competent and effective (Callary et al., 2014; Côté, 2016; Côté, 2006; ICCE & ASOIF, 2013; Erickson et al., 2008; Malete & Feltz, 2000; Walker et al., 2018; Stoszkowski & Collins, 2016). Benefits of incorporating formal and guided learning through education programs may enhance coaching knowledge but cannot encompass all of the experiential learning required to coach effectively (Mallett et al., 2009; Côté, 2006; Côté & Gilbert, 2009). In addition, some barriers regarding cost of programs, availability of time, and access to education programs seem to be problematic for some coaches (MacLean & Lorimier, 2016)

### **3.2 Professional knowledge**

Acquired knowledge is one of the core components of effective coaching, but knowledge on its own does not translate directly to effective coaching behaviors nor outcomes (Côté, 2006). “Knowing,” is different from “doing” and this has been much of the emphasis in coaching expertise and knowledge literature for the past three decades (Abraham & Collins, 1998). It is suggested that to be effective, coaches need to utilize enough knowledge in an actual coach-

ing practice (Abraham & Collins, 1998). Professional knowledge is defined as an umbrella term for sport-specific knowledge, or declarative “what to coach,” and procedural knowledge “how to coach” (Côté and Gilbert, 2009; Gilbert & Côté, 2013 150-153). Earlier educational theories have been revised to the sport coaching contexts from the teaching expertise and learning theories (Abraham & Collins, 1998). Extensive literature review from over two decades by Schempp and colleagues (2006) proposed that expert coaches pose nine essential skills: planning, prediction, intuitive decision making, communication, automaticity, observational analysis, problem solving, self-monitoring, and perception. Though there is some overlap within these skills, and they submerge with categories proposed by Lyles’ coaching practice definition (Lyle, 2002 pp.50), these have been proposed to compromise the thematic overview for expert coaches coaching skills' (Schempp et al., 2006). Côté and colleagues have proposed that since these skills overlap, they have simplified these skills in two specific categories (Gilbert & Côté, 2013). From a broader perspective, declarative knowledge can be viewed as context-specific information (technique, skill, strategy) in a sport that the athlete is taught by the coach (Abraham & Collins, 1998; Muir et al., 2015), whereas procedural knowledge emphasizes decision-making, planning and implementation ability related to the coaching practice, functions and structures of teams based on coaches’ extensive knowledge of the sport (Côté & Gilbert, 2009, Gilbert & Côté, 2013).

### **3.2.1 Declarative knowledge in American football**

Authors have made a point about excluding declarative knowledge content in their framework, since sport specific skills and techniques vary across sports (Côté & Gilbert, 2009). In American football, there are a variety of different motor skills (e.g., tackling, blocking, running, jumping, changing direction, catching, throwing, kicking a ball) that the athlete is required to know. Some findings suggest that one of the emphases in “skill” coaching is to get players to understand and learn “fundamentals”, or the baseline techniques that the players are required to show on a regular basis in order to improve their skills, so they can perform on the field (Muir et al., 2015; Gilbert 2016 pp.151). The emphasis on fundamental skills have also been proposed by accomplished head coaches Bill Snyder and Dick Tomey who have said the following about fundamental skills in American football: “One of the goals for



our players was for them to find a way every day to improve as people, as students, and as football athletes. Accomplishing that really is not hard, and our players learned that they could do it. We weren't judging them on the scoreboard but on their fundamentals and techniques." (AFCA, 2002 pp.94) and "If you believe in building a solid foundation brick by brick, then you believe in fundamentals and repetition. We do. The fundamentals of athletic ability and the game of football are vital ingredients of success." (AFCA, 2002 p.101). These quotes present the importance of fundamental skills that head coaches implement in their coaching practice. Moreover, fundamental skills may seem to serve as one of the founding principles of athletic ability (Gilbert, 2016).

Wade Gilbert has proposed that basic skills and strategies provide the foundation for athlete creativity (Gilbert, 2016 pp.150). Repetition and practicing of fundamental skills help athletes build general motor programs, known as the "blueprints", that help athletes to engage in more decisive decisions and improvised techniques that appear in game-like situations (Gilbert, 2016). The expert head coach and Super Bowl winner of the NFL team Seattle Seahawks, Coach Carroll believes that fundamental skills are critical for performing at a high level. According to Carroll, "disciplined and repetitive practice of fundamental skills do not only enhance general motor programs, but also strengthen the athlete's confidence in their ability to perform" (as cited in Gilbert, 2016 pp.152).

Teaching baseline and proper motor skill movement in football has been emphasized by National Strength Coaching Association (NSCA) in American Football (Eisenmann, 2019). Fundamental skills have been discussed as the essential way to develop athletes so they can engage in more difficult tasks and techniques once they develop as players (Eisenmann, 2019). NSCA suggests that fundamental skills that coaches should be focusing on can be divided in the three kinetic categories: Stability: posture, static balance, dynamic balance, falling and landing (forward, backward, sideways, and on feet), rotating (forward, backward, and sideways). (Bi-lateral) Object Control: underarm throwing, overarm throwing, catching (various heights and speeds), kicking, bouncing, striking static objects, striking moving objects, intercepting. (Multidirectional) Movement: walking, running, vertical jumping, horizontal jumping, hopping, galloping, skipping, leaping, and bounding. (Eisenmann, 2019). Moreover,

coaches need to be able to teach fundamentals through drills. Drills, or drilling can be used to teach certain skills that the player needs to have to become better performers on the field in simulated practice situations and during the game (Gleason, 2015). Due to vast differences among different body types, playing positions, skillset, strength and speed levels as well as overall athletic ability (Pincivero & Vomba, 1997), coaches' critical ability to choose the best drills to improve athletic ability are based on their extensive knowledge on what specific drills and learning tools to use with different athletes (Abraham & Collins, 1998; Eisenmann, 2019, Gleason, 2015). Based on the given information, expert coaches use a variety of different and specific tools that fits the best of athletes' learning capabilities to maximize their development and performance (Gilbert, 2016; Schempp et al., 2006). In conjunction to declarative knowledge in American football, insight from an expert head coach Joe Tiller suggest the following:

“Depending on how players learn, we try to break down what we are trying to teach them and present it verbally, visually on the board, or in practice. Some kids learn by memorizing written material. Other kids learn visually and need to see it on the board. Other kids learn aurally; they will listen to you and understand. Some kids must learn by hands-on experience or a walk-through. Others learn better when they see it at full speed.” (AFCA, 2002, pp.174).

### **3.2.2 Injury prevention**

In addition to improving players ability to perform, additional research findings suggest that fundamentals are necessary to ensure player safety. Since American Football involves a lot of contact and collisions, research based on teaching correct technique (on tackling e.g., Schuster 2018) and fundamentals (on blocking e.g., Popovich & Deutsch, 2016) highlights the aspect of American football coaches' ability to keep players from sustaining concussions and injuries (Kerr et al., 2015). Concussions have been a much of the research target in the past two decades due to extensive amount of head contacts and increase in chronic traumatic encephalopathy (CTE) cases in professional football players (Lindsley, 2017; Omalu et al., 2010). The coaching process is intervened once the player becomes injured. Injuries among

athletes affects the way they may return to sport or even continue to participate in sport. This is an aspect that has been mentioned briefly in the coaching effectiveness framework being variable affecting the coaching process, since athlete involvement is crucial for effective coaching delivery (Côté & Gilbert, 2009).

To conclude, due to the broad nature of the sports specific skills that are all individually dependent on the playing positions, the central theme stresses the coach's ability to teach fundamental skills of the sport (Gilbert, 2016). The central aspect of declarative knowledge implies that coaching in football involves teaching players the fundamental techniques that allow them to become more advanced within their playing position, thus allowing them safer opportunities to participate in sport.

### **3.2.3 Procedural knowledge**

Two approaches to conceptualize effective coaching procedural knowledge are based on decision-making and planning ability (Gilbert & Côté, 2013). Authors suggest that sport coaching research has merely adopted decision-making as the procedural knowledge which portrays effective coaches' ability to "make sense of a situation" and "forward reasoning," as well as to anticipate and predict certain outcomes of events based on recognition of similarities of previous experience (Lyle, 2010; Lyle & Vergeer, 2013). According to Lyle and Vergeer, decision making is a cognitive process leading to an action outcome which involves a choice between alternatives in a course of action (Lyle & Vergeer 2013).

In depth, earlier work by Klein and Weick (2000) proposes simple categorizations of decision making which are based on rational, intuitive, and experiential categories. Rational decisions involve weighing up options during the evaluation phase of the problem or an issue. As these decisions are typically constrained by time, information and a set of clear objectives, the rational decision aspect therefore is important to understand in terms of planning and selecting a competition strategy (Lyle & Vergeer, 2013 pp.123). Intuitive decisions are based on experience and knowledge, which help to speed up the decision making, though this category must be approached with caution since there is no clear explanation on how intuitive deci-

sions happen (Lyle & Vergeer, 2013). Last category is experiential decision making which encompasses naturalistic decision making (NDM; Lyle, 2010).

Authors have proposed that the NDM framework fits best to explain coaches decision-making ability, as it relies on “recognizing the issue and using associative links to memory and knowledge stores from which the decision emerges” (Lyle & Vergeer, 2013 pp.123). NDM involves cognitive processes that are different from instinct-type decisions. The decisions are based on pre-recognition, re-consideration of options and anticipation of outcomes. In addition, these decisions happen in a complex and “chaotic” coaching environment in which specifically expert coaches are able “To bring measure of control by employing coping strategies, routines, allowing degrees of freedom in expectations targets, by the use of thresholds and key markers to decide what to attend to, and by using performance plans to maintain a focus on the main goals” (Lyle & Vergeer, 2013 pp.124). Lastly, authors point out that decision-making is a constant process that is central to coaching expertise and effectiveness (Gilbert & Côté, 2013).

Coaching skills and decision-making categories overlap and can become elusive, but according to authors these two categories explain how effective coaches can transform knowledge to behaviors through declarative and procedural knowledge (Côté & Gilbert, 2009; Gilbert & Côté, 2013). Though much importance has been placed on professional knowledge in research, the authors emphasize the “holistic” perspective of coaching which also applies to two other domains of coaching knowledge, interpersonal and intrapersonal (Côté & Gilbert, 2009).

### **3.3 Interpersonal knowledge**

One of the most important aspects related to effective coaching is the quality of the relationship between coach and the athlete (Jowett, 2017). Côté and Gilbert propose that for coaches to be successful, they must interact regularly with the members and people associated in a team (Côté & Gilbert, 2009). Based on the quality of relationship between the athlete and coach, the quality becomes the mediating variable that allows the coach to engage more ef-

fectively with the athlete (Jowett, 2017). Moreover, Jowett & Poczwardowski (2007) have proposed that mutual trust, respect, belief, support, cooperation, communication, and understanding are the most important aspects which can contribute to athlete performance and satisfaction. Additionally, Jowett (2017) suggests that a coach-athlete centered approach does not only explain the whole process and practice of coaching, but also its effectiveness.

### **3.3.1 Emotional Intelligence**

Altogether, the interpersonal knowledge is based on reciprocal interactions between the coach and the athlete, and it places emphasis on coaches' social and interpersonal skills and knowledge (Gilbert & Côté, 2013). Authors have said that since emotions play a fundamental role in interpersonal relationships, they imply that the field of emotional intelligence (EI) may explain the way effective coaches are able to recognize and use emotions to manage relationships and their personal behaviors (Gilbert & Côté, 2013). Mixed, and ability approaches have been used in EI research. The latter and mostly accepted method, ability approach suggests that emotional intelligence can be developed and measured objectively, as opposed to mixed approach which has not shown to have clear scientific validity due to difficulties of measuring personality traits and emotional competencies in coaching (Bastian et al., 2005; Meyer and Fletcher, 2007).

To understand how people use and utilize emotions, emotional intelligence four branch model by Mayer and Salvoey (1997) was developed to explain the phenomena. The framework emphasizes the importance of recognizing, understanding, and effectively using emotions as a key aspect of personal and social functioning. It has been widely influential in the field of emotional intelligence research and has informed the development of various EI assessments and training programs. According to Gilbert and Côté, effective coaching interactions can be understood from this four-branch model which includes the coach's ability to identify, use, understand and manage emotions (Gilbert & Côté, 2013). Shown in Figure 6, the first branch includes coaches' ability to identify one's own and others emotions in order to facilitate communication and to prevent conflict. Second branch involves the coach's ability to use emotions such as joy, to generate enthusiasm and concentration in the athletes. Third branch

involves the coach's ability to understand emotions which suggests that effective coaches, who are able to understand their athletes' emotions, are also more likely to make sense of how their athletes react and behave in certain situations. This in turn may enhance coaches' ability to create better team cohesion and connection among the members, once the coach becomes aware of this ability. The last branch involves the coach's ability to manage emotions which include how to be aware of the emotion, and determine the nature of emotion, and how to solve emotional states effectively (Gilbert & Côté, 2013 pp.151). Since coaches work in complex sporting environments involving different emotional states of self and members of the team, the critical ability to evoke, arouse, as well as to manage emotions becomes an important asset for effective coaches to have (Gilbert & Côté, 2013 pp.152).

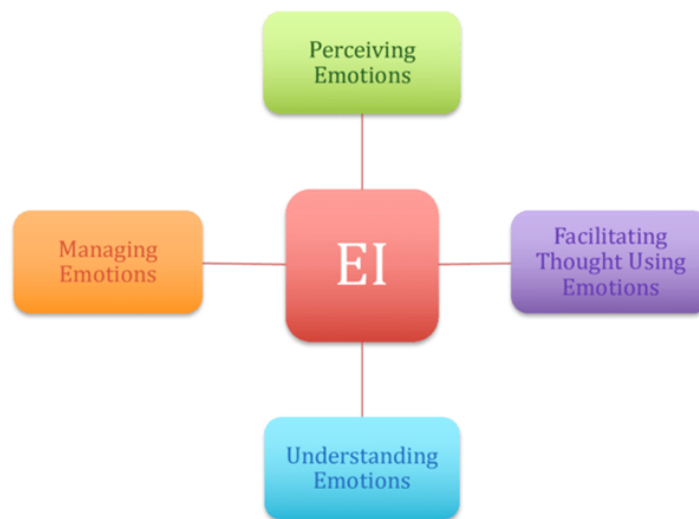


Figure 6. Emotional intelligence framework

Emotional intelligence plays a central role in coaches' interpersonal knowledge and relationships. In addition, transformational leadership behaviors have been highlighted as the most evident in the coaching effectiveness framework (Bass & Riggio, 2006; Turnnidge & Côté, 2018). Here, researchers have proposed that leadership perspectives are a central way to incorporate positive sports coaching behaviors, as of how coaches should choose certain behaviors in order to get the wanted positive effects out of their athletes (Turnnidge & Côté, 2018; Preston, 2022, Vella et al., 2010).

### 3.3.2 Leadership perspective in coaching effectiveness

As coaches have a lot of influence over athlete well-being and development, the central tendency to understand the behaviors has been modeled through leadership theories (Vella et al., 2010). Leadership in sports is described as “a process of interpersonal influence, dependent upon the relationship between coach and athlete, that facilitates the athlete outcomes of competence, confidence, connection and character” (Vella et al., 2010 pp.431). Moreover, multiple models have been used to explain certain qualities and characteristics of specific leadership behaviors and styles in coaching (see Cotterill & Fransen, 2021; Vella et al., 2010). Out of all models, transformational leadership (TFL) has shown to have the most positive effects in the coaching practice (Turnnidge & Côté, 2018).

TFL focuses on coaches' interpersonal behaviors and implies a process whereby leaders develop future leaders (Bass & Riggio, 2006). Moreover, TFL is divided in four categories (4Is) which are based on idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass & Riggio, 2006). Bass and Riggio have shown that TFL explains how effective and engaged coaches are compared to other leadership behaviors. Furthermore, research studies have shown that elements of transformational leadership have an impact on athletic performance, group cohesion, personal development, lower levels of aggression and intrinsic motivation (see Callow et al., 2009; Charbonneau et al., 2001; Tucker et al., 2010; Vella et al., 2013). Based on TFL models' 4Is, Turnnidge and Côté (2018) have proposed eleven essential behaviors in the Coach Leadership Assessment System (CLAS). Figure 7 shows how certain behaviors match each of the 4Is (Turnnidge & Côté, 2018). CLAS have been used to categorize specific behaviors that appear in the TFL framework more concretely.

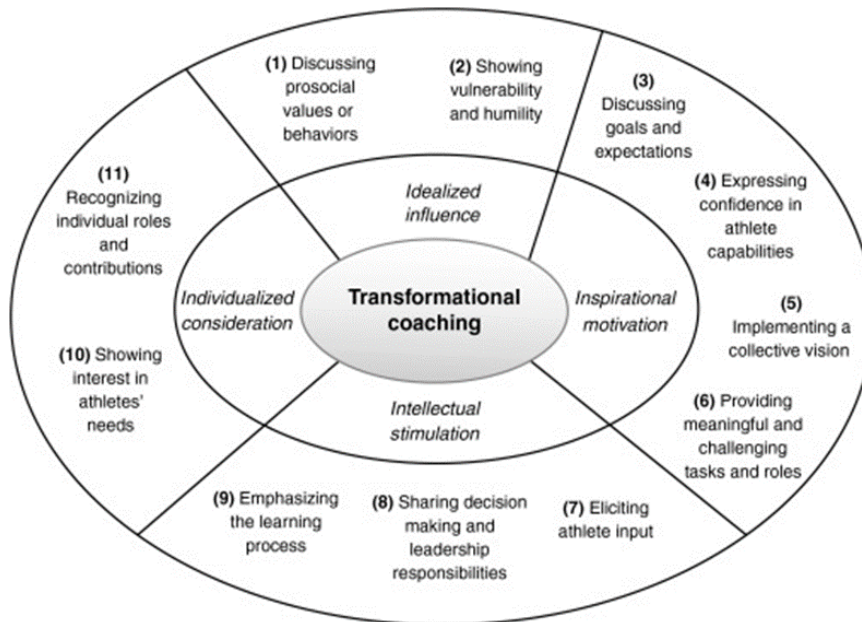


Figure 7. Transformational leadership framework

Chan and Mallet have found linked evidence that EI and TFL together have a greater impact on coach-athlete relationship (Chan & Mallet, 2011). Authors imply that leadership skills extend beyond technical and tactical knowledge and that these “soft skills,” such as emotional intelligence, motivation, and inspiration abilities are required by high-performance coaches to promote commitment and drive toward the achievement of a common goal (Chan & Mallet, 2011). In a leader-follower relationship, interpersonal relationships and trust are usually shaped by emotions and feelings between the two (Chan & Mallet, 2011). They also propose that poor EI may interfere with interpersonal relationship skills and trustworthiness of coaches, even if they show to be technically and strategically knowledgeable (Chan & Mallet, 2011).

Altogether, EI and TFL demonstrate effective coaching interpersonal knowledge characteristics (Gilbert & Côté, 2013). EI highlights the coach’s ability to understand and manage emotions that enhances the relationship quality between coach and athlete, whereas TFL encompasses the necessary and central coaching behaviors that increase athletes’ self-perception, ability, and motivation in sports (Turnnidge & Côté, 2018). Lastly, these two components illustrate the most important aspects of effective coaching characteristics and behaviors in interpersonal coaches' knowledge dimension (Côté & Gilbert, 2009). Future research is still



trying to find more support for the use of EI and TFL in elite-level coaching, since research in the area remains scarce (Chan & Mallett, 2011).

### **3.4 Intrapersonal knowledge**

Coaching effectiveness involves the ability to plan and make decisions, manage own emotions, and behave positively through own emotional regulation. In addition, intrapersonal knowledge has formally been defined as “understanding of oneself and the ability for introspection and reflection” through self-awareness (Chow & Luzzi, 2019; Côté & Gilbert, 2009).

#### **3.4.1 Self-awareness and Reflection**

A central aspect of intrapersonal knowledge refers to self-awareness, which has been proposed to be one of the cornerstones of emotional intelligence (Hopkins, 2011). A coach's self-awareness refers to the knowledge of thoughts, emotions, values, and behaviors and how they may influence coaching style and philosophy (see Chow & Luzzi, 2019; Lintunen & Gould, 2014; Lyle & Cushion 2011). Researchers have recognized self-awareness' importance in coaching effectiveness and overall athlete well-being (Côté & Gilbert, 2009; Smith et al., 1979). Based on Mallett and Lara-Bercial's (2016) research, self-awareness may mediate a variety of positive outcomes for coaches and athletes, such as stress reduction, coping skills, emotional regulation, and improved team performance. Although self-awareness has been postulated to be significant for effective coaches, Côté and Gilbert have argued that “knowing thyself” (as cited in Chan & Mallett, 2011) will not lead to development unless the awareness is accompanied by action.

Reflection has been described as an internal learning situation, where coaches actively engage with a previously existing idea or a thought of a situation, practice, game, or event (Gilbert & Côté, 2013). The theory of reflection by Donald Schön (1987) has been carried over to the sport context in the past decades. The central argument of the theory proposes that professional knowledge is developed through reflective conversations, which are triggered by

problems during the coaching practice (Gilbert & Côté, 2013). Professionals with their given roles engage in various problems and “act as filters which problems are constructed and strategies are developed” through the cycling of the problem situations and experimentation (Gilbert & Côté, 2013 p.155). At the center of the theory, three definitions and reflection styles have been proposed. These refer to reflection-in-action, reflection-on-action, and retrospective reflection-on-action (Gilbert & Côté, 2013). Reflection-in-action refers to the coaches' reflective conversations in the middle of a game or practice, where coaches consciously engage with ongoing situations directly. Coaches may seek to find out alternatives to the strategies or options when situations change. Coaches may recall and see a certain situation or a tendency in a game that might change their perception on how to solve the problem (Gilbert & Côté, 2013). Reflection-on-action refers to the process of reflective conversations that are postponed right after an event has occurred indirectly. These conversations are affected by several factors such as opponent, situation and time left in the game, time of the season, and personnel. Coaches who engage in these types of reflective conversations tend to wait till current strategies or adjustments have been made and engage in re-adapting new strategies if the opportunity still exists. The last reflective process refers to retrospective reflection-on-action or analysis of the practice, game, and season. These types of reflection refer to identifying mistakes and barriers after the game, or during the off-season when coaches usually engage in this type of more thorough reflective process through watching film, data analysis, as they try to identify mistakes and common issues that have emerged during the season (Gilbert & Côté, 2013). Moreover, reflection can serve as a learning tool, as coaches develop themselves through experiential learning through reflective conversations about coaching issues (e.g. Trudel & Gilbert, 2001).

#### **4. PURPOSE OF THE STUDY**

The primary objective of this thesis was to examine the coaching knowledge of successful head coaches in Finnish American football. Specifically, this study aimed to explore the perceptions and experiences of successful coaches and identify underlying themes within the coaching effectiveness framework proposed by Côté and Gilbert (2009). The goal was not to redefine what constitutes effective coaching in Finnish American football, but rather to investigate and understand the propositions and experiences of these coaches within the coaching effectiveness knowledge framework. To achieve this goal, the study focused on two of the most successful coaches in Finland over the past decade, considering that these coaches possess sufficient knowledge to explain effective coaching strategies and the essential coaching knowledge needed at an amateur level in the Finnish American football context. The following research questions were formulated:

1. What Finnish American Football Head Coaches' knowledge is perceived to be important?
2. Based on the coaching effectiveness framework, what are coaches' perceptions that can be used to explain successful coaching knowledge in the Finnish American Football context?

## **5. METHODS**

### **5.1 Role of the researcher**

I have been involved in American football in Finland for nearly a decade, both as a player and coach. During this time, I have gained a deep understanding of the sporting climate, culture, environment, and coaching practices in the United States and other parts of Europe. My experience in American football includes playing at the amateur, national, collegiate, and professional levels. Throughout my time in the sport, I have been particularly interested in team culture and group cohesion, a passion that began during my playing days in the United States. I have achieved significant success in American football, including winning the European Championship as a member of the European League of Football and securing a Finnish national title. Additionally, I have taken third place in the European National Championship with the Finnish national team. Over the years, I have developed strong relationships with European American football community and coaches, including those who participated in this study. In fact, I had the privilege of playing under the head coach with whom I won the Finnish National title. My recent work has focused on developing coaching education platforms for American football coaches in Finland, and this thesis is one of my contributions to this effort. I have worked on coaching-related aspects on both an individual and organizational level, with the goal of helping the sport grow in Finland. I am deeply interested in the coaching stories of my colleagues and the experiences that have shaped their approaches to the sport.

Through this research, I hope to both learn from their experiences and contribute to the development of American football in Finland. My relationship with the study's participants was based on mutual interaction, with both parties seeking to deepen our understanding of American football coaching. This thesis will also be used to generate ideas on how to further develop the sport in Finland. The hermeneutic approach is applicable to this research, as my personal background knowledge in the field allows me to emphasize and verify the topics presented. Here, it is important to note that my role as a researcher will play a significant part in this study.

## 5.2 Participants

As this is an exploratory study on coach's knowledge, based on the following criteria: (a) they are both former players and hold currently a head coaching position in two Finnish American Football teams at the highest leagues, (b) they possess ample experience, and (c) they have been coaching at the highest level for several years.

Two male coaches combined 30 years of coaching experience in total. Both coaches coach on a volunteer basis at the highest level in both men's and women's leagues. Respectively, both have coached in more than 6 national championship games and won 10 titles in total. Additionally, these two coaches have had the key role of leading teams to successful dynasties over the past decade. Due to scarce sample size the researcher wanted to protect the anonymity of the participants and disclose additional information regarding their privacy. Coaches were chosen to represent in this study through the purposive sampling method respective to the IPA methodology (Campbell et al., 2020). Initial assessment of the subjects was based on discussions with two head figures working in the department of the Finnish American Football Federation, who acknowledged these two coaches were suitable candidates for the research given their playing background and current coaching position. Second criteria involved looking at the benchmark records of both coaches for both men's and women's league, asserting that coaches have had success winning multiple championships in the past decade (SAJL, 2021). Third criteria involved weighing opinions from former and current players acknowledging their respective roles, contributions, and successes. From a scholar standpoint, emphasizing the performance outcomes' notion of effective coaching by Lyle (2002), these two coaches also filled the criteria of experienced coaches, who have proven to be successful over a long period of time. Similarly, the work of interviewing coaches in studies (see Gilbert & Trudel, 2004; Schempp, 1993) and regarding Côté & Gilberts' (2009) postulate of expert coaches were considered in the recruiting process. As such, the following aspects were considered as inclusion criteria in order establish homogeneous samples for the study.

### **5.3 Study design**

Given the lack of research conducted on Finnish American football coaches' knowledge, this research will follow a qualitative deductive method. Qualitative research methods have been used in the past to develop coaching models and understand the behaviors, knowledge, and strategies of effective coaches (Schempp, 1993). The present study was chosen to be a qualitative semi-structured interview. Researcher wanted to give voice to the coaches and their experiences, whilst understanding their perceptions and knowledge. The goal of qualitative research is to learn about perspectives, experiences, opinions, and motives. It is thought that qualitative approaches (e.g. interviews), offer a "deeper" knowledge of social processes than would be possible with solely quantitative methods, like questionnaires (e.g. Silverman, 2000; Smith & Sparkes 2016). Using a qualitative method and case study implementation was also more justified for examining coaching effectiveness and coaching knowledge as proposed by Lyle (2002). Due to scarce sample size, the data analysis was guided by interpretative phenomenological analysis (Smith, 2016). IPA has been used to understand and explore how individuals make sense of their experiences and world around them, and how their experience of the world and knowledge can potentially be interpreted by the researcher (Smith, 2016). Experiences and reflection of memories can be used to understand perceptions and ideologies evolved around what coaches have perceived to be important, effective and what has worked for them in the past, as knowledge is usually an experience and context driven factor for successful coaching (Côté et al., 1995; Côté 2006; Jones et al., 2003). Perceptions and knowledge have been emphasized in qualitative research to explain what constitutes effective coaching competencies (e.g. Côté et al., 1995; Jones et al., 2003, North, 2017). Researchers are also suggesting that expert coaches, their perceptions, and personal experiences should be one of the main research focuses in qualitative sports coaching research, since it seems logical to study successful coaches, instead of unsuccessful ones in order to develop existing frameworks in sport psychology and sport coaching research (Côté & Gilbert, 2009; Griffith 1925; Gilbert & Trudel, 2004; Horn, 2008; Jones et., al 2013).

### **5.4 Materials**

### 5.4.1 Interview guide

In this study, interview questions were based on the coaching knowledge and the conceptual framework of coaching effectiveness, which were guided by the works of Côté (2006), Côté & Gilbert (2009) and Gilbert & Côté (2013). The initial questions focused on the background and role of the coaches to identify some of their unique characteristics and qualities (e.g. How did you become a coach and why?). The second set of questions centered on coaching knowledge constructs, such as planning for training and games, coaches' perceived importance on education, planning, decision-making processes, and reflection. Finally, the last section of questions provided an opportunity for coaches to discuss other relevant coaching topics they considered important to their success and effectiveness (e.g. What do you think has been the most rewarding thing about in the past/coaching?).

This study was conducted in Finnish language and translated later in English to preserve the original meaning of the answers. As noted by Squires (2009), cross-language barriers between the researcher and study subjects may lead to unreliable data. Prior to conducting the interviews, a pilot study was conducted with two coaches, one in English and one in Finnish. The results revealed differences in answer quality, which raised concerns about the language selection to be used in the interview. As a result, some modifications were considered to give more space to participants to describe their experiences and gain a better understanding. For example, the question "Are relationships with your players important to you?" was revised to "Can you describe the importance of relationships with your players?" Overall, the translation of the interview questions into Finnish and the modifications made to the interview format aimed to ensure the validity and reliability of the data collected in the study. Additionally, prompt questions were added to facilitate more thorough answers. Following the pilot study and revisions to the interview format, the interviews were conducted with the participants in the study.

## **5.5 Procedure**

This study followed ethical guidelines as outlined by the Declaration of Helsinki's (2022) general principles. The research ethics committee was not informed as it was not necessary for this research. Prior to the interviews, ethical considerations were made. In order to protect participants' privacy, interview questions were designed to be conducted in a neutral manner, avoiding in-depth tactical or strategic questions. Coaches were assured that they had full autonomy over their answers. To protect participant privacy, indirect identifiers such as team names were not mentioned, and pseudonyms were used for coaches, referring them to as Coach A and Coach B (Lahman et al., 2022). After initial telephone discussions, both coaches agreed to participate in the study and were sent detailed information about the research via email, including aims, procedures, and ethical considerations which included to ensure anonymity and data protection during the research. Both coaches were given the possibility to forfeit from the study. Consent forms were signed prior to the face-to-face interviews, which were conducted in the coaches' personal offices which both lasted a maximum of 50 minutes. The questions were designed with a similar structure for both participants, after which the interviews were recorded on the researcher's personal laptop and stored on the researcher's computer. Answers were verified by the participants through member checking two weeks after to ensure credibility of the answers.

## **5.6 Data analysis**

The researcher transcribed the interviews word-by-word and used rough translations to convert the audio to a written format for further analysis. The answers were translated from English to Finnish language. Researcher cycled the audio recordings multiple times after which the corrections and simplified versions were made. Once the researcher felt that the sentences matched the translations, they were transferred over to an excel spreadsheet for further analysis. Questions followed the knowledge framework (Gilbert & Côté, 2013) to give structure to the interview protocol. Each paragraph was analyzed line-by-line so that the core idea of the answers could be found and clustered together thematically (Smith, 2016). To improve accuracy and reliability, a second coder was used to verify and expand the themes that emerged



from the answers. IPA was used for in-depth analysis of personal lived experiences, their meanings, and how people interpret these experiences. (Smith, 2016). According to IPA, people's subjective interpretations of various objects, events, and practices within a certain context determine how real something is (Smith, 2016). Participants are regarded as experts in their fields; thus, the researcher and coaches collaborated through hermeneutic approach to interpret and explain idiographic descriptions of the phenomenon that shed light on their thoughts and ideas (Smith, 2016). To gather data for the current study's purposes, IPA was selected as a practical methodological strategy. Given the freedom that IPA acknowledges in the data analysis process, the iterative process was used to identify recurring patterns, statements, beliefs, ideas or actions by the participants. The researcher went through the data several times in order to cluster the answers under initial sub-themes that each line and paragraphs produced. After the initial sub-themes were configured, the researcher mapped this information under higher order themes to match the answers according to the research questions. Themes were revised several times and extracts were taken from the interviews to a data-map that would allow researchers to move around and between themes to cluster them more concretely to explain the higher order themes.

## 6. RESULTS

The two interviews combined a total of 25 pages worth of data. In analyzing the data, raw data was sorted into lower order and then higher order themes (see Figure 9). Four major order themes were found: stories, creating climate, culture and collective thinking, importance of planning and decision making, interpersonal development and learning. The structure of the themes encompasses attributes that evidently interact with one another but to understand the meaning of the answer better, these themes were presented in separate sections.

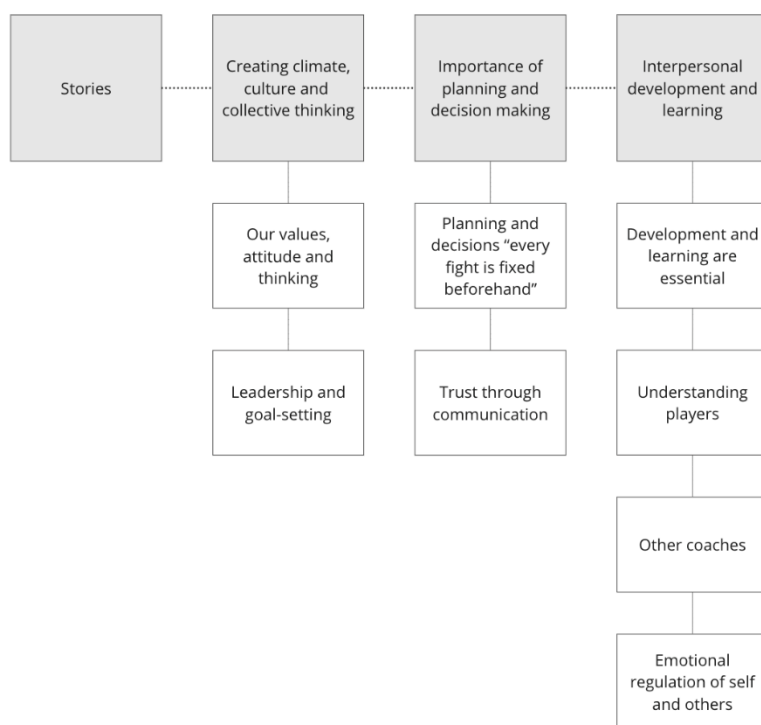


Figure 9. Themes of perceived effective coaching knowledge

### 6.1 Stories

Following narrative dives into the coaches' personal perceptions and ideas of their coaching practice and process. To begin with, both coaches shared their personal turning points of careers which would serve as the beginning of their successful journeys. Both coaches reflected on their unsuccessful turns of events that had allowed them to realize what needed to be changed in their coaching practice. Coaches described that after these events, things started to

change and allowed them to identify building blocks for longer success, as the following quote exemplifies:

*“In 2016, we lost in the playoffs and during that time I was interested in managing the coaching process. In 2017 we held a Super Bowl night, and I brought a bunch of old annual reports from my basement. In the report I shared with the team about this one specific chapter made by () called “Only the sky's the limit”. We had one guy who was a bit goofy (redacted), but in a way was really good at telling stories. He took the citation and managed to create a slogan for our team, which kind of translated to a power phrase that made us believe in a common purpose. This resulted in defeating an undefeated team that year and winning a championship. However, this only lasted a year because people only understood that once they've reached the goal it was not enough to keep the team going towards continuous improvement or winning. I realized that I needed to find something that is more efficient and longer lasting in a way to keep the team going”. Coach A*

For Coach B, instilling long-term success stemmed from years of having unsuccessful events that ultimately came down on changing the whole organizations layer by layer:

*“Football program in 2012 established in 2011 after (redacted) initiated change during the men's season. The main spark for the program was the losing season and that's where we wanted to turn things around. As background information, (redacted) traveled to (redacted) and took the idea of a “football program” which was not used in Finland at that time. Through that we found a spark. The biggest motivation for this was to bring successful athletics and persistence to our sport culture, which became apparent in athletic readiness through workout plans”. Coach B*

## **6.2 Creating climate, culture and collective thinking**

Two lower order themes were configured to present the creating climate, culture and collective thinking theme. These were values, attitude and thinking, as well as leadership and goal

setting. The data here explores the central categories of team culture that both coaches emphasized to be relevant for their coaching success. Furthermore, these lower order themes were used to describe the types of ideas that explain how the lower order themes correlate to culture and climate that coaches set for their players for better performance. It was noted that both coaches emphasized having a structure and an environment for their teams where players can solely focus on performing to their best potential. For example, Coach B said: *‘Everything in the background behind is well established and designed for players that they have easy access to join practice and commit to the cause’* and that part of the culture was to create an environment that enables collective commitment, as the following quote indicates:

*“The climate, the environment, and commitment have been the main keys to our success. Those who wanted to come to work, have done the work, and have had the same common goal and gone towards that goal we wanted to achieve”*. Coach B

### **6.2.1 Our values, attitude and thinking**

Both coaches described that they had incorporated core values, beliefs, attitudes and thinking that shapes the team to think about their behaviors and performance collectively. Establishing a coherent team culture and environment was based on thinking, where the collective attitudes, beliefs and behaviors are guided by *‘values and systems in which we work’* (Coach A). Moreover, values were presented to everyone in the team, so that players would understand what type of ideology guided their principles and behaviors within a team. For example, it was said that *‘core values guided our collective behaviors and decisions in the team’* (Coach B) and that incorporating players' input and ideas in value creation enhanced the collective team ideology. In addition, values like *‘persistence, commitment, internationality, equality’* (Coach B) were shared among the team, as this was proposed to help shape a team's individuals thinking towards a similar and collective mindset. Moreover, values were described as the foundation for the type of thinking that was proposed to shape beliefs and attitudes towards their team goals. For example, it was believed that values helped to form a basis for how players should think, mostly emphasizing their attitudes which were described to play a certain role in the process:

*“Thinking is based on 3 things, things you cannot control, things you can control but you can't change the perceptions of others. In the center, it's always your own attitudes, how you place your attitude towards something. Attitude has a huge benefit, and these are the things people should put their effort in”.* Coach A

Attitudes were based on ideas such as *‘we believe that our players are committed more than other players’* (Coach B) and questions such as *‘are we the best here, are we doing and speaking relevant things to our goals’* (Coach A). Moreover, it was said that attitudes help to form an idea of *‘what we believe in and what we will sacrifice for’* (Coach A) during the process. Values were described to be cornerstone to the culture which consists of common attitudes and thinking, but also the ideology of focusing on internal team functions. Instead of emphasizing winning the games, as Coach A proposed that success started with how well the team functions internally:

*“People realized that when we focus on internal success and our own process and emphasize the internal processes instead of focusing on others, we are doing much better. Winning championships becomes the by-product of a successful internal process. It was more important to strive for the best and most optimal inward team potential in which winning games became the by-product in a sustainable way. I think this essentially helped us to achieve four championships in a row and two final placement spots”.* Coach A

### **6.2.2 Leadership and goal-setting**

Coach A commented that *‘you can't just say that culture is present if you don't do things according to those things you set out to do them’* (Coach A) which implied that culture needs to be combined with actual behaviors. Moreover, Coach A had studied leadership and spent time on the topic basing this on his civil job, later combining this to his coaching work. The types of leadership aspects were related to upholding the cultural standards and attitudes which he described to have *‘greatest benefit to our team’* (Coach A). Leadership influenced a lot of the

aspects which include reinforcing thinking and attitudes based on the culture and climate. It was believed that coaches need to learn how to lead the climate and environment as it leads to better performance:

*“Fundamentally, you should always learn how to lead the environment and emotional climate. This will usually lead to better action performance and better outcomes; this will usually come down to a circling process that feeds itself and keeps on going”.*

Coach A

When talking about changing some aspects in a team, Coach A believed that the fastest and most efficient way to initiate change in teams was to incorporate players to fulfill leadership roles. Ultimately, the combination of leading players and having them to fulfill leadership roles were presented to explain how team culture was established and maintained. In his words, *‘you usually lead tasks and people’* (Coach A) and combine these with the goals the team is ought to pursue.

Goal setting was discussed in terms of how coaches lead their teams towards a goal. Leadership in this sense was discussed that coaches can not solely *‘coach and lead according to end goals, or base goals on “winning championships”’* (Coach A). This idea of breaking down end goals was set so that smaller goals could be overseed and recorded in the process that led to pursue the higher goals:

*“We will win more by putting better numbers. You have to chop these end goals to smaller goals, and what you as a coach should do is to monitor these processes and lead the behaviors in which people are to pursue those goals. These aspects such as tackling better in skill coaching, and drilling and repeating these behaviors well enough. These things need to be broken down into smaller details, but I think that these are essential things that allow you to pursue those bigger goals.”* Coach A

Coach B had noted that goal setting was not based only on a team level and what they aimed to achieve within a season, but on long-term planning of what the whole organization aimed

to pursue. Part of his perceived importance and interpretation of goal setting came down on incorporating players input in goal setting, and monitor constantly where they were, and what they wanted to achieve, as their mission was to establish an organization that strives for long-term success:

*“On athletic side goals, on the organizational level goals were mirrored and based on where we were, and what we wanted to become. It was a holistically, persistently designed, goal-oriented action plan that was made for the long term”.* Coach B

### **6.3 Importance of planning and decision making**

Importance of planning and decision-making was categorized from two lower order themes: Planning and Decisions “every fight is fought beforehand”, and Trust through Communication. These lower order themes describe how coaches perceive the importance of planning and decision making, and how trust and communication play an important part between the two categories.

#### **6.3.1 Planning and decisions: “every fight is fixed beforehand”**

Both coaches noted that planning was one of the most important aspects in coaching. The central tone of the answer implied that both coaches valued planning as a valuable tool in their personal coaching processes’ that encompasses multiple aspects in their coaching practice as they propose that it allows them to be prepared for practices and games:

*“Planning is extremely important. It is so much easier to do things when things have been planned out, it is like everything is already halfway done”.* Coach B

*“Planning becomes an integral part of the process. It's evident that planning takes place everywhere, for practices, people and games. I think that it's central to football. it's a “every fight fixed beforehand”. Meaning that there should not be a situation which you encounter the first time. I think that you need to at least go through differ-*

*ent processes before the situation becomes apparent*". Coach A

Coach A stated that planning needs to be done in terms of the context and limitations well before-hand. In addition, the insights propose that *'plans require fast changes, and this is where you need to change your plans accordingly, especially in a football team'* (Coach A). Referring to agile thinking, planning needed to hold a certain amount of freedom so that coaches have more room to adapt to issues when they appear. Furthermore, it was stated that planning needs to go deep down in layers and thought carefully based on *'scheduling, week schedule and curriculum, training programs, financial planning'* (Coach B).

Altogether, planning played an important part in coaches practice, as did the decision making. Coaches described that decision making must be *'logical and coherent'* (Coach A) and that decisions need to *'serve the common good'* (Coach B). In addition, decision making needed to be sustainable and carry over long-term:

*"Your decisions must be sustainable. You can't just decide on how you feel today, also it would be good to commit to the decision for a while before you make new decisions. It's like if it's raining today you don't decide to do certain things on that day as if the sun was shining, you would do those things on that day, it's that you just don't jump to other decisions as if "you were in the wind". Decisions must carry over and they need to be sustainable"*. Coach B

Moreover, Coach A noted that decision should not be reactive but handed together with planning so when issues emerge there is way to deal with the problems: *'planning is based on game and practice, it is pretty obvious that you need to make adjustments based on players, personnel, gameplan which some of these should not be based on reactive decision making'* (Coach A). Decision making was thought to be effective when planning had been done well-beforehand and accompanied with possible scenarios.



### 6.3.2 Trust through communication

The lower order theme was used to describe what other elements were considered in the decision making. Coach A considered some players approach in the decision-making process, as it enabled trust between the members when they became familiar with the respective roles in the decision-making process:

*“I usually consider players' approach and take some of them in our decision-making process. I think it's important to have some players to become part of that and I think that knowing each other in a team builds trust”.* Coach A

Coaches work in an environment where they make mistakes constantly. Coach A noted that even when bad decisions happen and players do not always approve with all their decisions but *‘if they trust you, it usually eases up the buy-in process even if it gets ugly sometimes.’* (Coach A). It was thought that if coaches make inconsistent decisions when holding a leadership position, players will lose confidence if they do not fundamentally *‘trust their leader, since leader, assumably makes the best decisions’* (Coach A). In addition, Coach A felt that being true to oneself and showing authenticity will enable trust between the coach and players.

Communication was one of the main focuses when decisions and information had to be reasoned and communicated effectively to team members. Here, coaches described the role of communication in their coaching. Coach B noted that ultimately what has made them so good is the fact there has been *‘cooperation, trust and open communication’*. He had also stated that asking questions and enabling open and honest communication becomes the most important aspect, as it enables consideration, wants and needs of both athlete and coach:

*“Whatever questions you have, you can always ask, and you always should ask. That is the cornerstone of it. Goal setting and common things that are important for success need to be communicated effectively and openly, and it should be as transparent as possible.”* (Coach B)

Effective coaching came down to how well coaches communicate knowledge and information to others. Here, Coach A implied that part of his personal motivation to coach better came down on how he can *'explain and communicate or teach some concepts more simply'* (Coach A) as he felt that communication served the purpose of identifying and removing barriers in the coaching process, whilst allowing players to understand subjects in a more efficient manner.

#### **6.4 Interpersonal development and learning**

Third higher order theme included aspects that explained coaches' interest in development of others and self, and how interpersonal skills and emotional regulation appear in the dyadic relationships. Moreover, these themes presented descriptions about development aspects such as learning, and how they achieve these through reflection and understanding their players individually. In addition, as coaching work does not happen in isolation but consists of working with other coaches, their perceived qualities were discussed to be important as well. Lastly, emotional regulation was one of themes that was involved in the player management.

##### **6.4.1 Development and learning are essential**

Development was described as the *'key principles of effectiveness, regarding features like Individual learning, growing and development'* (Coach A). For Coach A, development was a central aspect in coaching, as he felt that when one takes on the coaching role, the main purpose was to develop individuals to their true potential as Coach A stated, *'you should always strive to develop and find the best potential out of a person without quitting on them'* (Coach A). Moreover, individual development according to Coach A came down to pushing people in and out of their comfort zones, as it was his job to guide players to find a zone that challenges them to go further:

*"You cannot develop people if they are constantly out of their comfort zone, it's a constant going back and forth and then finding that one zone further that allows you to become more comfortable with that new area."* (Coach A)

On a personal level, Coach A felt also that his motivation to coach was that he got to learn and develop more in the American Football coaching, and that it was described as a constant process: *'There is so much more that you can learn when you coach, it's non-stop.'* (Coach A) Other topics that were discussed in terms of development were based on one's own coaching behaviors as *'reflection may be beneficial in terms of developing coaching and behaviors'* (Coach B). In this sense, reflecting one's own behaviors was proposed as one of the aspects that coaches should develop. In addition, knowledge development was discussed in terms of how coaches need to continually focus on developing their existing knowledge because other people around would potentially outperform them: *'You need to develop your existing knowledge. If you keep doing the same stuff over and over again, others around will outperform you'* Coach A. In addition, Coach B believed that knowledge is insufficient if one does not enhance and develop their knowledge and utilize this in the real world: *'The most important aspect is to keep enhancing and improving learning and to bring the knowledge to a real coaching environment as soon as possible.'* (Coach B).

For both coaches, learning was essential, as they both had spent time on studying and learning through *'watching videos'* (Coach A) and *'practical, do-as-you go'* (Coach B) approach on their own. Seemingly, both coaches noted that they had not partake of any formal coaching education, mostly relying on learning from informal, and practical real-world sources. However, this information presented an underlying theme that whatever learning methods one ought to use, coaches should always strive to learn more: *'Coaching is based on how much you are willing to learn. If you don't want to develop yourself to become a better coach, your career will not go anywhere.'* (Coach A).

Coaching learning consists of reflecting on opportunities and mistakes, and part of the coaching job was to learn from these. It was noted that reflection takes place usually at the end of the season *'where we chop down all the big issues and face the hard questions that no one wants to deal with. This again is part of the learning curve and essential for us so we can get better'* (Coach A). Furthermore, during the time of the season it was more important to focus on things that allowed them to focus on learning from mistakes and identifying them so they would not happen in the future:

*“My colleague and I had a thing after practice where we had a discussion based on two things a) What did we do well? and b) what we needed to do differently in order to get better? That would be great if you'd do it at an organizational level every time, so that you would not focus on the negatives because it does not help you come up with solutions. But how can you manage bad things so that they won't happen again in a sense”.* Coach A

#### **6.4.2 Understanding players**

Coaching does not happen in isolation, as this theme was used to describe and understand what perception coaches held when working with players or *‘the only aspect that enables coaching to happen’*(Coach B). Evidently, both coaches noted that knowing their players was crucial for successful coaching. Coach B implied that he considered *‘their individuality, background, their difficulties in learning ‘and how well they individually respond to coaching’* as these were the central aspects he considered in the interpersonal relationships. Coach A noted that understanding players perspectives, feelings, wants and needs came down of having one-on-one discussions:

*“sitting down with players and getting to know them more in depth. What they do, where they work, because these types of questions will open more doors to you know and allow yourself to become more knowledgeable about them. We also have formal and systematic feedback sessions that are also based on questions on what the player wants to achieve and what their primary reason to play are. This will help us in the coaching process”.* Coach A

Coaching is a circling process where feedback becomes the central way to develop athletes. According to coaches, the relationship helps coaches to analyze what type of feedback they should give to them and how they are able to combine team goals with athlete wants and needs. For example, Coach B said that being open to feedback from players helps him to understand his players motives better and allows transparency in the communication: *‘Being*

*open to feedback that you get from the players and that the feedback from coaches can be combined with the goals, wants and needs of an athlete'. (Coach B)*

Moreover, understanding an individual player's perception was based on coaches' ability to be aware of different coaching styles, since players showed variability and differences in responding to coaching styles. For example, it was said that *'it is how well you know your player's perceptions, response to feedback and how they adapt to different environments and ultimately how you can change your coaching based on those aspects.'* (Coach A)

Lastly, both coaches expressed that their biggest motivation and *reward came through how much they have had an impact on players as Coach A noted that 'I get excited when people achieve their goals with my help'* (Coach A), whereas coach B thought that *'I think it's pretty neat to see a person who I have been able to coach and impact someone's lives somehow, whether it was athletic or in real-life success on how they became successful on that journey'* (Coach B). Given the notion, both coaches described that affecting players stemmed from their intrinsic motivation to develop them and give them opportunities to succeed. Part of Coach A's coaching philosophy was based on integration from John Wooden's philosophy: *'never giving up on people people' and 'developing them to their full potential'* Coach A. Coach B did not present any clear philosophical standpoint or perceptions to his coaching, but stated the following in terms of the commitment that he wished to receive: *'if I give something, I would like to get something in return, or if I commit to something I hope to get the same commitment back in return'*.

### **6.4.3 Other coaches**

Understanding players' perspectives was crucial but it was important to apply other coaches and coaching characteristics in the process. American football consists of multiple coaches and the head coaching role was to manage not only players, but also recruit coaches that allow coaching to happen on an individual level. Both coaches described the types of qualities they look for in other coaches, as this presented a perspective of what type of people they prefer to work with. For example, it was said that *'head coach workload is eased a whole lot*

*by how much individual coaches can bring to the table, help in the process of bigger picture and take some of the workload off from the top of the hierarchy.'* (Coach B) Characteristics that assistant coaches should apply were based on ideas like *'how well they come along with others in the team'* (Coach A) and *'how well the coach can holistically manage individuals'* (Coach B).

Specific qualities that were preferred by the head coaches were proposed *'coaches need to know how to study and teach concepts'* (Coach B) and showing ability to *'interpersonal skills and eagerness to become a better learner are the most important aspects for coaches'* (Coach A). Coaches in this sense need to know how to work with individuals and understand their backgrounds, as it enables *'smoother operations'* (Coach B). Coaches should also display a certain amount of autonomy, referring to a notion that coaches cannot be guided continuously by the head coach as it was one of the *'worst qualities'* that a coach could have (Coach B). Lastly, having the ability to teach concepts and emphasizing pedagogical aspects in coaching was proposed to be the second important aspect for assistant coaches.

#### **6.4.4 Emotional regulation of self and others**

Both coaches discussed that their main role was to instill a calm and neutral emotional climate when working in the head coaching roles. Being neutral and calm was believed to have a positive effect, as *'emotional ranting'* (Coach A) and *'showing negative emotions like anger and frustration'* (Coach B) were proposed to have a negative effect on players' focus and attention. Coach A noted the following:

*"I am naturally a pretty calm person. I never engage in emotional rant talk. If I'd allow myself to go up and down with my emotions, I don't think that would benefit my team in any way. I need to remain confident and calm, because if I don't do that it takes away the focus from everyone else on the team."* (Coach A)

In addition, both coaches felt that if their players would have any emotional outbursts they would like to be involved in those situations and try to manage negative emotions as *'com-*

*pletely shutting down emotions*’ (Coach B) would be harmful and hurt the team. Furthermore, Coach A noted that since players cannot change the way their emotions, it was more of his job to guide the way they place their attention and focus on their feelings:

*“I don't think it's my responsibility to change the way people think or how they should behave, but if they are not focused then I intervene with them. I don't need to guide people's emotions at the given moment, a person cannot change the way they feel, but they can change their attitude towards their feelings and concentration.”*

Based on showing of negative emotions, coach A implied that aggressive emotions such as “anger” would serve the purpose of eliciting concentration and focus, but that these emotions should be used cautiously. *‘There is a time and place’* as stated by both coaches, which implied that emotional regulation takes place in a certain context, and that coaches would need to be aware how emotions and feelings affect their players' perceptions and team’s performance.

## **7. DISCUSSION**

### **7.1 Main findings**

The main purpose of this study was to understand what knowledge coaches held and what they perceived to be important in coaching, and how this information matches with current coaching expertise and effectiveness literature. The research utilized the coaching effectiveness and the coaching knowledge frameworks to guide the research process (Côté, 2006; Côté & Gilbert 2009; Gilbert & Côté, 2013). Since these answers consist of multidisciplinary aspects, broad categorizations can be made on and of the models (Cushion 2007). The perceived importance of knowing about coaching practice, how others work, what others would need to know presents the interchange of knowledge constructs. The study also shows the multifaceted, complex, sometimes chaotic nature of coaching (Cushion, 2007). As such, this discussion will add to the models “of” coaching process as they represent the variability and use of models in the real world. Most of the answers from this study could potentially be studied individually and more in-depth (e.g leadership, emotional intelligence) to facilitate more concrete extracts on how the information could be mapped together with other coaching frameworks. However, the present discussion is presented in terms of the more general interpretations that can be used to identify what coaching knowledge appears in the Finnish American Football context.

Both coaches presented unique information about their coaching practice, process and philosophy. The interviews represent how they have generated some of their cumulative knowledge of their own coaching and how some of the information can be mapped in terms of coaching expertise, coaching effectiveness and application of coaching knowledge (Côté & Gilbert, 2009). Given the fact that athlete’s psychological outcomes (competence, confidence, connection and character) were not assessed in this research, the research relied on performance outcome notion and successful coaching anecdote based on coaches’ long-term attainment and how this is presented through coach’s personal knowledge of their practice (Côté & Gilbert, 2009; Lyle, 2002 pp.254).



### **7.1.1 Informal learning – Stories to reflect**

Current research began with coaches' background stories. Storytelling was not proposed as one of the components of the coaching knowledge framework. However, given the interpretation on coaches' reflection, contextual meaning of storytelling may provide an insight on coaches' personal coaching philosophy and give practical examples on how the history has impacted their personal development (Carless & Douglass, 2001). Based on the importance of coaches' storytelling and reflection, work from Carless & Douglass (2001) propose that stories provide an explicit link between the theoretical/abstract level and the practical level of individual lived experience which allows people the opportunity to reflect on and learn from events or moments in their own and each other's histories. This matches the coaching knowledge framework paradigm on how coaches reflect through retrospective reflection-on-action to identify barriers and issues in coaching practice (Gilbert & Côté, 2013). Furthermore, stories may serve as a "good recipe for practice" as coaches have pondered the turning point of their coaching journey, further finding ways to enhance their own practice through key learning moments (Jones et al., 2004 pp.2; Cushion & Lyle pp.236, 2010). In addition, these coaches' insights additionally support coaches' informal learning proposition as they have learned mostly through practical coaching experience (see Trudel & Gilbert, 2001; Nelson et al., 2006).

### **7.1.2 The climate and environment**

Both coaches reflected on the environment, goal setting and values guiding the team building process. Based on the environment and climate, coaching effectiveness has been discussed in terms of achievement goal theory (see Roberts & Walker, 2020) and motivational climate (Duda, 2001; Horn, 2008) as these may be interpreted to match to the current findings. Based on AGT, the motivational climate has been used to explain increased team performance motivation through task and ego related motivational components (Duda & Hall, 2001). Moreover, these two components have been related to goal setting which have shown to positively

affect intrinsic motivation, pleasant emotions, beliefs about oneself and sportspersonship (see Duda & Balaguer, 2007). Future studies could potentially focus on these aspects, as Coach B stated that climate has been one of the contributors to their success. More precise information could be linked to Coach A's insights as he had noted that creating climate and culture was one of the core principles in his coaching. Referring to culture and components such as thinking and artifacts, the insights encompass developing a positive team culture which mimics Edgar Schein's three-level theoretical model of organizational culture (see Schein, 2010). The model implements artifacts, values, beliefs, and core assumptions to facilitate certain types of common and goal-driven thinking and behaviors towards collective purpose by all group members (see Schein, 2010; Horn, 2008). Moreover, Coach A's insights refer to coaches' ability to create and establish a team culture which are contributing elements to success, similarly to those presented on organizational and team culture research and studies (see Bennie & O'Connor, 2011; Cole & Martin, 2018; Johnson, 2014; Schroeder, 2010; Wagstaff & Burton-Wylie, 2020).

### **7.1.3 Professional knowledge and Coaching leadership**

Coaching qualities and characteristics in this study mirror coaches as people who can manage, lead, plan and interact with a team and individuals through goal setting and decision making. In addition, goals needed to be concrete, sustainable, and applicable to everyone in the team. More importantly, the coaching process and knowledge represents the focus on internal optimal functions that allow the teams to focus on and enhance their own performance. To map this knowledge according to the model, Côté and colleagues have presented that transformational leadership behaviors may serve as positive principles for long-term effectiveness (Gilbert & Côté, 2013). Here, the information that coaches gave matched those in the TFL framework (Bass & Riggio, 2006). Both coaches were setting goals according to the people within a team and wanted to make sure that athletes were part of the decision-making process. Broadly, based on the TFL model 4Is': discussing goals and expectations, eliciting athlete input, sharing decision making, leadership responsibilities, implementing a collective vision were interpreted to match the findings from this research (see Bass & Riggio, 2006; Turnnidge & Côté, 2018). In general, these answers could be configured to present some pro-

cedural and interpersonal knowledge components. No findings could be linked directly to the NDM framework (Lyle, 2010) since coaches did not reveal any concrete examples on how coaches specifically make in-action decisions during the practices and games. However, given the fact that coaches decision-making was based on incorporating athletes input, this information may present and support a notion of participative decision-making style (see Kaya, 2014).

Based on the NDM framework, this multifaceted construct may indicate how coaches in current context have used key-threshold markers, such as allowing athletes to become part of the decision making so it enables trust or emphasizing planning everything well-beforehand by bringing a measure of control to their practice, so that decision-making is not reactive (Lyle & Vergeer, 2013). In addition, planning and decision making were proposed to be essential for these coaches. Overall, the findings of the perceived importance of decision-making and long-term planning in this study were similar to a study that examined 16 expert coaches, further supporting notion of how expert coach place value on planning and decision-making in the coaching practice (see Abraham et al., 2006).

#### **7.1.4 Interpersonal knowledge - Trust and communication**

Second important finding from the research showed that these coaches' coaching practice was based on trust, co-operation, values and communication with other people in the team, presenting a myriad of distinct functions that appear in the interpersonal knowledge category (Gilbert & Côté, 2013). First off, both coaches agreed that coaches needed to know how to teach, regard individuals and understand their backgrounds. The perspective of “holistic coaching” according to Côté & Gilbert (2009) is clear here, as coaches were not solely focusing on the sport coaching itself, but also to their athlete's psychological wants and needs. Given information can be matched to themes that were being discussed in the work by Jowett & Poczwardowski (2007) and Jowett et al., (2017), where mutual co-orientation is based on communication and trust, in which coach-athlete relationships in the team contribute to better coaching environments (Jowett et al., 2017).

In addition, the communication theme falls under emotional intelligence construct, where coaches regard wishes, needs and wants of athletes in the dyadic relationship (Gilbert & Côté, 2013). Additionally, head coaches valued communication similarly to the coaches who emphasized the role of clear and transparent communication having a positive effect on the relationship (see Zakrajsek et al., 2020). Furthermore, both coaches agreed that their involvement in conflict situations was important. Coach A noted that guiding his players' attention and attitude towards their feeling was more important, since he believed that trying to modify players' emotions would be less effective. This approach has recently appeared in emotion regulation research, as coaches may seek to alter meta-experiences of athletes' knowledge, attitudes, and preference towards their own emotions to enhance performance (see Hanin, 2000; Ruiz & Robazza, 2020). Given their personal emotional regulation skills or preferences and coping styles, both coaches acknowledged that they needed to remain calm and neutral and not evoke any unnecessary emotions since it may interfere with player and team performance. This implication can be identified to describe supportive coaching behaviors where coaches seek to find positive ways to modify their athletes' behaviors through their own emotional coping while not being a source of stress (see Nicolas et al., 2011; Jowett & Lavallee, 2007).

### **7.1.5 Intrapersonal knowledge - bigger picture and personal philosophy**

Though much importance has been placed on practical and tactical knowledge of coaches (Muir et al., 2015; Gilbert, 2016), coaches at the top of the teams tend to focus on the bigger picture and manage others in the process. To understand how coaches become good at what they do, they need to have critical knowledge on how to identify mistakes and focus on positive aspects that can further enhance their team performance. Secondly, having values and beliefs reflect on the principles that coaches set for themselves and others around in the pursuit of establishing a successful team. Both coaches presented different insights on their philosophy, presenting the complexity, definitional and conceptual meaning of coaching philosophy, and adding to the discussion of the current stance of coaching philosophy in coaching practice (Cushion & Partington, 2016). In general, coaching philosophy serves as a principle of how one goes by in coaching, relying on values, beliefs and principles that guide their

coaching practice (Lyle, 2002). Here, the underlying tone of the answers proposes that coaches have clear expectations of what they aim to achieve and what they hope to get out on a personal, as well as on team level.

Lastly, continuous learning and development of themselves and others, instilling and developing good interpersonal relationships and having a team that focuses on internal optimal team functioning towards long-term success seem to be the central themes that follow the expert coach narrative (see Abraham et al., 2006). Given this notion, head coaches at a given context are the orchestrators that do not solely focus only on the athlete development, but on broader topics like managing team culture, planning and deciding collectively, focusing on their own development and learning, and monitoring these processes so that the team is able to achieve its full potential.

## **7.2 Strengths and Limitations**

The present study has several strengths. First, by conducting in-depth qualitative interviews with two accomplished American football coaches in the Finnish American football context, the study provided rich and detailed insights into their experiences and perspectives. Second, the personal connection established between the researcher and the participants may have facilitated a more comfortable and open environment, allowing for more in-depth responses. The qualitative approach allowed for flexibility in the questioning, leading to a more comprehensive exploration of the research questions of what type of coaching knowledge is presented in the current context, and how this may be mapped against the coaching expertise and effectiveness literature.

Despite the strengths of the study, several limitations should be considered. First, the sample size of only two coaches does not allow for generalizability of the findings. Other considerations add to the variability of coaching behaviors and styles which were not assessed on the research. Mostly relying on information provided by coaches can have a nuanced effect on the interpretation of their knowledge, since knowledge and behaviors may be represented differently in an actual coaching environment. Additionally, the coaches selected for the study

through homogeneous sampling may not be representative of the broader population of American football coaches in Finland. Second, as the study relied on subjective responses from the coaches, the data may be subject to bias or misinterpretation. The study's focus on coaches only limits the scope of the findings to this stakeholder group. In addition, athlete perceptions of coaches were not assessed in the study. This must be kept in mind since their ideas may present a more critical and different version on how coaches' behaviors and knowledge might be presented in an actual coaching environment (see Kavusannu et al., 2008). The researchers' personal biases and interpretations may have influenced various aspects of the study, potentially affecting the validity and reliability of the findings.

The information does not represent all the possible knowledge and characteristics that go into American Football coaching and what might explain “successful” coaching knowledge. For example, information was not gathered on declarative knowledge, as this may be also one of the more important knowledge bases that seemingly explain the ability to teach and correct athletes performing on the field in the coaching setting (Abraham et al., 2006). Moreover, American football coaching involves multiple coaches that might have their own strategies, behaviors, ideologies and pedagogical skills that have more impact on individual level and athlete development.

### **7.3 Future areas to study**

This study provided insights on what Head Coaches knowledge appears at the highest level in Finnish American Football coaching context. Further studies should follow the proposition of Côté & Gilbert and focus specifically on one knowledge category at the time, incorporating athletes and other coaches' perception, and context may provide more fruitful insights about the complex coaching environment (Côté & Gilbert, 2009). In addition, coaching studies should combine larger sample sizes to understand how much information varies at the top of the coaching hierarchy. Moreover, combining field and observational studies and analyzing coaching behaviors in an actual coaching environment would be beneficial to combine with this type of coaching research. American football is a socially complex and dynamic environment where people interact on different levels with one another. Therefore, more system-

atic ways to capture and analyze coaching phenomena may be required to establish more credible and thorough data.

#### **7.4 Practical considerations**

On the practical side, several implications can be made as this information may be useful for future coaches who seek to fulfill head coaching roles. First, head coaching knowledge consists of sustainable and reasonable planning and decision-making that is based on long-term goals. Future coaches and coach-alike people may think goal setting in terms of transformational leadership and participative coaching styles, where they set goals together with players and incorporate them in the decision-making process (Bass & Riggio, 2006). Second implication is the head coach's ability to enhance and maintain interpersonal relationships through communication, emphasizing trust between the coach-athlete relationships. Understanding players' backgrounds and knowing more about them on a personal level could help build trust as this has been noted as one of the most important variables in interpersonal relationships. Trust may improve the relationship quality and ultimately lead to better satisfaction in the sports environment (see Lee et al., 2023). Here, future coaches may seek to find ways to enhance and build trust in order to facilitate better relationships with members in their teams. Third, coaches at this study reflected that one of the biggest aspects that they have focused on was based on continuous development and learning of their knowledge competencies. Future coaches should be aware of how they engage in different learning environments and how they can enhance their practice and themselves as this is evident for expert coaching learning paradigm (Côté, 2006). Lastly, head coaches' impact on the training environment and culture was one of the main findings of this research. Head coaches should focus on creating a climate and culture that involves core values, beliefs and thinking about their team and practice, as this in turn may lay a foundation for a certain type of team culture that allows people to stay motivated towards the tasks they are ought to pursue. Here, future coaches should place their focus on enhancing creating a climate that suits for athletes training and performance, mostly emphasizing those characteristics that are perceived to relevant enhancing motivational climate and team culture (see Bennie & O'Connor, 2011).

## 7.5 Conclusions

The present study was used to examine what type of knowledge and perceptions two American football head coaches present at the current context. Head coaches at this level present prominent levels of knowledge at the interpersonal and intrapersonal levels. The main findings include how coaches have led their teams, how they facilitate and enable communication, engage personally with players and staff members, and how they sustain long-term team success through structured team climate, culture and environment that enable athletes to perform better. In addition, coaches in the current context emphasized the importance of goal setting and decision-making so that it involves everyone in the team. Goals needed to be reasonable and serve everyone in the team. Decision-making needed to be flexible but sustainable so that it would allow persistence in their teams. These professional knowledge categories (planning and decision-making) needed to be based on trust between the coach and athlete. Moreover, values and trust were proposed as the underlying elements for instilling good team culture and interpersonal relationships. Knowing players' backgrounds, giving them feedback and having transparent communication were proposed as key elements that enabled the coaching process to become more consistent.

Given the current information, head coaching knowledge consists of managing and applying interpersonal knowledge and behaviors that enable athletes to pursue goals. Working with other coaches and applying them to the coaching process was also discussed. Specific qualities that were perceived to be important, were the ability to come along with others, become a constant learner and to be autonomously guided. The current study was among the first to examine specifically head coaches' perception and knowledge constructs, which may open doors for more specific topics like leadership behaviors, motivational climate, goal setting and planning in current context. Present study also had several limitations, one of them solely relying on the subjective interpretation of the participant answers. Future head coaches should focus on enhancing areas such as trust and communication in order to facilitate better relationship with players, as well as focus on creating and maintaining a climate that enables motivation and engagement through effective and reasonable planning which also incorporates players input in the coaches decision-making process.



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## APPENDIXES

### Appendix 1. Interview format

Coaching background and personal aspects. - Characteristics and role of effective coaches

Coaching background

- a. How did you become a coach and why?
- b. What do you consider your main role as a coach is?
- c. How do you go about achieving this role?

Coaching education and background

- d. Where and how did you learn to become a coach?
- e. Has there been much emphasis on educating yourself to become one?
- f. What is your opinion on coaching education programs?

Coaches' perceptions of effective coaching qualities and knowledge

Could you give me some examples of the things that you think make an effective coach? Are there any other qualities or characteristics you like in a coach?

- g. What about some of the things that you dislike or that you think might lead to ineffectiveness? / What do you think ineffective/bad coaching is?
- h. When you've had your most successful year as a coach, what are the things/that you can attribute that success to?

Can you describe the qualities you have as a coach?

Professional knowledge

- i. Declarative knowledge - skills in football
  - i. If you could describe the most important skills to teach in American football, what would they be?
  - ii. Why did you think these are the most important?
  - iii. What are the types of things that you think are essential to help your players learn and develop?

Can you explain how these skills have correlated to the athlete outcomes?

Procedural knowledge

- j. Planning

- iv. What types of organizational/planning activities did you undertake?
- v. How important was planning for you as a coach?
- vi. What are the types of things you considered when you were planning for training/games?
- k. Decision making
  - vii. From your perspective, can you describe the importance of decision making?
  - viii. What decisions did you make in a team?
  - ix. Where did the decision-making take place? What things do you consider when making a decision?
  - x. Can you describe the ways of making decisions?

#### Interpersonal - coach and others

- l. How would you describe an effective athlete-coach relationship?
- m. Is there anything that inhibits (gets in the way of) this relationship?
- n. What does the relationships look like in a team you have coached?
- o. Can you please tell me a little bit about the relationships you have had with your players/support staff?
  - xi. What has made them good or bad?
  - xii. Do you think that the quality of relationships (players/staff) had something to do with the team's success? What examples can you give?

#### Emotional intelligence

- p. How do you manage emotions in your coaching?
- q. How is this important?

#### Leadership

- r. Does leadership have any significance in your coaching?
- s. What leadership aspects are important?

#### Intrapersonal - Reflection

- t. Do you look back and reflect on your past?
- u. Do you think reflecting is important?
- v. How do you go about reflecting?
  - a. What do you mostly reflect on?

Sitting here today, what do you think has been the most rewarding thing about in the past/  
coaching?

#### Concluding marks

- w. Is there anything else that you wanted to add in regard to effective coaching?
- x. Is there anything you think we've missed?
- y. Is there anything you'd like to recap on?
- z. What advice would you give to coaches who are looking to make their teams better and more effective?