

Coaches' Experience Using Canada Basketball's Athlete Development Model

by

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Abstract

Sport coaches in Canada wield significant influence over physical activity levels, which are crucial for lifelong development across all stages of life. In Canada, the Long-Term Development in Sport and Physical Activity (LTDSPA) framework was developed to guide coaches; however, gaps persist in understanding its long-term effectiveness and application. The LTDSPA framework, aimed at promoting lifelong physical activity and achieving sporting excellence, has been adopted by 54 National Sport Organizations (NSOs) to meet Canada's diverse sporting needs. Canadian coaches bear the responsibility of implementing the framework to shape and elevate all athletes. However, a review of the literature on the application and implementation of the LTDSPA in Canada revealed several gaps, including concerns about the framework's long-term effectiveness, accessibility, and coaches' resource needs.

Canada Basketball developed its version of the framework for basketball known as the Athlete Development Model (ADM), which serves as the focal point of this study. This leads to the research question: What has been the experience of coaches in incorporating Canada Basketball's Athlete Development Model into their coaching practice in the Province of Alberta?

Interpretive inquiry informed by hermeneutics was employed in this study. A purposeful sample of six participants was interviewed using the "hermeneutic interview protocol" (Tine & Ellis, 2022) developed over a number of years in education graduate courses. Findings indicate that while the majority of coaches favor using the ADM, their adoption process varies due to diverse educational backgrounds, life experiences, and coaching contexts. Additionally, the ADM is not universally effective as a communication tool for all stakeholders. Coaches perceive the club system in Alberta as a barrier to province-wide acceptance of the ADM and call for more resources and urgency from Alberta Basketball to encourage its use.

With no published literature on the implementation or application of Canada Basketball's Athlete Development Model (ADM) from the perspective of basketball coaches or administrators, and only an unpublished doctoral thesis on the use of the ADM by basketball coaches across Canada, this study underscores the necessity for additional research in this area. Specifically, future research should investigate coaches' learning sources and confidence levels in the ADM, evaluate coach education and implementation effectiveness of the ADM, understand barriers to and promotion of ADM adoption, explore the role of coaches in ADM promotion, and analyze ADM communication dynamics and strategies. These insights can inform future efforts to enhance coach education and support for the ADM, ultimately contributing to the development of athletes and promoting lifelong physical activity.

Preface

This thesis is an original work by Douglas Leong. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name “Coaches’ Experience Using Canada Basketball’s Athlete Development Model”, PRO00099621, January 18, 2021.

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List of Abbreviations

AB BB	Alberta Basketball
ADM	Athlete Development Model
CB	Canada Basketball
LTAD or LTDSPA	Long-Term Development in Sport and Physical Activity Framework
NCCP	National Coaching Certification Program
NSO	National Sports Organization
PSO	Provincial Sports Organization

Chapter 1: Introduction

This chapter will give an overview of how sport coaches and policy can help influence physical activity behaviors in children and youth. The chapter begins with me locating myself within the study as a youth influenced by my sport coaches and as a basketball coach coaching young people. I then look at the state of physical activity in Canada and focus on how coaching and public policy work together in Canada through the Long-Term Development in Sport and Physical Activity (LTDSPA) framework. To end the chapter, I will discuss the purpose and the potential contribution of my study to the current literature on coaching and the LTDSPA framework.

Love of Sports

As long as I can remember, I have enjoyed playing and watching sports. I grew up in Edmonton playing outdoors with my neighborhood friends. I was a typical kid wanting to spend as much time outdoors playing street hockey and football which were my two favorite activities. I had two older sisters (6 and 7 years older) and a younger brother (2 years younger) who I could play with as well. When I was eight years old, my family moved into a new house on the south side of Edmonton and settled in a neighborhood that had quite a few kids that were in the same age range as my brother and me. The neighborhood kids became our best ‘play friends’ and we did a lot of activities together. We played street hockey, football, soccer, tennis, hide and seek and rode our bikes around the neighborhood. When the weather was not so nice outside, we would still get together inside to play chess, video games or watch sports on television. We spent a lot of time together playing and this probably kept us all out of trouble except for that time when we decided to play baseball in the street and broke a window. Let’s just say that Mark’s parents were not very happy, and we learned our lesson and never played baseball in the street

again. Many of our activities revolved around sport and we all had dreams of catching the winning touchdown in the Grey Cup or scoring the overtime winning goal in the Stanley Cup finals.

I participated in organized sports by playing little league baseball from the ages of 11 to 15 years old. I decided to play baseball because some of my grade five classmates thought I should try it out. I had a baseball glove; I could throw a ball and I could hang out with my friends more so why not give it a shot? I was lucky to have a patient coach who took the time to teach me how to play the game and improved enough to make the Mill Woods zone team and then the South Edmonton all-star team that represented Edmonton at the Little League National championships in Calgary back in the 1980's. The five-year period I played baseball was the first time that I had ever received any formal sport coaching and it made an impact on me. I remember the fun I had, being part of a team, and still have fond memories of that time. I enjoyed it so much that I returned five years later to volunteer as a coach for the same baseball team that I played for when I was 11 and 12 years old. At that time, I had no coaching experience, but I was highly motivated to give back to a sport that gave me so much enjoyment. With no formal coaching training or manual to follow, I did my best to make sure that the players improved and had fun. I also remember that winning was important to me too. I modelled my coaching style after the two baseball coaches that I played for since that was all I knew about coaching. My second exposure to formal coaching was in high school where I played one year of senior football. I did not enjoy this experience very much. I felt that I was better than I probably was and at the time kept wondering why I was not getting more playing time. When I look back on it now, I had put too much emphasis on playing in a game and should have instead

appreciated that I was given the opportunity to play football that year. This idea of enjoying the process or journey has influenced how I plan practices and coach teams now.

School and Work

Since I have always been passionate about sports, I decided to pursue a career in sports administration. After getting my undergraduate degree in accounting at the University of Alberta (U of A), I went on to earn a Master of Business Administration (MBA) with a specialization in sports management from Robert Morris University in Pittsburgh, Pennsylvania. At that time, my career goal was to stay in the United States and work in the administrative side of the sport business because sports as an industry is much bigger in the United States than it is in Canada. To compare the two countries, in 2016, the revenue from the sports industry was \$67.3B (PwC, 2019) in the United States and \$9.1B (Statistics Canada, 2018) in Canada. I also noticed during my time in Pittsburgh, that the people there were passionate about sports at all levels.

Unfortunately, being a Canadian citizen made it difficult for me to get a permanent position in the United States, but I did remain involved in the sport business. When I moved back home to Edmonton, I was fortunate enough to get a position as the assistant athletic director at the U of A. In this position, I worked with athletes and coaches from 21 varsity teams and was able to appreciate the passion and effort that the athletes put into their respective sports. I enjoyed interacting with every student athlete and talking with coaches about their coaching strategies.

During this time, my ultimate career goal was to become an athletic director of a post-secondary athletics program and I achieved this goal when I was appointed as the interim Athletic Director at the University College of the Cariboo¹ in Kamloops, B.C. This smaller athletic program had nine varsity teams and approximately 120 student athletes. Again, I loved

¹ University College of the Cariboo was renamed Thompson Rivers University in 2005

working with the coaches and the athletes but did not enjoy the politics or the management responsibilities that came with the job. Because of this work experience, I found myself viewing sport as work, so I made the decision to transition out of sport as a career path, while remaining involved in sport in some other capacity.

Introduction to Coaching Basketball

Prior to moving to Kamloops, I started coaching high school basketball at Ross Sheppard High School in Edmonton. I had never played any organized basketball before I started coaching, but in that first year, I fell in love with coaching the game. I enjoyed the daily interaction with the players, appreciated their effort and, most importantly, seeing them improve. This experience motivated me to start developing my own basketball coaching skills. I attended as many coaching clinics as I could and read whatever coaching information I could get my hands on during those first few years of coaching basketball.

I had never planned to become a basketball coach and how I became involved is one of those ‘right place at the right time’ stories. When I was working for the U of A athletics department, I attended a lot of varsity games. It was my way of showing my support for the teams. I was sitting in the stands one evening watching the U of A women’s basketball team play in the main gym on campus and it just happened that my junior high physical education (PE) teacher saw me sitting in the crowd watching the game and came over to say hello. During our conversation, she mentioned that her high school had just hired a new PE teacher and part of this new teacher’s responsibilities was to coach the junior girls’ basketball team, but she was having a hard time finding an assistant coach and asked if I would be interested. I thought it was an odd question to ask someone with zero basketball coaching or playing experience, plus I barely knew the rules of the game. It was an intriguing offer and I wondered what I could offer when I had no

previous experience playing or coaching the game? I said that I was willing to meet with the new PE teacher and if she thought I could help out the team then I would be her new assistant coach. That is how I got my first basketball coaching position. In my 13 years as a basketball coach, I have coached at three secondary schools (Ross Sheppard, Harry Ainlay, Sahali), the Northern Alberta Institute of Technology (NAIT), the U of A, three Alberta provincial teams and two Edmonton zone teams. I feel I have been fairly successful on my coaching journey with two medals at the University level (gold and bronze), one bronze at the national level (15U), an Alberta Summer Games gold medal and an Alberta Colleges Athletics Conference (ACAC) Coach of the Year Award. Along the way, I have also earned my NCCP Level III coaching certification which qualifies me to coach at the national level.

Sport Coaching as a Way to Give Back

I have always coached on a volunteer basis and do so because I love being a coach. As a coach, I feel that I am able to make an impact and teach life skills to the players through the game of basketball. I think that being on any type of team teaches players about teamwork, communication, accountability, benefits of hard work and other life skills. The growth (maturity and skills) I observe in each person is the most satisfying part of coaching. I also enjoy receiving feedback, both positive and constructive, from players and parents. This keeps me motivated to keep coaching. I can still remember all the times when I have been told by players and parents how I have made playing basketball fun or how they have appreciated how hard I made them work in practice. These comments usually come after there has been some time for reflection after the season is completed.

My coaching ideology has been developed and refined over 20 years of coaching. I remember when I was a novice coach and thought the only measure of success was winning. I

still remember when I was yelling at one of the players on the floor for not doing “her job” which resulted in a turnover. One of the players on the bench was more encouraging than me and was shouting “that’s ok” and clapping to keep it positive. I turned to her and told her to be quiet because what she was saying contradicted what I thought needed to be done in order to win the game. After the game, I reflected on what I had said and was not proud of what I had said or how I acted in that moment. I realized that coaching is not about winning but about developing young athletes. This was a big lesson for me, and I learned it from one of my players. After that season, I stopped coaching to see if I was in it for me or was I coaching to try to make a difference for others. At that time, I honestly thought I would never coach again. My thinking was, “it was fun, and I’m glad I gave it a try.” However, after stepping away, something inspired me to return to coaching basketball with a fresh perspective on how I should conduct myself as a coach.

Sport Coaching Philosophy

As the researcher, I am positioned within my qualitative study to be the primary instrument for collecting and analyzing data. My sport coaching philosophy is important as it will be the lens through which I will interpret the interviews from participants. Cushion and Partington (2016) write that sport coaching is a social practice and all practical activities are guided by theory to assist coaches in making sense of what they are doing. Guiding a coach’s practice are ontological and epistemological perspectives that inform a coaching philosophy. Ontology is defined as the nature of reality and epistemology is defined as how knowledge is created. Ontology and epistemology will be discussed further in the methodology section of my paper. In looking at my personal coaching philosophy, I believe I take the position of a constructivist coach whose ontological stance is that there are multiple realities and an

epistemological perspective that knowledge can be created from the interaction between coach and athlete. I believe my coaching style is a reflection of my coaching philosophy.

As a coach, I recognize that each player is unique and human and needs to be intrinsically motivated or personally challenged in different ways. By getting-to-know each player on a personal level, I can address each athlete individually to see what motivates them and learn their strengths and weaknesses to help develop them into a better player, person or overall athlete. Knowing each player requires that I have good communication skills and it is equally important to spend time with the player to learn what life is like for them away from basketball. When I know more about them and them about me, I begin to trust them to make decisions. This will result in making mistakes, but allowing for mistakes is a learning opportunity that can inform future decisions. Roberts and Potrac (2014) suggested that if sport is unpredictable, a coach who has a constructivist perspective should be teaching in a way that allows the athlete time and space to think things through on their own.

There are coaches whose coaching philosophy is similar to mine and then there are those who have a different coaching philosophy or worldview. I take a relativist perspective and believe that coaches are shaped by their own knowledge of what works and what gets results. I also believe that some coaches do not question or see the negative effects that their coaching practices have on their athletes. Recently, I watched a story on TSN, which is one of Canada's main sports networks that highlighted athletes who were recovering from eating disorders (The Sports Network, 2020). In this story, coaches asked athletes to lose weight in order to maximize their performance, but it instead led to eating disorders. What was troubling was that the athletes wanted to succeed so badly, they did not question their coaches at the time, and I can only assume that the coaches did not realize the harm they were doing in the name of results.

Foucauldian scholars would call this an example of power relations at work rendering the athlete docile (Barker-Ruchti & Tinning, 2010; Denison, 2007). There is no doubt that many coaches try different strategies in the name of results and that some of these strategies could be considered unethical. It will be our jobs as coaches (and parents) to question unethical behavior and to become more educated with ethical coaching principles. The questions of harm and ethical coaching are not the focus of my research, but I wanted to recognize that coaches are guided by different coaching philosophies and experience which can lead to both positive and negative results. The focus of this paper is to recognize that coaches bring their own life experience, coaching knowledge and perspective to their coaching practice and I looked into how this guides them in their use of the LTDSPA framework as a coaching resource.

Transferable Coaching Skills

I found that my basketball coaching knowledge and experience were transferable to coaching business case teams, which was my full-time job in the business school at the U of A. Business case competitions involved having students take the role of external consultants. Teams are tasked with solving a problem outlined in a case study. After a defined amount of time, they present their recommendations to a panel of judges. Case competitions became a popular student engagement and experiential learning activity for business schools around the world.

I found many similarities in my role as a basketball coach and as a business case competition coach. I used many of the same principles for recruiting, development, and team selection. I tried to provide leadership in setting team goals, developing individual skills, and motivating every team to be their best. Similar to coaching basketball, winning was not as important as growth. I felt a great deal of satisfaction from watching the students perform their best at the competition. Students generally participated because they wanted to win. I did not

discourage this motivating factor; instead, I used it to ensure that they understood they had to be at their best in order to win.

In both coaching scenarios (basketball and business competitions), the role of the coach as a leader and as a role model is important. The coach sets the direction on where the team is heading, develops individual skills that will be useful in the future, needs to be a good motivator and communicator, imposes discipline when necessary, and is positive and inspirational. Coaches are important and influential people in a person's life and can make an impact (positive and negative) like it has been for me.

Physical Activity Levels in Canada

Sport coaches can influence a person's physical activity level. Physical activity, defined by the World Health Organization "as any bodily movement produced by skeletal muscles that requires energy expenditure" (World Health Organization, 2024) is important in the lives of children, youth and adults. For children and youth, regular physical activity helps in developing cardiovascular fitness, strength, bone density and improving self-esteem. For adults, regular physical activity has shown to reduce the risk of premature death and prevent non-communicable diseases such as coronary heart disease, strokes, cancer and type 2 diabetes. In a 2016 report from Canada's Chief Public Health Officer, from 2000 to 2011, the number of Canadians with type two diabetes increased from 6% (1.85M) to 10% (3.4M) of the population and 60,000 new cases of type two diabetes are diagnosed each year (Government of Canada, 2016). In 2023, there are close to 12M Canadians with diabetes or prediabetes (Diabetes Canada, 2024). Type 2 diabetes, which is linked to unhealthy diet, low physical activity, and high rates of being overweight and obesity, is preventable.

Physical Activity Levels for Children

The amount of recommended physical activity differs for children, youth and adults. Canada's physical activity guidelines recommend that children and youth from the ages of five to 17 years old should do at least 60 minutes of moderate-to-vigorous activity every day and adults from 18 to 79 years old should be involved in at least 150-minutes of moderate-to-vigorous activity per week in periods of activity that are at least ten minutes long. Moderate activity would be about 50-70% of your maximum heart rate, and vigorous would be 70-85% of maximum heart rate. To calculate your maximum heart rate, take 220 minus your age. For example, a person who is 50 years old, their maximum heart rate would be 170 (220-50). So, a moderate activity for this person would be 50-70% of 170 which would be 85-119 heart beats per minute. Vigorous activity would be 70-85% which equates to 119-145 heart beats per minute. Another way to measure the level of physical activity is by using the Borg Rating of Perceived Exertion or RPE (Borg, 1973). The RPE is based on the physical sensations that a person experiences during physical activity including increased heart rate, increased sweating, increased breathing rate and muscle fatigue. As of 2019, 45% of Canadian adults met the recommended amount of weekly physical activity (Colley et al., 2023), while 40% of children met physical activity targets as of 2017 (Statistics Canada, 2019).

A potential benefit of a physically active population is reduced spending on healthcare. In 2023, Canada was expected to spend a total of \$344B on healthcare, which works out to be \$8,740 per Canadian and represents a 2.8% increase from 2022 (Canadian Institute for Health Information [CIHI], 2023). This growth is lower than the average increase of 4.3% from the five years prior to the COVID-19 pandemic (2015-2019). The \$344B spent on healthcare represents 12.1% of Canada's Gross Domestic Product (GDP). GDP is the value of everything that is

produced in Canada. In Alberta, the amount spent per person was determined to be \$9,041, an increase of 2.6% from 2022 (CIHI, 2023). In comparison, Norway, considered to be a “healthier” nation, spent 9.92% of their GDP on healthcare in 2021 and \$8,693 USD per person (World Bank Group, 2024).

ParticipACTION, a Canadian non-profit organization whose mission is to help Canadians sit less and move more, recently released their 2024 Children & Youth Report Card. This annual report card assesses Canada’s progress in child and youth physical activity. The inaugural ParticipACTION report card was part of a global study on physical activity in 38 countries conducted by Tremblay et al. (2016). In 2016, Canada received a grade of D- in overall in areas such as organized physical activity participation, active play, active transportation, physical literacy, sleep and sedentary behavior. According to the most recent 2024 report card, Canada received a cumulative grade of D+, indicating some improvement in promoting physical activity among children and youth, yet highlighting substantial room for improvement (ParticipACTION, 2024). In 2022, Finland and Slovenia were the top two countries for overall child and youth physical activity, both receiving a grade of A- (Aubert et al., 2022). Colley and Saunders (2023) reported that physical activity levels globally declined during the COVID-19 pandemic to below March 2020 levels and only partially recovered by early 2022. Moving forward, it will be important to encourage Canadians to increase daily physical activity among children and youth, thereby fostering the adoption of healthier lifestyles as we continue to emerge from the pandemic.

Public Policy as an Influencer

One of the ways to get Canadians to become more physically active is through public policy. McLeroy et al. (1988, as cited in Sallis et al., 1998) identified public policy as one of five

ways to influence individual behavior. Recognizing that having a physically active population is beneficial for all Canadians, the Government of Canada (through Sport Canada) put into policy the LTDSFA framework, which National Sport Organizations (NSOs), Provincial Sport Organizations (PSOs), administrators and coaches would use to encourage physical activity and athlete development. This next section provides a brief history of how the LTDSFA framework has been released to the public.

Sport Canada

Sport Canada, as a department under the Ministry of Canadian Heritage, is responsible for providing funding to the NSOs. Through the Sports Funding Accountability Framework (SFAF), Sport Canada invested \$1.5M per year into assisting NSOs to develop sport-specific LTDSFA frameworks (Dowling, 2014). As a result, the NSOs are required to incorporate LTDSFA principles into their annual strategic and operational processes to be eligible for SFAF funding (Dowling & Washington, 2017). As of May 2024, there are 54 sports specific LTDSFA frameworks available on the Sport for Life website (Sport for Life Society, 2024).

Canadian Sport Policy 1

In an effort for international sporting success and to address the obesity epidemic (Dowling & Washington, 2017) in Canada, the Canadian Sport Policy 1 (2002-2012) was developed as a national sport policy agreement between the federal and provincial/territorial governments. It was this document that called for a unified athlete development framework. It is during this period that the LTDSFA framework became the main athlete development framework supported by Sport Canada.

Canadian Sport Policy 2

The next iteration of the Canadian Sport Policy (2012-2022) now includes the LTDSFA framework principles along with terminology such as Physical Literacy and Fundamental Movement skills. This terminology positions the LTDSFA framework as something that all Canadians can use and is not just applicable for elite athletes.

How Does Sport Policy Influence the Canadian Public?

The LTDSFA framework has two objectives: (1) to promote lifelong engagement in sport and physical activity for all Canadians (Active for Life) and (2) to make Canada a competitive force in international sport. The idea here is that if Canadians are able to watch elite Canadian athletes perform and win medals at the highest level (i.e. Olympic Games, World Championships), it is assumed that this success will drive more grassroots participation. With more kids participating in that specific sport, this will lead to a larger pool of talent which may ultimately lead to future Olympic success. This is called the “virtuous cycle of sport” by Grix and Carmichel (2012) or the “double pyramid theory” as described by Van Bottenburg (2002, as cited in Grix & Carmichel, 2012). The key benefit for the country is to have children (and adults) get up and become more physically active in the sport they are watching and inspired by. The more active they become, the greater chance they will meet the recommended amount of physical activity they need to stay healthy and improve their physical and mental health.

LTDSFA Framework as the Key to Physical Activity and Sport Excellence

What is the Long-Term Development in Sport and Physical Activity Framework?

The Long-Term Development in Sport and Physical Activity (LTDSFA) framework is a multistage competition, training and recovery pathway designed to develop athletes from playground to podium (Dowling & Washington, 2017). The LTDSFA framework is the

brainchild of Balyi (2001) who proposed to use the maturation characteristics of the young athlete rather than their biological age in guiding athletic development. Bayli found that the current athlete development models were superimposing adult training programs onto children (Dowling & Washington, 2017).

Acceptance of the LTDSFA Framework

How did the LTDSFA framework become the preferred athlete development framework adopted by Sport Canada? Dowling and Washington (2017) described how the epistemic community (knowledge based professional networks) approach was able to influence sport policy change in Canada. During the formative stage of the sport policy process, the epistemic community provides expertise on technical aspects of a specific problem, but as the policy gets developed, the governing body begins to be influenced by the epistemic community. In the case of the LTDSFA framework, the epistemic community group was the Canadian Sport for Life Leadership team (CS4LLT) which included Istvan Bayli (Dowling & Washington, 2017).

It is interesting that prior to the influence of the CS4LLT, Bayli had been trying to promote the LTDSFA framework across Canada. The only province that was interested was British Columbia (BC). From his work in BC, his LTDSFA framework started gaining traction in Ireland and the United Kingdom (UK). It was not until a LTDSFA framework booklet was published in Ireland did Sport Canada take notice (Dowling & Washington, 2017). It seemed like Sport Canada wanted to test the LTDSFA framework abroad before trying it in Canada. This external validation of the LTDSFA framework was an important step in getting Sport Canada to adopt the framework (Dowling & Washington, 2017).

Canada and Ireland are not the only countries that have implemented the LTDSFA framework. Australia, New Zealand, South Africa and the UK (Holt et al., 2018b) are also using

the LTDSFA framework “in spite of growing concerns within the academic community regarding the validity and effectiveness of the framework” (Dowling & Washington, 2017, p. 134).

Purpose of the Study

The purpose of this qualitative study was to inquire into the lived experiences of provincial level basketball coaches to understand how they made sense of the LTDSFA framework policy tool as part of their coaching practice. I was interested in how the LTDSFA framework was used as a resource and how their current coaching knowledge guided them in assessing the material contained in the LTDSFA framework. In this study, I used an interpretive inquiry informed by hermeneutics methodology and applied the “hermeneutic interview protocol” (Tine & Ellis, 2022) with the intention to produce a description of themes or “Big ideas” from the coaches’ lived experience with the LTDSFA framework.

Coming to the Research Question

As I progressed through the basketball coaching modules to attain my NCCP Level III basketball certification, I was not introduced to the LTDSFA framework, likely because I took the coaching modules before the LTDSFA framework became a sport policy tool to encourage lifelong physical activity and enjoyment of sport. Later on, as a provincial team basketball coach (2008-10), I do not recall being instructed to use the Canada Basketball’s Athlete Development Model (ADM) which is the sport-specific version of the LTDSFA framework. The ADM was released by Canada Basketball (CB) in 2008. This initially made me wonder how basketball coaches were being introduced to the ADM and how it contributes to their coaching practice.

To answer the first question about how coaches were learning about the ADM, I reached out to a former technical director at Alberta Basketball to try to understand how and when

coaches in Alberta are learning about the ADM. It was revealed in our conversation that coaches of the younger athletes (8 to 18 years old) are introduced to the ADM through provincially run coach training workshops and that information on the ADM as it relates to the elite-level athletes is covered in training workshops run by CB (D. Drabiuk, personal communication, October 18, 2018). This discussion confirmed to me that coaches in Alberta are exposed to the ADM and its purpose if they are involved in coaching basketball at a provincial or national level.

To understand how the LTDSPA framework contributed to the coaching practice, I searched the literature for research studies on the general LTDSPA framework, sports-related LTDSPA framework literature, and sources of coaching learning. The literature review on sources of coaching knowledge, I felt, was important in order to understand where coaches learned the knowledge for their profession to get the big picture of who the coach is. This helped me understand how they used the LTDSPA framework as a resource and whether there might have been any tension between their coaching knowledge and what was recommended in the LTDSPA framework.

In the initial search for literature on the LTDSPA framework, I found articles relating to the adoption and benefits of the LTDSPA framework as well as the lack of scientific evidence to support what the LTDSPA framework claimed to be able to do. However, there were only a handful of studies about coaches' experiences with the LTDSPA framework and just two studies about the LTDSPA framework for the sport of basketball (ADM). This aligns with Holt et al. (2018b), who noted that research on sport coaches' perspective regarding the LTDSPA framework, its adoption, and implementation was scarce.

A recent update in literature search revealed ten new studies published between 2021 and 2023 related to the LTDSPA. Among these, four studies specifically focused on the Canadian

context, yet none involved Canadian basketball coaches (Fullerton et al., 2023; Jurbala, 2023; Jurbala & Stevens, 2022; Trudeau et al., 2021). Consequently, my study aims to expand the literature by introducing an additional study within the sport of basketball, while also elaborating on four key themes identified in previous research concerning coaches' experience with the LTDSPA framework. These four themes are: (1) coaches wanting more scientific evidence of the windows of opportunity concept; (2) agreement that the framework is an effective communication tool for many stakeholders; (3) coaches wanting more resources to implement the framework; and (4) the tension between short- and long-term results and between what coaches know and what the framework has asked them to do. This will be discussed further in the literature review chapter.

As a methodology, I used interpretive inquiry informed by hermeneutics to take a deeper look into the coaches' lived experience with the LTDSPA framework as a resource.

Research Question

As discussed earlier, coaches and public policy, through the LTDSPA framework, can be important factors in influencing behaviors regarding physical activity for children and youth. Due to my interest in the sport of basketball, I conducted an in-depth examination of Canada Basketball's ADM to understand how provincial-level basketball coaches utilize it as a resource. This exploration guided me to the following research question: ***What has been the experience of coaches in incorporating Canada Basketball's Athlete Development Model into their coaching practice in the Province of Alberta?***

I specifically looked to interview provincial team coaches who worked with athletes between the ages of 13-17 years old and who had been introduced to the ADM as part of the provincial coaching program. I hoped to learn from the coaches' experience how they used the

ADM as a resource and how the ADM added to or conflicted with their current coaching knowledge.

The research that I conducted in this area will add to the limited body of research that is currently available on the coaches' experience with the LTDSPA framework and to the sport of basketball. The results of my study will be of interest to the other sports and countries that are also using their own version of the LTDSPA framework. My study should also be of interest to Canada Basketball, PSOs, and other NSOs in understanding how coaches incorporate the LTDSPA framework into their coaching practice in Canada, provide insights on the effectiveness of the LTDSPA framework and help design support materials for coaches.

Chapter 2: Literature Review

In the first part of this chapter, I examine the literature on the sources of learning that coaches access to acquire their coaching knowledge. Understanding where coaches acquire their knowledge is crucial, as it informs me about the coach as a whole person and how their knowledge guides their use of the Long-Term Development in Sport and Physical Activity (LTDSOA) framework. In the second part of this chapter, I review the literature on the LTDSOA framework and conclude by discussing the research gap that my study will address.

Coaching is Complex

Coaching is a complex activity that is found in many contexts such as music, poetry, drama, business, academics and sport (Cross & Lyle, 1999). What coaching has in common across all contexts is that coaches are guiding the individual or a team toward an identifiable goal through a structured process. Cross and Lyle defined the sport coaching process as follows:

The purposeful improvement of competition sports performance, achieved through a planned programme of preparation in competition. In normal circumstances, a coach manages this process within a time- and context-bound agreement or contract, although there will be considerable variety in the implementation of the process. (p. 8)

Washington and Reade (2013) found from their review of the literature relating to high performance coaching that the act of being a high-performance coach is complex and stressful due to the expectation for coaches to increase their knowledge base in the technical and tactical areas along with other responsibilities including recruiting, team selection, fundraising, schedule planning, travel planning and community liaison. Bates (2007) agreed that much of the literature that underpins coaching identifies that the “coaching process is infinitely complex and

constructed around social experiences and exposure to the working context” (p. 113). High performance coaches have a lot to manage and therefore require knowledge in many different areas. The next section will discuss how coaches acquire the knowledge that helps them manage this complexity.

Coaching Knowledge

Not all coaching knowledge is equal as it depends on the level of athlete you coach. Cross and Lyle (1999) make a distinction between a *participation coach* and a *performance coach*. A *participation coach* is one who is more focused on making sure their athletes participate and learn some skills. A *performance coach* is more focused on preparing their athlete(s) for competition and usually sets longer term goals on what they wish to achieve with their team or athlete. The time commitment for a performance coach is also more significant as there are more things a performance coach wants to control in the coaching process. Cross and Lyle said, “the roles differ in terms of purpose, goals, occupational circumstances, athlete aspirations, expertise and relationship to competition sports structures” (p. 12). Depending on which role a coach assumes (participation vs performance) will require different types of coaching knowledge.

Regardless of whether you are a performance or participatory coach, coaching knowledge is essential for success. Werthner and Trudel (2006) stated that “coaches need to develop a knowledge base which should include coaching knowledge and sport specific knowledge” (p. 198). Shulman (1986, as cited in Cassidy, Jones & Potrac, 2009) broke down the complexity of a coach’s knowledge into smaller units: subject-matter content knowledge (SMCK), pedagogical content knowledge (PCK) and curriculum content knowledge (CCK). SMCK entails knowledge of skills, tactics and strategies, and understanding the rules of the activity. PCK refers to the

knowledge a coach needs to teach or communicate the SMCK effectively. CCK involves knowing where to find coaching resources. All three knowledge areas (SMCK, PCK, and CCK) are crucial for coaching success.

In addition to identifying what type of knowledge coaches need to possess, it is just as important to understand the sources of their coaching knowledge as this contributes to understanding their *experience* as a coach (Mohamadinejad & Mirsafian, 2013). Schempp (1993), who studied how teachers acquire their professional knowledge, said that “an understanding of knowledge sources and the processes of pedagogical reasoning and action can come a firm foundation for educating teachers” (p. 3). Nelson et al., (2006) applied Schempp’s perspective to the coaching context to say that *if we are to understand a coach and their coaching process, we need to understand where coaches learn the knowledge that supports their coaching practice.*

It is important to recognize that coaching knowledge is not neutral, although it may seem so. Cushion and Partington (2016) said that coaching discourse is influenced by factors such as “beliefs, structures and practices and its ideologies, that appear natural, obvious and common sense” (p. 856) but produces a particular coaching discourse or way of coaching. Coaches who accept this discourse as normal go on to perpetuate the same way of coaching giving certain types of knowledge legitimacy. The politics of coaching also need to be recognized as coaches are asked to do certain things as part of their coaching practice that they may not normally do. This is because coaches do not work in isolation but as a part of a larger community and, as part of the larger community, coaches may be subject to someone’s or an organization’s political agenda. As coaches try to navigate this political landscape, it will be important to not blindly follow orders but to question what is being asked and to question whether these practices could

be executed differently. These types of actions can help the coach develop critical thinking skills about what they have been asked to do and, in turn, develop their coaching practice. Although coaching discourse and coaching politics is not the purpose of my study, it reveals the complexity of acquisition and application of coaching knowledge.

Sources of Coaching Knowledge

There are many sources of coaching knowledge described in the literature. In organizing the literature, I will be using Coombs and Ahmed (1974) formal, non-formal and informal learning framework. The framework has been broadly accepted and utilized in mainstream adult learning literature and is an appropriate framework to use in a discussion about coach learning (Nelson et al., 2006).

Formal Learning

Coombs and Ahmed (1974) defined formal learning as knowledge that is acquired in a structured environment and that is institutionalized. Canada's education system from kindergarten to high school would be considered formal learning as the curriculum is standardized in each province and acquisition of knowledge assessed through papers and exams. Nelson et al. (2006) add that formal learning usually requires students or participants to have particular prerequisites and usually require compulsory attendance. Formal learning situations have program developers directing what is to be learned so the participant has very little control over what they will be expected to know and understand (Mallet et al., 2009). Cushion and Nelson (2013) called formal learning situations "privileging a technocratic rationality" (p. 367) or indoctrination in that it tries to convince coaches of the right way to think, to behave and to feel.

Coaching certification programs like the National Coaching Certification Program (NCCP) in Canada is considered formal learning as it introduces knowledge to coaches that will need to be reproduced by participants for assessment (Werthner & Trudel, 2006). The NCCP in Canada provides a standardized sport education program across 65 sports with the help of the National Sports Organizations (NSOs). The NCCP is a requirement for coaches who plan on being involved in organized sports in Canada, and in many cases, provide coaches with their first exposure in learning how to coach (Mohamadinejad & Mirsafian, 2013; Trudeau et al., 2021; Werthner & Trudel, 2006). Any other additional courses that coaches are required to attend by their NSOs would also be considered formal learning. Content knowledge (technical and tactical) as explained earlier, is learned by many coaches in these formal learning settings (Werthner & Trudel, 2006). The Long-Term Development in Sport and Physical Activity (LTDSPA) framework would be considered formal learning. The LTDSPA framework is introduced to coaches as part of the NCCP, with PSOs and NSOs requiring higher level coaches to take sport-specific LTDSPA framework courses through organized workshops (Trudeau et al., 2021). Since the NCCP and LTDSPA framework are formal learning programs, they both could be considered a form of indoctrination or presenting a particular coaching discourse. Dowling et al. (2020) analyzed the LTDSPA framework through a Foucauldian lens and felt that the LTDSPA framework could be used as a form of social control by government agencies and NSOs as well as a form of disciplining technique that encourages docility among athletes and coaches causing unintended consequences.

As mentioned earlier these formal programs are presenting/teaching a particular coaching discourse (Cushion & Partington, 2016; Dowling et al., 2020) so it is important to critically think about what is being presented to you as a coach learner and not to automatically accept it as the

only way to coach. This would be the recommendation at all coaching levels. The idea of questioning the teaching material should be done by course conductors/facilitators as well in these formal courses (Downham & Cushion, 2020). Even though they are asked to present pre-prepared/standardized material, course facilitators can make courses better by leading critical discussions about the material and/or help participants develop their own critical thinking skills about the material.

The value of formal learning opportunities is different for each coach (Mesquita et al., 2014; Trudeau et al., 2021; Werthner & Trudel, 2009). This is because each coach has a different background or individual profile (experience, beliefs, expectations, values, motivation) entering a formal learning opportunity like the NCCP (Jones et al., 2003; Werthner & Trudel, 2006). As an example, the professional soccer coach in Jones et al. (2003) commented that when he participated in the UK coaching certification program (equivalent of the NCCP), he found the course had limited value because he was already aware of the material taught in the program as a result of his professional soccer experience prior to transitioning to coach. In Werthner and Trudel (2006), a swim coach who had participated in the Olympic Games and was coaching at an elite level reported that the formal coaching courses required by his NSO were very useful. He was able to apply what he learned from the NCCP immediately because he was coaching simultaneously while taking the courses. Carter and Bloom (2009) interviewed six Canadian University coaches and the four coaches that studied kinesiology and physical education as part of their post-secondary experience considered their formal learning experience very impactful for them as coaches. These are examples of individuals who have elite-level experience as athletes and/or coaching in elite-level sports, each finding different value in their formal learning opportunities based on their past experiences.

The NCCP and other similar coaching programs around the world (USA, UK and Australia) have been criticized a great deal. Nelson et al., (2006) highlighted some of these criticisms: little follow up after the program is completed, lack of opportunities to apply the knowledge into practice, too much of a focus on sport science and not enough on the social sciences, introducing coaching as a methodical process, privileging certain types of knowledge and lacking context. Nelson et al. also noted that coaches are constantly participating in formal learning activities, but these formal learning opportunities have relatively low impact compared to informal learning activities. Mohamadinejad and Mirsafian (2013) said that these formal learning programs alone do not adequately prepare coaches to be able to coach as there is much to learn outside the formal learning process. Cushion and Nelson (2013) mentioned that despite the numerous research into formal learning programs such as the NCCP, there remains a lack of evidence about whether coach certification itself leads to coach competency. I agree with Cushion and Nelson who argued that a coach participating in a formal learning program may be able to learn and understand concepts and pass the course exam, but time is needed to apply the material learned, and to understand what works and does not work. It is this experience and time taken to be reflective that contributes to being a competent coach.

There are coaches who value the formal coach education programs. Hanratty and O'Connor (2012) highlighted coaches who attended formal coach education programs and found them highly valuable in that it significantly improved their coaching knowledge in strategy and skills. Other positives attributed to formal coaching courses are providing access to experts, using formal assessment procedures, applying quality assurance measures, recognizing achievement and developing critical thinking skills (Mallet et al., 2009). Nelson et al. (2006) added that coaching certification programs have knowledgeable and professional instructors; are

well-structured and organized, beginning with the basics through to complex concepts; include appropriate content and incorporation of theory; and provide opportunities to discuss with instructor practical coaching situations who can provide constructive feedback; and the ability to share experiences with other coaches. Participants in Bertz and Purdy (2011) felt that formal learning programs provide useful “steppingstones” or act as “scaffolding” to future coach knowledge and are a more valuable source of coach learning early in a coach’s career.

Non-formal Learning

Non-formal learning is described by Coombs and Ahmed (1974) as learning opportunities that are organized and structured but occur outside the formal learning system. Coaching examples include coaching clinics, seminars, workshops, short courses, and conferences (Nelson et al., 2006). Formal and non-formal learning are quite similar, with the main difference being that non-formal learning provides a particular subgroup of the population with additional learning opportunities (Nelson et al., 2006). An example of non-formal learning would be a basketball coach (like me) who wants to understand more about defensive strategies choosing to attend a clinic about zone defenses. The course would be structured and would be very specific to what I want to learn, while the instructor ultimately decides what will be taught about zone defenses.

The studies about non-formal learning are mixed in terms of their usefulness. Erickson et al. (2008), who surveyed 44 teams and individual sport coaches, found that non-formal learning was less important than formal and informal learning opportunities. Wright et al. (2007), who interviewed 35 ice hockey coaches, found that non-formal learning was very beneficial because the clinics they were attending were being taught by professional coaches and covering material not covered in the NCCP like the umbrella powerplay. Carter and Bloom (2009) interviewed six

Canadian University coaches and the responses from them were mixed on the usefulness of coaching clinics. The university coaches who regularly went to clinics attended with an open, inquisitive mindset. Two of the coaches found little value in coaching clinics and thought that clinic instructors spent too much time telling stories and providing funny anecdotes instead of focusing on instructional details. Continuing professional development (CPD) courses would be considered non-formal learning as attendance at these CPD courses are required by many professional organizations such as Coaching Association of Canada (CAC) in order to maintain NCCP coaching certification.

Informal Learning

Coombs and Ahmed (1974) defined informal learning as a “lifelong process by which every person acquires and accumulates knowledge, skills, attitudes and insights from daily experiences and exposure to the environment—at home, at work, at play” (p. 8). Basically, we learn every day from our daily experiences and in a variety of contexts outside of formal and non-formal learning situations (Nelson et al., 2006). Informal learning is, most of the time, unorganized and unsystematic, yet accounts for a large amount of a person’s total lifetime learning (Coombs & Ahmed, 1974; Nelson et al., 2006). Although formal and non-formal learning are important, informal learning has had the greatest impact in the ongoing development as coaches (Mallett et al., 2009; Nelson et al., 2006). This seems a reasonable conclusion since only a finite amount of time is spent in a formal or non-formal setting. Reade (2009) said it would be “unreasonable to believe that formal [and non-formal] education could ever surpass informal [learning] in terms of the volume of information and experiences a person acquires in a career” (p. 343). Cushion and Partington (2016) highlighted that through these informal learning opportunities, coaches have been influenced or conditioned to accept a particular coaching

rhetoric shaped by politics, economics and power arrangements. This coaching rhetoric influences what a coach pays attention to in their informal learning experiences and continues to reproduce certain norms that perpetuate certain types of coaching knowledge over others in their coaching practice. It is important that coaches take a critical look to see what kind of informal learning opportunities they value more and which ones they do not value as much to understand that external forces that may be influencing their choices.

The positive aspects of informal learning are authenticity, meaning and contextualization, but informal learning suffers from lack of quality assurance, feedback, direction and innovation (Mallett et al., 2009). Additionally, not all coaches have equal access to informal learning opportunities due to the competitiveness of sport (Mallett et al.). Mallett et al. looked at two studies; one conducted in Australia involved elite coaches and the second focused on youth coaches in Canada. Both studies found that informal learning made the greatest contribution to the development as coaches but the coaches in these studies were unwilling to share what they learned from their informal learning experiences with the researchers (or other coaches) due to their competitive nature. By engaging in informal learning opportunities, there is a possibility that coaches will find more value in formal and non-formal learning as informal learning can provide the link(s) needed to tie it to actual coaching practice. Informal learning could also devalue formal and non-formal learning as coaches begin to see that the coaching discourse in formal and non-formal learning does not align with their own coaching practice. The value of informal learning will be different for each coach.

Many activities are considered informal learning. Rocchi and Couture (2018) identified 29 different informal learning opportunities and grouped those under four main headings: mentorship, resource material, experience inside and outside of sport and interactions with

others. Some examples of informal learning opportunities include: athlete and coaching experience, mentoring, practical coaching experience, interaction with peer coaches and athletes, observing others, self-directed learning, communities of practice and reflection (Carter & Bloom, 2009; Cushion, 2018; Cushion et al., 2003; Denison, 2007; Erickson et al., 2008; Gilbert & Trudel, 2001; Greenwood et al., 2014; Hanratty & O'Connor, 2012; Irwin et al., 2004; Jones et al., 2003, 2004; Koh et al., 2014; Mesquita et al., 2014; Moen et al., 2016; Nash & Sproule, 2011; Nelson et al., 2006; Reade et al., 2008; Robinson, 2010; Thompson et al., 2009; Werthner & Trudel, 2006).

Taking a further look at reflection as an informal learning opportunity is important since it is a common activity in many professions and considered a normal part of a coaching practice. Reflection is considered a neutral coaching process which has been “presented uncritically and enthusiastically accepted” (Cushion & Partington, 2016, p. 2) by the coaching community. The process of reflection is meant to look inward with coaches asked to ‘reflect’ on their experiences. It is presented as a way to develop their coaching practice, but instead it is a process that reinforces the dominant coaching discourse and imposes the unintended consequences of confession and surveillance (Cushion & Partington, 2016; Downham & Cushion, 2020). Coach developers who are asked to lead coaches through reflection can contribute more to challenging current coaching discourse on the practice of reflection. Downham and Cushion (2020) critically examined the way coach developers led the process of reflection with the coach participants. The study found that when coach developers followed the usual process of questioning, observing, and feedback to lead the reflection process, it was causing unintended harm including confession, surveillance and additional scrutiny by their peers. It also placed the coach developer into a position to judge whether participants were contributing or not, reflecting the power

relations contained in the current process of reflection facilitated by coach developers. This is another example of where coaches need to critically look at their informal learning opportunities and an opportunity for coach developers to critically look at the material, they have been asked to use in developing future coaches.

A handful of studies have asked coaches to rank their informal learning experiences (Erickson et al., 2008; Mallett et al., 2016; Mesquita et al., 2010; Rocchi & Couture, 2018; Stoszkowski & Collins, 2016). Mesquita et al. (2010) surveyed 336 coaches over 22 sports and found that coaches with a post-secondary background in physical education and sport said that working with *expert* coaches was the most important informal learning source, which includes mentoring. Cushion and Partington (2016) along with Turner (2001) warned that “expertise” is not neutral but instead promotes a certain type of ideology and that expert knowledge is willingly accepted by coaches because it is perceived to be legitimate. The coaches who did not have a post-secondary background preferred working with *peer* coaches as their top informal learning source. These results demonstrate that working with other coaches (expert or peer) is a valued informal learning source. This is consistent with the studies by participants in Erickson et al. (2008) and Stoszkowski and Collins (2016). Mallett et al., (2016) looked to see if informal learning sources were valued differently by elite level sport coaches based on their years of coaching. The coaches who were considered mentor coaches (greater than 23 years coaching experience), said that on the job experience, reflection and consultants were their most valuable informal learning source. Scholarship coaches (less than 12 years of coaching experience) said that discussion and working with others was the most important informal learning source. Mallett et al. concluded that as coaches progress through their career, the value placed on the type of informal learning opportunities changes.

Youth/Volunteer Coach Learning

Although most of the literature on formal, non-formal and informal coach learning has focused on elite or high-performance coaches, some studies looked to see if the same learning opportunities were available to youth and volunteer coaches (Gilbert et al., 2009; Lemyre et al., 2007; Wilson et al., 2010). The studies show that the same formal, non-formal and informal learning opportunities that are available to elite coaches are available to volunteer and youth coaches, except for one. Lemyre et al. (2007) determined that there is the absence of a *community of practice* for youth coaches to interact, share knowledge and discuss common issues. Lemyre et al. said that this may be because coaches at the youth level are mostly parents and unpaid volunteers, so they lack the time to get together to discuss common issues and interests. Gilbert et al. (2009) found that high school coaches who coached multiple sports felt that coaching different sports was a valuable informal learning opportunity. In a larger quantitative study, Rocchi and Couture (2018) surveyed 758 recreational and developmental youth coaches and found that 65% of recreational coaches have not participated in any formal or non-formal learning opportunities and that most of these coaches were acquiring their coaching knowledge using club and league websites. Rocchi and Couture felt that the recreational and developmental youth coaches only want basic sport information (e.g. rules of play) which is more relevant to them at a recreational or developmental level.

Cushion and Nelson (2013) wrote that interviewed coaches use between three and 17 different learning sources, with Rocchi and Couture (2018) identifying 29 sources. In both studies, most coaches felt that more learning takes place in an informal setting. Even if this is the case, formal and non-formal learning still needs to be accessed by coaches and the debate between which type of learning is more useful or valuable has very little value (Mallet et al.,

2009). Cushion and Nelson (2013) stated that all three types of learning are “interconnected and may exist simultaneously in concert or conflict” and “that the learning acquired in one situation will inevitably influence a coach’s learning engagement in another situation” (p. 361).

A review of the formal, non-formal and informal learning opportunities shows us that there are many different opinions of the value of each opportunity for coaches. The commonality is that coaches are exposed to all three opportunities, and it forms the basis of their coaching knowledge. The next section will take a more detailed look at the LTDSPA framework as it is the piece of policy that is central to my study on how coaches use it as a resource for their coaching practice.

Long-Term Development in Sport and Physical Activity (LTDSPA) Framework

As sport coaches, we hope that our coaching efforts bring success to our team or our athletes. In helping our teams and athletes achieve this success, development goals are set, and plans put in place to reach these goals. One of the resources that assists coaches in setting goals is the LTDSPA framework and the 54 sport-specific versions of it. The LTDSPA framework is not the only athlete development resource available to coaches, but it is the one that has been chosen by Sport Canada and installed as public policy across many sports in Canada with the goal of encouraging physical activity for children, youth and adults.

This next section will begin with an overview of other well-known athlete talent development models to show how the LTDSPA framework compares to the other models. It will then take a deeper look at Canada’s LTDSPA framework, review the literature that relates directly to the LTDSPA framework and finish with a review of the literature that relates to the coach’s perspective of the LTDSPA framework.

Talent Development

The LTDSFA framework is considered to be a part of a larger family of talent development systems. In a study of the development of talented individuals, Bloom (1985) studied the habits of 120 individuals across six different fields: Olympic swimmers, tennis players, concert pianists, sculptors, research mathematicians and research neurologists. The individuals Bloom studied would have been considered top 25 in their field at the time. Bloom found that no matter the background of the individual, most people are not born with talent but instead spend many hours practicing and engaging with the activity in order to stand out or excel in their respective fields. Bloom found that less than 10% of the participants studied would have been considered ‘special’ or ‘gifted’ at the age of eleven or twelve. The other 90% did not stand out when they were that age, and no one would have confidently predicted that they would become experts in their field. In order for these 90% to become experts, Bloom concluded that proper motivation and support at every stage of their development regardless of the background, is needed from the people around them along with a lot of practice and training time. In another study that built upon Bloom’s study, Ericsson et al. (1993) studied 10 violin students in Berlin, Germany to look at their current and past levels of deliberate practice. Ericsson et al. defined deliberate practice as “an effortful activity that can be sustained only for a limited time each day during extended periods without leading to exhaustion” (p. 369). What the authors found from their study was that it takes approximately 10,000 hours of deliberate practice in order to become an expert. This 10,000-hour rule is one of the underlying concepts of the LTDSFA framework and was made popular by Gladwell (2008) in his book *Outliers*. Bloom (1985) showed that most people we considered talented in all areas of life are not born that way but are influenced by the

people around them which includes family, teachers, coaches and instructors to become successful.

In determining if there are common elements in the effective development of talent, Martindale et al. (2005) examined the literature in the area and found five key generic features that appeared consistently in a well-functioning talent development environment. These features include long-term aims and methods, wide ranging coherent messages and support, emphasis on appropriate development rather than early selection, individualized and ongoing development and integrated, holistic, and systematic development. Martindale et al. also compared the current practices of coaches around the world and found that there are coaches that prioritize short-term success over long-term development. I have been that coach who prioritized short-term success over long-term development. As mentioned in chapter one, I had to take a good look within myself to find my purpose if I was to continue coaching. Was I coaching to satisfy my own ego or to make a difference for the players I was coaching?

Athlete Talent Development Models

In looking at how well-known the LTDSPPA framework is in the athlete development literature, Bruner et al. (2010) conducted a citation network analysis on sport psychology literature related to athlete development models. From their analysis of 75 English language articles focused on sport psychology literature, the authors found that Côté's (1999) Developmental Model of Sports Participation (DMSP) was cited the most, with Durand-Bush and Salmela (2002) being the second most cited article. Bruner et al. (2010) cautioned that a higher citation count does not mean that it is a better athlete development model but instead shows that the DSMP has more influence throughout the literature about athlete development.

The study showed that the LTDSFA framework was not on the list of cited sport psychological studies showing that it is weak on this aspect of athlete development.

Lloyd et al. (2015a) looked at four models that address talent development (not exclusively related to sport): the Participant Model of Sport Development, the Differentiated Model of Giftedness and Talent, the Model of Talent Development in Physical Education and Developmental Model of Sports Participation; as well as two athletic development models: the LTDSFA framework and the Youth Physical Development (YPD) model. From an examination of the four talent development models, Lloyd et al. (2015a) found three common philosophies that are also present in athlete development models; youth development is grounded in the learning process, children should be exposed to a variety of sports or activities and the role of deliberate practice. The common elements within the two athlete development models examined by Lloyd et al. were development of movement competency and muscular strength, avoiding designing athletic development programs solely upon adolescent growth spurt and not designing programs just to accumulate 10,000 hours of deliberate practice. Lloyd et al. stressed that talent and athletic development models are meant to provide some structure and guidance and not the blueprint when working with young people. McKeown and Ball (2013) conducted a survey of 90 strength and conditioning coaches who worked with junior elite athletes from six Commonwealth nations (Australia, Canada, Great Britain, Ireland, and New Zealand) across 22 sports. They wanted to find out what athlete development models coaches were using for long-term athlete development. McKeown and Ball showed that 95% of the coaches were aware of the LTDSFA framework, 47% aware of the DMSP and 44% aware of the YPD model. Fifty-five percent of the participants said they found long-term athlete concepts very helpful and the other 45% found the models somewhat helpful in training their youth athletes. McKeown and Ball

stated that the LTDSFA framework has a lot of support from national governing bodies around the world and is constantly being referenced in Australia by the Australian Strength and Conditioning Association. McKeown and Ball concluded that in the field of strength and conditioning, the athlete talent development models are understood but there is a lack of practical information in the models that coaches can apply to the everyday coaching environment. Pichardo et al. (2018), in proposing their peer reviewed training model for young weightlifters, also identified that the DMSP, the LTDSFA framework and the YPD model had the most influence on the development of young athletes.

Two Popular Athlete Development Models

The following section will examine two well-known athlete development models, the DMSP and the YPD model, in more detail.

Developmental Model of Sports Participation (DMSP). Côté's (1999) Developmental Model of Sports Participation (DMSP) was based on a qualitative study of four elite athlete families. Côté felt that families had a large influence on the success of their young children and wanted to see if a pattern could be found through the 15 interviews conducted. From the interviews, Côté's DMSP proposed three stages of development: the sampling years, the specializing years and the investment years. The *sampling years* occur around the ages of 6-13. In this stage, young athletes try a variety of sports to enjoy and have fun that involve the whole family. The *specializing years* occur around the ages of 13-15. This is when the young athlete focuses more on one or two sports with more sport-specific skill development and where the parents increase their financial and time commitment to their young athlete. The specializing stage is also an important stage for a recreational athlete who wants to remain active for life. The *investment years* occur around the age of 15+. The investment years would be for those young

athletes who are committed to reach elite levels of performance in a single sport with a large focus on skill development, competition, strategy and intense practices. The DMSP is based on chronological age and not biological age.

The Youth Physical Development (YPD) Model. Lloyd and Oliver (2012) wanted to develop an athlete development model that offered an evidence-based model toward long-term athlete development, which they named the Youth Physical Development (YPD) model. The YPD model proposes that strength, mobility, agility, speed and power can be developed from two to 21 years of age. Lloyd and Oliver developed their model in response to the LTDSFA framework which they felt lacked scientific support. Lloyd and Oliver disagreed with the concept of *windows of opportunity* that is highlighted in the LTDSFA framework. *Windows of opportunity* refer to developmental years where children are more sensitive to physical training. Lloyd and Oliver found that the idea of *windows of opportunity* was theoretical with no longitudinal evidence to support it. Lloyd and Oliver support their YPD model by saying it is an evidence-based model toward long-term athlete development unlike the LTDSFA framework. The YPD model is to be only used by qualified individuals that hold strength and conditioning certification, understanding of pediatric exercise science and knowledge of how to communicate with children. I believe that Lloyd and Oliver's model, with its specific qualifications, is intended for use by a group of specialists. This focus limits its applicability and adoption by other stakeholders who may not possess the same level of expertise.

Impact of Club Structure on Athlete Development

Another area that influences athlete development is club structure. De Bosscher and Rycke (2017) conducted a study that looked at policy factors that lead to international sporting success (SPLISS) and specifically assessed the importance of clubs within the structure of athlete

development. They surveyed 2,041 high level athletes (summer and winter Olympic sports) from 15 countries across 37 sports to ask them about when they received support from clubs and National Governing Bodies (NGBs) and the types of resources they received. De Bosscher and Rycke found that over 50% of the athletes received NGB support between 15-18 years old and the athletes that received support had practiced for approximately five years before they received any support from the club and approximately six and a half years before receiving any support from NGBs. The higher performing athletes (top eight in the world) received support one and a half years earlier than national level athletes. The authors feel their study shows the importance of clubs in the early development of athletes. By keeping talented athletes involved in the clubs longer, instead of moving them to centralized NGBs programs, could lead to the increased motivation of clubs to develop more young athletes, increase the expertise of club coaches, build a broader talent pool and reduce sport dropout rates. In Alberta, there are 41 clubs that are registered with Alberta Basketball, the Provincial Sports Organization (PSO) for basketball.

Canada Gives Go Ahead to the LTDSPA Framework

With many athlete development models available to Sport Canada to choose from, how did Canada end up choosing the LTDSPA framework? Dowling and Washington (2017) looked into the process and found that an epistemic community of professionals with expert knowledge was able to influence policy in making the LTDSPA framework a part of Canadian sport policy. The epistemic community that Dowling and Washington studied was called the Canadian Sport for Life Leadership Team (CS4LLT) and was composed of Istvan Balyi and a number of other experts in athlete development. The CS4LLT was tasked to design a generic long-term athlete development model by Sport Canada. This led to the original document (Balyi et al., 2005) about the fundamental principles of the LTDSPA framework in 2005. Prior to release in 2005 of

Canada's LTDSFA framework, Balyi and his colleagues worked with the province of British Columbia, Irish Rugby and British Swimming to develop sport-specific LTDSFA frameworks as well a generic LTDSFA framework for Ireland in 2003. This acceptance by other countries of the LTDSFA framework may have influenced Canada to adopt the same framework.

Dowling and Washington (2017) discussed the academic community's concerns about the under-researched LTDSFA framework. However, despite these concerns, Sport Canada adopted the LTDSFA framework as the main athlete development model due to the unique nature of the epistemic community and the political environment at that time. As the LTDSFA framework was adopted by NSOs across the country, Sport Canada has found broader applications of the LTDSFA framework beyond high-performance sport.

The LTDSFA Framework

The Long-Term Development in Sport and Physical Activity (LTDSFA) framework focuses on developing athletes based on biological or maturation age and not chronological age. Balyi (2001) felt that male training programs were being imposed on female athletes which mature at a different age than males. Balyi and Hamilton (2004) introduced the use of Peak Height Velocity (PHV) as the reference point in the design of athletic training programs for young athletes. PHV is a measure of maturation and influenced by genetic and environmental factors. For females, the onset of PHV is around 12 years old and 14 years old for boys. By using the PHV as a reference point, Balyi felt training programs could take advantage of the *windows of opportunity* that occurs around the onset of PHV. Balyi and Hamilton wrote “athletes who miss this phase of training will not reach their full potential, as these critical periods will have been missed” (p. 5).

Balyi (2001) identified other gaps that needed to be addressed in order to be able to apply the LTDSFA framework successfully. Gaps identified in Canada's athlete development system were the best coaches' worked at elite level and not with younger athletes, the ratio of competition to training is too high for young athletes, and the lack of a supporting sport science program. Norris (2010) said that "children and young adolescents are placed in the hands of the least-qualified, least-experienced, and least-paid (if at all!) instructors/coaches, exactly at the phases of their lives where qualified and experienced instructors are required and something that would not be tolerated in other activities (e.g., schooling or music)" (p. 382). The sport scientists who critique the LTDSFA framework do so because they feel it lacks scientific evidence regarding the *windows of opportunity* concept and may never be satisfied with it and continue to call for more long-term studies on its effectiveness (Black & Holt, 2009; Ford et al., 2011; Lang & Light, 2010; Lloyd et al., 2015a, 2015b). The sport scientists fail to give credit to the LTDSFA framework for providing a vision on athlete development that all stakeholders (coaches, parents, athletes and administrators) can understand.

Current Version of the LTDSFA Framework

The current version of the LTDSFA framework is a seven-stage competition, training and recovery pathway designed for Canadians to "support the development of physical literacy, strive for excellence and empower people to be active for life" (Higgs et al., 2019, p. 20). This version (3.0) was released by the Sport for Life Society (S4L) in 2019, replacing version 2.1 (Way et al., 2016), which was introduced in 2016 and succeeded the original LTDSFA framework, initially released as a 2005 resource paper and later updated in 2008 (Balyi et al., 2005, 2008).

The newest version of the LTDSPA framework addresses 10 areas for improvement from the LTDSPA framework 2.1.

1. To improve the quality of sport and physical activities.
2. Change the name of the framework to Long-Term Development in Sport and Physical Activity from Long-Term Athlete Development. The name change will make the framework more inclusive (Higgs et al., 2019) and address the concerns from the literature in regard to the name of the framework.
3. Feature 22 key factors (up from 10) to explain the complexity underlying the LTDSPA framework (Appendix 1).
4. Increased emphasis on psychological components and physical literacy.
5. Place more emphasis on adolescent participation by providing more insight on the needs of adolescents.
6. More emphasis on biological markers within the development stages and less emphasis on chronological age.
7. Recognition that there are hybrid types of sport specialization other than early and late specialization.
8. Use the language of other interested stakeholders (e.g. health and recreation) to integrate all approaches to sport and physical activity.
9. Update the visual rectangle of the LTDSPA framework to show the importance of physical literacy (Appendix 2).
10. Inclusion of underserved populations such as newcomers, the LGBTQI2S community, aging adults and those living in poverty.

The Seven Stages of the LTDSFA Framework 3.0

There are seven stages of the current LTDSFA framework. These are Active Start, FUNDamentals, Learn-to-Train (L2T), Train-to-Train (T2T), Train-to-Compete (T2C), Train-to-Win (T2W) and Active for Life (Appendix 2). There have been no significant changes to each stage since the introduction of the LTDSFA framework 2.1. Below is a brief description of each stage.

1. Active Start – this is the beginning of the physical literacy journey for children. There is a focus on activity and movement skill development and children begin to experience activities on land, water, ice/snow and in the air. Includes males and females from birth to approximately six years of age.
2. FUNDamentals – a continuation in the development of physical literacy skills with an emphasis on activities that promote participation and FUN. This stage is good to start introducing the simple rules of sport along with sport etiquette, fair play and respect for others. For boys, this stage would be from approximately six to nine years old and for girls from approximately six to eight years old.
3. Learn-to-Train (L2T) – limited sport-specific training can be introduced at this stage along with continued physical literacy development. The introduction to formal competition along with the introduction of ancillary capacities such as warm up/cool down, nutrition, hydration, recovery and importance of rest and sleep. For boys, this stage would be from approximately nine years old to onset of adolescent growth spurt and for girls from approximately eight years old to onset of adolescent growth spurt.
4. Train-to-Train (T2T) – this stage is the transition from childhood to adulthood and the time where “*athletes are made, or broken*” (Higgs et al., 2019). Decisions are made

whether to commit energy and resources to achieving excellence in the sport. If the decision is to continue then this stage is critical in their development. The formal competition to training ratio increases to 40/60 with increased focus on fitness development and mental preparation. Since this stage occurs during the adolescent growth spurt, the age for girls is approximately 11 to 15 years old, and for boys, it is approximately 12 to 16 years old. This is the stage where coaches have the most difficulty as coaches are not knowledgeable enough to identify the maturation phase in their athletes or they do not believe that this stage is where an athlete is made or broken with their rationale being that no scientific studies have supported this claim.

5. Train-to-Compete (T2C) – participation in this stage is dependent on the progress of the person within the sport. Athletes who enter this stage have been identified as a future competitor at the provincial or national level. The competition to training ratio increases to 60/40 with a greater emphasis on sport-specific technical, tactical and physical requirements. Age of the participants with both males and females are usually beyond their adolescent growth spurt in this stage.
6. Train-to-Win (T2W) – this stage focuses on getting on to the podium at the highest level of international events such as the Olympics, Paralympics and World Championships. There is continued sport-specific training along with multiple periodization and prophylactic breaks for recovery and regeneration. The competition to training ratio increases to 70/30 and the age of the athlete during this stage is usually around the age of optimum performance in the sport they are competing in for both males and females.
7. Active for Life – the majority of people playing any sport fall into this category. They continue to participate for enjoyment, satisfaction or health benefits.

Higgs (2010) believed that the first three stages of the LTDSFA framework are a practical solution to help all children become physically literate and setting them up to be able to fully achieve their physical goals to become bodily healthy for life or to pursue sporting excellence hence making the LTDSFA framework applicable to all young Canadians.

Another key idea within the LTDSFA framework 3.0 is the emphasis that every individual has a different and unique pathway toward the same goal of being an elite sport participant or being active and healthy for life. Multiple pathways are possible at every stage of life (Appendix 3).

Application and Implementation of the LTDSFA Framework

Since the first release of the LTDSFA framework in 2005, 54 National Sport Organizations (NSOs) in Canada have developed sport-specific LTDSFA frameworks. There is also a LTDSFA framework for disabled athletes (Higgs et al., 2013) called *No Accidental Champions* and an Indigenous sport version of LTDSFA framework (Sport for Life, 2019). These resources can all be used for development of sports programs at the national, provincial and local levels. Hutzler et al. (2016) discussed the Ostersund Declaration, where 34 national Paralympic committees committed to improve athlete development and talent identification, suggesting that the LTDSFA framework could help achieve this goal. The authors also point out that *No Accidental Champions* has added two additional stages to the generic seven stage LTDSFA framework: awareness and first involvement. “Awareness” to let the public and potential athletes with disabilities know about opportunities available in sport and “first involvement” to design programs and to train coaches and instructors to make sure that the first experience of a child or adult with sport be a positive one. Hutzler et al. called for quality assessment tools to be developed for Paralympic sports and that the tools be designed not just for

high performance sport but for the entire developmental pathway, including those involved in adapted physical education and recreational physical activity clubs.

The LTDSFA framework is supported by many coaches and organizations, and most recognize it is an imperfect athlete development framework or physical activity framework that needs improvements. One of these supporters is Gould (2009) who called the LTDSFA framework a rational and well thought out model. His concern is that with the implementation of a professional model of athlete development (LTDSFA framework), it will adversely affect young people by exposing them to risks of injury, turning them off a sport in general and develop a negative view of physical activity. Gould viewed the LTDSFA framework as part of the bigger contemporary problem where success is defined as winning medals, trophies, rankings or scholarships. This drive to win or for success has contributed to the application of the LTDSFA framework to youth sports. Gould asserted that sport scientists should take action to provide the proper information about the LTDSFA framework to the average sports organization, coach, parent and the general public. In a later publication, Gould (2010) conducted a literature review on early sports specialization. His review of best practice guidelines showed that youth should not specialize too early and should be involved in multiple sports, which supports the principles in the LTDSFA framework. Jurbala (2023) called for a more holistic application of all athlete development frameworks to include mental, social, emotional, and cognitive motor abilities as current models are too focused on physical maturity and performance.

Norris (2010) felt that the introduction of the LTDSFA framework has had a positive impact on Canadians. The universal language in the framework improves accessibility for all stakeholders in Canada. The LTDSFA framework has become a catalyst for cross agency communication to increase the alignment at the federal and provincial levels of sport along with

municipalities and sports clubs. The idea of continuous improvement (*Kaizen*) built into the LTDSPA framework has motivated other organizations such as the Coaching Association of Canada (CAC) to overhaul its coaching education program and has encouraged more academics and researchers to look into issues related to the LTDSPA framework.

United States Olympic Committee Athlete Development Model

Within the last few years, the United States has adopted the concept of a long-term athlete development model. Brooks (2016), a supporter of the LTDSPA framework, pointed out that popularity of the LTDSPA framework might be due to the simple language Balyi and colleagues used in describing the original model (Balyi et al., 2005). The simple language used throughout the LTDSPA framework makes it easy to understand and has persuaded the United States Olympic Committee (USOC) to adopt it as well. Brooks (2016) noted that the LTDSPA framework solves three key problems in the United States; (i) high pediatric drop-out rate (70% of six- to 17-year-olds who participate on sports teams), (ii) too much high intensity training at a young age and (iii) the increase in childhood obesity across the United States. Another key focus of the LTDSPA framework that Brooks likes is the principle of enjoyment. Brooks compared enjoyment to the idea of FLOW. FLOW is a concept developed by Mihaly Csikszentmihalyi and to be in FLOW “means that the athlete feels sufficiently challenged, yet not overwhelmed to the point of feeling incompetent” (Brooks, 2016, p. 24). Brooks stated that the LTDSPA framework is also educating coaches about the underlying principles from a sport science perspective. If coaches can be educated to understand the growth vs. maturation concept, nervous system maturation and critical periods from the sport science perspective, coaches will be able to be part of the solution in solving the three issues mentioned earlier. Brooks acknowledges that the LTDSPA framework has not been well-researched to support its effectiveness, yet still finds it to

be a useful tool such that the USOC has adopted it for their own use. Perreault and Gonzalez (2021) also supported the LTDSPA framework for the holistic development of physical literacy and athletics skills. They pointed out that USA Hockey instituted the LTDSPA model in 2009 and have gone on to have won the most gold medals in both the men's and women's championships at the 18U age level. Not only that, since the LTDSPA framework includes fun and appropriate age activities, they saw an increase in participation levels at the eight and underage group.

It is encouraging that the United States, which is a powerhouse in many areas of sport has turned to the LTDSPA framework for the development of their athletes and as a way to motivate young people to continue in sport and live physically active lives.

Canada Basketball Athlete Development Model

Canada Basketball's version of the LTDSPA framework is called the Athlete Development Model (ADM) and this is the resource that basketball coaches are to use as part of their coaching practice. The ADM is a 75-page document that was developed with input of basketball coaches and administrators in 2008 (Canada Basketball, 2008). The ADM was developed and designed based on the original LTDSPA framework resource paper written by Balyi et al. (2005). The sport of basketball is considered a late specialization sport where participants choose whether to specialize in the sport between the ages of 12-15 years old. The structure of ADM is composed of eight stages, including the seven stages of the generic LTDSPA framework discussed earlier in detail: Active Start, FUNdamentals, Learn-to-Train (L2T), Train-to-Train (T2T), Train-to-Compete (T2C), Learn-to-Win (L2W) (added as an extra stage), Train-to-Win (T2W) and Active for Life. The knowledge contained within the ADM provides users with specific basketball skills and team concepts to be learned within each stage.

For example, ball handling/dribbling is introduced to the participant in the FUNdamentals stage (approximately six years old to nine years old). Users of the ADM are reminded that in this stage, skills should be introduced in a positive and fun way. With ball handling/dribbling, the points of emphasis are ball control, stationary dribbling and movement while dribbling. As an individual moves to the L2T stage, the points of emphasis become more complex: stationary dribbling with left and right hand; dribbling while moving with left and right hand in all directions; speed dribble; control dribble; change of direction dribble with left and right hand; and vision (being able to handle the ball while scanning the floor). At the T2T stage, the points of emphasis are expanding the dribbling repertoire, refining and developing speed control, change of direction, retreat and change of pace with left and right hand, refining and developing the concept of dribbling against a guided defender, making proper reads and reactions and refining ability to handle the ball while scanning the floor. These points of emphasis and skills get more complex as the participants move to the next stage of the ADM. The ADM is quite detailed for many areas of the game of basketball with suggestions of what skills a young basketball player should have in the areas of passing, catching, shooting, offense, defense, mental and cognitive development, and emotional development, including quite a bit of game strategy. For a coach or administrator using the ADM, it is meant to be used as a resource when developing programs or coaching a team which is the focus of my study. Although not part of my study, I want to note here that, based on my review of formal learning, the ADM and LTDSPA framework would be identified as formal learning. Since the LTDSPA framework and ADM has been greatly influenced by ‘sport experts’, we cannot assume that the coaching knowledge it contains is neutral, but instead promotes a specific type of coaching ideology which coaches are asked to incorporate into their coaching practice (Cushion & Partington, 2016).

The next section of the literature review will focus on the application and implementation of the LTDSPA framework by sports organizations and by sport coaches.

Sport-specific Research of the LTDSPA Framework

Understanding what research has been done regarding the LTDSPA framework and coaches is the focus in this part of the paper. Reviewing the literature on sport-specific implementation of the LTDSPA framework and coaches' experience with the LTDSPA framework will help identify the gaps that still need to be addressed.

Athletics Canada. Dowling et al., (2015) used a case study approach to look at how the Own the Podium (OTP) program affected the amount of resources put toward the application of the LTDSPA framework by Athletics Canada, the sport governing body for track and field. The OTP program began in 2004 with the goal of achieving the highest number of total medals at the 2010 Olympic Winter Games and top three medal count at the 2010 Paralympic Games. Due to the success of the OTP program and Canada's results at the 2010 Olympic Winter Games, the decision was made to allocate funding to Olympic summer sports as well. Dowling et al. found that when Athletics Canada received more federal support from the OTP program, the organization realized that in order to maintain this support, they needed to make a strategic decision: use the money to develop high performance athletes or enhance opportunities for all participants as prioritized by the LTDSPA framework. Dowling et al. found through their case study that Athletics Canada decided to focus more on development of elite athletes, as that is where future funding would flow. The authors' study supports the idea that elite sport development and mass participation may be incompatible functions, which Green and Houlihan (2005) also concluded in their book on elite sport development and politics.

Ski Racing. Moving on to look at the application of the LTDSFA framework by sports, Black and Holt (2009) investigated the perceptions of coaches and parents in the application of a Learning to Train (L2T) program in ski racing for 2005-06 in Alberta. L2T is the third stage of the LTDSFA framework and involves males from 9 to 12 years old and females from 8 to 11 years old. This program was implemented by Alpine Canada (AC) as part of their overall long-term athlete development strategy and was called AIM 2 WIN. AC worked with Balyi in 1999 and was one of the first Canadian NSOs to implement a talent development program. In Alberta, the AIM 2 WIN program is implemented on site by the ski clubs with assistance from the Provincial Sport Organization (PSO). The PSO supplies the program resources, such as a book given to coaches and parents and a video for coaches. Black and Holt interviewed eight coaches and 18 parents involved with the AIM 2 WIN program and found inconsistencies in the implementation of the program between the coaches and clubs. The coaches interviewed said they liked the AIM 2 WIN program because the coaching language was consistent across Canada, they saw a consistent progression of skills through the development levels and the teaching tools provided to them were useful, but they admitted they did not strictly follow the program. Coaches said they used their own experience (informal learning) and coaching knowledge to adapt the AIM 2 WIN program for the kids in their program. Black and Holt also found that the assessment of ski racers was different across coaches and clubs making it hard to identify talent. The authors suggest that implementation levels of the AIM 2 WIN program may depend on the level of involvement coaches have in the planning and preparation of the program at a local level. The parents involved in the study liked the AIM 2 WIN program because they were comfortable knowing that everyone across Canada was learning the same ski skills as their child but did not know much about the details of how the program was implemented. Black and

Holt found that the parents' knowledge of the program was limited by how much the coach communicated with them. The coaches in the Black and Holt study said that they had to adapt the AIM 2 WIN to account for their local context and did so using their coaching knowledge.

Swimming. UK Swimming was one of the first sports to adopt a sport-specific athlete development program called *The Swimmer Pathway* (TSP) in the United Kingdom. The TSP was modeled on an earlier version of Balyi's Long-Term Athlete Development framework. Lang and Light (2010) investigated how swim coaches interpreted and implemented the TSP program within their respective swim club programs. Lang and Light interviewed 11 swim coaches from three competitive swim clubs in Northern England to discuss their experience with *The Swimmer Pathway* (TSP) program to investigate coaches' perspectives on the interpretation and implementation of TSP in practice. The interviews that Lang and Light conducted revealed two common issues all coaches had with the TSP program. The first being that young swimmers were being asked to swim at unnecessarily high volumes in the learning to train and training to train phases. Coaches felt that more time should be spent on developing proper technique than trying to reach the volume as directed by the TSP program. The second issue was that there were inconsistencies between how the Amateur Swimming Association (ASA) organizes amateur swimming meets in England and the TSP program. As an example, the ASA allows young swimmers to compete at a national level, which is inconsistent with the LTDSFA framework recommendation on talent development. Coaches felt that these two issues would impede the development of young swimmers in reaching their genetic potential. Lang and Light also found that the elite coaches thought that the non-elite coaches were not interpreting or implementing the TSP correctly and the non-elite coaches thought the TSP was an elitist program. This is a good example of how coaching knowledge can bring a different perspective of a long-term

athlete development program. Lang and Light felt that the TSP program needed to evolve to look at the swimming distance requirement as well as strategies for monitoring coaches to assess whether the TSP program is actually working or not.

Treffene (2010) agreed with Lang and Light about the TSP program placing too much emphasis on training volume. Treffene, who is a high performance coach with considerable experience in the sport of swimming, believed that skills can still be learned after the age of 13 — that is, outside the *windows of opportunity*. Treffene believed that fatigue from swimming too much leads to the loss of talent in swimming and proposed a different training program to continue to develop talent with less volume by using heart rate as a measurement tool. Arellano (2010) looked at the different swimming volumes between development programs in the United States, Russia and England. Arellano showed that swimming volume increases for males between the ages of 12-15 years old. Arellano believed that there is not enough guidance on technique, training loads and exercises. Too much volume early induces low rates of participation from younger promising swimmers and suggests that additional technical criteria determines when an athlete can start increasing swimming volume. Greyson et al. (2010) pointed out that there is conflict within UK swimming, as it seems that not all coaches are on the same page about the TSP program. Small clubs hold on to their swimmers too long and let them go when it is too late. Greyson et al. called for more coaching education to teach coaches the TSP philosophy. Communication about the TSP program may be leading to its misinterpretation by coaches. Greyson et al. pointed out that the TSP program are guidelines and not inflexible prescriptions, and that training volume is a must to introduce young swimmers to the senior program, as this will make the jump to the senior program much easier. Greyson et al. felt that each swimmer needs to be treated as an individual and, if this is done within the context of the

TSP program, it will increase the chances the swimmer will stay in the sport longer. Greyson et al. saw a gap between theory and practice (clubs, coaches and swimmers) and suggested a longitudinal be conducted in order to make better decisions. Two additional studies demonstrated the success of the LTDSFA in the sport of swimming. The first by Arifin et al. (2020) applied the FUNdamental principles to swim lessons of 20 six-year-old children. The study measured the incorporation of playing and singing into the swim lessons and concluded that this approach had a significant effect upon this age group in the development of basic swimming skills. Costa et al. (2021) found that coaches who used the LTDSFA framework as part of their coaching practice were concerned that their peers did not adhere to it and prioritized winning over long-term success, which supports the Lang and Light (2010) study.

Fencing. In the sport of fencing, Sonnadara and Wei (2011) saw the LTDSFA framework incorporating insights from sport science, psychology, and physiology. The authors presented a discussion of two pedagogical methods that a fencing coach might choose: focusing on the proper execution of movements (internally focused) or focusing on the outcome of those movements (externally focused). In their study of two groups of fencing athletes over one year, they found that the group of novice fencers who focused on internally focused instruction during the first few weeks (versus the other group that focused on outcomes) were more successful at the end of the year. The authors, who are fencing coaches, concluded that focusing on technical training (internal focus) in the early stages, as recommended by the LTDSFA framework, will pay off in the long run; however, coaches still need to be sensitive to each individual situation.

Canoe-kayak. Callary et al. (2012) studied how episodic experiences can influence the path to becoming an experienced coach. An episodic experience is one that is meaningful to individuals, changing the way one perceives what they know and influencing their perception on

future learning. Callary et al. interviewed a canoe-kayak coach about her episodic experience, which happened when she was introduced to the canoe-kayak LTDSOA framework at a conference. The coach found that, although the Canoe-Kayak Canada (CKC) LTDSOA framework was imperfect, it supported her own views on athlete development. The coach added, “It was like a license to try what I believed in. I believe that kids should do as many sports as they can and the LTAD programme supports that philosophy” (Callary et al., 2012, p. 431). The coach also believed that a LTDSOA framework was needed in the sport of canoe-kayak as she saw children leaving the sport at a young age. This case shows how past experience in the sport of rowing influenced the coach to look favorably on the importance of the LTDSOA framework and her belief that it will provide the needed structure to keep children in the sport of rowing.

Cross-country Skiing. Banack et al. (2012) conducted an empirical participatory action research study of how seven cross-country ski (XCS) coaches implemented the LTDSOA framework information that they learned in an introduction to community coaching (ICC) course. The participants worked with children that were in the Active Start age group (0-6 years old), which is the first stage of the XCS LTDSOA framework. All the coaches were able to implement the goals of the Active Start program into their coaching, which were a focus on fun, limiting formal instruction and making the environment safe. Overall, all the coaches found the ICC course useful in learning the principles of the LTDSOA framework and how to work with kids under six years of age. They recommended that all coaches take the ICC course but would have liked to have seen more technical information (step by step) for coaches to use to teach the skills. This demonstrates that at the Active Start level where the goal is to have fun, coaches still want to make sure they are doing a good job teaching young kids the proper skills.

Frankish et al. (2012) looked at how the structure of a XCS club influences coaches' perception of the XCS LTDSPA framework and the club's decision to adopt the framework. Three cross-country clubs and 13 coaches from Ontario and Quebec participated in the study. Each cross-country club was responsible for educating their coaches on the LTDSPA framework with each club offering a different way to inform their coaches. One club offered on-site training, the second club supported off-site training and the third club just provided information on where coaches could go to get more information. Frankish et al. discovered that coaches at the club that offered on-site training perceived the XCS LTDSPA framework less complex than the clubs which offered off-site training. The more understanding that a coach has of the XCS framework, the more likely the coach is to adopt the model in their coaching practice. One of the clubs which was not as strict in mandating all coaches use the XCS LTDSPA framework found that it allowed their coaches the flexibility to choose the components of the framework they wanted to use based upon the types of athletes they were teaching which also resulted in the coach adopting parts of the framework in their coaching practice. All coaches that used the XCS LTDSPA framework found it helpful in better communicating with the parents, but felt it was very time consuming to educate parents about the framework. Other findings from the Frankish et al. study were a lack of scientific data to support *windows of opportunity* concept and that coaches felt it did not address special populations. Frankish et al. concluded that support from club administrators is important to assist coaches in deciding how to use and implement the LTDSPA framework into their coaching practice. Frankish et al. called for more research in how coaches implement the LTDSPA framework within their daily coaching practices.

Rugby. Fiander et al. (2013) interviewed six rugby coaches in the UK to understand their perception of how they use chronological age and biological age in their coaching practice,

specifically with talent identification, and found that none of the coaches used UK Rugby's LTDSFA framework as prescribed by the National Governing Board (NGB) for talent identification. The results of their qualitative study were classified under three key themes: i) delivery of the LTDSFA framework, ii) desire for a different model, and iii) the limits or lack of knowledge regarding all the aspects of the LTDSFA framework.

i) Delivery of the LTDSFA framework

- Coaches were not using information provided by the NSB. It was too difficult to apply in the local context when skills are at different levels.
- Coaches were uncomfortable using biological maturation as a differentiator because there were not enough details for coaches of how to use the biological maturation concept. Instead, they used their own method to identify talent.
- Most of the coaches had no experience with a long-term athlete development concept when they were players.

ii) Desire for a different model

- None of the coaches described the current UK Rugby LTDSFA framework as their perfect talent development model.

iii) Limited or lack of knowledge of all the aspects of the LTDSFA framework

- Limited knowledge or lack of confidence to maximize the *windows of opportunity* concept.

Fiander et al. contended that if the coaches had more knowledge about the UK Rugby LTDSFA framework or had the opportunity to provide input into its development, they would be more likely to follow it for talent identification. Instead, they continue to use their own instincts to decide whether a young player gets moved up or down an age group for training. I find it

common with most coaches, including myself, to default to what we know as it is easier than trying to learn something new. If what we are doing as coaches is working, why do we need or want to change? When we do need to change, we tend to ask mentor coaches or other coaches in our network for their advice first.

In another study conducted by Neto et al. (2021), the researchers found that the application of the LTDSFA framework in fitness training with female post-secondary rugby players (18-21 years old) had minimal effect on speed, strength, and aerobic power. They concluded that the LTDSFA framework may have limited utility for further athlete development in rugby within this older age group.

Multiple Sport Study. In a study across seven sports (track and field, baseball, gymnastics, figure skating, cross-country skiing, soccer and triathlon), Beaudoin et al. (2015) examined the adoption and implementation of the LTDSFA framework by 24 coaches at all age levels. Beaudoin et al. specifically wanted to examine the barriers and enablers for coaches in using the LTDSFA framework. In adopting the LTDSFA framework, the coaches surveyed found that they liked the LTDSFA framework in that it was focused on a long-term vision of the athlete, was compatible with their own personal values and offered the ability to pick and choose what they need for their athletes from the framework before committing to use it fully. On the negative side, coaches said that there is a misalignment between the short-term and long-term goals within the culture of their respective sports, which places too much emphasis on short-term results. The early specialization coaches (figure skating and gymnastics) found a lack of compatibility between the LTDSFA framework and their sport, as it was difficult for these coaches to determine the developmental stage of their athletes. Coaches also commented on the difficulty in learning how to teach a specific sports skill with the LTDSFA framework and that

they cannot tell if what they are doing is working or not. Beaudoin et al. concluded that coaches found the barriers to adopt and implement the LTDSFA framework revolved around the culture and organization of their sport (i.e. schedule, focus on short-term results) and coaching education. The majority of the coaches agree that the LTDSFA framework is useful to help communicate with parents because the language in the framework is easy for the parents to understand, which has come up in a few studies.

Volleyball. Chevrier et al. (2016) examined the application of LTDSFA framework guidelines in the province of Quebec with four volleyball coaches. The interviewed coaches worked with male athletes from different age groups: high school, college and university. Athletes in each age group were coached using a different stage of the LTDSFA framework: T2T for high school, L2W for college athletes and T2W for the university players. Chevrier et al. compared the recommendation by the LTDSFA framework to what was actually carried out by the coaches during one competitive season. The study found that the coaches who were not familiar with the LTDSFA framework were unable to hit the recommended LTDSFA framework training and competition guidelines. This inability to meet the guidelines was attributed to two factors: i) availability of gymnasium time and ii) the competitive schedule. It is tough to meet the LTDSFA competition guidelines when there are other external factors at play such as the coach's knowledge, availability of training facilities, and skill level of the athletes on the team. The authors pointed out that the LTDSFA framework is viewed as a linear model assuming that children start training between the ages of 9-12 in the sport, which is not always the case, as some youths pick up the sport of volleyball later after the age of 12. The authors had two other concerns that arose from their study:

1. Is there enough support for coaches after the formal workshop sessions to help them implement the LTDSPA framework?
2. How are coaches being recognized? Is it for victories and championships or for following LTDSPA guidelines?

Chevrier et al. called for future research about the application of the LTDSPA framework from more coaches and other sports.

Judo. According to Van Kooten (2016), Canada has not fared very well in the sport of judo on the international stage. From 1964 to 2012, Canada earned two Olympic silver and three bronze medals. Van Kooten asked whether the LTDSPA framework is a good idea or even necessary for the sport of judo since Balyi's original LTDSPA framework was to produce Olympic success for Canadian athletes. In the sport of judo, there is another teaching manual that is part of the culture of the sport called the *Kodokan Judo*, which is considered the 'Bible' for judo. Van Kooten observed that most of his colleagues ignored the advice provided in the judo LTDSPA framework. Being highly involved in the sport himself as a competitor, coach and referee, Van Kooten found that Judo Canada's LTDSPA framework lacks many critical coaching aspects and contains inconsistencies between the judo LTDSPA framework and generic LTDSPA framework. Van Kooten observed that judo instruction had remained largely unchanged since the adoption of the LTDSPA framework. He suggested that judo may have been a sport that did not need to have a LTDSPA framework because of the existence of the *Kodokan Judo* manual. Not all sports in Canada should be treated the same, as some sports need to recognize cultural differences in the sport and, as a result, need to be treated differently. As mentioned in chapter one, Sport Canada made it a requirement for NSOs to create a LTDSPA framework in order to receive funding. This seems like a case where the initial adaptation of the

framework may not have been a good fit, which leads to the question of whether Judo Canada will modify it to work with the *Kodokan Judo* manual in the future.

Equestrian. De Haan (2017) discussed the application of the LTDSFA framework in equestrian sport. The British Equestrian Federation (BEF) has applied the LTDSFA framework and called their development model the Long-Term Participant Development (LTPD) pathway. However, the sport is unique, as an athlete and a horse are needed to compete. De Haan calls equestrian an early start, late specialization sport. Differing from more common sports, the age of the participants can be wide ranging, gender is not segregated, and participants need a horse. The BEF has also created an equine talent identification pathway for the horses to accompany the human development pathway to identify and develop horses with potential. De Haan suggested that instead of trying to make sport-specific changes to a generic LTDSFA framework, the sport should develop its own sport-specific talent and identification model. De Haan argued for a different model for elite talent development, noting that existing frameworks had neglected crucial aspects of the LTDSFA framework, such as promoting physical activity and ensuring lifelong participation in the sport.

Football. Millar et al. (2020) examined the application of long-term athlete development principles by a community football club located in central Canada. The club utilized a top-down approach to implement development principles by introducing rule modifications and new programming at the younger levels. These changes included having fewer players on the field at a time and offering non-contact options such as flag and touch football to increase participation in the sport. The club also created a competitive stream for more elite athletes that incorporated strength training. Interestingly, the club developed its development program without being aware that the national sport organization (NSO) already had a program called *football for life* based on

the Long-Term Development in Sport and Physical Activity (LTDSPA) framework. Based on this finding, Millar et al. showed that this club was able to develop programming tailored to their specific context and that communication between the NSO, provincial sport organizations (PSOs), and clubs was limited or poor. Additionally, the study found that financial resources affected the clubs' ability to fully implement their initiatives.

Basketball. Hidayah et al. (2023) conducted a study on the effects of long-term athlete development programming with 50 basketball players in Indonesia. The participants included 25 males and 25 females aged 11 to 12 years old. Their findings indicated that the application of long-term development-based programming enhances fundamental skills and significantly improves physical abilities such as leg muscle power, aerobic endurance, and sprinting.

Moreover, the study found no significant differences in performance improvements between boys and girls within this age group, suggesting that this type of programming is equally effective for both genders.

At present, there is no published literature on the implementation or application of Canada Basketball's Athlete Development Model (ADM) from the perspective of basketball coaches or administrators. An unpublished doctoral dissertation by Whitaker-Campbell (2017) involved semi-structured interviews with basketball coaches, learning facilitators and administrators at Canada Basketball (NSO) to explore the perceived benefits and challenges of the ADM. Whitaker-Campbell's research found that the ADM provides consistency with all coaches teaching the same skills across Canada. It also ensures equal opportunities for all kids, uses a games approach to skill development, assists in player development (i.e., learning more than one position), allows coaches to be more dynamic, and helps explain the talent development path to parents and athletes. Whitaker-Campbell also found that participants wanted more

alignment with the National Coaching Certification Program (NCCP) and the ADM. Whitaker-Campbell participants said that they found Canada Basketball supportive in communicating the ADM across the country and set up a Google Drive folder to share information with and between coaches. Coaches felt this online communication tool helped them keep up to date with information about the ADM. Interestingly, the study revealed that the coaches interviewed felt that the ADM needed more specific examples on how to train elite-level athletes and that it is more geared for the mass population.

The only published study related to the ADM is Sullivan et al. (2010) case study that looked at the physical literacy components within coaching materials for two of the development stages. They looked at the FUNdamentals stage (age six- to eight-year-old females; six to nine year old males) and training to compete stage (15-18 females; 16-18 year old males). Sullivan et al. provided details on specific basketball drills that support the concept of physical literacy and fundamental movement skills. The authors concluded that all coaches need to apply their knowledge of physical literacy at all stages of development and challenge all coaches and sports organizations to incorporate physical literacy into coaching of athletes in their sport. Articles like this can help basketball coaches put the ideas and concepts of the ADM into action.

What do the Coaches Say?

In reviewing the LTDSPA framework literature, I have found a handful of themes from the literature as they relate specifically to the coaches' perspective of the LTDSPA framework. This section will summarize the themes that have been raised by coaches in the various sports and connect the literature related to the themes.

The first theme, as mentioned earlier, is the lack of scientific evidence on whether the LTDSPA framework will be effective in the long-term. The coaches in Treffene (2010), Ford et

al. (2011), Lloyd and Oliver (2012), Frankish et al. (2012) who had a scientific background, argued that there is no scientific evidence to support the *windows of opportunity* claim made in the LTDSFA framework. The coaches in these studies think that young athletes are not limited in their potential if they miss their *windows of opportunity*. Norris (2010) says that the LTDSFA framework is lacking in scientific evidence and was purposely written that way to encourage further research and encourage communication between key stakeholders. This criticism of the LTDSFA framework from a science perspective will continue until a longer-term study is conducted to show if the LTDSFA framework is effective (or not) in developing talent, keeping youths involved in sport and encouraging life-long physical activity. My study will not be addressing this criticism about the science behind the LTDSFA framework as I am researching how coaches use it as a resource.

The second theme identified in the literature is the LTDSFA framework being an effective communication tool because of the simple language contained in it. Black and Holt (2009) found that coaches (and parents) like the framework because of the simple language plus it showed that all kids across Canada were learning the same ski skills. Frankish et al. (2012) found that the coaches using the XCS LTDSFA framework found it helpful in communicating with parents but felt it was very time consuming to educate the parents. Brooks (2016) discussed the reason the USOC adopted the LTDSFA framework is because of the simple language used in it. The plain language continues to be the greatest attribute of the LTDSFA framework as it is accessible to stakeholders.

The third theme I found in the literature is that coaches want and need more resources to support them in using the LTDSFA framework more effectively. Strength and conditioning coaches in McKeown and Ball (2013) desired more practical information, a sentiment shared by

coaches in Banack et al. (2012). In the latter study, the lack of information about how to teach young children about XCS resulted in coaches doubting their own coaching. Frankish et al. (2012) found that coaches liked to learn about the LTDSFA framework in a more formal learning environment, which not all clubs were able to provide. Even if there were more formal workshops for coaches to become knowledgeable about the LTDSFA framework, Chevrier et al. (2016) wondered if there is enough post-workshop support to assist coaches in implementing the LTDSFA framework. This is one of the criticisms of formal learning opportunities. The common message among the coaches is that they want to use the LTDSFA framework properly, but they are not confident that what they teach will be effective for long-term development without more support from others.

Theme number four is the tension that is present when coaches implement the LTDSFA framework. The first point of tension seen in the studies is between immediate results versus long-term development. Beaudoin et al. (2015) and Costa et al. (2021) found that coaches put more emphasis on short-term results (win now) rather than applying the athlete development principles listed in the LTDSFA framework. This is a result of the culture within the respective sports where coaches get let go or fired if they do not attain successful performances/results. The volleyball coaches in the Chevrier et al. (2016) study also felt that there was too much emphasis on winning and questioned whether sporting organizations are valuing the development of the elite athlete/team or being rewarded on how closely they follow the LTDSFA framework guidelines. The basketball coaches in Whitaker-Campbell (2017) questioned if the LTDSFA framework was designed for the general population instead of the development of elite athletes. This perspective from the basketball coaches is similar to the comments made by the volleyball coaches in Chevrier et al. (2016), who said that the LTDSFA framework is a linear model, while

coaching athletes is not a linear process. This tension between immediate results and long-term athlete development will always be present when resources (time, money, facilities) are limited, as revealed in the Athletics Canada case study (Dowling et al., 2015). Another point of tension involves coaching knowledge and implementing the LTDSOA framework as directed by the national or provincial governing body. Lang and Light (2010) found that the elite and non-elite coaches felt differently about *The Swimmers Pathway* (TSP) program. Non-elite coaches thought that the TSP program was elitist, and that the swimming volume required was too much, but followed the program as instructed, while the elite coaches also implemented the program as directed and thought the high volume was appropriate to prepare athletes for the next level of swimming. Black and Holt (2009) found that coaches supported the AIM 2 WIN program, but it was not strictly followed in order to adapt to the varying ability of the skiers. The coaches in the Chevrier et al. (2016) study also demonstrated that they adapted the volleyball LTDSOA framework guidelines to suit the skill level of the volleyball athletes on their teams. They found that male volleyball players were entering volleyball at different stages of the LTDSOA framework and, therefore, coaches were unable to hit the recommended competition/training ratios. Another example of the tension experienced by coaches of whether to follow athlete development guidelines or ignore them completely is seen in the Fiander et al. (2013) study. In their study, the coaches relied on their own coaching instincts to decide whether a young player gets moved up or down an age group for training and chose not to use LTDSOA framework criteria for rugby. Their attitude was: why change if what we are doing is working? Van Kooten (2016) said the LTDSOA framework just does not work for the sport of Judo and has ignored it completely as a development model. This is based on his experience and knowledge as an athlete and a coach in a sport which has another more established teaching manual for judo students.

Other Issues with the LTDSFA Framework

There are other general issues that are identified by the literature review apart from what the coaches had to say about their respective sports. These issues are lack of scientific support, too much science, and discomfort among coaches with the term ‘sport’ in the framework’s name.

Lack of Scientific Support. Coaches and academics think that there is not enough scientific evidence behind the LTDSFA framework to be an effective athlete development model. Holt (2010) said that more research is needed on the efficacy and effectiveness of the LTDSFA framework and its individual components, with the goal to increase athletic success and to encourage and sustain sport participation in the long-term. Holt pointed out that an early version of the LTDSFA framework posted on the Canadian Sport for Life website said that the framework “is fully based on and supported by the coaching and exercise science literature” (Canadian Sport for Life, as cited in Holt, 2010). Holt reviewed the 54 references on the website and found that many of them were not peer-reviewed articles, but articles that appeared in professional coaching journals. Holt therefore says that the LTDSFA framework is not scientifically derived knowledge but anecdotal knowledge. Holt also had an issue that there is very little scientific evidence to support the psychological components of the LTDSFA framework and it appears that the psychological components were added as an afterthought even though there was plenty of sport psychology research available relating to how and when to teach young athletes. Holt felt that determining whether the LTDSFA framework will be considered successful in the long-term will require expensive and time-consuming longitudinal studies.

Brooks (2016) credited the LTDSFA framework for attempting to educate coaches about the underlying principles from a sport science perspective. She argued that if coaches can be

educated to understand the growth versus maturation concept, nervous system maturation, and critical periods from the sport science perspective, they would be more effective. However, she admitted the LTDSFA framework had not been well-researched to support its effectiveness, although was still considered useful tool.

Ford et al. (2011) focused on the *windows of opportunity* concept, which is an integral part of the LTDSFA framework. They were concerned with the LTDSFA's claim that if athletes do not maximize their training opportunities during the *windows of opportunity*, they will not reach their maximum athletic potential (Balyi & Hamilton, 2004). Ford et al. looked at the literature regarding optimum training periods for aerobic, anaerobic, strength and power in boys and girls to see if it would support Balyi's claims. The authors did find literature that partially supported the concept of critical/sensitive training periods or *windows of opportunity* for boys and girls, but not enough to fully support the claims in the LTDSFA framework. The authors concluded that the LTDSFA framework lacks scientific validity due to subjectivity issues and that there is a lack of empirical data to support a long-term periodization model. Ford et al. warned readers that without clear scientific support of the claims in the LTDSFA framework, coaches should be informed that "optimal training recommendations for successful athletic pathways for young participants is perhaps unsuitable" (Ford et al., 2011, p. 398). If coaches did end up using the LTDSFA framework, they need to be better educated about how to interpret and use the information, as well as understanding how to adapt it for their own athletes.

Lloyd and Oliver (2012), who proposed their own Youth Development Model (YDM), were not convinced about the science in the LTDSFA framework and felt that its scientific claims were too subjective. They argued that the *windows of opportunity* concept was theoretical

since there was no longitudinal evidence to support it. Consequently, they created the YPD, which they argue is a more evidence-based model toward long-term development.

Too Much Science? Day (2011) discussed Great Britain's 2002 adoption of the LTDSFA, emphasizing the framework's goal to use "sport as a mechanism for bridging the gap between grassroots and international performance and encouraging long-term participation in sport for non-elite performers" (p. 181). With the adoption of the LTDSFA framework, there has been an effort in the UK to bring the science of coaching into the UK coaching certificate program. Day (2011) notes that the use of science as part of a coaching practice today is considered normal, but this was not always the case. Scientists have only recently made themselves gatekeepers of specialist knowledge that used to be the responsibility of the coach in areas such as talent identification and overtraining. Sporting success has always been measured by outcomes and the Olympic success of the USSR and GDR using a rigorous scientific approach led the West in the 1970s to the conclusion that "all talent identification and development programmes must be scientifically based in order to maximise returns from their more limited resources" (Day, 2011, p. 180). Day pointed out that coaches from the 1800s and onward were able to identify talent and avoided overtraining their athletes and teams without science. Coaches used practical knowledge for talent identification. Day wrote, "practitioners like Andrews believed that a trainer could usually tell at a glance whether a prospective athlete was likely to be successful ..." (Day, 2011, p. 183). Day emphasized that coaching credibility has always been based on the success of their athletes or teams, and to achieve that, implicit knowledge is needed which cannot be measured by science.

One of the reasons that coaches and academics did not fully endorse or support the LTDSFA framework was the lack of evidence that it actually developed future talent. Norris

(2010) commented that the LTDSPPA framework was written in a language that more people could relate to. This meant that it was to be understood by athletes, parents, academics, coaches and whoever was interested in talent development and physical activity. Norris concluded that “the Canadian Sport for Life (CS4L) document initially was compiled as a basic ‘pop science’ resource and guide, as well as a deliberate ‘lightning rod’ or catalyst to inspire (or even incense) discussion and action” (Norris, 2010, p. 380). This was necessary in order to bring the Canadian system together to overcome the issues at the time related to increasing obesity rates, lack of cooperation between federal, provincial and municipal governments as well as high dropout rates from organized activities and sports. Dowling and Washington (2017) interviewed a member of the expert group who said this about the development of the original LTDSPPA framework “...they just glued together a bunch of long-term athlete development studies and made it accessible. Nothing revolutionary but they made it accessible. They spoke about it in the language that people understood” (Dowling & Washington, 2017, p. 140) and this was done on purpose to get everyone to start communicating with each other. It can be said that when the LTDSPPA framework was released in 2005, Sport Canada knew that it was a limited framework that was going to bring criticism, but it was important to get the different levels of sport together toward a common goal.

Avner et al. (2017) argued that science is overly embedded into the LTDSPPA framework, influencing how coaches should think. They applied a Foucauldian lens to analyze two websites; the Coaching Association of Canada website and the Canadian Sport for Life (CS4L) website, which “officially promotes the LTAD model and outlines its various stages” (Avner et al., 2017, p. 102). Their examination found that these websites use scientific principles to define effective coaching yet provide limited guidance to mental skill training. While emphasizing the

development of healthy, well-rounded individuals, the websites lacked depth in implementing athlete-centered or holistic coaching approaches. Avner et al. suggested that this lack of information encouraged coaches to maintain traditional practices under the guise of innovation.

Experienced coaches viewed the LTDSPA framework as a validation tool rather than a catalyst for change, while newcomers saw it as a valuable coaching roadmap. The study also found based on the language used on the websites, that being an ‘effective’ coach is not necessarily based on the principles of positive coaching but rather on coaching at a level that is “just positive enough” to maintain winning or improve results. Avner et al. argued that the information available on the LTDSPA framework does not effectively encourage coaches to think or act differently within a supposedly athlete-centered development model. They suggested that if sports are to use this framework as the template, sport-specific models may also lack a truly athlete-centered approach.

Issue with the Name. Prior to the new version of the LTDSPA framework released in 2019, two of the studies had an issue with the original name of the framework—Long-Term Athlete Development (LTAD) framework, which is still used in other countries. The coaches interviewed in the Frankish et al. (2012) study found the name of the original framework made the recreational coaches uncomfortable as these coaches felt unqualified to coach with the framework, since they had never competed at any level of competition. Lloyd et al. (2015a) felt that the word sport, athlete or athletic or talent conveyed that the LTDSPA framework is only for a minority of participants and not the general public. They felt that sport development models need to be perceived as a developmental pathway for all children and all people. This concern was addressed by Sport for Life (S4L) in the release of LTDSPA framework version 3.0 with the name change.

Gap in the Research

Upon reviewing the limited research related to the Long-Term Development in Sport and Physical Activity (LTDSPA) framework, my study aims to fill a gap in the existing literature by specifically exploring how basketball coaches perceive and implement Canada Basketball's Athlete Development Model (ADM)—the basketball-specific equivalent of the LTDSPA framework—into their coaching practice.

As noted earlier, there is one unpublished dissertation involving the Athlete Development Model (ADM) that surveyed coaches on their opinions regarding the value of the ADM. My study will strive to offer additional insight from the perspective of basketball coaches, focusing on the four key themes identified in the literature regarding coaches' use of the LTDSPA framework:

1. Coaches desire more scientific evidence concerning the concept of *windows of opportunity*.
2. There is a general agreement that the framework serves as an effective communication tool for all stakeholders.
3. Coaches request more resources to implement the framework effectively.
4. There is a tension between short-term and long-term outcomes, as well as between coaches' knowledge and the demands placed on them by the framework.

My study will also contribute to the sport-specific application of the LTDSPA framework, which provincial and national sports organizations in Canada are seeking (Holt et al., 2018b; Trudeau & Charest, 2020).

Conclusion

In this chapter, I have presented literature related to sources of coaching knowledge using Coombs and Ahmed (1974) learning framework as well as literature relating to the LTDSPA framework. The literature on sources of coach knowledge shows that all forms of coach learning are important for coaches and that coaches value each learning opportunity differently. The value that a coach places on the learning opportunity is dependent on their experience and the level of participant they are coaching. The key themes found in the literature about the LTDSPA framework from the coaches' perspective include: the lack of scientific evidence on the *windows of opportunity* concept, its usefulness as a communication tool for key stakeholders, tension between coaching knowledge and the prescriptive nature of the LTDSPA framework, and the request for more coaching resources to be able to use the LTDSPA framework more effectively.

Based on the review of the LTDSPA framework literature, the research gap I addressed pertained to the limited number of studies on the implementation of the LTDSPA framework specifically within the sport of basketball. This study aimed to explore how basketball coaches interpreted and utilized the LTDSPA framework. My study contributed to the small body of literature concerning coaches' use of the LTDSPA framework across all sports.

With the gap in the research identified, my research question was—*What has been the experience of coaches in incorporating Canada Basketball's Athlete Development Model into their coaching practice in the Province of Alberta?*

In the next chapter, I will discuss the methodology and procedures (methods) I used in my research study.

Chapter 3: Methodology

In this study, I conducted interviews with six basketball coaches who had been involved as members of the Alberta Basketball coaching staff at some point over the past ten years. The aim of this research was to gain insight into coaches' experiences in incorporating Canada Basketball's Athlete Development Model (ADM) into their coaching practice.

The research approach adopted for this study was rooted in an interpretive inquiry framework, firmly situated within the social constructivist paradigm and characterized by narrative and hermeneutic commitments (Guba & Lincoln, 1994). The holistic question guiding the research process and development of interview protocols was: *What has been the experience of coaches in incorporating Canada Basketball's Athlete Development Model into their coaching practice in Alberta?*

The research activities with each participant can be considered *qualitative case studies with an interpretive emphasis* (Merriam, 1998). An "hermeneutic interview protocol" outlined by Tine and Ellis (2022) was utilized as part of this study. The use of the protocol facilitated both data collection and analysis. It involved the use of Pre-Interview Activities (PIAs) to establish rapport with participants and shape subsequent discussions. Furthermore, the interview questions were carefully structured to transition from the "getting-to-know you" questions to participants' engagement with sports, and to more specific inquiries about their coaching experiences and the integration of the Athlete Development Model (ADM) within their coaching practice.

This chapter presents the nature of qualitative research, the constructivist paradigm, the key role of the researcher, general ideas about interpretive inquiry, key ideas from hermeneutics that inform the research process, the role of narratives and working with the narratives, interviewing, writing a narrative portrait, and procedures for the study.

Qualitative Research

Before one decides to conduct qualitative research, the researcher must understand what they believe about the nature of reality, knowledge and production of knowledge (Merriam, 1998). Guba and Lincoln (1994) defined the research or inquiry paradigm as “the basic belief system or worldview that guides the investigator, not only in choices of method but in ontologically and epistemologically fundamental ways” (p. 105). Mayan (2016) said that the researcher paradigm defines for the researcher what is the nature of reality and what can be known (ontology) and what is the relationship between the researcher and participant (epistemology). Guba and Lincoln (1994) presented four research paradigms in the production of knowledge. The first is the *positivist* perspective. Positivism is linked to scientific and experimental research where data is objective, quantifiable and “true”. The second is post-positivism which is similar to positivism where the data is objective, quantifiable but instead of being “true”, research findings are *probably true* allowing for falsification of the hypothesis (not 100% true). The third is a *critical theory* orientation where knowledge is generated through the examination of the social institutions examining power, privilege and oppression and the fourth is the *constructivist* or *interpretive orientation* where knowledge is generated through the meaning that a person gives to that lived experience.

Qualitative research leans toward the critical theory and interpretive orientations and is composed of several forms of inquiry such as naturalistic inquiry, interpretive research, field study, participant observation, inductive research, case study and ethnography (Merriam, 1998; Mayan, 2016). In qualitative research, the researcher is interested in how individuals understand their experience with a phenomenon and concerned with how people construct meanings and make sense of the world (Guba & Lincoln, 1994; Merriam, 1998; Schwandt, 2007).

According to Merriam (1998), qualitative research has five key characteristics. The *first* characteristic is to understand the phenomenon from the perspective of the participant or *emic*. *Emic* refers to the local language and ways of expression used by members from the same group to share their experience (Creswell, 2012; Schwandt, 2007). The *second characteristic* of qualitative research is that “the researcher is the primary instrument for data collection and analysis” (Merriam, 1998, p. 7). Human researchers have characteristics that differ from other data collection instruments such as surveys and questionnaires. These characteristics are responsive to context, techniques adapt to the circumstances, considerate of the total context, sensitive to nonverbal aspects, ability to process data immediately, ability to clarify and summarize and exploration of anomalous responses. The *third* characteristic of qualitative research is that it involves fieldwork. The researcher will physically visit the setting or site of the participant in order to observe him/her in a more natural setting. This helps the researcher describe and interpret the interactions that go on in that setting which helps the researcher become more familiar with the phenomenon being studied. The *fourth* characteristic is that qualitative research employs an inductive research strategy which means that the researcher “builds abstractions, concept, hypothesis or theories” (Merriam, 1998, p.7). It is common to use qualitative research when there is a lack of theories in available literature explaining the phenomenon being studied. The researcher is looking for themes, categories, typologies, concepts, tentative hypotheses and even theory in the data collected. The *fifth* characteristic of qualitative research is that it is richly descriptive. Studies can include a description of the context, the individuals involved, using participants’ own words, direct citations from documents and excerpts from recordings which support the findings of the study.

In the field of education, there are five common types of qualitative research studies: the basic or generic qualitative study, ethnography, phenomenology, grounded theory and case study (Merriam, 1998). The goal of a *basic or generic* qualitative study is to seek to understand a phenomenon from the perspective of the individual. A *grounded theory study* puts an emphasis on theory development. It assumes an inductive perspective in trying to find meaning in the data collected builds theories that are not *grand* theories but everyday world theories that are substantive (Merriam, 1998). The *ethnographic study* is a study of culture which includes “beliefs, values, and attitudes that structure the behavior pattern of a specific group of people” (Merriam, 1998, p. 13). *Phenomenology* is a philosophy that underpins all qualitative research with its emphasis on experience and interpretation, where a *phenomenological study*, however, is concerned with the “essence or structure of an experience” (Merriam, 1998, p. 15). A *case study* is interested in gaining an “in-depth understanding of the situation and meaning for all those involved” (Merriam, 1998, p. 19). A case study differs from the other qualitative research methods in that the analysis is on a single unit or bounded system (Merriam, 1998).

Evaluating a Qualitative Study

Creswell (2014) used the ideas of the qualitative validity and qualitative reliability to evaluate a qualitative study, but the concepts of validity and reliability do not carry the same connotations as they do for quantitative studies. Qualitative validity is defined as checking for the accuracy of findings using various methods such as *triangulation*, *member checking* and *the use of rich thick descriptions* (Creswell, 2014). Qualitative reliability ensures that the “researcher’s approach is consistent across different researchers and different projects” (Creswell, 2014, p. 201).

Lincoln and Guba (1985) discussed the idea of trustworthiness to address the issue of rigor. Guba and Lincoln defined trustworthiness using the following criteria: *credibility*, *transferability*, *dependability* and *confirmability*. *Credibility* meaning whether the research findings make sense and if they are an accurate representation of the participants and/or data. *Transferability* is defined as whether research findings can be transferred to other settings. Transferability can be shown by using a thick set of descriptions of settings and participants (Mayan, 2016). *Dependability* is referring to a post hoc to review how decisions were made throughout the research and can be attained through the use of an audit trail and *confirmability* referencing whether data collection to ensure findings are logical (Mayan, 2016).

Qualitative researchers reject the positivist and post-positivist criteria, finding the idea of post-positive criteria irrelevant to their own work and “contend that these criteria reproduce only a certain kind of science, a science that silences too many voices” (Denzin & Lincoln, 1994, p. 5). Post-positivism is associated with the notion that quantitative research findings are considered applicable only within the specific context in which the data was obtained (Ryan, 2006). However, qualitative researchers seek other ways to evaluate the research. They assess the “goodness” of a qualitative study using postmodern sensibilities, which include verisimilitude (the appearance of being true or real), emotionality, personal responsibility, an ethic of caring, political praxis, multi-voiced text and dialogues with subjects (Denzin & Lincoln, 1994).

Bricoleur

Qualitative research with its many methods of research can be considered a *bricolage* (Denzin & Lincoln, 1994). Therefore, the researcher undertaking qualitative research is considered a *bricoleur*. The *bricoleur* has to do many things. Levi-Strauss (1966, as cited in Denzin & Lincoln, 1994) called the *bricoleur* a “jack of all trades or a professional do-it-yourself

person” (p. 2). Denzin and Lincoln (1994) wrote that the *bricoleur* uses whatever method, strategies and tools they have available to them in conducting the study. The *bricoleur* must be open to use all the tools and research practices available, as the decision of what to use depends on the questions asked and the context. The *bricoleur* can perform a large number of diverse tasks, “ranging from interviewing to observing to interpreting personal and historical documents” (Denzin & Lincoln, 1994, p. 2). The *bricoleur* is “knowledgeable about the many interpretive paradigms (feminism, Marxism, cultural studies, constructivism) so that they can be brought to any particular problem” (Denzin & Lincoln, 1994, p. 2). The *bricoleur* believes that qualitative research is interactive and shaped by their own “personal history, biography, gender, social class, race and ethnicity” (Denzin & Lincoln, 1994, p. 3). In the end, the *bricoleur* will produce the *bricolage*, which is a “complex, dense, reflexive, collage-like creation that represents the researcher’s images, understandings, and interpretations of the world or phenomenon under analysis” (Denzin & Lincoln, 1994, p. 3).

The Constructivist Paradigm

A paradigm is “the basic belief system or worldview that guides the investigator, not only in choices of method but in ontologically and epistemologically fundamental ways” (Guba & Lincoln, 1994, p. 105). The paradigm defines for the researcher the boundaries of what counts as legitimate inquiry (Guba & Lincoln, 1994). Guba and Lincoln (1994) stated that there are three fundamental questions that are asked in an inquiry paradigm: ontological, epistemological and methodological. The ontological question asked is “what is the form and nature of reality and therefore, what is there that can be known about it?” (Guba & Lincoln, 1994, p. 108). The epistemological question inquires about the “nature of the relationship between the knower or would be knower and what can be known” (Guba & Lincoln, 1994, p. 108) and the

methodological question is “how can the inquirer go about finding out whatever he or she believes can be known?” (Guba & Lincoln, 1994, p. 108).

For the constructivism paradigm, the ontology is based in relativism. The realities that are constructed are local and specific and where there are multiple realities. These multiple realities are “not more or less ‘true’, in any absolute sense” (Guba & Lincoln, 1994, p. 111) but can change as their constructors become more informed and sophisticated.

The epistemology of the constructivism paradigm is transactional and subjectivist. This means that knowledge is created from the interaction among investigators and participants (Guba & Lincoln, 1994).

The methodology related to the constructivism paradigm revolves around hermeneutics and is dialectical. The goal is to reconstruct the previously held constructions to form more informed and sophisticated constructions (Guba & Lincoln, 1994).

Constructivists, in general, attempt to understand and reconstruct the constructions that people initially hold, aiming toward consensus but open to new interpretation realizing that these constructions are subject to continuous revision (Guba & Lincoln, 1994).

Key Role of the Researcher

In a qualitative study, the researcher is the primary instrument for collecting and analyzing data. This is positive in that the researcher can be flexible in adapting to a fluid situation during the study or as Merriam (1998) said “maximizing opportunities for collecting and producing meaningful information” (p. 20). On the negative side, the researcher is a human being and human beings have been known to make mistakes, miss opportunities and have an inherent personal bias (Merriam, 1998). Merriam believed that to be an effective qualitative researcher, certain attributes would be beneficial for a researcher to possess. The first attribute is

a *tolerance for ambiguity*. Merriam described this attribute by pointing out that qualitative studies do not always follow a structure, procedures or protocols which can be frustrating for some researchers, but it is also why this kind of study is appealing to qualitative researchers. *Patience* is also an important quality for a researcher in order to put together the clues and leads to determine what information is most important. The qualitative researcher must also be *sensitive* to the context and all variables within it. An example would be while interviewing a participant, allowing for silence, knowing when to probe more deeply and when to change the direction of the interview. *Communication* and *listening* are crucial attributes to possess as the purpose of an interview is to find out what the participant is thinking. Finally, a good qualitative researcher needs to be *able to write* as the final narrative of the study is usually a lengthy written narrative with thick rich descriptions.

Because the researcher is the primary research instrument, Boostrom (1994) pointed out that deciding what to pay attention to is not an easy task for a novice researcher. It will take time to learn what to pay attention to when conducting a qualitative research study. Boostrom described how he evolved as a qualitative researcher by describing the characteristics and perspectives of the six stages he experienced when he entered a classroom. The observer (researcher) as a *video camera* is the first stage. In this stage, the researcher is blind to the data being collected. The researcher can only see events at a superficial level since the researcher is not sure what to look for. Events are recorded accurately but the entries are flat—there is nothing of significance recorded. The attention of the researcher is similar to a video camera which moves randomly and without depth. The second stage is observer as *playgoer*. Individuals who are seen as objects in stage one start to exhibit unique attributes in stage two. The individuals start to “become well-rounded characters in an ongoing drama” (Boostrom, 1994, p. 54). In the

classroom, everyone has a role in the “play” and the researcher gets drawn into the events finding themselves getting caught up in the action and taking sides. In the *playgoer* stage, it is important to start writing down your thoughts in order to get a feel for the story that you are observing. The third stage is observer as *evaluator*. It will be natural for the researcher to start making judgements about what is going on in the classroom. Personal judgements will not help in understanding the part-whole relationship that is being played out in the classroom. Structured self-talk is required here in stage three to remind yourself not to be judgmental about what is being observed. The fourth stage is the *subjective inquirer*. It is in this stage that the researcher starts incorporating their own perspective of what is being observed and begins to generate questions that provide foci for their own attention or reflection (J. Ellis, personal communication, February 2018). After an observation session, the researcher will have written down questions of interest for themselves (i.e., what is the meaning/significance of the action?) rather than data in the form of observations. The researcher is asking about implications (not about cause and effect) and the unintended consequences of the action or decision. That is why it is often said that in qualitative research, as the study progresses the questions will change because the researchers themselves change (J. Ellis, personal communication, February 2018). The fifth stage is the observer as an *insider*. The insider stage is a stage that is accomplished once the researcher has identified the part-whole relationships at a very concrete lived experience level (J. Ellis, personal communication, February 2018). Being an insider allows the researcher to identify what to pay attention to. Boostrom (1994) realized he was an insider when he was able to understand that the second-grade rules (part) were part of the whole which was what it means to be a second grader. The sixth stage is the observer as a *reflective interpreter*. This is the process of thinking and writing about the implications of what you as the researcher have learned. Recommendations are

made regarding what others can do differently and to discuss potential implications for all stakeholders. The researcher starts to write reflectively about everything the observer has learned (Boostrom, 1994).

Now that the researcher has been identified as a key instrument in a qualitative research study, the next sections focus on interpretive inquiry and hermeneutics which will provide myself as the researcher further guidance to inform practice and conduct.

Interpretive Inquiry

Interpretive inquiry is a research process that a researcher must walk in order to create the path and a process that flows and unfolds (Ellis, 1998). Ellis (1998) suggested that the interpretive inquiry process starts with an entry question that allows the researcher to enter the hermeneutic circle in the right way. To enter the circle in the right way involves goodwill, caring for the participant as well as humility and expectation to learn (J. Ellis, personal communication, February 2018). Entry questions are not rhetorical and do not imply an answer (Ellis, 1998). It is important that the researcher has genuine engagement with the entry question as this type of engagement will provide the creativity and energy the inquiry requires (Ellis, 1998). An entry question will focus (usually) on a practical concern for the researcher, and this helps in getting the researcher's full attention (Ellis, 1998).

An interpretive inquiry study takes the form of loops in a spiral with each loop representing a separate inquiry activity (Ellis, 1998). Each loop is a "different attempt to get closer to what one hopes to understand" (Ellis, 1998, p. 20). So, when one enters the loop with an entry question, the learning that is attained through the first loop will provide direction and help in reframing the question for the next time through the loop (Ellis, 1998). The first loop involves an activity to access the person or situation of interest. The choice of activity can take

many forms and will depend on the desire to “respect the way research participants might reveal themselves” (Ellis, 1998, p. 21). Strong first activities in the first loop will help the inquiry unfold in unexpected directions (Ellis, 1998).

Each loop in the spiral is a hermeneutic circle which has a forward and backward arc. The forward arc contains the researcher’s existing preconceptions, preunderstandings or prejudices including purposes, interests and values (Ellis, 1998). The backward arc is used to evaluate the initial interpretation from the forward arc and attempts to uncover what went unseen before (Ellis, 1998).

Each time through the loop should generate findings. As the researcher examines the findings, there will be things that are expected and some things that are unexpected. The process involves “re-examining the data for confirmation, contradictions, gaps or inconsistencies” (Ellis, 1998, p. 26). Re-examining the data in the backward arc is a deliberative process where it is “important to ask what is missing in the data and what is present” (Ellis, 1998, p. 27). This is called the process of *uncovering* in hermeneutic terms (Ellis, 1998). The idea of uncovering was developed by Heidegger and is an important part of the interpretive inquiry process (Ellis, 1998). Uncovering is experienced in the return arc (backward) of the hermeneutic circle and a response to the interpretive inquiry questions. If no uncoverings are found, the research will stall as the understanding of the problem will require a new direction in order to reframe the question (Ellis, 1998). It is also in the backward arc that the researcher will explore the interpretive power of other conceptual frameworks (Ellis, 1998). The backward arc also has the researcher consider different theories to see which one is the most adequate for explaining any patterns or dynamics identified in the data (J. Ellis, personal communication, February 2018). Ellis (1998) said that the

researcher looks for an interpretation that is “as coherent, comprehensive and comprehensible as possible” (Ellis, 1998, p. 27).

Writing the interpretive account should include how the researcher has become concerned for, interested in or knowledgeable about the entry question. It should also include key ideas and theories that will inform the findings. Ellis (1998) recommended the use of autobiographical material to become aware of taken-for-granted assumptions and self-consciousness about personal fore-structures. Fore-structure or pre-understanding will help the researcher provide a “perspective or reading which might otherwise be impossible to achieve” (Ellis, 1998, p. 29) and understand their “taken for granted assumptions about how life should be” (p. 30). The researcher’s personal story at the beginning of an interpretive account can powerfully support a “reader’s fusion of horizons with the text” (Ellis, 1998, p. 32). The fusion of horizons offers the opportunity for more shared meanings within the interpretive account (Ellis, 1998). The writing should offer interpretations or arguments and support them by including “enough illustrative material for readers with different perspectives to form their own interpretations” (Ellis, 1998 p. 32). Finally, there should be a reflection section to discuss how the study has transformed their understanding and raised awareness of the inadequacies of their preunderstandings (Ellis, 1998).

Evaluating an Interpretive Account

Patterson and Williams (2002) proposed three overarching criteria for evaluating a hermeneutic interpretive inquiry: persuasiveness, insightfulness, and practical utility. Persuasiveness is described as “a focus on the product or outcome of interpretation and the empirical warrants for the interpretations presented to justify the interpretation” (Patterson & Williams, 2002, p. 33). Insightfulness pertains to whether the inquiry “increases our

understanding of a phenomenon” (Patterson & Williams, 2002, p. 34). Practical utility refers to whether the interpretation is useful or “uncovers an answer to the concern motivating the inquiry” (Packer & Addison, 1989, p. 289).

Packer and Addison (1989) additionally suggested four general approaches for evaluating an interpretive account (p. 279-280):

1. Requiring it be coherent
2. Examining its relationship to external evidence
3. Seeking consensus among various groups
4. Assessing its relationship to future events

Packer and Addison (1989) considered validity a non-issue in determining if an interpretation is true or false. The term “validation” implies that the interpretation is free of norms or standards. The more important question is whether the “interpretive account can be clarified or made more comprehensive and comprehensible” (Ellis, 1998, p. 29).

Ellis (1998) stated that the evaluation of an interpretive account should not be based on “objective validation traditional approaches seek” (p. 32). Instead, “one should ask whether the concern which motivated the inquiry has been advanced” (p. 30). Furthermore, Ellis suggests six additional questions to assist in evaluating an interpretive study. These questions are:

1. Is it plausible, convincing?
2. Does it fit with other material we know?
3. Does it have the power to change practice?
4. Has the researcher’s understanding been transformed?
5. Has a solution been uncovered?
6. Have new possibilities been opened up for the researcher, research participants, and the

structure of the context?

Ideas from Hermeneutics

Early in the 19th century, Schleiermacher introduced three central themes that have been integral in the field of hermeneutics; (1) interpretation is creative and holistic, (2) the importance of the part-whole and micro-macro relationships and (3) importance of language and history in enabling and limiting interpretation (Ellis, 1998; Ellis, 2006).

Interpretation is the process by which a researcher tries to understand the “meaning of another person’s expression” (Ellis, 2006, p. 115). In working holistically, the researcher uses everything that they know to inform the interpretation (Ellis, 2006). Ellis (2006) suggested the use of *getting-to-know participant* activities. These activities help the researcher with acquiring background information in order to learn about the “wholeness and complexity” (Ellis, 2006, p. 115) of the experience. The creativity part enters the picture when the researcher constructs the meaning of what they are hearing or perceiving (Ellis, 2006). The researcher will try to make sense of what is being said by the participant by incorporating all that they know of the participant and the context in their search to identify part-whole relationships in the person’s experience (Ellis, 2006). Context includes both the specific site of the experience and a holistic perspective of how the person perceives themselves and their life in general (Ellis, 2009).

The search to identify the part-whole relationship is very important in doing a proper interpretation (Ellis, 2006). Gadamer (1989, as cited in Ellis, 1998) explained that interpretation entails the identification of part-whole relationships and that the application of the hermeneutic circle where there is no “natural starting or end point” (Ellis, 2006, p. 116) will assist in uncovering stories. The back-and-forth process will recognize the individual stories within the bigger story, and this will help the researcher interpret the conditions that are influencing the

individual story (Ellis, 2006). Equally important is the micro-macro relationship where individual stories may uncover larger macro stories. Ellis (2006) provided an example of a micro story that revealed a larger macro story. In the example, a story that speaks to a school culture that gives more recognition to sport success than academic success could be read to demonstrate that our we have an “egalitarian society that glamorizes and promotes a star system in competitive sports” (Ellis, 2006, p. 116).

Language is important in hermeneutics. Ellis (2006) pointed out that language can enable and limit the interpretation and that any interpretation that is offered by the researcher reflects a “time and place in history and the influence of the community” (p. 117). As language changes, so will the interpretation. Participants themselves use the language of their community so careful attention must be paid to the language they are using (Ellis, 2006). It is important to not introduce language that may not be normally used by participants (Ellis, 2006). Using open ended questions in the interview process is a way to avoid language appropriation. The researcher should not assume there are any shared meanings of words or concepts between themselves and the participants (Ellis, 2006). The meaning instead should be mined by paying attention to how words are used in the stories told by the participant (Ellis, 2006). Writing the interpretation also involves language. In writing, the researcher needs to be cognizant of the language or words being used to convey meanings of the interpretation (Ellis, 2006). Language is also important in trying to distinguish the researcher’s findings from other existing views. This involves “reaching beyond words or concepts that are typically used to discuss the problem of interest” (Ellis, 2006, p. 117).

As mentioned earlier in the interpretive inquiry section, the forward and backward arcs of the hermeneutic circle are important concepts within hermeneutics. The forward arc of the

hermeneutic circle contains the researchers existing preconceptions, preunderstandings or prejudices that will contribute in generating findings. The backward arc of the circle is to uncover what was not seen before to be able to find the most adequate explanation of the patterns or dynamics identified in the data. The “fusion of horizons” is also a key concept in hermeneutics. Gadamer recognized that all individuals have their prejudices and prejudgments which he said is not a terrible thing to bring to a dialectical encounter but instead a sign that helps an individual make sense of the world from a particular “horizon” which then becomes the starting point for thoughts and actions (Smith, 1991). This fusion of horizons takes place when there is a dialogue between the researcher and the participant. The fusion of horizons will allow the research to “access or grasp participants’ perspectives or points of view” (Ellis, Amjad & Deng, 2011, p. 64). By understanding the participant’s perspective, solidarity is created with the participant (Ellis, Amjad & Deng, 2011).

Role of Narrative

Guba and Lincoln (1994) wrote that the constructivist paradigm is one that is committed to a hermeneutic and dialectical methodology. Constructivist ontology believes that there are multiple realities with the epistemological view that knowledge is created between the interaction of the researcher and the participant. The aim of a constructivist methodology is to understand and reconstruct previously held constructions where new knowledge is created from the interaction between the researcher and the participant. Interpretive inquiry which focuses on the lived experience of individuals, uses narratives to communicate these constructions or experiences (J. Ellis, personal communication, February 2018). The narratives are collected from the responses to the PIAs and semi-structured interview questions. These narratives are significant to the research.

Narrative in Interviews

The answers that research participants provide in an interview should be treated as stories or narratives (Mishler, 1986). These stories are commonly found in responses provided by participants in unstructured and semi-structured interviews as participants reminisce about their experiences in story form. Polkinghorne (1995) wrote that “the story is a reconstruction of a series of events and actions that produced a particular outcome” (p. 18). Mishler (1986) commented that it is important for the interviewer to allow space for stories during the interview. To do this, the interviewer needs to be an attentive listener and be aware of how to respond to the participant’s response. Mishler suggested that the interviewer allows the participant to be able to continue their story until they feel they are finished. This is how the researcher will be able to find meaningful or coherent stories or narratives which usually have a beginning, middle and end. Sometimes, the narratives that participants provide only give partial information so in this situation, the researcher will need to look at other narrative contexts to answer what the story is about. Mishler suggested that the interviewer “must include an analysis of the interview situation and process in order to arrive at a fuller and more adequate interpretation of respondents’ answer to our questions” (p. 248). Mishler concluded by saying that to understand what participant stories are all about, the researcher should invite participants to become collaborators so that the researcher and participant can figure out together what the stories are all about.

Working with the Narrative

Polkinghorne (1995) has written about how to work with narratives when conducting an analysis of the research interviews. Narratives can be found in written documents such as autobiographies and biographies and from oral statements which include recorded oral histories

and interviews. Polkinghorne distinguishes between two kinds of narrative approaches: *analysis of narratives* and *narrative analysis*.

Analysis of narratives takes common stories about a common topic from multiple participants and looks for common elements or general knowledge contained within the stories. *Analysis of narratives* uses paradigmatic reasoning in the analysis of stories. A paradigmatic type of analysis is a method to uncover commonalities across the stories that were collected as data to produce themes or categories (Polkinghorne, 1995). Two types of paradigm searches can be conducted when looking at the narratives. The first is to look for concepts from a known theory found in and across the stories. The second is to find concepts inductively in and across stories. Grounded Theory would be an example of the second type of search. Paradigmatic analysis also looks for relationships between themes and categories. Polkinghorne (1995) wrote that the strength of paradigmatic analysis is to “develop general knowledge about a collection of stories” (p. 15).

Narrative analysis takes the data or elements from interviews with one participant and produces a story. Polkinghorne (1995) suggested that the researcher begins with questions like “How did this happen?” or “Why did this come about?” and looks for pieces of information to construct a story that can provide an answer to the question. Data for narrative analysis does not always come in the form of a story but can come from other sources such as “interviews, journals, public and personal documents and observations” (Polkinghorne, 1995, p. 15). This differs from *analysis of narratives* in that stories are not considered as the only type of data. The data collected in this type of analysis should be a bounded system for study so that the data collected will “provide an understanding of its idiosyncrasy and particular complexity” (Polkinghorne, 1995, p. 15).

How *narrative analysis* works is that the process involves looking at the data collected to find an emerging thematic plot (Polkinghorne, 1995). This plot development uses the principles of the hermeneutic circle by using the to-and-fro movement between part to whole and whole to part. This to-and-fro process helps in developing the final story (Polkinghorne, 1995). In *narrative analysis*, not all the data will end up in the final story because the data must fit. The process that removes that data that is not part of the research results is called *narrative smoothing*. When gaps in the story appear, the researcher will need to gather additional information in order to produce a full explanatory story. The researcher needs to use their disciplinary expertise to interpret and make sense of responses and actions in the production of the final story. It is important to remember that the product of a *narrative analysis* is dialogical and not neutral as it has been created by the interaction of the researcher and participant (Polkinghorne, 1995).

Interviewing

The purpose of an interpretive inquiry is to learn about how something of interest to the researcher is experienced by the participants (Ellis, 2006) and to figure out how the participants' thoughts, actions and feelings can be seen to be reasonable and coherent through the fusion of horizons (Ellis, 2006; Ellis et al., 2011a). Interviews are used to provide a way for the researcher to learn about the participants' lived experience and experience which can only be shared through stories (Ellis, 2006). Weber (1986) called the interview "a special instance of human dialogue" (p. 68). This section highlights the goals and risks of interviews and discusses the use of PIAs and clusters of questions intended to facilitate identification of part-whole relationships (Ellis 2006; Ellis et al., 2013).

The interview in an interpretive inquiry is an important mode for the learning process (Weber, 1986). Much of what we hope to learn about a participant's attitude, beliefs, and values are "based on their responses to the question we ask them" (Mishler, 1986). Weber (1986) said that interviewing is not easy or uniform nor are there easy-to-use tools or "well-established implicitly understood techniques" (p. 65). In order to conduct the interview properly, the researcher must understand the process from the perspective of the researcher and participant.

The first part of the process is to ask someone to participate in the study. This is the invitation to take part in a conversation. The invitation needs to be genuine, not insincere or hollow (Weber, 1986). It should reflect that the researcher is interested in learning about the experience and about each other as human beings (Weber, 1986). Being genuinely present, committed and open to the participant may lead to deep and meaningful conversation about the experience as well as growth of a new human relationship between the researcher and participant (Weber, 1986).

The invitation process involves risk as "betrayal can be a two-way street" (Weber, 1986, p. 66). Invitees may not be that interested in your research and are only participating for the appearance of participating (Weber, 1986). Invitees may also convey the attitude of not being willing to be open or caring to know about the researcher (Weber, 1986). There is also the risk to participants of "revealing that which we do not want to reveal" (Weber, 1986, p. 66). People fear what others may learn about them (including themselves) and that the private conversation will become social and public in the sense the analysis focuses on what the participant says, not what the researcher says (Weber, 1986).

Weber (1986) said that when a participant accepts an invitation, it means to accept being in a conversation and that includes an element of trust. Trust that the interview will not

misinterpret, misrepresent or distort the participant's meaning and that the private conversation does not become public.

In making the participant feel at ease during the conversation, the interviewer must remove any preconceptions the participant may have (Weber, 1986). Interviewers are typically viewed as the ones asking the questions, so they are in control. This preconception may be perceived as the interviewer trying to trick the participant into saying what they did not really want to say (Weber, 1986). Instead, the interviewer needs to respect the participant and create an environment where the participant is there to inform or teach the interviewer (Weber, 1986). This gives the participant an active role where they feel that they are not being manipulated but instead equal partners in the interview process. Interviewers should not be afraid to be affected by what has been said during the interview. It is this interrelatedness to the "other as one human being to another that interviewing is really possible" (Weber, 1986, p. 69).

After the interview is over, Weber (1986) said interviewers will recall and reflect shared moments of the interview. The interview in the mind of the interviewer does not end and future participants will be questioned in those interviews based on the conversation from previous interviews.

Back to the idea of betrayal being a two-way street, interviewers can betray the intimate conversation if the conversation is written down word for word. Weber (1986) said the process of transcribing the interview "transforms that language, robbing it at times of its power, clarity and depth even its meaning" (p. 71). The conversation is removed from its texture as the written word cannot capture the nuances of the oral conversation (Weber, 1986). Weber (1986) also said that in the writing process, "interviewers often detach themselves from the original experience,

disowning and feigning neutrality which betrays the interview” and “tends to focus on ‘what’ was said and forgetting ‘how’ it was said” (p. 70).

With the interview being such an important activity in the research process, how can the researcher engage with the participant holistically to be able to achieve the goals and manage the risks? Through her own research and in her work with graduate students, Ellis (Ellis, 1998, 2006; Ellis et al., 2011a, 2011b, 2013; Tine & Ellis, 2022) developed the “hermeneutic interview protocol” which involved the use of Pre-Interview Activities (PIAs) and part-whole clusters of open-ended questions to address many of the goals and risks of interviews as identified by Mishler (1986), Weber (1986), and Brenner (2006, as cited in Ellis et al., 2013). The PIAs assist in starting the getting-to-know each other conversation as well as enabling the participant to teach the researcher about the context of the research inquiry and the experience that is of interest. PIAs about the research topic itself provide a chance for participants to recall the experience of interest in order to make visual representations about it. Harper (2002, as cited in Ellis et al., 2013) said that visual representations are able to bring back “deeper elements of human consciousness than do words” (p. 490). A researcher may want to invite the participant to share negative experiences as well and use of the PIA can allow it to be done more safely than in question-and-answer format (J. Ellis, personal communication, February 2018). It provides the participant the opportunity to recall moments and the ability to select the memories they want to share (Ellis, 2006). It is important that a choice of activities is provided in the PIAs in order for the participant to choose what activity is salient or meaningful to share as well as what they feel comfortable to share (Ellis, 2006; Ellis et al., 2013). The “getting-to-know you” PIAs help the researcher understand some of the things that are important about the wholeness of the participant’s life in order to interpret the significance that it may have on the research topic. The

items that are produced from PIAs range from schedules, key words, maps, timelines, drawings of pictures, diagrams and visual metaphors (Ellis, 2006). It should also be noted that PIAs are provided to participants a week or so in advance of the interview in order to choose and complete the general getting-to-know you questions and other questions that pertain to the interview topic (J. Ellis, personal communication, February 2018). The PIAs are used to start the interview with participants invited to show to the interviewer and talk about their completed PIAs. The interviewer should try to remain silent (while looking interested) and let the participant talk at length about each PIA. Only when the participant seems to be finished describing the PIA does the interviewer offer a descriptive comment as a way to gently prompt explanation. Prying questions are avoided as much as possible (J. Ellis, personal communication, February 2018).

After the conversation of the PIAs is complete, the researcher starts the process of asking open-ended questions contained in clusters. These clusters of questions start from general to specific and are intended to support the part-whole understanding and interpretation (Ellis, EDEL 665 class handout). As an example, I was interested in learning about the experience of teaching online to students whose first language is not English for a course assignment. After the PIA discussion with my participant, I proceeded with my cluster of questions from broad to specific. The clusters were as follows; getting-to-know you (cluster 1), experience as a student in both the Bachelor's and Master's of Nursing programs (cluster 2), experience as a teacher at Norquest College in the Practical Nursing Department (cluster 3), experience teaching online courses (cluster 4) and experience with students whose first language is not English when teaching online (cluster 5). Each cluster contained three to six questions related to the cluster topic. Ellis (EDEL 665 class handout) suggested introducing each cluster to the participant by saying what the questions in this cluster are about. After each participant's response, Ellis

(EDEL 665 class handout) recommended to not follow up too much but instead, write down your thoughts to discuss further with the participant afterwards. This maintains the flow and space for the participant as the intention of the open-ended questions is to provide the space for free-flowing responses. The goal is to keep the free flow thinking going to help the participant be able to recall experiences or ideas pertaining to a large number of keywords or question prompts (J. Ellis, personal communication, February 2018). Ellis (EDEL 665 class handout) noted that these cluster questions do not always work the way they were intended to and that is okay to move on to the next question if it does prompt any stories from the participant.

Analysis and Interpretation

The goal of the researcher in an interpretive inquiry study is to learn how the participants have experienced the activity or event (Ellis, 2009). A participant's sense-making and experiences can be best revealed through their narratives (Ellis, 2006; Merriam, 1998). In interpreting these narratives, the researcher tries to learn: 1) the participants' thoughts and actions, and 2) the story they construct about their experiences, which provides the context that makes their actions reasonable and coherent (Ellis, 2006).

In reaching this goal, the central ideas from hermeneutics are used to learn and understand the person who we are interviewing about the event or experience. These ideas again are the creative character of interpretation; the importance of part-whole, micro-macro relationships; and the key role of language and history (Ellis, 2006). The researcher needs to understand the whole in order to understand the parts and the parts to the whole by utilizing the hermeneutic circle to uncover what was unseen before.

The narrative approach recommended in an interpretive inquiry study involves providing the questions that will be asked to the participant, outlining the process of conducting the

interview and detailing how to work with the interview transcript to write a narrative portrait of the person. The goal is to learn about the motivations, values, influences of the participant, and how they make sense of their own and others' experience (Ellis, 2006).

Writing a Narrative Portrait

A narrative portrait is important in introducing each participant in the study. It is a rich introduction to the person and provides context that can inform the interpretation about the significance of information across the interview. The narrative portrait provides an overview of who the person is at that moment and not a life story (Ellis, 2006). The narrative portrait also discusses what was missing, the inconsistencies, the ambiguities and doubts expressed by the participant. The narrative portrait should be about how the participant experiences themselves and others as it provides a holistic sense of who the participant is at that moment in time (Ellis, 2006). Ellis (2006) provided five steps in crafting the narrative portrait:

1. *Identify* everything that is topical in the narrative transcript. Cluster the responses to these topics.
2. *Examine* the stories in each cluster and ask what the stories for that topic are about.
3. *Search* across the topics for common preoccupations or motivations. There may be themes developing.
4. *Ask more questions*. Who are the significant others in the stories? How is the participant positioned in relation to the significant others? Do they talk about the past, present or future? What is absent from the stories? Where are these stories taking place?
5. *Write* the narrative portrait by highlighting the dominant characteristics of the person.

Use the rest of the portrait to discuss the themes and topics that were discovered through the analysis of narrative.

Other questions to consider when reading a transcript are what the dominant metaphors are, what assumptions or cause-and-effect relationships are implied or made explicit in the participant explanation, what key motivations or goals are revealed by the stories or comments (Ellis, EDEL 665 class handout). In the end, the researcher is trying to learn the meaning of the research topic for the participant (Ellis, 2006).

As the narrative portrait is being crafted, Ellis (2009) suggested that the researcher examines the narrative with the following questions in mind—what do the person’s anecdotes, comments, and action reveal, reflect or suggest about:

- What is important to him or her (values, aspirations, motivations, likes, dislikes, hopes, fears, interests, goals)?
- Claimed social identities?
- Who are significant others and how does the person position herself or himself in relation to them?
- The role or significance of family, friends, sports, other pastimes or interests, school, or work in the person’s life?
- His or her preoccupation with the past, present, or future?
- Favorite places (sources of security, belonging, social support, positive identity, restorative support, or creative self-development)?

Analyzing a Narrative Interview

The interviews will produce narratives that are offered by the participants and these narratives should be the units of analysis (Mishler, 1986). Ellis (2006) reminded us that “getting at something important is not always a straightforward matter” (p. 114) and that a participant’s beliefs, values, preoccupations and assumptions are not readily revealed at a conscious level.

In looking at the narrative transcript of the interview, the goal is to learn about the participant but as mentioned before, it is not a straightforward process. In order to make some sense of the narrative, the matrix in Appendix 6 demonstrates how to take the story that is provided by the participant for each PIA or question to identify topics, key phrases, key ideas and themes that the story could fit under. It is here that the use of the hermeneutic process begins in trying to uncover the unseen.

In Appendix 7, another matrix is then utilized to *group together* the similar ideas, topics and themes that appeared across the interview. Ellis (J. Ellis, personal communication, February 2018) said that these two analysis matrices will enable the researcher to identify two major things; getting-to-know the person and big ideas about the experience. *Getting-to-know the person* is to find out through the narrative what is important to the person in general and how it will contribute to the narrative portrait. Big ideas are to learn about the participant's experience from all the topics that were the focus of the questions. By reading across the big ideas from all the PIAs and cluster questions, it will enable the identification of "part-whole" relationships which in fact constitutes interpretation and "fusions of horizons" (J. Ellis, personal communication, February 2018).

Through engaging with the narrative transcripts, the researcher begins to understand the stories about the experience and as Ellis (2009) pointed out "to write narrative analysis that a researcher's own storied understanding of participants' experience crystallizes" (p. 484).

Presenting/Interpreting Case Studies

To present a narrative analysis of a participant we need to craft an explanatory story. The elements for the explanatory story is done through the analysis and interpretation using the matrices presented in Appendix 6 and Appendix 7. It is not very often, though, that one gets

enough of the right material to craft a narrative analysis—that is, putting all of a person’s material into one coherent sequential story—but it is always a possibility (J. Ellis, personal communication, February 2018). Ellis (2009) recommended that a narrative analysis should be presented with the following general framework:

- An introduction or narrative portrait that offers a holistic sense of the person
- An introduction to the site(s) of the experiences of interest
- Examples of the experience of interest for the research
- The participant’s expressed views about the experience

Identifying Topics/Themes through Analysis of Narratives

Once the narrative analysis is done for each participant, Polkinghorne’s (1995) *analysis of the narratives* comes into play. As described earlier, *analysis of narratives* looks for common topics, themes, elements across all the narratives. There may a case or cases where a *narrative analysis* will not be possible due to a lack of the right kind of material from the interview to make one coherent sequential story about the person’s experience with the ADM (J. Ellis, personal communication, September 2020). If this occurs, the researcher can share the narrative portrait(s), highlighting topical and/or thematic aspects in the participants’ shared recollections (Ellis, 2009). Using a paradigmatic analysis, the goal is to uncover commonalities, patterns and key ideas across the narratives as well as what they have to say about a common topic (J. Ellis, personal communication, September 2020). The researcher can use two types of paradigm searches. The first is for the researcher to look for concepts from a known theory to see if it is found across the narratives. The second is to find topics/themes inductively in and across the narratives. Polkinghorne said that the strength of a paradigmatic analysis is that it will generate general knowledge about a collection of stories.

Conceptual Framework

The Knowledge to Action Framework

The conceptual framework I will be using to guide my study is the Knowledge to Action (KTA) framework, which is a knowledge translation tool proposed by Graham et al. (2006). Knowledge translation (KT) is defined as “a dynamic and iterative process that includes the synthesis, dissemination, exchange and ethically sound application of knowledge” (Canadian Institutes of Health Research, 2024). The KTA framework has its origins in the field of health and has been used in over 140 studies (Holt et al., 2018b). It focuses on a collaborative research approach among researchers and practitioners that results in actions. The idea being that researchers and practitioners work together to identify the research question and develop the tools and/or products to facilitate application of the knowledge (Graham et al., 2006). The KTA framework contains two components: the knowledge creation component (KCC) and the action cycle component (ACC). The KCC is the creation of knowledge by researchers and consists of three phases (Appendix 4): knowledge inquiry (finding primary studies or information), knowledge synthesis (aggregate existing knowledge) and knowledge tools (presentation of knowledge in clear, concise and user friendly format). The ACC is the application of the knowledge by practitioners which helps in determining if there are gaps in diffusing the identified knowledge. The phases of the ACC (Appendix 4) are: (a) identify problem(s) that need addressing; (b) identify, review, and select knowledge/research relevant to the problems; (c) adapt the identified knowledge/research to the local context; (d) assess barriers to knowledge; (e) select, tailor and implement interventions to promote the use of knowledge; (f) monitor knowledge use; (g) evaluate the outcomes of using the knowledge; and (h) sustain ongoing knowledge use. The phases of the ACC can occur sequentially or simultaneously and the

boundaries between the KCC and ACC components are interconnected and permeable allowing for continual exchange of information between practitioners and researchers. I have used phases (c), (d) and (e) of the KTA framework to guide the questions for my study.

Applying the ACC (Appendix 4) to my study started out with (a) identifying a problem that needed addressing. Here the problem was to design a long-term athlete development model for basketball players in Canada based upon the generic LTDSFA framework. The next phase (b) was to select the knowledge that would solve the problem, which Canada Basketball did with the development and release of the Athlete Development Model (ADM) in 2010. The next three phases guided my questions for the study: phase (c) focused on how coaches adapt the ADM to their local context; phase (d) examined how coaches assess the barriers in using the ADM; and phase (e) explored how coaches select, tailor, and implement strategies recommended in the ADM. By using phases (c), (d) and (e) of the ACC of the KTA framework to guide the questions for my study, I hoped to learn about basketball coaches' experiences in using the ADM as a resource for their coaching practice.

Procedures for the Study

The following section will discuss the procedures for my study which include research site, participants, interviews, field notes, analysis, trustworthiness, delimitations, limitations and ethics.

Research Site

Merriam (1998) suggested that the researcher physically goes out to the research site to observe the participant in a more natural setting. Creswell (2014) added that taking the research to a natural setting will allow the researcher to interact face to face. Directly speaking to people is a major characteristic of qualitative research. Taking this into consideration, I originally

planned that the research site for my qualitative study would be at a site of the participant's choosing. I would have discussed with each coach to choose a site where they felt most comfortable in discussing their understanding and use of the Canada Basketball ADM. This may be at the gymnasium where they coach their athletes or at a coffee shop where they like to get their daily beverage. The purpose of a comfortable site was to make the participants more open to sharing a more holistic picture of their coaching practice. Unfortunately, the in-person discussion was not possible due to COVID-19 pandemic restrictions. Instead, a video discussion was conducted using the Zoom platform at a time and site that was most convenient for the participant. The site for myself was my home, which ensured it was quiet, secure, and free from interruptions, and the participants chose a site that was comfortable for them to conduct the interview.

Participants

Six participants were invited to become part of my interpretive inquiry research study as this provided the depth needed in the narratives for a comprehensive analysis. The participants were selected *purposefully* in that they are coaches who have a rich experience in coaching basketball and have experience in using the ADM in order to be able to generate meaningful conversation around the research topic. Creswell (2014) suggested a purposeful sample will provide me with the best help in understanding my research question. The research activities with each participant can be considered *qualitative case studies with an interpretive emphasis* (Merriam, 1998) and as such, a small number of participants is recommended to allow for in-depth data collection and analysis of each individual case (Creswell, 2012; Ellis, 2009). The smaller number of participants will allow for a rich, “thick” description of the phenomenon and illuminate the reader's understanding of the phenomenon (Merriam, 1998). As part of my

interpretive inquiry informed by hermeneutics study, I looked for depth in each interview in order to understand each participant's experience with the ADM and did not try to generalize the findings to a general population.

In the invitation to the participants (Appendix 8), the purpose and nature of my study were included. The invitation to participate was genuine and sincere, as recommended by Weber (1986), to let participants know that I was interested in a conversation about their experience of coaching basketball. The invitation included the research topic and an explanation of why I was interested in it. An informed consent form (Appendix 9) was sent along with the invitation on whether they were willing to participate in my study. The informed consent was collected prior to the interview date.

I specifically interviewed current and past provincial team basketball coaches that coach athletes between the ages of 13-17 years old in the provincial program. These coaches would have been selected by Alberta Basketball to coach provincial teams and asked to use the ADM as a resource in the development of the players. With assistance from Alberta Basketball, I collected the names of current and past provincial team coaches for both boys' and girls' programs starting from 2011. I sent an email to the coaches to ask for interest in participating in the study. From the responses, I purposefully selected six coaches with the intention of selecting a broad spectrum of coaches to interview.

The six participants in this study were almost all born and raised in Alberta, except for one coach who has since made Alberta their home. The purposeful sample consisted of three male and three female basketball coaches, including two who coach at the high school level and four who coach at the post-secondary level. Among them, one male coach leads a women's team, while the others coach teams of the same gender as themselves. Five of the coaches have a

bachelor's degree in post-secondary education, while two hold a Master's degree in coaching. Notably, all coaches with post-secondary education also have degrees in education and have either worked in the K-12 system or continue to do so. All participants have completed their National Coaching Certification Program (NCCP) education, spanning from Training to Train (11–16-year-olds) to Train-to-Compete (15–22-year-olds) stages. Additionally, each of the coaches has worked with provincial teams, with their involvement ranging from one to eight years.

Interviews

Interviews were my key data collection method and an important step in the interpretive inquiry process. The participant is taking a risk in being interviewed so an environment must be created to demonstrate that participant is there to teach the interviewer (Weber, 1986). That is why the participant will choose the research site for the interview. The entry question is also important in showing the participant openness, humility and genuine engagement (Ellis, 1998).

The entry question I used was:

My research interest is in the topic of coaching. More specifically, I am interested in the way coaches use Canada Basketball's Athlete Development Model (ADM) in their coaching practice in the Province of Alberta. I hope to learn more holistically how coaches experience trying to incorporate the ADM objectives in their work with their athletes in the Province of Alberta.

In employing the “hermeneutic interview protocol” (Tine & Ellis, 2022), Ellis (2006) recommended the use of Pre-Interview Activities (PIAs) prior to the interview to help the researcher understand the wholeness of the participant's life to understand its significance on the research topic. PIAs are visual representations of ideas related to a specific topic. The PIAs started the getting-to-know each other part of the conversation as well as enabled the participant to teach the researcher about the context of the research inquiry and the experience that was of

interest. The PIAs for my study were developed with the guidance provided in Ellis' work and the work of her graduate students (Ellis, 2006; Ellis et al., 2011a, 2011b, 2013; Tine & Ellis, 2022). The PIAs were given to the participants a minimum of two weeks prior to the interview. The participants had the choice of completing two or more PIAs from the two groups of prompts (Appendix 5). The first group consisted of the "getting-to-know you" prompts, and the second set of prompts were about their coaching experiences. Each participant was asked to take a cell phone picture or scan of their completed PIAs and to send it to me by email prior to the interview date.

Field Notes

Field notes, as defined by Creswell (2012), are written records made by a researcher during an observation. They can be either descriptive or reflective. Descriptive field notes entail recording what is happening, while reflective field notes capture the researcher's thoughts, hunches, ideas, or emerging themes during the observation. In my study, field notes were taken throughout the interview process. These notes encompassed observations such as the participant's interview setting, the participant's body language, any interruptions that occurred, and other noteworthy observations pertinent to my research.

Analysis

After each interview was completed, I transcribed it verbatim. Following transcription, I carefully reviewed each interview transcript for errors, omissions, or any areas requiring clarification from the participant. Subsequently, I sent the transcript to the participant via email and requested them to review it for accuracy. I invited them to add any additional information or request deletions as necessary. Additionally, I asked the participant to confirm that the transcript accurately reflected the discussion we had during the interview.

To make sense of what had been said in the interviews, I followed the steps outlined in Ellis (1998). In reading through the interview transcript the second time, I asked, “what did the participant talk about?” and captured the narrative, key phrases, topics, key ideas and themes in a profile matrix. Kuckartz (2014) believed that a profile matrix is useful to present qualitative information in a clear and comprehensible manner. My original plan was to create an initial profile matrix, listing the PIA and semi-structured questions on the left side of the matrix. Along the top, I intended to include narratives, key phrases, topics, key ideas, and themes horizontally, similar to the table in Appendix 6. However, I opted to utilize NVivo qualitative software instead to carry out this initial phase. This approach allowed me to capture narratives, key phrases, topics, key ideas, and themes digitally. This first step represents the forward arc of the hermeneutic process in interpretive inquiry. In the forward arc, my interpretation of the narrative contained my preconceptions, preunderstandings and prejudices including purpose, interests and values. Questions that I asked were what topics are absent, who are the significant others in the stories, how does the participant position themselves in relation to significant others, is there an emphasis on the past, present or future, what are the dominant metaphors, what assumptions or cause-and-effect relationships are implied or made explicit in the participant explanation, what key motivations or goals are revealed by the stories or comments. In the backward arc of the analysis, I evaluated my initial interpretation to try to see what was previously unseen. I actively searched for confirmations, contradictions, and gaps or inconsistencies, asking what was missing and what was present in the narrative, as well as identifying parts of stories within the whole story (Ellis, 1998). I continued examining each loop (forward and backward arcs) with a re-framed question each time, hoping to get closer to understanding the research question. When I encountered something unexpected in the findings, it opened up the potential for me to reframe

the question or to understand the problem differently. In hermeneutic terms, this is called the process of uncovering, or *aletheia*, meaning coming to see what was not seen before (Ellis, 1998).

The next step of the analysis was to organize the stories, topics, key ideas and themes that appear across the narratives (all the participant stories) using a matrix structure as shown in Appendix 7. For this step, I did not use the NVivo software as the student license I purchased had expired and was not renewed. The matrix had the big idea/topic, the context where the big idea/topic was mentioned and quotes or key phrases for the story. In this process, I considered other conceptual frameworks that may help me explain patterns or dynamics across the narratives and to find part-whole relationships. The ultimate goal of the analysis was to find an interpretation of the interview narrative that is as coherent, comprehensive and comprehensible as possible about the experiences.

The last step of the analysis process is the *Analysis of Narratives* to find commonalities, patterns and key ideas across all the narratives to see what participants have to have to say about a common topic.

Trustworthiness

Ensuring trustworthiness is paramount in qualitative research. To uphold rigor in my study, I adopted Lincoln and Guba's (1985) framework, which defined trustworthiness through four key criteria: credibility, transferability, dependability, and confirmability.

In establishing *credibility* for my study, I adhered to Creswell's (2012) strategies, which emphasized the importance of ensuring that research findings are believable and meaningful to participants. Firstly, I employed triangulation, utilizing a combination of semi-structured interviews, pre-interview drawings, and insights from the literature review. This approach

allowed for the confirmation of findings through multiple data sources, enhancing the robustness of the study. Secondly, I provided rich, thick descriptions of each participant, offering a detailed understanding of their unique contexts and experiences. These descriptions not only enriched the narrative but also provided readers with insights into the depth and complexity of the participants' perspectives. Additionally, I dedicated ample time to re-examining the narratives, allowing for persistent observation of the participants' experiences over time. This approach allowed for a deeper understanding of the participants' experiences and ensured that the findings accurately reflected the participants' lived experiences. By employing these strategies, I aimed to establish credibility in my study and uphold the integrity of the research findings.

Transferability was enhanced by ensuring that the findings had the potential to apply to other settings or provide practical utility to the reader. Transferability, as defined in qualitative research, refers to the extent to which findings from one context can be applicable to another setting. To address this, I provided full descriptions of each participant, aiming to capture the nuances and complexities of the research context. This approach increased the likelihood that the findings will have relevance beyond the specific study setting. Additionally, as Patterson and Williams (2002) noted, practical utility is described as the “usefulness of knowledge in enhancing understanding, promoting communication, or resolving conflict” (p. 35). By adhering to this concept, I aimed to ensure that the findings of my study were not only transferable but also had practical value for readers and stakeholders.

Dependability focuses on examining how decisions were made throughout the research process. This was determined after completing the study and was guided by Mayan's (2016) work on maintaining an audit trail. Mayan emphasized the importance of keeping a detailed record of the research process to ensure dependability. In my study, the audit trail included

documentation of interview questions, transcripts of interviews, and notes on theme development and analysis. These records were updated each time the interview was reviewed, and any field notes I kept were also included in the review. By maintaining this comprehensive audit trail, I aimed to provide transparency and accountability, allowing for the scrutiny and verification of decisions made during the study.

Confirmability was utilized during the data collection phase to ensure that the findings were logical. Mayan (2016) underscored the significance of allowing for the examination of both the data and resulting interpretations, thereby promoting transparency and accountability in qualitative research. In my study, I maintained a detailed audit trail, which provided an opportunity to document and track the decisions made throughout the research process. This audit trail consisted of recording all steps involved in data collection, analysis, and interpretation, allowing for the verification and validation of the findings. As Mayan (2016) noted, an audit trail offers “the opportunity to examine data and resulting interpretations” (p. 102). By following this practice, I aimed to ensure the confirmability of the study’s findings.

Delimitations

Delimitations, as defined by Holloway and Galvin (2016), are the boundaries set within a research project. In my study, it was important to acknowledge that I was unable to interview every provincial team basketball coach in Alberta, both present and past who had utilized Canada Basketball’s ADM in their coaching practice. Due to constraints such as geographical location, availability, time limitations, and coaching experience, some coaches were included while others were excluded.

Limitations

In delineating the parameters of this study, limitations were identified as the inherent weaknesses within its scope (Holloway & Galvin, 2016). It was crucial to recognize that, unlike quantitative research, qualitative inquiries were not aimed at generalizability to a broader population, often regarded as a constraint. Instead, my interpretive case study research aimed to acquire a more in-depth understanding of each individual case and to “illuminate more general issues” (Chadderton & Torrance, 2011, p. 54; Merriam, 1998). Findings from interpretive case studies have proven useful in informing future research, public policy and practice (Merriam, 1998).

Packer and Addison (1989) suggested that interpretive case studies can provide other outcomes in place of generalizability. These outcomes include:

1. Helpful actions have been identified.
2. New questions or concerns come to the researcher’s attention.
3. The researcher is changed by the research through discovering inadequacies in their own initial preunderstandings.

Ethics

In conducting this research, no harm came to the participants by taking the following precautions:

1. Informed participants orally and in writing of the purpose and nature of my research. I fully disclosed and explained my research to participants and received their free and informed consent to participate. Samples of the invitation letter and letter of consent that was sent to participants can be read in Appendix 8 and Appendix 9 respectively.

2. Participants were informed that they had the opportunity to opt out any time without penalty or harm.
3. Confirmed with the participants that their identity will remain anonymous and protected.
4. Avoided/minimized threat or harm to participants or others in asking if there is anything in the interview that should be deleted during the interview and afterwards by showing the participant the transcript of the interview.
5. After sending each participant the transcript of the interview, all participants confirmed by email that the transcripts accurately captured our discussion during the interview.

Chapter 4: Coach Sarah

The following six chapters offer narrative portraits of six basketball coaches who have been actively involved with the Alberta Basketball (AB BB) provincial team program, which caters to athletes between the ages of 13 and 17. The provincial team program falls under the jurisdiction of the provincial sport body for basketball, BB AB, which is responsible for disseminating the information and knowledge outlined in the Canada Basketball Athlete Development Model (ADM) to coaches throughout the province, including those coaching provincial teams. I employed purposeful sampling to select these provincial team coaches based on their extensive coaching experience and comprehensive understanding of the ADM, acquired through their involvement with the provincial program.

In this study, the narrative portraits presented for each coach serve to provide a clearer understanding of who they are at the time of their interview. These narratives are integral to investigating the research question: *What has been the experience of coaches in incorporating Canada Basketball's Athlete Development Model into their coaching practice in the Province of Alberta?* By detailing their experiences with sports, basketball, and coaching, I aim to unravel the factors that influence their decisions regarding the implementation of the ADM in their coaching practice.

I would like to recognize that all the coaches were very generous with their time in allowing me to conduct the interviews. The interviews ranged from 1.5-2.25 hours and were conducted using the zoom virtual platform between January to March 2021.

Background

On the date of this interview, Coach Sarah is the head coach of a university women's basketball team in Alberta and has been part of the provincial basketball coaching staff since

2016. The interview took place on January 29, 2021, via the Zoom meeting platform and lasted 2 hours and 10 minutes without any major technical difficulties. Sarah completed four pre-interview activities prior to the interview date. Using NVivo qualitative analysis software, 91 stories from the interview transcript were identified and analyzed for topics, key ideas, and key insights. It's important to note that school names have been altered or concealed to safeguard the coach's identity. Sarah became a participant in the study based on her active involvement with the Alberta provincial team program. In 2016, she assumed the role of head coach for the 15U girls team. Recalling the challenging selection process for provincial team coaches, she felt a deep sense of pride in receiving the opportunity. Subsequently, Sarah has consistently been invited back as a coach. At the time of the interview, she played a pivotal role as part of the coaching staff for the 17U girls team.

The first section of this chapter will offer an overview of Sarah's engagement in sports as a youth and young adult. The second section will provide background information on her coaching experience, while the third section will cover her formal and informal learning experiences. Towards the end of the chapter, we will examine how Sarah's experiences shaped her incorporation of the Athlete Development Model (ADM) into her coaching practice, exploring the influence of her experiences on her approach.

Sarah as a Youth

As a youngster, Sarah engaged actively in various sports, relishing the camaraderie with teammates and the emerging bonds. This early experience became the cornerstone for her emphasis on cherishing team culture and friendships:

I have so many fond memories of when I was young. I played a ton of soccer. It was soccer in the summer and hockey in the winter, and just the friendships that were formed.

I always thought that sport was this incredible draw for me, and I am a really fun loving person. So, I just realized that I always wanted to be involved in sport any way that I could because I love the competition and I love the camaraderie. (group 2, question 1)

Participating in team sports instilled in Sarah a profound appreciation for collective efforts toward a shared goal. The emphasis on team chemistry and unity remains central to Sarah, evident in her coaching stories and integral to her identity as a basketball coach.

In the eighth grade, Sarah relocated to Western Canada with her mom and siblings due to her parents' separation. Adjusting to the move was challenging for Sarah, and she often felt homesick for her home province in Eastern Canada. This realization dawned on her during a trip back home the following summer:

We spent two months at home in [Province A] that summer, and this was a summer before grade nine and I just was like no, I'm not going back. I don't want to go there, so it was a big mess in terms of parental pressures and stuff, but I actually then stayed in [Province A] and spent my grade nine year living with my step-dad. (Appendix 10 - general PIA 3)

This proved to be an exceptionally challenging period for Sarah. Imagine uprooting your life, traversing the expanse of Canada, only to decide, in less than a year, to return back home and live with your step-dad. Previous to the separation, it was her mom that was financially supporting her multiple sport activities. Her step-dad was not as supportive. Consequently, she directed all her attention to high school basketball in the ninth grade:

So that was a really great experience and I played four years of high school basketball, which was cool, and it was really the first time that I ever dove into basketball. I stopped

playing other sports and stuff and that was a big step for me. (Appendix 10 - general PIA 3)

The shift in focus led to her excelling in high school (grades 9-12), with Sarah earning herself a roster spot for a university team, located approximately an hour away from home.

So, for the third time in a relatively short time period, Sarah packed up her belongings and ventured to "the big city" to pursue basketball. Although she secured a spot on the team roster, she opted to *red-shirt*, participating in all team activities except official games. Her reasoning was to preserve a year of eligibility, intending to maximize the full five years allowed in Canadian University Sports. Reflecting on this choice, she now acknowledges its regrettable nature. Recognizing her profound connection to the game and the sense of being adrift without her basketball identity, she wishes she had embraced the opportunity to play:

I went to [University A], and I went there to play but I think at the time, there was a lot of emphasis on you know, saving your years and, playing a full five years and I think that within the first couple months I didn't really feel like [University A] was the best fit for me and I majorly struggled there. When I decided to *redshirt*, I think just everything in my life shifted. Basketball was always that super consistent thing for me. So that definitely made me look at basketball differently and almost resent it in a sense. I don't know. It wasn't the same thing it always been and a source of fun, it was like work. So that was tough. (Appendix 10 - general PIA 3)

After a challenging year, Sarah chose to return home and play for the hometown university (University B), reigniting her passion for basketball. The hiring of her high school coach to lead the team added to her excitement. However, her anticipation clashed with reality. The coach, once fun and laid-back, had undergone a coaching transformation, evolving into

someone who doubted her abilities. This shift became a source of frustration for Sarah as she said, “I loved playing for him in high school but playing for him at the university was a nightmare. He was super inconsistent and a really bad communicator” (Appendix 10 - general PIA 3). Sarah speculated about her high school coach’s transformation, suggesting that the pressure to win likely triggered the change. The shift from coaching as a passion to a full-time job, where success hinges on wins and losses, often compels coaches to prioritize victory at any cost:

I think when he got to [University B] he felt a lot of pressure to win, and I think that he didn’t value me as an athlete like I peaked in high school and I wasn’t really going to go any further and that was just his opinion and it was a self-fulfilling prophecy in his mind. Every time I’d mess up in practice or whatever it was like—oh Sarah can’t do this like she doesn’t get it ... but I think a series—a span of time, where I was like if you could just believe in me for two seconds, I would show you everything that you wanted to see right but for me it was like I go to practice and it’s been the whole practice—just understanding that I was a failure, right and that was two years of that, so I think, and it really affected, my life outside of basketball. My grades struggled. My personal life—everything felt like it was a struggle, because I couldn’t do anything right for [coach] so it was a very interesting time in that sense. (Appendix 10 - general PIA 3)

The experience with her old high school coach was crucial in shaping Sarah’s coaching philosophy. She emphasized the significance of coaches believing in their players, highlighting that player development goes beyond technical skills. It involves providing support and fostering belief in the potential of each player.

In her second year at [University B], Sarah suffered a severe knee injury that ultimately ended her playing career. While this injury was catastrophic for Sarah as a player, it became the starting point of her coaching journey:

... and then I tore my ACL. So, I think that was a really big push towards coaching in a way for lots of people. The ACL can be like a career ending injury and it was for me. I just, I didn't attempt to move past that, and I had a lot of other damage... so that was a really big moment and it pushed me right into coaching. (Appendix 10 - general PIA 3)

Getting into Coaching

During her red-shirt year at [University A], Sarah ventured into working with young athletes. She took on the role of a camp counselor at Point Guard College, an organization based in the United States. The basketball development landscape in the United States offered more opportunities for coaching, competition, and overall development for young athletes compared to Canada. This formative experience gave Sarah her first taste of coaching. She recalls the enjoyment of her coaching experience at Point Guard College, "When I first started coaching, I just wanted to make all of my players better. I just wanted kids to get better and really have fun and love what they were doing. I don't think it was any more complicated than that" (group 3, question 1).

Following her injury, Sarah quickly shifted into an assistant coaching role with her step-dad, who was coaching at a local high school. Sarah attributes her entry into coaching because of her step-dad's encouragement:

Yeah, I think for him, he wanted me to get into it, it was always a passion for him, and he thought you know he always said to me when I was playing—you know you'll be a good coach someday and so that was I guess, the kick in the pants that I needed to get started.

It was really cool, and I was super grateful, obviously, and now I'm like I don't know when I would have started it if it hadn't been for that little push. (group 3, question 3)

After her first season as an assistant coach, Sarah transitioned to the role of head coach for the high school team, marking her first head coaching position. Her success in this role led to an offer to join the provincial program as the 14U girls coach. While the offer was an honor, Sarah's realization that her family connections, particularly her step-dad being a prominent coach in the province, played a significant role in this opportunity made her uneasy. This realization motivated her to seek coaching opportunities where she could truly earn her position:

I'm never really going to have to earn anything in [Province A] as long as I stay here, I'll always be considered all these things just because of my step-dad and I think that was a really big moment when I was like okay, I think I have to go, I think I need to leave and figure out what the hell I want to do with myself, with my life. (Appendix 11 - coaching PIA 3)

Moving Out West

Sarah, fresh out of university and aiming to move away from her step-dad's coaching shadow, embraced the chance to become an assistant coach at an Alberta University (University C). Simultaneously, she worked to earn an education after-degree and coached various local high school teams, aspiring to secure a full-time permanent teaching contract. Sarah's break came when she was hired as the head coach at a regional college basketball program. At this point she was still contemplating whether to be a full-time teacher or pursue her coaching passion. She chose to follow her passion:

I moved my whole career to [College A], so it was a crazy transition of very little time but that's when I really realized that I loved coaching, and this is what I want to do

because I was teaching science and I like science ... but it wasn't like my passion.

(Appendix 10 - general PIA 3)

Team as Family

One of Sarah's core beliefs revolves around the idea that the team becomes your family. The considerable time spent together during the season calls for the development of a culture of care among players and coaches. Establishing a team culture that nurtures both individual and collective growth is paramount. This perspective appears to have emerged from Sarah's personal experiences as an athlete, where she cherished the camaraderie within a team. According to her, a team that authentically enjoys each other's company embodies the essence of "fun", a quality she correlates with success:

I think sometimes sports teams can be cliquey if they're not managed properly and you know, being part of a cliquey sports team could drive a kid away pretty quick. I know from doing my Master's degree there was a lot of information about hockey. Losing kids because they just didn't feel like they were part of the cool kids club and so, that was a big detriment. (group 2, question 2)

Focusing on maintaining a supportive team culture, Sarah now underscores the importance of communication and relationships, insights gained through her coaching experiences:

As a young coach, I think I just pushed kids and demanded from kids and you know, maybe there wasn't a lot of understanding that kids need to know you like them before you can really demand from them. (group 2, question 3)

The concept of "fun" was not always integral to her coaching philosophy, but she has reintegrated it into her coaching practice. Sarah acknowledged that as a young coach, she was overly demanding and motivated primarily by wins:

I think in a way, for a little bit—maybe I went—not away from it but was way more obsessed with how to win and how to get the most out of people, but now I think I'm more back to I really like to have fun. (group 3, question 1)

In reflecting on Sarah's journey as a young athlete and basketball player, several key insights emerge as it relates to athlete development:

1. **Diverse Sporting Background.** Growing up engaging in various sports provided her with the foundation to appreciate sports and the opportunities it brings throughout her life. This early exposure to multiple sports fuels her commitment to an active lifestyle today.
2. **Team Culture Matters.** The significance of fostering a positive team culture is evident, irrespective of the playing level. This aspect is crucial not only for the enjoyment of the game but also for instilling the habit of staying active in young individuals. If they like the experience, they will continue to participate.
3. **Navigating Challenges.** Sarah's experiences as a young athlete underscore the importance of a robust support system, including a supportive coach. Navigating challenges in academics and sports is easier when there's a strong support network.
4. **Player-Coach Relationships.** The value of establishing meaningful relationships with players becomes apparent, particularly in aiding individuals facing struggles. This aspect highlights the mentorship role that coaches can play in the lives of their players.

Experience with Coaching

The seed to coach was planted in Sarah's head at an early age. Her first experience was as a camp leader at local summer camps, and during her time at [University B] where she had the opportunity to coach at a basketball camp for guards called Point Guard College. Sarah got her first head coaching position after a year as an assistant to her step-dad at a local high school. Despite not realizing the extent of the required work, she eagerly embraced the responsibility of running her own team. Upon arriving in Alberta, Sarah coached multiple teams simultaneously. While volunteering as assistant coach at [University C], she also served as the head coach of a local high school team while working toward her education degree. Her first post-secondary head coaching position was at a college where the level of competition was one level below university-level. Although she enjoyed coaching college athletes, her ambition to coach at the highest level prompted her to seek new opportunities. During her Master's degree program, Sarah interviewed with three universities for head coaching vacancies and ultimately chose the one where she continues coaching today (University D).

From her coaching experience, there are a few items that stand out: how drills should be run, open mindedness, importance of team culture and the player-coach relationship.

Practice Drills

Sarah plans her daily basketball practices with drills that focus on multiple learning activities. If one were to examine her practice plan, there would be no drills solely concentrating on one learning activity:

I really like drills where you're doing multiple things. So, like I'm not like a rote memorization kind of person. I like a drill that's going to challenge an athlete, to practice a bunch of skills. So even a shooting drill, we would try to turn it into—can we add close

outs, can we add jump stops, can we add pivoting? Can we add a defender because I think a lot of when I was growing up a lot of shooting drills were just shooting. (group 3, question 8)

Even her conditioning drills go beyond mere conditioning. She believes in the concept of “loading” connecting multiple learning activities in one drill to maximize practice time.

Open Mindedness

While some coaches adopt a rigid, authoritative approach, Sarah diverges by embracing flexibility in charting her team’s path to success. Her short-term coaching decisions hinge on observing her players’ reactions in learning situations. Sarah’s openness to unconventional coaching inspirations reflects her willingness to think outside-the-box for the benefit of her team:

There’s just so many things that are happening all the time that are really determining how you coach. I think there’s just been so many things where I’ve changed my practices, because I look, I watched the kids or I listened to the kids and I’m like—oh, maybe we could try this because it would help with this right, and so I think there’s—it’s a constant feedback loop of I heard you here—we’re going to change this. Sometimes I think I do some pretty wacky stuff that’s totally out to lunch but sometimes it works.

(group 3, question 2)

Team Culture

To build a successful team, Sarah emphasized the importance of a positive team culture—an extension of her experiences as a player. Fostering a good team culture involves ensuring a positive experience for each player, fostering enjoyment, and instilling pride that encourages alumni to return and support the next generation of athletes. Building this team culture is a current focus for Sarah in her coaching program:

I think I would like to be really good at building a culture in a program because I see that as like really creating longevity and that's one thing that [University D] has been missing and it's something that I was able to do at [College A] pretty quickly to reinvigorate or re-involve our alumni and I just think at some point, everybody stops playing at some point, everybody has to move on, like you and I and the big thing is tying them to the program so that you know, in a sense, later they do feel like they want to come back and they want to be around that and they want to see what the new generation is doing. (group 1, question 1)

Player Relationships

Sarah found her post-secondary playing experience to be challenging. In high school, she was accustomed to having strong relationships with her coaches, emphasizing, "I think probably—just understanding the importance of the relationships and getting-to-know the kids. That was a big thing for me as I was younger" (group 3, question 7).

As a university athlete, the absence of strong relationships with her coaches took a toll on Sarah's mental well-being. This experience enables her to empathize with her current players regarding the challenges of life away from basketball. For Sarah, being a good coach extends beyond teaching the game; it involves being there for her players both on and off the basketball court:

I touch base a lot more with my athletes now more than I used to. It's a really time consuming process or practice but I found it really builds those relationships. I just think that relationships are so vital to getting the most out of your athletes. (Appendix 11 - coaching PIA 3)

Sarah shared a story about a conversation with one of her college athletes whom she believed was skilled enough to play at the university-level. During their discussion, Sarah learned that the player did not consider herself academically strong enough for university. The player's perspective revealed that:

... no one ever told her that she was smart. You know what I mean? Kids form these—in the absence of feedback they form opinions. So, most females, I think, form negative opinions right ... it wasn't like I taught her all these brand new things but that one conversation was just like she really needed that belief and for me to voice that. (group 1, question 2)

Sarah understands the concept that her impact as a coach extends beyond the court. Player development, in her view, encompasses not only the skills she imparts during training but also the support she provides off the court. Her commitment to building robust relationships with her players remains an evolving aspect of her coaching philosophy.

Building relationships with players does carry a risk for coaches. Success demands a level of openness with the players and the potential for great things to happen is intricately tied to this vulnerability. Sarah said, "I've let kids know a lot [about myself]. I really like to let kids into my life. I've always been very much like a storyteller and want to share my experience" (group 3, question 3).

Sarah acknowledges the multifaceted role of a coach, realizing that it transcends basketball, wielding significant influence in the lives of young people and playing a pivotal role in their overall development:

Kids surprise me all the time. In terms of what they can do when you believe in them, or what they can do when you push them and just the amount of growth that they're really

capable of, I think, especially at the university age. They're just so—I hate to use the word but they're so gullible—so there's so much that you can mold and change in terms of an athlete and how much better they can get at so many things. (group 1, question 2)

In the years since Sarah began coaching alongside her stepdad, her coaching style and philosophies have undergone a transformation. Initially fixated on winning at all costs, she has evolved towards an approach that views winning with a lighter, less serious perspective. This shift in mindset was influenced by one of her mentors, “I saw a lot more of that—oh, you can be fun, and demand of your kids and I thought that was really great and I really ran with that, because that was more my personality” (group 3, question 1).

What she loves about coaching remains the same—to have fun, work with young people and be a guide for them as they transition into the next step of their lives:

Oh, I think they keep me young. I don't know. I just love their level of work ethic and their level of compete and I love how much I learn from them. I love how much they affect my perspective, and how much I get to affect them sometimes. I think that so much about coaching is really selfish, I get so much out of it, and you know I think it's pretty incredible. (group 3, question 3)

Acquisition of Coach Knowledge

Coaches acquire knowledge from three primary sources—formal, informal, and non-formal learning—which serves as the foundation for their coaching practice. This section will outline some of the learning experiences that Coach Sarah has accumulated in relation to coaching.

Formal Learning

Formal learning is knowledge that is acquired in a structured environment and institutionalized (Coombs & Ahmed, 1974). In looking at Sarah's formal learning, she attended university and earned her undergraduate degree in science in 2012 and a Bachelor of Education after-degree in 2014. Traits learned through her formal learning experience can be seen in Sarah's coaching stories.

Science Mindset. Graduating with an undergraduate science degree provides some insight into how Sarah thinks. The essence of the science mindset lies in posing questions, crafting hypotheses, and systematically testing them for confirmation or rejection. The availability of compelling evidence is needed to make a decision. Sarah spoke about the words she wrote out as part of the PIA activities (Appendix 12). In this activity, she was asked to write out 20 words and separate them into two categories. The two categories she identified were "hard" and "soft". In our discussion of the words, "hard" seemed to embody aspects that are tangible and measurable, while "soft" encapsulated elements that Sarah is still navigating within her teams, where outcomes are not always immediately apparent:

I think the words in the hard category are things that come very naturally to me. I'm not a super emotional person, and I really had to learn to become compassionate as a coach.

So, the words in the soft category are things that I've had to work at a lot more, I guess.

(Appendix 13 - coaching PIA 1)

Her categorization of the words is consistent with Sarah thinking with a "science brain" and how she approaches player development now as a coach. She likes to experiment within her coaching practice and stays with what proves to be successful. It is this mindset that will come to influence how she perceives the usefulness of the ADM.

Communicator. As a teacher, she learned that communication is a crucial skill applicable in various contexts. According to Sarah, she views communication as her paramount responsibility as a coach of young individuals:

Communicating is the biggest thing for me. I've spent a lot of time in the last couple years just thinking about how to deal with—when things go wrong or just any sort of interaction and my number one decision in terms of that is—that the sooner, you can communicate and the more effectively you can communicate, the faster the issue will be dealt with. There are lots of things that go wrong and so it's super important to make sure that you know you're on the same page with your people, and your athletes and that you can effectively communicate. (Appendix 13 - coaching PIA 1)

Master's Program. Sarah earned a Master's degree through the University of Victoria in 2020. While coaching at the college level, Sarah understood that to be considered for higher-level coaching positions, a Master of Education in Coaching Studies was her best chance at being hired by a university. As part of this program, she took courses about physical education, sports psychology, and research methods. Throughout the program, Sarah mentioned being "required" to examine the general LTDSPA framework. While acknowledging the framework's merit, she found the information it presented was not groundbreaking for her. Although she understood the framework well, she was not convinced she had to use it in her coaching practice because of her extensive background as both a player and coach:

I think, for the most part, it was things that we had been doing or stuff that I knew. It wasn't really earth-shattering. So, I don't know that I really—it didn't change my life. (group 4, question 1)

The Master's program proved most valuable to her because of the connections she formed with coaches from different sports.

Sarah's formal learning experiences have equipped her with a range of skills. As an educator, she is an adept communicator, possesses pedagogical knowledge, manages people effectively, exhibits subject matter expertise, demonstrates adaptability, conducts assessment and evaluation, solves problems, manages time efficiently, and showcases emotional intelligence. Additionally, graduating with a science degree provides insight into her mindset. The essence of the scientific mindset is characterized by questioning, formulating hypotheses, and systematically testing them, emphasizing the need for compelling evidence to inform decision-making. The knowledge acquired through her formal training will be important in her use of the ADM in her coaching practice.

NCCP Courses. Sarah has taken the required National Coaching Certification Program (NCCP) courses and is a certified Train-to-Compete (T2C) coach. This certification allows her to develop athletes at the senior high school, college and university-level. The NCCP is a requirement for all coaches who work with the provincial program and covers coaching problem solving, valuing, critical thinking, leading and interacting. NCCP courses are valuable to help coaches reflect on what and why they are doing what they are doing as a coach. For Sarah, she does not find the NCCP courses very useful as she has had many years of playing and coaching experience prior to taking the courses.

Sarah talked about her frustration about having coaches pay to take the NCCP courses. She feels many entry level coaches do not take the NCCP courses due to the cost and because of that the quality of coaching and their knowledge about player development is limited:

I think there are many things about the NCCP that are very confusing and convoluted to me. I've never done the fundamentals course but it's crazy to me that it's Learn-to-Train is one weekend, Train-to-Train is one weekend and then you get to Train-to-Compete and it's like three weekends and 10 extra courses and how much money do you think people have? So, it's like no wonder, no one has—very few people have this high level of coaching knowledge because it costs a ton of money. (group 4, question 8)

For Sarah, the knowledge gained from the NCCP courses has not been particularly impactful, but she has appreciated the opportunity to network with other coaches.

Informal Learning

Informal learning is knowledge obtained through daily experiences. Informal learning is a large part of coach knowledge and has the greatest impact on a coaching practice (Coombs & Ahmed, 1974; Nelson et al., 2006). The informal learning opportunities that Sarah found most useful were her experiences as a player and observing how other coaches coach.

Playing Experience. Sarah has been involved in basketball since her youth, with the four years in high school marking the pinnacle of her playing experience. During this time, she had the privilege of playing under an excellent coach, alongside remarkable teammates, and winning two provincial championships:

So that was a really great experience and I played four years of high school basketball, which was cool, and it was really the first time that I ever dove into basketball. I stopped playing other sports and that was a big step for me. (Appendix 10 - general PIA 3)

As previously mentioned, Sarah's time as a university player brought about some challenging experiences. Opting for a *red-shirt* in her first year led to a loss of direction and a diminished enjoyment of basketball. Despite hoping for a revitalization by playing under her old

high school coach, she was disappointed to find that he had changed in ways she had not anticipated upon transitioning from high school to college:

So, I think of my time at [University B] is a very foundational chunk of my coaching because I learned so much about what I didn't want as a player or what I didn't, how I didn't want my players to feel and same with [University A] ... I don't know that I'd become the coach that I am if it wasn't for that experience. (Appendix 10 - general PIA 3)

A consistent message that Sarah speaks about is the importance of the communication between player and coach. This is something that she needed as a player:

So that second season at [University B] was just a flop. I don't know just again—no light at the end of the tunnel. ... it showed me even more that you need to communicate with your athletes, and they need to feel like you believe in them. (Appendix 11 - coaching PIA 3)

The communication between player and coach is central to Sarah's coaching philosophy. Making sure that all players know where they stand and what they need to do to improve will make the experience for the players less stressful.

Assistant Coach. Sarah has acquired informal coaching knowledge in the role of an assistant coach. Sarah started coaching as an assistant to her step-dad and continued in that role on her move out west. Volunteering as an assistant with [University C], she learned a lot about who she wanted to be as a head coach. Like most assistant coaches, there are things that she would do differently than the head coach. She added, "I had such a great time there for four years. I think it was just really instrumental in terms of me figuring out who I wanted to be as a coach—what I like, what I didn't like" (Appendix 10 - general PIA 3).

Sarah's seven years of playing at an elite level serve as a foundational component of her coaching practice, representing a significant aspect of her informal learning. Additionally, her time as an assistant coach provides valuable opportunities for observation and reflection, contributing further to her coaching development. Both experiences play crucial roles in shaping Sarah's coaching philosophy and approach, highlighting the importance of informal learning in her journey as a coach.

Regarding *non-formal* learning experiences, Sarah did not share any stories that suggested impactful non-formal learning.

How Does Coach Sarah Experience the ADM in Her Coaching Practice?

First Exposure to ADM

Sarah's first exposure to the ADM was as an assistant with a junior club program in Alberta. At this time, she had been coaching for approximately three years. The summer club program is for children between the ages of 13-17 with the goal of developing them into future elite basketball players. It was run by a lead coach who was responsible for all the programming. Prior to this, Sarah had no idea that the ADM existed. She saw the implementation of the ADM in this program and saw the benefits of it in action. She noted that the lead coach used the ADM based on level of skill and not on age as in the ADM. That program had the belief that players need to learn the fundamental skills before you teach them any advanced ones. The advanced skills can be taught later. She recalled that advanced skills were not introduced until they mastered the previous skill. It made a difference to each player that went through the program, "I think that every kid that I've seen come through that program has really benefited from just learning how to play like that, and then with the 15U's we had off-ball screens and then with the 17U's we added ball screens" (group 4, question 1). Even after this early exposure to the ADM

and its success, Sarah did not use it with her high school teams and did not think about the ADM again until it became a required part of her Master's program several years later.

Sarah does agree that the ADM is important as a guide or best practice framework for player development:

It really resonated with me, because I think it goes along with my philosophy of coaching which is—you have to walk before you can run. You know, I think there's so many skills where there are coaches who, all they are doing, is teaching their kids how to press and play zone, and then we get them in high school and they're like, I don't know how to play man to man defense and it's like oh god. Yeah, it resonated with me in terms of those pieces. (group 4, question 4)

Sarah's perspective emphasized her reliance on her extensive personal experience and the knowledge gained through her playing and coaching journey, indicating that the ADM does not offer novel insights for her, "I think, for the most part, it was things that we'd been doing or stuff that I knew. It wasn't really earth-shattering. So, I don't know that I really—it didn't change my life" (group 4, question 1).

Adapt the ADM to the Local Context

Before diving into how Sarah adapts the ADM in the local context, it is important to review where Sarah is right now as a coach. She coaches a women's team at a university in the Province of Alberta. The age group of her players is from 18-22 years old. This would put her players in the Learn-to-Win (L2W) phase of development. In the summer, she volunteers as a member of the provincial 17U girls team.

According to Sarah, the transition from high school to university basketball requires a significant jump in skill level. Her coaching approach focuses on developing skills that

contribute to the team's success rather than concentrating on what an individual player needs to move on to the next phase of development.

With team success as her main goal, she does not feel that the ADM is useful to guide her in her coaching practice or player development. The question is, why does she not feel it is useful?

Lacks Practicality. The first reason Sarah consistently pointed out is that the ADM is more of a guide than a prescription for coaches. While it outlines the skills players need at each level, it lacks detailed implementation instructions and practical drills:

That is sometimes the hardest part of coaching, is that people are telling you what you need to do or what the outcome needs to be and as a coach you have to find some way to get your kids there and I think that's by far the most difficult thing... Right so it's like the ADM is this beautiful theoretical document that is seventy-five pages long, but what the general public needs to make it usable is for someone to spend time and say you know here's a drill or here's three drills that apply to this skill. (group 4, question 8)

This viewpoint aligns with Sarah's science education background. She seeks evidence that implementing the ADM will result in success, but the document falls short in providing such confidence. Being a high-level document with theoretical aspects, it lacks practical details. Sarah imagines that the ADM is overwhelming for new coaches and even recommends against its use for them. She suggested redirecting their focus to alternative methods for becoming better coaches:

I think to me the biggest, the best coaches, especially young ones, are the ones who are like—hey can I come to your provincial team tryout and just sit there and watch and listen. You know, can I get on these, all these Zoom calls that are happening right now

for coaches. I think those things are more practical than reading the ADM. (group 4, question 4)

As highlighted in Sarah's earlier coaching experiences, she appreciates the concept of integrating skills, allowing players to learn multiple aspects simultaneously. While the ADM outlines essential skills, it falls short in offering practical guidance on how to seamlessly link these skills in teaching drills.

During the interview, I asked about her coaching approach for younger players and whether she would integrate the ADM into her planning process for a junior program. Her response was a firm "no." Sarah emphasized her confidence in drawing from her extensive experiences, expressing the belief that her knowledge suffices, and she does not see the need for the ADM in player development.

I would be doing it a lot more just based on my experiences. I'm sure part of it would probably come from there, like sub-texturally, but I don't know that I would pull it out and even look at it, to be frank. (group 4, question 4)

What are the Barriers to Overcome?

If Sarah were to use the ADM as part of her coaching practice, there would be a couple of barriers to overcome. The first is the perception that the ADM is for the lower levels of development and Sarah's approach to player development.

ADM is not for Elite Coaches. Sarah holds the belief that the players she currently coaches at the university-level have reached their peak skill levels. In her view, using the ADM for further development with these players is unnecessary. According to her, the players either possess the required skills, or they do not:

I think with a lot more time spent around it; my perspective is that it really affects younger athletes than what I deal with for the most part. You know the reality of being university coaches, there's not a whole lot of kids that are unable to—you know they're pretty much developed at that point. (group 4, question 1)

Sarah, instead, concentrates on skills and concepts that contribute to the team's success on the court. Her player development focuses on enhancing the team's overall performance, rather than specifically gearing towards individual improvement aligned with the ADM's 'Train-to-Win' (T2W) phase. In Sarah's perspective, the ADM lacks the specificity to guide her in helping her teams succeed.

Building on the perspective that the ADM is not tailored for elite players, Sarah underscores that coaches within the provincial program have the flexibility to mold player development and team strategies independently of the ADM's guidelines. This sentiment is reinforced by her participation in national team selection camps for Canada, where none of the skills outlined in the T2W level were utilized in the selection process. This experience further reinforced her belief that the ADM does not align with the needs of elite-level athletes.

[I've attended] to a few national team camps, and they don't think about it at all. They're looking for the best athlete, kid, work ethic, the regular things that you and I would look for. They're not—they don't have an ADM out. (group 4, question 2)

The apparent discrepancy between Canada Basketball's promotion of the ADM and its actual application during team selection processes raises questions for Sarah about the practical utility and alignment of the ADM within the broader context of player development and team selection.

Player Development Philosophy. Sarah holds the view that players at the university-level have reached their peak in terms of skills. Merely executing skills outlined in the ADM does not guarantee automatic progression to the next level, according to Sarah:

No, I don't think so to be frank. I can't see anything in there that ... I'm sure that there are things that they're saying that Olympic level athletes have but it's hard to look at a kid and be like hey—if you do this, this and this you're going to be in the Olympics. It just doesn't work like that. (group 4, question 5)

Sarah emphasizes the importance of 'off the court support', an aspect she feels the ADM at the L2W level lacks. Drawing from her personal experience, she understands that player development extends beyond individual skills, focusing on communication, building a positive team culture and strengthening player-coach relationships. For her, these elements are more crucial and deserve more of her attention and time.

Utilization of the ADM in Early Stages of Development. Sarah pointed out a significant issue in the cost barrier associated with NCCP courses to learn about the ADM. She's frustrated with the financial burden on volunteer coaches and highlights the potential consequence—coaches might prioritize winning instead of focusing on player development. This issue is especially prevalent at lower levels where teams are often coached by volunteers with limited resources.

I think that Canada Basketball, from my experience, has a very elitist view of what coaching should be which isn't a bad thing and the top 10% of coaches in the country are doing that, but there's like 90% who are not—they're not following those things. They're not teaching the concepts; they don't give a crap. They want to win games and to be

honest, if you're not getting paid a cent, why would you bother right if you are winning games and you are not seeing a penny from it. (group 4, question 7)

Sarah attributes the absence of some fundamental skills that she still sees in her current and past players is a result of this issue.

Advice to New Coaches. Sarah offers straightforward advice to new coaches: skip spending time on the ADM. Instead, she encourages them to engage with other coaches, learn from their experiences, and discover practical insights into developing basketball players:

You want to know in a sense that these are the things you should be seeing at these age groups. So, if you have a kid who's 13 and they can't skip—maybe that is a red flag and where you need to help them get there? I think the coaches, especially young ones, are the ones who are like—hey can I come to your provincial team tryout and just sit there and watch and listen? I think those things are more practical than reading the ADM even though there's a lot of good information in there, I just think it's above a lot of people's heads like it was above mine as a young coach my first few years. I just used what I knew as a player because you don't know enough. I don't think for the ADM to be this bible of how I do things. (group 4, question 5)

Sarah's advice is grounded in her own successful experiences, highlighting the importance of practical insights and real-world coaching interactions over theoretical frameworks like the ADM.

Conclusion

In summary, while Sarah acknowledges the significance of the ADM as a guiding framework for coaches, she finds that its alignment with her coaching philosophy does not necessitate its direct application in her coaching practice. Her coaching principles, honed through

a combination of playing and coaching experiences, seem to resonate more strongly with her than the specific information and guidance laid out in the ADM.

Sarah's reservations about the ADM stem from its perceived deficiency in practical, immediately applicable information. She suggested that to have more coaches use the ADM, the cost to learn about the ADM be removed and that more robust resources be in the ADM to include drills facilitating the teaching of specific skills, ideally integrating multiple aspects of the game. Furthermore, she would rather spend her focus on off-court support for university-level players.

Chapter 5: Coach Alex

This interview with Coach Alex took place on February 3, 2021. The interview was conducted using the Zoom meeting platform and lasted one hour and thirty-one minutes with minor technical issues. Alex completed the four Pre-Interview Activities (PIAs) prior to the date of the interview. Using NVivo qualitative analysis software, a total of 67 stories were identified in the interview transcript. The narratives from PIAs and semi-structured questions were analyzed to extract key ideas, insights, and topics. Names of any schools or persons have been changed or hidden to protect the identity of the coach.

Background

Current Coaching Activities

Coach Alex is currently the head coach of a post-secondary basketball team in Alberta. During the off-season, he runs a junior basketball club program and coaches in the summer months for Alberta Basketball. Alex completed general PIA 1 (Appendix 14) that showed his annual coaching responsibilities. Based on this drawing, it shows that he is immersed in coaching for most of the year. Being in charge of one post-secondary program is complex enough (Washington & Reade, 2013) let alone three programs. I asked Coach Alex how he keeps his coaching priorities organized between the different head coaching hats he wears during the year. He said that he keeps focused on what is in front of him and not to think too far ahead. He also attributes his organizational skills as a reason he can manage the three coaching roles. Coach Alex talks about his experience as a teacher as a reason why he is so well organized and a good planner. He said, “I think it helps the structure and then it helps in the planning department. I’m a big planner and I think as a teacher, planning is so important” (group 1, question 2).

The College Season

Team sports like basketball have three parts to the season: the pre-season, the regular season and the playoffs. Each part of the season has different goals for the team to achieve. For Coach Alex, he feels the busiest time of the college season is at the beginning of the semester which happens to be the most stressful time of the year for him because he is managing so many things at once. He commented:

Definitely September, October, November. That's the busiest stretch ... that is because you're back and you're new and there's a lot of things happening and you're working on what's in front of you, what's ahead of you, what's happening. You've got the past, present and future in that situation. (Appendix 14 - general PIA 1)

Coach Alex also finds March quite busy because of all the championships (high school, college and university) that are being played at that time in the province. Being a competitive person, he finds this time quite exciting and goes on to say, "I don't mind March. March is kind of busy but it's a fun time because there's a lot of championships and provincial championships and league championships so it's kind of fun" (Appendix 14 - general PIA 1).

His response shows that he likes competition. Playoffs mean that when one team wins, another must lose, meaning an end to the season. Coach Alex has been on the winning side and the losing side of playoff games, so he understands the emotions that are involved with "the thrill of victory and the agony of defeat" which is a saying from an American sport program called the *Wide World of Sports*.

With three basketball programs to run throughout the year, Coach Alex knows that he does not have much time to himself and does not have much of a break from coaching. It is clear from his yearly schedule (Appendix 14) that basketball is his whole life. He is immersed in

basketball as a coach and instructor and does not take too much time off for personal holidays. He says that if he did take a holiday, it would be between his club coaching and provincial team roles, "... generally that June, July—there's about a sweet spot of over three weeks that you could holiday if you did those things. I don't, but if you did—you could do it there" (Appendix 14 - general PIA 1).

Growing Up

Coach Alex grew up in a small town and was an active child that participated in unstructured and structured play activities. The structured sport activities were run by the school he attended as a youngster. Coach Alex recalls that the school had lunch-hour and after-school sports activities that he would participate in and did not do any other sport activities outside of school until junior high. Small town schools with low enrolment tended to allow any student who was interested in participating to do so regardless of their level of skill. Coach Alex said:

I was from a small town, so we played everything. So, I played—there were no cuts, no tryouts. They wanted everyone to play so I was able to. One of the benefits was getting—I will never pretend to tell you I'm a great athlete but I got so much experience by just trying every sport possible so I was on every team I could be on. (Appendix 15 - general PIA 5)

This multi-sport involvement gave Coach Alex the opportunity to learn many things. He was able to develop his physical literacy skills as well as learn social skills within a team setting. Having time to reflect on his involvement in sport and on teams as a youth, he was exposed to the values of accountability and responsibility along with many other lessons that are learned from being a part of a team. He recalls:

I mean there's so many life lessons you learn out of it. I think you understand people way more. I think you understand social dynamics and communication. I think that's massive. Obviously, there's the physical benefits of it too but I just think the social aspects and the life aspects really outweigh the rest of it. Being a part of something and understanding, accountability and responsibility and how your actions impact other people, and vice versa, and even just discovering other types of people—like to see different personalities across the board, I think it's interesting so yeah there's numerous benefits. (group 2, question 1)

Memories

Significant life experiences help guide a person to who they become in the future. Coach Alex talks fondly about the memories he has from being on a sports team. He remembers the bus trips where you could hang out with your teammates and go on a trip that did not involve your parents. These trips provided a small sampling of independence. Another memory Coach Alex shared is a story of how carefully he took care of his uniform which demonstrates how important it was to him to be part of a team as a youth:

I think of bus trips and road trips and how much fun they were the first time you get to stay overnight in a hotel and how much fun that was. For me, I always—I really enjoyed getting the jerseys and that was a big deal and I remember you know laying it out the night before. You know folding it and taking care of it like it was this precious commodity that was always there. Just the whole experience with it like just getting to be with my friends and getting ... feeling like you're part of something. I took pride in it, always enjoyed being a part of a team or being part of a collective, so I think those are the feelings right away. (group 2, question 1)

Other Interests

Coach Alex enjoys reading autobiographies in his spare time, finding inspiration in the roller coaster journeys of individuals who have achieved success, such as Nick Nurse, the head coach of the Toronto Raptors, and Barack Obama. His experience as a head coach has definitely been an up and down journey like the people, he reads about in the autobiographies which is probably why he enjoys them so much, “I love reading autobiographies. I love reading stories of people’s journeys and where they go. I spend most of my time reading those” (group 2, question 3).

Experience with Coaching

How it Began

When Coach Alex volunteered to be an assistant coach for the local junior high basketball team many years ago, he did not imagine that it would lead to a career in coaching. Coach Alex started playing organized basketball in the eighth or ninth grade and he spoke about the poor experience he had as a member of his high school team, “I started coaching because of a negative experience, not because of a positive experience, where a lot of people will say that, so I think that’s always tough” (group 2, question 2).

He recalled that he could tell that his head coach did not want to be there. His coach had all the expertise and the experience to share but decided (showed via his coaching) that he did not want to be there. This had a major effect on Coach Alex who figured out the type of coach he did not want to be. He said:

I’m a coach who was not a good basketball player in any sense of the way, but I had a coach who was very—was a legendary coach many, many years before me. Taught my mother so when I got to him, he was at the end of his run, and I loved basketball just from

the outside—I discovered on my own, but this was a guy who had lots to give and just didn't care to give. So that sort of got me into thinking about how can I learn more about the game and then eventually get into coaching. (Appendix 15 - general PIA 5)

This negative experience was the beginning of his coaching journey and would be the opening scene of his biographical movie as he described in general PIA 5 (Appendix 15) where participants describe five scenes about a movie of their life.

Coach Alex coached at the junior high level (grades 7-9) and club teams (15U) for four to five years as he was finishing his education degree. He viewed coaching as a hobby and saw it as something he would do on the side while working as a full-time teacher but the more, he coached, the more he wanted to learn about the game, so he decided to reach out to a mentor to speak on his behalf to join the post-secondary program in his hometown. He said:

Even when I started coaching, I took it very seriously, but I don't think even myself, maybe, but I would say people close to me didn't think that it would be a career. Maybe a hobby that I would love, but it wasn't going to be what I do [as a career]. (group 1, question 3)

This decision to reach out to his mentor and learn more about coaching basketball ended up being one of the more important events in his life. He recalls, "I never thought of it as anything that would lead to a career. I just joined it (post-secondary program) because I thought it would be fun" (Appendix 15 - general PIA 5).

When Coach Alex was asked to be an assistant with the post-secondary women's program, he had to adjust his coaching style to coach females as up to that point he had coached only boys. Coach Alex mentions that it was awkward at first to be coaching female college players who were only a few years younger than him, "When I joined college ranks, I just got it

as a green guy who was coaching high school boys and now, I'm coaching college girls. Not that much difference in age when I started" (Appendix 15 - general PIA 5).

As an assistant coach, Coach Alex continued to work as a full-time teacher and coached part-time in the evenings and on weekends. He worked his way up to being a full-time assistant coach with the program and eventually was named head coach which put his career as a teacher on hold. Coach Alex experienced success quite quickly as a head coach. He went on to win the Alberta College Athletics Championship (ACAC) in his first year as head coach and placed 5th at the national Canadian Collegiate Association Conference (CCAA) championships. With this early success, he thought coaching would always be a positive light in his life, but it was not to be. As Coach Alex continued in the head coach role, he was asked to do more and more and eventually started to burn out. He remembers it well:

It was burnout I would say. It was 10 years and in a place like [College A], you're running everything. We created everything in the program, so we're responsible for youth programming and club programming and everything and again it's a full-time job and I'm very, very, very part-time pay, and it was great, and it was the best experiences that I had but I got to a point where I just felt like it kind of hit a ceiling. (Appendix 15 - general PIA 5)

All the signs of burnout were there and other people around Coach Alex noticed it too as he reflected upon that time period:

I think it was one of those things where I just I had a referee that we had for a long time and they came up to me and just said, is everything okay and they were genuine and I'm just like—oh man if you're questioning it like why am I so upset and then I realized oh—

I'm burnt out like I just—none of this is making me happy and this is stuff is supposed to bring me joy. It's not. (group 3, question 7)

During this time, Coach Alex knew it was time to do something different, so he made a hard decision and moved to a different city to take a position as an assistant coach for a women's basketball program. With this move, he recalled:

I just took it as I needed to change something. I need to try this, and this was my—I took a one-year leave. I was still technically the coach of [College A] ... because it was like either this is going to find my love for coaching that I think is still there or I'm going to walk away from this and do something different. So, it was a little bit more of just let me go see what this is. I can always come back to [College A] ... and do the same thing I did, or I could just walk away, and I think in my head, I felt like I might walk away.

(Appendix 15 - general PIA 5)

After a few years in this new position, Coach Alex found his love of coaching again and continues to share his knowledge about the game with his teams and other coaches and plans to do so for many years to come.

Favorite Part About Being a Coach

In Coach Alex's over 15 years of coaching, he values the time spent and relationships built with his players the most:

I looked forward to the time with the team. I just love practices and just getting to... I always liked the time when we get there early and the small talk and stuff before and the small talk and stuff after and as assistant coach that was the best time because—kind of joke around and have some fun, get to know people ask them other day was how the classes were that sort of thing. So, I've always looked forward to those. I looked forward

to game nights and weekends. I mean the competition part is a lot of fun. To walk into that environment and get to play that chess match that is coaching but any of the social situations are always the most fun. (group 3, question 1)

Relationships with his students were also one of the things Coach Alex valued as a special needs teacher.

Challenges of Coaching

Coach Alex is a people person. He loves interacting with his players, watching them improve and the relationships that he builds with each player but his worth as a coach is not assessed on those things but based on winning. At the highest level of many sports, winning is a key metric of success. He would change this if he could but understands that is part of being a post-secondary head coach. He says:

... if I could just coach and never have to worry about being graded on wins, losses and scoreboard. That would be a wonderful world which will never happen but that would be a wonderful world where I could just work on my craft and work on developing people.

That'd be great. (group 1, question 5)

Emotions

Coach Alex was asked what he feels has changed the most from his early days as a coach to now. Controlling his emotions was his response. Coaching is an emotional undertaking with the in-game highs and lows. Managing these emotions can have an effect on team performance (Van Kleef et al., 2019). He said this on how he has changed:

I think my general knowledge has obviously improved. I think I have tried to be—really tried to work on my being less emotional, especially in competition. I still struggle but there was a really bad run there ... I'd say pretty easy-going guy and one season, I had

eight technical fouls, which is the all-time record in the ACAC. That was my last year coaching college. That's where I knew I was beyond frustrated, but I think since that, I realized how that was an issue where that really negatively impacted my team. So, there's still my outbursts and still my problems, but I think self-identifying that sooner has improved. (group 3, question 7)

Involvement with Alberta Basketball

Many coaches in Alberta seek to coach in the provincial program through Alberta Basketball (AB BB). Being chosen as a provincial team coach is an acknowledgment that you have been recognized as one of the top coaches in the province to be trusted to develop athletes for the next level of competition. Provincial teams compete in an annual national championship with the 17U teams participating in the Canada Summer Games every four years. Involvement with the provincial team starts in April when there are tryouts for a roster spot but most of the work begins in July in preparation for nationals. Coach Alex has been involved in the provincial program since 2013. He started as an assistant coach but quickly moved into a head coaching role. Coach Alex's involvement with AB BB brought big changes to how he coached moving forward. He began to see a new way of choosing drills to prepare his team for competition. He specifically pointed out the introduction to the use of small-sided games (SSG's) as a coaching tool. With SSGs, a coach is able to replicate the intensity of a game and require the players to make game decisions under pressure and fatigue (Hill-Haas et al., 2011). He recounted:

I got exposed to that curriculum and it kind of completely changed the way that I thought about it and still influences it now ... but you know way more on decision training, way more on game like situation, small-sided games. These things that I hadn't really thought of before. (Appendix 16 - coaching PIA 5)

Coach Alex's involvement with AB BB was also his first experience with the Long-Term Development in Sport and Physical Activity (LTDSPA) framework and the Canada Basketball Athlete Development Model (ADM). His experience is similar to how most coaches are first exposed to the LTDSPA framework which is through the provincial sporting body. He recalled, "I would say, probably, it was already going to be about three or four years into my [coaching] career is when I really discovered it [ADM]. I discovered it through the provincial program" (group 4, question 1).

Acquisition of Coach Knowledge

Coaches acquire knowledge from three primary sources—formal, informal, and non-formal learning. Coombs and Ahmed (1974) defined formal learning as knowledge acquired in a structured and institutionalized environment, informal learning as knowledge obtained through daily experiences, and non-formal learning as organized and structured learning opportunities occurring outside the formal education system. This knowledge, used by coaches as part of their coaching practice, forms the foundation for their approach. This section will outline some of the knowledge that Coach Alex has accumulated in relation to coaching.

Formal Learning

After graduating from high school, Coach Alex pursued a degree in education, specializing in working with special needs children. This role demands a special kind of individual, one who is caring and patient. Coach Alex emphasizes the value of relationships in teaching, highlighting that fostering connections is key to helping these students succeed in school. He believes in celebrating every small step of progress:

I would say relationships and patience would be the big ones for me. I think understanding the importance of relationships and how they're built and then just

patience because obviously in that job, it is like you're taking small, tiny steps and it's a long road but realizing that a full step is a major accomplishment. (Appendix 15 - general PIA 5)

His teacher training also equipped Coach Alex with organizational and planning skills, as well as knowledge in managing and relating to people in a calm and organized manner. These attributes are essential in coaching.

NCCP Courses. The National Coaches Certification Program (NCCP) certification is a formal learning experience that Canadian coaches obtain in order to coach sport in Canada. The NCCP program lays out the basic knowledge that coaches need to know for the level of athletes they are coaching. The NCCP has a community or competition stream, and they differ in that the community stream focuses on ongoing participation whereas the competition stream focuses on helping an athlete reach their full athletic potential. Coach Alex has taken many courses in the NCCP competition stream and has recently earned the NCCP advanced coaching diploma. The diploma program took a period of two years with the knowledge acquired to be applied in preparing athletes to compete at the international level. In completing the courses for the advanced diploma, Coach Alex said he became familiar with the general LTDSOA framework as well as the Canada Basketball Athlete Development Model (ADM),

I used both [LTDSOA and ADM]. I had to use the basketball one for my planning because it's a lot of assignment based so everything, we were doing was for me, but then there was the introduction on LTAD 3.0 as well, but I use a lot of the basketball one for my specific assignments. (group 4, question 6)

Coach Alex is also an NCCP instructor for Alberta Basketball (AB) and teaches beginner courses (Learn-to-Train) for coaches that are looking to start coaching basketball. The courses

that Coach Alex teaches focus on how to plan a practice or season, how to select appropriate drills and the skills to develop at that age level. It is through this instructor role that Coach Alex gets many questions about the LTDSOA framework and the ADM.

Informal Learning

Coach Alex had many informal learning experiences that he applied to his coaching practice, including playing experience, athlete knowledge, observations of others, self-directed learning, and mentors.

Playing Experience. One of Coach Alex's foundational sport experiences came from participating in basketball. Growing up, basketball was one of his favourite sports to play, the other being volleyball. It was during this time period that Coach Alex encountered the catalyst for his future coaching journey. As mentioned in an early section of this chapter, Coach Alex said his basketball coach had 'checked out'—or no longer was interested in being a coach. His coach was there physically but was not really interested in coaching the team anymore. This experience helped Coach Alex develop the idea that he wanted to be a coach and the type of coach he wanted to be, which was to be present and give 100% effort when coaching his players.

Athlete knowledge. Athlete knowledge means learning from your players. As a basketball coach myself, I hope that I have prepared the players and team as a whole enough to perform well against the opponent, but it is our athletes that are playing the game. They have a lot of knowledge to share with us and are unaware that they are always contributing to our coach learning. Coach Alex shared one his favourite stories from his first year as a head coach at the post-secondary level which was a big learning moment for him:

My go to story always is we were down 16. I call timeout to basically—because there was a big achievement for ... to get to the final so I was I was basically calling a timeout

down 16 to kind of say, hey eight and a half to go, this is over—we're done, everybody enjoy and be proud of it and before I can get into the huddle, my fifth year captain had already started talking and starting to say—hey, we got to get this back one possession at a time. We're okay. Let's not rush and so I didn't say anything I just put my hand in and did the cheer and went back out and they had this look in their eyes that was just like a takeover. So, my greatest speech was me not talking at all during the time out. (Appendix 15 - general PIA 5)

This story demonstrates how this athlete was more in tune with the team's needs than the coach was at the time. It demonstrated to Coach Alex that athletes can be more motivational in the moment than a coach and that we can learn from our players if we watch and listen. It also demonstrated that Coach Alex had the awareness to not try to change the message or say a word. Coach Alex joked that the best decision he ever made was to be quiet and say nothing.

Observation of Others. Many coaches try to emulate coaches they see in person or on television. Much can be learned from watching how coaches manage the flow of the game, what offences and defences are called and interactions with players, opponents, referees, etc. As a young coach, Coach Alex thought he had to be the “tough coach”, the coach that demands discipline from his players, the “do what I say coach.” He made a drawing that summarized his coaching journey from the beginning to now (Appendix 16). He said:

When I came into coaching, I had this idea of what a coach should be. In my first many years I was, I was going to be that coach and when I think of coaching I think of those guys—if you ever watch NFL films, you know the Vince Lombardi's and Tom Landry's and those guys with the derby hats and the coats and they would be very strict no nonsense... but that's what I thought I had to be. I had to be this kind of tough hard ass

coach that was going to force them, but I found that wasn't really who I was. I wanted to value relationships. I'm going to value people. (Appendix 16 - coaching PIA 5)

Another learning moment for Coach Alex was observing a 'coaching legend' or a very respected coach on how to handle a loss with class, he commented:

... what I learned from that was watching that kind of unravel for them and how classy he was. I had so much respect for him, just to watch and learn that, like the greatest can have those days where it comes apart with them. (Appendix 15 - general PIA 5)

One of the activities that Coach Alex likes to do outside of basketball is travel. It is not uncommon for coaches to always be thinking 24 hours a day, seven days a week about how to make their teams better even in the off-season. He was able to travel to Seattle and spoke about observing and learning about how football coaches manage their coaching staff and the players on an NFL team:

I got to go to training camp a couple times in the summer and watching that machine work and I'm fascinated. I don't know much. I don't really know football. I watch it but I don't really know it and just watching that machine and how it would work would be very fascinating because that's just a different level of managing staff and people and everything. So, I would love to say NFL room—the training camp for two weeks and figure out how they do what they do. (group 1, question 3)

Self-directed Learning. Self-directed learning is probably the most common form of informal learning for many people including basketball coaches. Coach Alex is a lifelong learner as he is constantly looking for ways to improve as a coach. He commented that if given extra hours in the day, he would do more self-learning:

I think teaching styles like really looking into how to teach things and learning environments and creating those and I think that would you know that's what I've been looking at lately but digging into that more of understanding how to apply concepts that people and then digging more in that philosophy side of just understanding people. How they think and how I can be a part of their development emotionally, socially and mentally. (group 1, question 3)

From this story and many of the other stories that Coach Alex has shared, they involve understanding individuals and building relationships. In doing this, he is trying to see what motivates them, understanding that each player is unique in order to develop the complete person. His worldview leans toward a constructivist coaching pedagogy (Roberts & Potrac, 2014) but his worldview on coaching wasn't always this way. He said he used to be a no-nonsense coach:

It made no sense, but I thought I had to have these rules set so we would make the kids run and run. You know, run until they puke and all this nonsense because that's what I thought it [coaching] was. (Appendix 16 - coaching PIA 5)

Young athletes look up to emulate the athletes they see on television or in person and try to be like them. The same goes for coaches, we emulate coaches who we admire because of their success. We try to implement their systems and styles of play because we think that it will lead us to being successful coaches too when we start our coaching journey.

As a young coach, Coach Alex thought he would learn a lot about coaching by getting his hands on as much basketball material as possible but found that it was not effective without context. He said:

I would say my initial plan was just going to read and consume as much material as possible, but I think that's a flawed strategy because I would read it and apply it in their words not my words. (group 3, question 2)

Mentors. The mentors for Coach Alex have had a tremendous impact on his coaching journey and his coaching style. It was a mentor that helped Coach Alex get his foot in the door at the local post-secondary institution. Without that assistance, he may not be coaching today. Another mentor for Coach Alex was introduced to him through his involvement with AB BB. He recalled:

This mentor coach was high energy and made me look at the whole thing completely different and just made me think about how am I teaching and how am I growing my learning environment? It flipped my idea of coaching upside down and just a ton of energy and a ton of just spark for me is what really fueled me to learn more. (Appendix 16 - coaching PIA 5)

Coach Alex said that it was one of the more influential moments of his coaching career as he truly felt at that time, he was ready to leave coaching if he did not run into this mentor and showed this on his drawing about his coaching journey in Appendix 16.

Coach Alex also views himself as a mentor now by sharing as much of his experience as he can. As mentioned earlier, Coach Alex understands that each player has a different perspective learning skills and understands how basketball fits within the big picture. He shared a story about trying to help a player find balance between school, life and basketball:

I have one player at the start of my career, who was just this—basketball the only thing that mattered in her life. At the end of it when she graduated, she was one of the first

players I had that graduated. She came back and said—you know I realized that, like the things that I was so stressed out about—they weren't that important. (group 2, question 3)

As coaches, whether we like it or not, we are role models and mentors for the players that we are fortunate enough to coach.

Like many coaches, informal learning seems to have shaped and influenced Coach Alex's coaching practice the most, but his formal learning opportunities are the foundation of his coaching practice. Coach Alex feels that the best way to learn is by coaching your own team and applying what you learn. Nothing beats getting real world experience. He commented:

So, I mean the best way that I learned to coach was just coaching. As simple of an answer is that is but it was applying it. Coaching teams, taking club teams, taking any sort of team and just coaching it. I got way more development out of that than anything else.

Now the additional resources, the clinics and all those things were great but applying was the biggest changer. (group 3, question 2)

For *non-formal* learning experiences, Coach Alex did not offer any stories that indicated impactful non-formal learning related to athlete development or coaching.

How Does Coach Alex Experience the ADM in His Coaching Practice?

Semi-structured questions were used to ask Coach Alex about his experience with Canada Basketball's Athlete Development Model (ADM). From Coach Alex's responses to the questions, I explored the part-whole relationships and looked to find enough parts to understand the whole. In doing this, I gained insights into some important coaching values and preoccupations that are embedded within the stories about his coaching and life experience that influence his use of the ADM in his coaching practice.

This section will be organized using three components of the Knowledge to Action (KTA) Framework: (i) adapting the use of the ADM to the local context, (ii) assessing any barriers in using the LTDSFA framework and (iii) implementation of the ADM. The section will end with other information Coach Alex shares about the ADM.

First Exposure to ADM

Coach Alex was first introduced to Canada Basketball Athlete Development Model (ADM) through his involvement with Alberta Basketball in 2013 which was four years into his coaching journey. As per the policy of Canada Basketball, the provincial sport organizations are to be the sport body that introduces coaches to the ADM. Coach Alex found the information in the ADM overwhelming at the beginning as it is a 70 plus page (15 chapters) document that contains detailed information on the physical, emotional and mental skills athletes should possess at a specific age level and how performance is to be measured. He said this about the ADM when it was first introduced:

I think it was overwhelming because there was a lot there, and you go whoa, I hadn't really thought about it and as I said, I probably really got into it—I would say, probably, it was already going to be about three or four years into my career is when I really discovered it. I discovered it through the provincial program. (group 4, question 1)

Another more recent exposure to the ADM for Coach Alex was through the NCCP Advanced Coaching Diploma program. Students in this program were given many assignments that involved the use of the LTDSFA framework and the ADM. He said:

I had to use the basketball one for my planning because it's a lot of assignment based so everything, we were doing was for me, but then there was the introduction on LTAD 3.0

as well, but I use a lot of the basketball one for my specific assignments. (group 4, question 1)

Not all coaches are at a level to be able to take the NCCP Advanced Coaching Diploma program like Coach Alex, but he commented that knowledge transfer of the ADM occurs at each level of the NCCP coaching certification course. He added:

... but where I really, really learned it was the NCCP coaching certification. Because it became very clear what they were in those courses and for a coach, for me, going through each one of those modules and trying to get my coaching certification, that's where I learned it and understood it and could apply it and because it was so encompassing you were in—Learn-to-Train. You knew that it was—Train-to-Train same thing, so when I got into that I don't know—I don't know how else I would understand it fully - unless it was immersed into it through the NCCP coaching certification. (group 4, question 1)

Further exposure for Coach Alex is as a NCCP Course Facilitator. He trains new coaches on how to coach by delivering the Learn-to-Train (ages 8-12) module. The objective in this module is to inform coaches how to continue to build physical literacy and introduce formal competition. Coach Alex said every unit in this module is based on the concepts contained within the ADM and added:

There's a bunch of slides at the start of every unit that you do. They will walk you through that and they immerse that into the curriculum [ADM] a ton. So now it depends on your facilitator how much you're going to focus on it but it's [ADM] all over the material, especially—Learn-to-Train. It's the majority of it. (group 4, question 1)

From Coach Alex's experience with the ADM, he has a lot of confidence on how to use it effectively as part of this coaching practice and confidence to guide others to use it effectively as well.

Adapt to Local Context

Coach Alex was supportive of the ADM when he first learned about it and was excited to use it with his team. He commented, "It was great to see the structure and it kind of gave me something to dig into" (group 4, question 1). Coach Alex thoroughly examined the details of the ADM to confirm the benefits of implementing it. It is not surprising that he did this as paying attention to details is a part of who he is as an individual. He attributes this attention to details from his training to be a teacher mentioned earlier in the chapter, "I think understanding the little details and appreciating them more along the journey [students]" (group 4, question 1) when he asked was about working with students.

In looking at Coach Alex's willingness to use the ADM, it is not surprising that he was fully supportive of using it as a development framework for his team. Coach Alex believes in team. In his response to the PIA about important coaching words (Appendix 17), he is a big picture guy and supports the purpose of the ADM which is to provide a consistent framework for athlete development across the country. This key idea of team is seen through Coach Alex's stories throughout our interview including the story about him cherishing his place on the team by carefully unfolding and laying out his basketball jersey prior to games.

Barriers to Use ADM

When Coach Alex decided to use the ADM in 2013, he was coaching at the post-secondary level. This would place his team in the Learn-to-Win stage (L2W) or 18 to 23 years of age of the ADM. Upon examining the details of the physical, mental and emotional capabilities

that his team should work towards for their age group, he realized his team did not fit into the stage as they were developmentally behind what the ADM says they should be at. He recalled:

So, it was overwhelming and then what I really noticed was—how I’ve always felt especially up in my area that I was in, that the group I was coaching was a step below what they had sort of said that age group would be at. So, what was supposed to be Train-to-Compete was Train-to-Train and what was supposed to be Train-to-Train was Learn-to-Train and I felt like we were sort of a step below, but it was overwhelming to see it all there. (group 4, question 1)

This was the main barrier he identified in order to use the ADM. Coach Alex was not surprised that his players were developmentally falling short as being from a small town himself, he understands that young athletes including basketball players do not have access to the same development opportunities (camps, competition, coaching) compared to players in the larger urban centres. Having less skilled players is normal when coaching in smaller communities.

How did he know that his players would not be able to reach the recommended level of skills in the ADM? It is because Coach Alex is a people person and values the relationships he has with his students and players.

Players come back to visit Coach Alex well after they are done playing for him, which demonstrates the strength of the relationships he has built with his players. This is a function of Coach Alex being present for his players which is what he vowed to do when he decided to become a coach:

I coached that team 20 years ago and these guys are married with kids and they’re still the most connected group I’m with because I found the relationships and the fun part was the part I liked. (Appendix 16 - coaching PIA 5)

Coach Alex also mentioned that his teaching experience taught him that each person is different in their own way, so he takes the time to get to know their strengths and weaknesses and what motivates them. He said, "... I do think the understanding of seeing that people are different and how they relate to concepts is a big one" (group 1, question 2).

Implementation of ADM

Having identified the barrier, there were two ways that Coach Alex felt he could overcome it. One option is to cherry pick the skills your team can achieve in the L2W stage and ignore the skills they could not achieve. The other option was to use the listed skills in the Train-to-Compete (T2C) stage (15-18 years old). For Coach Alex, he feels that if he cherry picks the skills in L2W that his players can achieve, it will go against the whole purpose of the ADM which is preparing athletes for the next stage of development. His view is that the ADM should apply to the whole team, not to individual players on the team so Coach Alex chose to apply the skills from the T2C stage. Even though the recommended age for athletes in T2C is 15-18 years old, Coach Alex felt this was where his players were at in skill development and would suit them best. He said:

I'm coaching Learn-to-Win (L2W) athletes at the college level, but I knew I was at Train-to-Compete (T2C) level, so I had to try to make sure that I was being consistent with what was in Train-to-Compete because that wasn't going to be a full picture. If I started to kind of cherry pick what I wanted, I feel like it will lose consistency or if I was trying to force them to be a Learn-to-Win team, but we don't have the basics that are going to transition us to there—then it's not going to work. (group 4, question 4)

Long-term options that could address the barrier is to go outside the local area to recruit more skilled basketball players or to work with local coaches on player development.

The big picture is what is important to Coach Alex. Developing his players so that they are prepared for life and for them to continue to be physically active for the rest of their lives is what is important. He said:

As much as I want to win and push this person to be the best—you know shooter/dribbler that I can—there's more to life out of this and seeing players graduate and going into the real world and having success. I think that perspective over my time has really changed my view of what I needed to develop and what I need to focus on. (group 2, question 3)

Another reason that Coach Alex chooses to teach skills from the T2C stage is his sense of empathy. He talked about empathy when he was asked what has not changed since he started coaching basketball. He said:

I would like to say that being considerate of other people and the consideration and empathy of where others are and what they need individually to connect to the whole. I think that's always been there. Again, I think it's gotten better, but I think it's always been there. (group 3, question 6)

In being empathetic towards his players, he does not want them to feel that they cannot or will not be able to achieve some of the skills for their age group and this is the reason he has never shown his players the ADM. He said:

I don't think I've ever shown it to them. I'm not sure why I haven't but I don't think I have because I would also say this too—I guess why I wouldn't do it is—I don't know that it's always all applicable. There is a couple of things that I think you have to—you have to pick from other levels so maybe I don't want to stick them in a box or make them think that they're completely short of something because they're not all the way there but the general concepts. (group 4, question 5)

Based on this response, it feels like he is trying to protect his players from realizing that they do not have the skills for their age range. He is protecting them from this knowledge and trying not to discourage them from continuing in the sport or losing confidence in themselves.

Additional Experiences with the ADM

In the course of the discussion of the ADM with Coach Alex, other related topics were brought up that I share in this section from his experience with the ADM.

Impact on coaching. Coach Alex doesn't use the ADM as part of his daily routine during the season with his post-secondary team but uses it during the off-season as a measurement and planning tool. He uses it to assess the amount of time he has spent on competition, development of tactics, acquisition of skills and warm up during the season. For example, for the Train-to-Compete (T2C) stage, it is recommended that 20% be spent on competition, 30% on development of tactics, 30% on skill acquisition and 20% on warm up. He said:

I think it [ADM] made me check my coaching. So, you know, the one thing I always think of is they have this little pyramid where they break down. On it, it's broken into fundamentals, technical, strategy and tactics and I think what it did was when I look at the level I was at and they have percentages of how much should be in each level. I would take my season planning; I would take what I had done in the past year and sort of check it against it. So that's maybe where it changed—like maybe I didn't have enough technical or I'm not planning to have enough tactics in here, or what am I defining as a tactic or whatever, and so I think in my planning is where it had its most impact. (group 4, question 2)

Sharing ADM Knowledge with Assistants and Parents. Being a supporter of the ADM, Coach Alex asks his assistant coaches to read and understand the purpose of the ADM.

He asks them to do this so that they can explain to players why they need to develop specific skills. Treating the ADM as a curriculum type of document. Coach Alex commented on having his assistants understand the purpose of the ADM:

Realizing what the elements look like in all of my planning then explaining it to my staff and making sure that they have an understanding and giving them that model to look at and then I think in a way of explaining it in some way to the athletes, maybe not as technical as here's the what you should be at this development model but here are the things that we're going to focus on the here's why and a lot of that ties directly back to the LTAD. (group 4, question 5)

It also introduces the assistant coach to the ADM so that they may consider using it when/if they have a chance to coach their own team in the future.

Does Coach Alex Think the ADM has Been Successful? Yes, he does. Coach Alex believes the ADM has been successful in developing basketball players in the province since its introduction. His response references the increase in athletes that have played in the United States on a scholarship and/or that have moved on to play for the national team:

Yeah, I mean, I see it on the provincial standpoint. I feel like when I get to work with the best athletes in the province, I feel like those athletes usually come from pretty good programming and we have some of the athletes that we worked with end up in NCAA programs and national team programs and I do think you see the dominoes in place of their development. I can go back at the very best, the very top, I can go back and trace back their development and see where it was successful. I don't know that I see that in the rest of the pyramid the middle of the bottom of it, but the top of it, I think I can see it for sure. (group 4, question 6)

Coach Alex sees the ADM being successful for the elite athletes in the province but is unsure of how it is working for players and coaches at the lower levels of the game.

A concern that Coach Alex has is how coaches are using the ADM which he has personally witnessed. He has observed coaches trying to teach the skills that are listed in the ADM for a particular age group and force the concepts on the players when they do not have the previous skills to build upon. Coach Alex's response demonstrates that there are coaches out there that want to use the ADM but still do not understand the development principles that are embedded within the ADM:

It would be where they were trying to sort of force these concepts into this age group that's not there, but why I say maybe is I don't know that the coach in that situation, maybe they don't understand. The maybe is used because I don't know if those coaches understand the model, but I see it happening but I'm not sure if they're looking at the model applying it that way or if they're just making up their mind and doing it, regardless of the model. (group 4, question 7)

Advice to Coaches. Coach Alex is quite knowledgeable about the ADM since he uses it pre-season, post-season and as a NCCP coach educator. His most important piece of advice to coaches wanting to use the ADM as part of their coaching practice is to know your players and what skills they have (understand your own context). Don't use age as your guide but skill level. By properly building the fundamental skills for the player, it will help them be a better player in the long-term:

Okay, piece number one would be to know your context so know who you are, who you're coaching, what you want to accomplish, what's important to you. Understand that because once you know your context, you can fit into this model easier. If you just go up

and say oh, I coach this level so I should be here, but you don't have an understanding of what kind of came underneath that and how it's going to apply, it's not going to work for you. (group 4, question 8)

Once the coach chooses the skill level your players are within, his next piece of advice is to focus on the recommended ratio of tactics, strategy, technical skills and fundamentals. As an example, for Learn-to-Train level (8–12-year-olds), the proper ratio for practice time would be 10% strategy, 50% technical and 40% fundamental skills where the Train-to-Train level would look like 15% tactics, 30% strategy, 30% technical and 25% fundamental skills. This is where a coach will see the biggest benefit. He said:

I think that is the best place to start, because if you were to come in and you're working with eight- to 11-year-olds, and you go okay, I need about 20% fundamentals in every daily plan I have, about 20% technical and about 10% strategy. That's going to really help or 20-20—my numbers are off, but have those percentages and if I can look back on my planning day to day, week to week and then season to season and have a pretty good split of that, I'm definitely on the right path so before I understand anything else, understanding what those what fundamentals were the technical, the strategy, the tactics, what the differences are and where my focus should be that will get you the farthest ahead, I think. (group 4, question 8)

ADM Use Frequency. I asked Coach Alex if he believes that coaches use the ADM as part of their coaching practice on a regular basis. His answer is “no.” He believes that the material in the ADM is outdated in that it has not incorporated the fact that in basketball, the style of play has changed since its release in 2009. He said:

It's not something that's present on everybody's mind, and I think if you were to do a lie detector who's looked at it recently, there'll be a lot of people that maybe haven't seen it in that you know 11 years that's been out or haven't seen it in five years. (group 4, question 7)

He does not believe that the ADM needs to be overhauled but does believe that it needs to be updated so coaches will consider it the best resource for player development moving forward. With information easily accessible via a google search and the ADM being a static document, the ADM is not the first-place coaches go to at the moment for player development knowledge:

If you want to make it a document that we're not looking at once every seven years, and I think it should be the skeleton... I get asked so many times and doing those coach clinics like where do I start and I think would be great to be able to start that model if it's aligned, and you can get people to kind of dig deeper into it, so I definitely think it should be aligned currently like it should be kept up to date for sure. (group 4, question 7)

Conclusion

Coach Alex looks back on his coaching journey and he still cannot believe that he gets paid to coach. When he first started as the head coach, he was paid \$10K. If you calculate how many hours a head coach of a post-secondary coach puts in (coaching, planning, recruiting, etc.), he would be working for minimum wage, but he didn't care:

When I got 10K, I thought it was great and they bumped me to maybe 12K. I think by the end it was close to 15K and I felt like it was 150K because I got \$500 for my first assistant coaching season. I'm like—oh I'm a professional coach. (Appendix 16 - general PIA 5)

His decision to use the ADM as part of his coaching, identify the barriers and make the needed adjustments to implement the ADM is influenced by his past coaching and life experiences. I have used these stories to help explain his use of the ADM.

From our discussion about coaching, the LTDSPA framework and the ADM, Coach Alex continues to be passionate about coaching and athlete development. Although the ADM is not part of his daily or weekly coaching routine, he does feel that it is an important piece of the basketball athlete development puzzle which needs some updating.

Chapter 6: Coach Ken

This interview took place on February 6, 2021, via the Zoom meeting platform. The interview lasted one hour 40 minutes and 78 stories were identified in the interview transcript using NVivo software. At the time of this interview, Ken is the head coach of a post-secondary team in Alberta as well as a current member of the provincial team coaching staff. Each story that Ken shared was analyzed to extract key ideas, insights, and topics. Names of any schools or persons have been changed or hidden to protect the identity of the coach.

Background

Young Ken

Ken's connection to sports dates back to his earliest memories. At the age of two, he fondly recalls playing on a Little Tikes® basketball hoop and carrying around little plastic golf clubs at his grandparents' house. Growing up in an athletic family meant there were always enough family members for games of backyard baseball or basketball. His initial introduction to organized sports was through a program called *biddy ball*, tailored for kids aged three to five. From there, he started in community basketball at the age of eight, playing through his junior high years and earning the opportunity to play on some provincial teams in that time span.

In high school, Ken showcased his athletic abilities as a dual-sport athlete, thriving in both football and basketball. For three years, Ken seamlessly transitioned from the football to basketball season, maintaining his commitment to excellence. His teams consistently contended for provincial titles in both sports. In his senior year, Ken committed to attend university on a football scholarship upon graduation and in his final high school basketball game, the team reached the provincial finals, marking a noteworthy conclusion to his high school athletic journey. Up to this point, Ken is a big fan of team sports. He enjoys it for this simple reason:

... the relationships that you get that are built over that time. Again, people that I grew up playing for as a kid are still people that I'm friends with and work with now and so the building those connections and those relationships. (group 2, question 2)

What unfolded in the week following his final basketball game would reshape the trajectory of his life in ways he could never have anticipated.

The Injury

The physical education class began like any other, starting with a warm-up and then transitioning to the on-ice activity, which happened to be broomball. During this class, he recalled, "I slipped ... fell on the ice and then a couple of guys landed on my leg and twisted it in a very weird way that it's not supposed to bend. So yeah, it was uncomfortable" (Appendix 18 - general PIA 6). Upon examination by an orthopedic specialist, it turned out that he had torn the anterior cruciate ligament (ACL) in his right knee. The return to normal activity, rehabilitation for this injury can take six to nine months. Ken graduated from high school, but the injury prevented him from utilizing the football scholarship he had earned. The next few years were, in his words, a "little rocky." It is difficult to fathom the thoughts that race through a young man's mind when he sees something he has dedicated his entire life to suddenly vanish.

Before the injury, sports were integral to Ken's life. As he recovered, he needed time to reassess what his future would look like and whether sports would continue to be a part of it:

I took some time before I really made that transition [into coaching]. There was after getting hurt—what do I do? I didn't worry about sports for a while and was not involved for a couple of years, quite honestly. (Appendix 18 - general PIA 6)

Emerging from such a challenging period could not have been easy, but Ken found a way to move forward. In coaching PIA 1 (Appendix 19), he emphasized the word "adapt":

I think adapt—there's a reason I think that it's at the top [of the list]. Again, when you're going through the exercise being adaptable, especially I guess that's probably a little recency bias on that one too is how much we've had to adapt in the last year [COVID].

(Appendix 19 - coaching PIA 1)

Ken's ability to adapt to his new post-injury reality not only facilitated his recovery but also marked the beginning of his coaching journey. As a volunteer assistant football coach at his former high school and an assistant with his younger brother's basketball team, Ken found a new path in sports, demonstrating resilience and determination.

Experience with Coaching

A Door Opens

Ken's unexpected entry into post-secondary coaching came when one of his former provincial team coaches reached out, seeking an assistant coach for his men's college team. Despite not actively considering coaching at that moment, Ken seized the opportunity, driven by his love for team sports. Now, more than 15 years later, he continues to coach at the same college—a journey that began with a spontaneous "yes" to that original phone call:

I was just literally at home one day doing nothing and the phone rang, and you know someone that I played for in the past needed some help and was curious to know if I wanted to just come out and here we are. (Appendix 18 - general PIA 6)

Ken started out as an assistant and took over as head coach five years later. He receives only a modest stipend from the college, necessitating full-time work alongside his full-time coaching duties. His coaching commitment extends to evenings and weekends, consuming seven months of the year from September to March. This demanding schedule leaves him with limited

time for other pursuits. Ken mentioned that he was unaware of the amount of work head coaches have to do prior to being one himself:

I've come to understand all the extra responsibilities of coaching university that aren't just the x's and o's. Coming to appreciate all that behind-the-scenes work, the policy work, the insurance, the guidance. All the things that go into it. (group 2, question 3)

Because of his hectic schedule during the season, in the off-season (April-July) Ken expressed his desire to escape the city, highlighting a preference for spending his free time in a less hectic environment:

I would make sure I had a cabin out in the mountains, and I would put the feet up and relax. Honestly, I'm not complicated ... I would just like to relax with the feet up. I don't need to do anything spectacular ... I'd get a few rounds of golf in, and I would just take it easy quite honestly. That's as much fun as I need. (group 1, question 3)

This story about how he likes to spend his free time shows that Ken is a relaxed individual who prefers to keep things simple, finding enjoyment in life's simple pleasures.

In the beginning, Ken was unaware of the extensive responsibilities that come with being a head coach. He reminisces about his time as a player when all he had to do was show up and play, never fully comprehending the behind-the-scenes work coaches put in. Over the course of gaining more coaching experience, he came to understand that coaching goes beyond teaching the x's and o's, revealing the multifaceted nature of the role:

Coaching is art more so than it is a science as much as there is some science to it. There's a lot of art to it and so you know how your art is perceived by others is up to them and you can't worry about that kind of stuff. (group 3, question 4)

Gymnasium as a Gathering Place

Ken spoke extensively about the college gymnasium in the interview, emphasizing its special significance. It is a place where he can gather and be with his team. He even marked the exact location on the court where you can find him (Appendix 20). During the pandemic when this interview took place, it was apparent that he could not wait to be back together with his team:

I've been at [College] for almost 15 years so it's other than my house, it's the building I've spent the most time at over the years. So, I guess I say my adult life, so to speak and so it's a lot of great memories, ups and downs, but definitely a place where you know it's special and no matter what the future holds it'll always be a special place. (Appendix 20 - general PIA 2)

The gym serves as a place for Ken to connect with his players, emphasizing its importance for him to build relationships with his players.

He places significant value on having the right type of individual on the team. In a shared story, he recounted an experience with a highly talented team that consistently underperformed due to a lack of the right character stating, "so talent was not our issue, and when I really had the chance to break it down and reflect on everything, the character of the team was substandard" (Appendix 21 - coaching PIA 2).

After this experience, he made a personal commitment that talent would not be the sole focus in recruiting new players to the team. The most important attribute he sought was finding individuals who were not only talented but possessed the right character:

Do they have those other qualities and characteristics that will make them nice to be around because if you don't like going into the gym with the people that you have to go

into the gym with, you got to spend a lot of time with those people. It really changed my thought process on the construction of a team and the kind of people that you want to be around on a daily basis. (Appendix 21 - coaching PIA 2)

Like many new coaches, achieving victories was the primary goal, serving as a confirmation of one's coaching abilities. However, as Ken has matured, the importance of wins has diminished, and the focus has shifted to the meaningful interactions with his players, which is why he continues to love coaching:

The people side of it has become much more important to me than the just winning game side and again that part will never go away as I've said before. That's always going to be part of what I enjoy about coaching, but also an increased importance on the people side and letting your athletes be who they are, giving them time and space when they need it. (group 3, question 5)

Ken regards his players as an extension of his family, and he prioritizes ensuring their success during their time as members of his basketball family.

Provincial Team

In the years that Ken has been involved with the provincial team program, he has observed Alberta Basketball's commitment to developing the top players in the province. However, he acknowledges that playing time on the provincial teams are not distributed equally, as better players tend to receive more playing time, especially when the objective is to secure a victory:

I've coached provincial teams, and the playing time is not equal. We just don't sit there with a stopwatch and everyone's getting their 15 and a half minutes a game because that's about what it works out to if you gave everybody equal time. That's not how it

goes. There's always going to be some kids who play 30 minutes and some kids who play 10. That's just the reality of it. (group 4, question 7)

Yet, if the primary goal of the provincial team is to prepare players for the next level, the question arises: How can players enhance their skills if they don't get sufficient playing time during games? The answer lies in the practice sessions guided by the ADM, providing them with ample opportunities to develop alongside their teammates:

We've purposely taken some players on provincial teams that were not the most talented, but they had the bigger upside. They had that potential. Maybe they were that kid that was really tall at a young age, but they were a baby giraffe out there and walking and chewing gum was difficult, but if we spend time with them developing them as a player and making them better and rounding out their skill sets and teaching them how to move better and how to use their body better. (group 4, question 7)

Growing as a Coach

As Ken amassed more coaching experience, success for him transcended mere wins and the routine activities inherent to coaching. His aspiration shifted towards becoming a transformational coach rather than a transactional one. Transactional activities, as he defines them, are quantifiable, including recruiting, goal setting, season planning, and reviewing game tape—all undeniably crucial. However, he emphasized the significance of transformational activities are equally vital for coaching success but not easily measurable. His evolving coaching philosophy has moved towards an equilibrium, acknowledging the importance of both transactional and transformational activities in fostering success. Details of his transformational coaching activities can be found in Appendix 19.

I didn't think enough about those transformational qualities. Thought about too much about the transactional qualities and it led to being miserable that year of dealing with incidents in practice and incidents in games and off-court nonsense and things that just you don't want to spend your time on as a coach. (Appendix 19 - coaching PIA 1)

From his initial opportunity as an assistant coach to the present, Ken's coaching journey spans over 15 years, which includes his time with the provincial program. Throughout this period, Ken has not only grown as a coach but has also embraced the demanding nature of balancing full-time work with full-time coaching. Because of the challenges, he cherishes his free time and life's simple pleasures. As a coach and mentor, Ken finds joy in building meaningful relationships with each player. He has embraced the role of a transformative coach, focusing on imparting valuable skills that might be challenging to measure but are destined to last a lifetime for his players. As a development coach he wants his players to be able to, "make decisions at game speed, in high pace and stressful situations and to be able to do it well" (group 4, question 4).

Acquisition of Coach Knowledge

Coaches gain knowledge from three primary sources—formal, informal, and non-formal learning. Formal learning, as described by Coombs and Ahmed (1974), occurs in structured and institutional environments; informal learning comes from daily experiences; and non-formal learning includes organized educational opportunities outside formal systems. This knowledge shapes coaches' practice and informs their approach. The upcoming section will explore some of the knowledge that Coach Ken has accumulated through the various sources.

Formal Learning

Coach Ken's formal learning experiences took place within the public K-12 education system and through the National Coaches Certification Program (NCCP). This section primarily focuses on his experience with the NCCP, as our discussion about his high school athletic experiences did not bring out any notable stories about memorable educators or classes from that time.

NCCP Courses. Ken has completed the NCCP and holds a Train-to-Compete (T2C) coaching certification. This level of certification signifies that he has the course knowledge necessary to develop high school and post-secondary players. Moreover, Ken serves as an NCCP educator for Alberta Basketball, underlining the importance he places on these courses for coaches in the province. Reflecting on his initial experience as a participant in the NCCP courses, he found them highly educational, "for me, a lot of the planning stuff has been very helpful and I mean honestly, the biggest part for me is being involved with the people that I get access to and more of those candid conversations" (group 3, question 2).

In his role as an NCCP instructor, Ken emphasizes to participants that the NCCP course is not geared toward the teaching of technical skills but instead focuses on the wider picture of player development including the recommended ratios between the teaching of technical, strategy and tactical skills. The NCCP dives into the "how to coach" rather than the "what to coach." His message to new coaches is this, "how you're teaching your athletes and how you're getting them to retain knowledge and apply it and make decisions on the court that's what's really key" (group 3, question 2).

Informal Learning

Ken's informal learning experiences, which have been previously discussed, include his involvement in sports activities since the age of two. His participation on teams that consistently made high school provincial championships suggests exposure to quality coaching and strong team dynamics. Additionally, he values the friendships and relationships cultivated on these teams. Ken's recovery from a major knee injury and subsequent transition from player to coach highlights his resilience and adaptability, key traits developed through informal learning. Other informal learning experiences include interactions with mentors, conversations with fellow coaches, and learning through reading. These diverse experiences have contributed to Ken's growth and development both on and off the court.

Mentors. Working with good mentors has been a large part of Ken's informal learning about quality coaching. He spoke about two individuals that he has worked with in the past and the valuable learning he has acquired from them.

The first being his work supervisor. Ken's full-time job is also in the field of sport, so he appreciates how this individual is able to motivate and guide himself and co-workers toward a common objective. He seems to be grateful to be able to learn from such a leader:

I know what his goals and objectives are for the sport in our province and again we're working hard to have everybody buy into that vision and push the game forward and have it be as successful as possible. (group 2, question 4)

Strong communication looks to be the important factor here for Ken. Leaders that can communicate their vision to others and to get them on board is a key to a successful team.

The second is via his involvement as a member of the provincial coaching staff. In this role, Ken has access to experts that one may not encounter regularly. He recalls a valuable

experience coaching a weekend clinic alongside an expert coach, a mentor figure where he had the opportunity to ask numerous questions and gain valuable insights:

I got to go on a three-day road trip with Coach M, just him and I doing some clinics around the province, a couple years ago. All right Coach M, let's just talk about everything ... basically a 72-hour conversation. You really get to absorb a lot from somebody who's invested a ton of time in coach education and development and the different thoughts ... the new ideas that he has and the study and the effort that he gets to put into it. (group 3, question 2)

Ken found this interaction valuable as it provided insight into the national-level coaches' perspective on athlete development, allowing him to assess its alignment with his own athlete development philosophy. Ken and Coach M stay in regular contact.

Learning from Others. Ken also acquires coaching knowledge from his network of fellow coaches throughout Alberta. Ken regularly communicates with them to talk about coaching and sharing best practices. Observing other coaches in action is another way Ken acquires his coaching knowledge:

I've always found just being in the gym and being around other good coaches is the best way [to learn] and observing, taking notes and then diving in too. It's one of those things that the more you do of it, the more opportunity you have to become better. (group 3, question 2)

Book Learning. Ken calls himself a book learner. The reason he likes it is because he can take something he finds in a book and try it out with this team to see if it works or not, "So it's for me, I've come to a greater appreciation of some of that book learning ... but it's all about taking that knowledge and applying it and testing it out on the court" (group 3, question 2).

Identifying as a book learner, Ken is comfortable acquiring knowledge through reading and studying written material.

For Ken, it does not seem that he has a preferred way to acquire his coaching knowledge. By his own admission he is open to all forms of learning whether it be formal, non-formal or informal learning. He added:

Are you out there taking all the opportunities you can to coach and being involved at different levels and different aspects? Whether it's team coaching or coaching at a camp, or at a tryout or doing presentations or different things. I think there's just so many different ways to acquire knowledge and to apply that knowledge and so, for me, it's just been taking all the opportunities I can to be involved and to talk about it, to apply it and again get to know more people and learn from them. (group 3, question 2)

How Does Coach Ken Experience the ADM in His Coaching Practice?

First Contact

When Ken was first introduced to the ADM via the NCCP courses, he expected it would provide many different developmental coaching drills. However, it did not provide any practice drills which lead to some confusion for him. He had to take a deeper dive with the ADM on his own in order to understand its purpose:

I guess it was a lot different than I thought it would be quite honestly. Like I said when you first get into it, you thought it was going to be—well here's the x's and o's, and here's the drills you're going to run if you were coaching 12 year olds and here's what you're going to do if you're coaching university players and so it still fits with those age categories as you progress through, it's not really about that at all. So, coming to understand what it really was about, and it was about that development, more so than

about trying to win at those levels. So that was definitely eye-opening for me as I got into it. (group 4, question 1)

Being a book learner, it is not surprising that Ken took the time to take a deep dive into the ADM. Because of his penchant for this type of learning, he has been able to absorb the information more readily.

ADM Success

Ken has observed the ADM applied successfully with many of the provincial team athletes. He noted that there had been an annual increase in the number of Alberta-grown players pursuing post-secondary opportunities, both on the boys' and girls' sides:

You look at the number of provincial team athletes, kids that have really been immersed in that development model at a very high level, the number of them that have gone on to successful post-secondary and even professional careers. (group 4, question 6)

He has also noticed that many of the roster spots on Alberta post-secondary programs (men's and women's) are now filled with players who have participated in the provincial program. Additionally, he mentioned that Alberta players are being considered for the national team, a significant change from a time not too long ago when none were on their radar. Ken shared the story of a player whose success can be attributed to the application of the ADM toward his development from the age of 13:

He played 15U for two years, 17U for two years, cadet national team for two years and got his division one scholarship and is now averaging double figures in rebounds. He's almost averaging a double-double in division one basketball and he didn't do a lot of the extra club stuff. He just did provincial teams, grade school basketball and then he stayed diverse as an athlete to play volleyball. He played badminton and ran track. He did other

things that weren't just basketball. So, he stayed flexible and diverse as an athlete. (group 4, question 6)

Ken sees the transformative nature of the application of the ADM for many players which makes him a big supporter of the ADM. Understanding this, how does Ken incorporate it into his own coaching practice?

Adapting the ADM to the Local Context

Coaching Tactics. As a provincial team coach, Ken encounters some 15U tournaments that prohibit zone defenses. This aligns with the ADM for that age group, which excludes the necessity for players to understand the principles of zone defense. The ADM recommends focusing on developing individual defensive skills, a crucial developmental concept for this age. Consequently, Ken acknowledges having adjusted his coaching plans to avoid teaching any zone defense concepts with his provincial team players:

For a long time, they wouldn't allow you to play zone because they wanted to teach decision making and it's easier for athletes to develop decision making against man to man defense and they wanted players to learn how to play in those circumstances because that would in the long-term help them become better basketball players. (group 4, question 2)

Flexibility. Although Ken is a huge believer in the ADM, he understands it is not a prescriptive document and that he must be flexible with his coaching practice based on where his players are at in their own development. His approach to coaching is that it is an art that allows for different paths to player development success:

Well, kids at ages are often similar and that's why we do have this. Everyone's group of athletes is going to be at a different point in their skill acquisition in their athletic abilities

in their growth, their physical growth, they're going to be at all different stages of those things, regardless of their age. (group 4, question 5)

Barriers to Knowledge

Ken knows many club coaches in Alberta who do not follow the ADM in their coaching practice. He feels that this is a barrier in finding and developing the best basketball players in the province. He calls these coaches “uneducated” meaning that they're not looking out for the best interest of their players:

So, the uneducated coach will go—well he's six foot two and he's 11 years old so you're going to go stand by the rim and we're going to throw you the ball at the rim and you're not going to learn how to dribble and you're not going to learn how to shoot. You're just going to learn how to be taller than people. (group 4, question 5)

Ken is concerned for players with significant potential and because he cares about helping players reach their maximum potential which is consistent with who Ken is as a person.

He has two thoughts on why some coaches do not care to understand the ADM. The first is that these club coaches do not bother taking the NCCP course that introduces the ADM. For Ken, the NCCP course was where he was introduced to the ADM and was an important learning experience. The second is that coaches are very protective of their players and do not believe that the ADM is the only way to develop their players. They believe that if good players play together, they will automatically get better. That is what they believe. Ken commented, “there are still lots of coaches, who don't buy into this model, and who still are very competition/talent-driven. They want the best players all the time ... what I see quite often in some of these coaches—I'll just get this really good club travel team together” (group 4, question 7).

Implementation of ADM

As described earlier, Ken is a big supporter of the ADM. He says this of the ADM, “It’s kind of hard to screw up if you just follow along, quite honestly” (group 4, question 7).

Keeping it Simple. Ken does not overthink how he incorporates the ADM into his coaching practice. He follows the recommendations as directed with the understanding it is not prescriptive. To introduce the skills that are recommended, Ken incorporates developmental strategies into his normal coaching routine, seamlessly integrating them with the standard drills he likes to run:

You can take a basic two on one full court drill and turn it into all kinds of different things and it’s still basically the same drill, but it’s how have you adapted that drill to fit the context. How have you manipulated the parameters to emphasize something in particular that you want your players to work on and that you want to tie into your larger strategy ... so the drill itself aren’t what’s necessarily important but how to know what to do with them. (group 3, question 8)

Ken said he teaches strategy first before teaching skills. The ADM does not go into coaching strategy as it is a document more focused on individual player development:

So, we teach the decisions first and so that they know what the potential outcomes are and then okay, this is what this is what this situation is going to lead to. Then we can go back and teach the technique. (group 4, question 4)

Ken’s experience comes into play here in understanding that the ADM is a powerful tool but not a magic bullet and that you do not have to change your whole coaching practice to incorporate the ADM.

Advice to Coaches. Ken has some simple advice to new coaches. The ADM will not be that “all knowing document” that will make you a qualified coach. It will not be what you think it is, which is how Ken first experienced it:

Well, I’d recommend they go through one of the courses [NCCP] first. You know not just pick it up and try and take it and learn it on your own. I think learning it with a facilitator in a group environment with other coaches, I think, is really helpful at first. (group 4, question 5)

Conclusion

Ken’s appreciation for the ADM is rooted in his dedication as a book learner. Having thoroughly read the document, he comprehends its rationale and the developmental progression from playground activities to lifelong engagement. Viewing the ADM as a strategic guide rather than a prescriptive document, he has been able to integrate it into his coaching practice. This integration reflects his adaptability and his genuine desire for his players to achieve their highest athletic potential.

Ken feels a personal connection to player development, and it concerns him when he sees coaches who do not prioritize it. He shared a story about his cousin who lives in the United States, noting that his cousin’s primary focus is on winning and introducing systems that may not be best for his two children. This worries Ken. He fears this approach might negatively impact his cousin’s children to the point where they dislike participating in basketball:

When my cousin talks about his son and his daughter who’s a little bit older than his son, when they both play when they lose their bawling. I’m like dude that’s good that’s not good. Not good for nine-year-olds. It’s great that he cares but it shouldn’t be the end of the world if you lose a game as a nine-year-old. (group 4, question 2)

Ken's strong advocacy for incorporating the ADM into coaching practices in Alberta reflects his belief that with a proper understanding and effective application, it can elevate the talent pool to new heights. This perspective is shaped by his life experience, continuous learning, and over 15 years of coaching.

Chapter 7: Coach Blaire

This interview with coach Blaire occurred over two Zoom sessions. The first on February 9, 2021, lasting one hour forty-three minutes and the second on February 12, 2021, which lasted forty-nine minutes. A total of 90 stories were identified in the interview transcript using NVivo software. Each story was analyzed to extract key ideas, insights, and topics.

At the time of this interview, Blaire is the head coach of a women's post-secondary team in Alberta as well as a former member of the provincial team coaching staff. Names of any schools or persons have been changed or hidden to protect the identity of the coach.

Background

Blaire's introduction to basketball occurred in grade three through a modified version of the game known as *biddy ball*. Biddy ball is designed to teach fundamental skills of basketball and enhance motor skills for young players before jumping full on into the sport. She participated in biddy ball up to ninth grade and was fortunate enough to play with the same people growing up. Being an only child, her parents were at all her games and her mom even helped at the scorer's table. Blaire has very fond memories of this time period:

I played with essentially the same group of girls from grade four to grade nine, so we were a really, really close-knit group and our families were all really close knit and my dad coached and my mom kept score. (group 2, question 1)

Family

Blaire maintains a strong bond with both her parents and extended family. Throughout her life, they have been a constant source of support. Her parents attended all her sporting events, from her toddler years to the end of her five-year university basketball career. Even to this day,

Blaire's parents continue to travel and cheer her on from the stands as she coaches her university team:

I reflect back on how just it was such a family affair and even if I look now, things haven't really changed. My family still travels to almost every game. My mom keeps track of the score per quarter in her notebook. My family like my dad and uncle like to go sit and watch kids to give me recruiting tips like it really is a family affair, and so, when I think back to that, everybody's been pretty invested. That's throughout every level of basketball that I've kind of been involved in; high school, provincial team, university, everything. (group 2, question 1)

This unwavering support from her parents became crucial for Blaire during a challenging period in her life that occurred just a few years ago.

Marriage Breakdown

As Blaire described her responses to general PIA five (Appendix 22) and six (Appendix 23) about important moments in her life, she disclosed that 2016 marked a significant year for her. She achieved several milestones, including completing a Master's degree, getting married, buying a house, and securing her first post-secondary head coaching position. However, shortly thereafter, her world began to unravel.

Blaire mentioned that it took about 18 months for her marriage to start breaking down. While she did not go into the reasons behind her marital breakdown, it forced her to question her future and her own life. Having consistently set and achieved all of her personal and professional goals, the failure of her marriage was an unexpected challenge. Even now, she is still grappling with making meaning out of it:

That was two years ago, or three years ago, that process I'm still struggling with. Is this what I want? Is this where I want to be? What do I want my life to look like in 10 years' time? How do I get there if that's what I want? Life just sort of throws you so much uncertainty that you realize as much as you think you have things planned out—it doesn't matter. (Appendix 23 - general PIA 6)

Blaire, known for her goal-oriented nature, consistently achieved her objectives until the divorce. The pandemic provided a break from her full-time coaching responsibilities and allowed her the space to re-evaluate her life and set new goals. She said, “just getting an opportunity to step out of the rat race and evaluate again because you know the coaching life is pretty crazy sometimes and you don't really get to slow down” (Appendix 23 - general PIA 6).

While acknowledging her divorce as one of the most challenging events in her life, Blaire is determined to use the experience as a catalyst for a personal transformation:

It certainly was unexpected for me, and I think a huge opportunity for personal growth and development. Just examining what was important in my life, what I wanted in my life, how I could achieve that? It has been one of the most challenging and insightful experiences. Not that I wish anyone to experience divorce, but it did serve that purpose in my life. (Appendix 22 - general PIA 5)

Blaire's positive outlook and personal growth during challenging times have transformed her into a more patient and open-minded individual. This newfound perspective is an asset in supporting her players through their own adversities:

The event of my separation and divorce certainly makes you evaluate what's important. There's a period of time where it was just survival as you're trying to navigate everything, but it just gives you such a different perspective and working with student

athletes who are experiencing their own adversity and struggles and challenges and being able to help and support them. (Appendix 23 - general PIA 6)

Other Interests

Blaire is consistently looking for activities that challenge her to be better. Golf is one of those activities. She says that golf is a sport that no matter how good you get, you can be better:

A couple of summers ago I golfed quite a bit. I was at the driving range probably four or five times a week but I find it's—and this is I think the competitive part in me that you can only go to the driving range so much before you have to go play, but then the actual playing part isn't as enjoyable because I'm not good except that I know you have to play to get better. So, this is the self-conscious part of me and why I'd like to be better. (group 1, question 1)

Blaire has an inquisitive sense about herself as she mentioned that she would like to learn more about things that she has no idea about such as social justice. She wants to open her mind to new knowledge:

I think with a lot of the social justice movement that we've seen over the last little bit, it would be really fascinating to just be in a room to see what some of the leaders in these movements like what their lives look like and how they're trying to impact change in the world because it is something that I feel so far removed from and so I have no idea really. I like to pretend that I'm somewhat informed, but I also realize it, even saying that is far from the truth. (group 1, question 4)

Blaire's pursuit of new experiences and knowledge is evident in her reading preferences, as she mentions, "I am a fan of nonfiction. I tried hard to get into fiction, but it just doesn't quite capture me. I don't know. I really enjoy reading books about people's lives and their

experiences" (group 1, question 3). Additionally, her curiosity extends to exploring other cultures through travel, building on her previous experiences post-graduation:

So, I spent a year traveling. My boyfriend at the time and I took off and we spent just under a year traveling Australia and Southeast Asia and I mean the whole experience was, I think a really critical part in my own personal development because it was the first time that I've been away from home and a long way away from home without that support network there and just an opportunity for me to kind of grow on my own and problem solve and figure out how I was going to make money and where I was going to live and how we're going to eat and where we're going to go and an introduction to other cultures as well. (Appendix 22 - general PIA 5)

After returning from her post-graduation trip, Blaire enrolled in an education after-degree program to build upon an undergraduate science degree, intending to pursue a career in teaching—or so she thought.

Experience with Coaching

First Experience

In coaching PIA 3 (Appendix 24), Blaire discussed when she first became involved in coaching. The year was 2010. She assisted her dad, who was coaching spring league and club basketball teams. The age group of these players would have been from 14-17 years old. While pursuing her after-degree, Blaire was asked to coach the senior girls' high school team at her alma mater. Despite having no prior head coaching experience, she had a highly successful first season, earning a provincial silver medal and thoroughly enjoying the head coach experience:

We had a great team and it was my first experience and I couldn't have asked for anything better as an introduction into coaching and really kind of got me hooked and

thinking okay, this is something that I like, I think I'm good at, and I want to stay involved in. (Appendix 24 - coaching PIA 3)

The following year, Blaire graduated with her after-degree in education and secured a full-time position as a science teacher and simultaneously assumed the role of head coach for the senior girls' team at her new school. After completing her probationary year, she signed a permanent teaching contract which is an important milestone for early-career teachers. Concurrently, Blaire took on a part-time role at the university as an assistant coach. Impressed with her contribution, the head coach invited her to join the staff as a full-time assistant coach.

Blaire recalled that this was not an easy decision. This move to become a full-time assistant would mean a decrease in salary and less job security but if she wanted to pursue coaching as a career, she needed to take a risk and accept the role. Recognizing that she was still young and viewing it as a valuable opportunity for professional growth, she made the decision to take on the full-time assistant coaching position despite the uncertainties involved:

Yeah, I mean it's crazy because of the feedback I got at the time. I got a permanent contract and then after I left it and people said, you're crazy and you're so courageous, I wish that I had the guts to do what you're doing because I'd love to be able to pursue something else but I'm just too far into teaching and I think I knew that the longer I stayed in teaching the harder would be to leave. (Appendix 22 - general PIA 5)

Assistant Coach

Blaire said that working at the university as an assistant opened up her mind about coaching. She spent four years in this role, describing it as a highly significant experience. Blaire spoke about the concept of *teaching for understanding*, which involves ensuring that students/players develop a thorough comprehension of knowledge that can be transferred to

different situations. Blaire said that in her four years as an assistant, she found her calling and decided not to return to teaching:

So that was the first time where I thought, okay I'm I seem to be okay at this. I loved it and it kind of got me thinking about like okay I like science, it's fun, I love being in the classroom, I love the students but if I had to pick basketball or biology, I think I'm better at basketball. My understanding and love of basketball is much higher than it is science.

(Appendix 22 - general PIA 5)

With that decision being made, Blair realized that if she was going to try to be a head coach of her own university team, she would need to go back to school. This aligns with Blaire's character. Once she sets a goal and directs her energy toward achieving it, she is usually successful.

The Right Way

When Blaire first began coaching, like many others, she prioritized winning. However, as she has grown older, her perspective has shifted. Blaire has always taken pleasure in working with young people and observing their development and progress. In her early coaching career, she held firm beliefs about the "right way" to coach players and occasionally disagreed with other coaches. Blaire believed her approach was correct, viewing others as doing it wrong:

I think that in my early days, I really felt that a lot of people were doing it wrong and teaching the wrong things. As an example, you'd go and see these watch club programs or teams and you're like—oh these 11-year-olds know eight different zone presses but they can't dribble with their left hand. Okay something's not adding up here and so I think for me, I took pride feeling like I was doing it the right way and I don't think there

is a right way but it's what I believed was and the way coaching should happen. (group 3, question 3)

Blaire believes coaching the "right way" involves teaching basketball skills and knowledge that players can apply to any system. She takes pride in nurturing players who have excelled in university, become all-stars, and represented the national team.

Big Picture Perspective

For Blaire, coaching is more than the technical details. In sharing her list of coaching words from coaching PIA 1 (Appendix 25), she emphasized the importance of being passionate, developing a connection with the players, and ensuring that they are constantly learning and being challenged to improve:

I've learned that, for me, coaching isn't about the x's and o's. Coaching is about the people and so that's where I think you can see a lot of my words have come from.

Obviously, there is a lot of tactics and techniques in winning ... but a lot of the words, for me, is what coaching is about: passionate and inspiring and developing connection and learning and growing and challenging. (Appendix 25 - coaching PIA 1)

Blaire no longer measures her success solely by the wins and losses of her teams. With increased experience working with her university team, she now gauges her success by whether she has developed young women to pursue their passions. This has become her primary criterion for her coaching success:

So yes, we compete and I'm competitive and I hate losing but ultimately, do I judge my success on whether or not we win games? Other people do, but I don't. For me, it has inspired the young women that I work with to be great leaders in the community, to

pursue their passions, to accept challenges and to overcome adversity. That's more about what it is for me. (Appendix 25 - coaching PIA 1)

She also believes that maintaining good, healthy relationships with players is a crucial aspect of fostering a positive team culture. Keeping the culture supportive, Blaire treats errors as learning moments rather than berating players when they make mistakes, a practice she has observed in other coaches:

I think about some coaches, who you know their style might be a little bit more aggressive and they get mad because a kid misses a layup or turns it over or something like that at a critical moment and it's like man, I don't think they meant to do that, I don't think they intended to—in this moment and you've just made them feel [terrible] for doing that and is this what sport is really about? (group 2, question 3)

Blaire sees her role as a head coach as a significant responsibility, recognizing that her actions during these formative years for her players can profoundly impact their lives:

Why I do what I do is for the growth and development of the young women that I am fortunate enough to work with. I look forward to seeing them evolve over their five years ... they come in as young and naive children, and they grow into pretty strong independent women and just the evolution and growth that takes place over time. (group 2, question 4)

Her wanting to be a role model for her players is consistent with comments about her role models. Blaire made reference to Kobe Bryant and Michael Jordan, both who are well known basketball players. It was not their skill that she admired but the way they used their fame and influence as athletes to uplift the sport of basketball and their local communities. She had this to say, "It's so amazing to see people use their platform as athletes where they know they have a

captive audience to promote things that ultimately really matter and are going to make a difference in people's lives" (group 2, question 4).

Blaire consistently emphasized the importance of focusing on the bigger picture but expressed frustration with individuals who are solely focused on themselves. Throughout the interview, she conveyed her disdain for the events unfolding in the world at that time and criticized those responsible for the upheaval:

I continue to be amazed at people's lack of self-awareness. So, this is maybe bigger than that but people's inability to read a situation and recognize what's needed now, what's probably not needed right now, what's appropriate and what's not. Also, they think that their opinion matters. When you look at what happened, the storming of the Capitol building on January 6th and then it's like how did we get to this? There are a lot of unaware people who believe things that they don't have capacity for. That sort of behavior is amazing, and I think it's rooted in lack of self-awareness and lack of ... I don't know what the right term is—just the ability to decipher what is real and what is not real. (group 1, question 2)

Provincial Team

Blaire had a challenging experience in her one summer as part of the Alberta Basketball coaching staff. She found herself on a coaching staff with a head coach who, in her view, did not give her a voice in the decision-making process. Blaire felt she had a lot to contribute if provided the opportunity. Given her past coaching involvement, whether with high school teams or as an assistant coach, this was an uncomfortable situation for her:

I had the opportunity to compete at a National Championship as an assistant coach ... and it was a very humbling coaching experience, and it was just noteworthy because I'd

experienced a lot of success up until this point. Being a part of this coaching staff was really, really difficult for me and I think part of it was because I wasn't the head coach and so it was taking on a different role where I maybe had a difference of opinion of how things should be run or what we should be running and at the time I just didn't feel valued in my role. (Appendix 24 - coaching PIA 3)

Blaire fulfilled her commitment to the provincial program for that summer, but the experience left a bad taste in her mouth. Nevertheless, she considered it a valuable learning experience.

Acquisition of Coaching Knowledge

Coaches gather knowledge from three main sources—formal, informal, and non-formal learning. Formal learning, as defined by Coombs and Ahmed (1974), occurs in structured, institutional environments; informal learning stems from daily experiences; and non-formal learning consists of structured educational opportunities outside formal systems. This knowledge underpins coaches' coaching practice, shaping their overall approach. The following section will detail some of the knowledge that Coach Blaire has accumulated in her coaching journey.

Formal Knowledge

Upon graduating from high school, Blaire proceeded to play point guard for five years at university, where she also earned a science degree. While the degree was a significant achievement, she admitted that her primary motivation for attending university was to play basketball. Blaire was not quite certain what to do with her science degree upon graduation. All she knew was that she wanted to be involved in sport somehow:

I always knew that I wanted to be involved in sports and I thought, well, maybe medicine is the way, through sports medicine or physiotherapy or something like that but as I'm

going through school, I think being a student athlete with more emphasis on the athlete than the student part at the time. This is not the path that I wanted to take but I have a science degree, what do I do with this now? (Appendix 22 - general PIA 5)

Eventually, Blaire made the decision to pursue an education after-degree program which was not surprising since both of her parents were schoolteachers plus she had enjoyed her time as a tutor in the past. Additionally, she knew that working as a teacher in a junior high or high school would allow her to coach basketball. For Blaire, teaching is very similar to coaching, with the ultimate goal being to see her students grow and be successful in overcoming challenges.

Master's Program. As Blaire spent more time as an assistant coach, she increasingly desired to become a head coach herself. She felt that to achieve this goal, earning a Master's degree in Coaching was essential:

If I'm going to do this—I'm going to do this, and I need to get my Master's. I need to get up to date on all my certifications. I need to put myself in the best possible position if I'm going to make a run at this. Which is kind of what I did for the next two years. (Appendix 22 - general PIA 5)

This degree was an impactful formal learning experience for Blaire. She particularly enjoyed the research component of the program, which focused on program development. Her thesis examined why the women's basketball program in a country like Australia was more successful than Canada's at the international level across all youth development ages. Blaire chose Australia for comparison due to its similar population size and geographical characteristics to Canada.

The completion of my Master's degree was probably one of the most transformational experiences that I've had. I entered it thinking ... well pursuing coaching knowing that I

needed a Master's to get hired at a university. So, kind of like okay, we'll go do this and get on with it and absolutely fell in love with the academic side of things ... I mean a hugely transformational experience. Again, exposure to basketball and sport from a different perspective as well as just the educational and research side of it because it certainly sparked something in me. I think that I didn't realize it was there from that educational part of it. So yeah that—corny but true. (Appendix 22 - general PIA 5)

What Blaire concluded was that the Australian program excelled because of being able to establish a strong team culture and that set players up for success. This culture was instilled beginning at the youngest development age and carried through across state and national teams. Blaire identified this as the key success factor for the Australian National Women's basketball program. She then, has since made cultivating a similar culture the centerpiece of her approach to coaching:

Some people are worried about what press break they're going to run or how they're you know going to defend ball screens or what actions are going to run on offense and I'm like, I'll figure that out like that stuff's easy. It's not hard to go watch some game tape and decide what you like, what fits your people but developing a culture and figuring out what you believe in and what you stand for is way more important and ultimately developing those traits like leadership and overcoming adversity and being good people and preparing student athletes that we work with for success down the road is way more important than winning basketball games. (Appendix 24 - coaching PIA 3)

Blaire hopes that culture will serve as the competitive advantage for her teams moving forward. While anyone can teach the x's and o's, those skills are universal and easy to replicate. However, team culture can be the distinguishing factor between programs and teams.

It's who they [Australians] are as people and so I looked at sort of the cultural aspect and there's a lot of different things, talking about like culture of sport and culture within sport but this idea of culture is something that can't be stolen or emulated from another program. (Appendix 24 - coaching PIA 3)

NCCP Courses. Blaire has taken the National Coaching Certification Program (NCCP) as all coaches must do in order to be able to coach a provincial team. Blaire did not share too much about the NCCP, but she did mention that it is useful for some coaches:

I think I'm supposed to say the NCCP certification process, and it is truthful and that there are parts to it and parts of coaching that you don't necessarily think about when people think of coaching and showing up and running practice and coaching a game.

There's certainly more to it than that. So that stuff for sure. (group 3, question 2)

Informal Knowledge

As for Blaire's informal learning experiences, two stand out as most impactful. Her experience as a player and her time as an assistant coach.

Playing Experience. Blaire's basketball journey began in grade three and continued until she graduated from university, spanning a total of 14 years filled with memories and lifelong lessons. Throughout her basketball career, she learned valuable lessons such as teamwork, discipline, resilience, embracing failure, and striving for improvement. These lessons, which she considers measures of success as a player, now shape her expectations as a coach and influence the players she mentors:

I think sport teaches us that we're a lot tougher than we give ourselves credit for. I mean one of my favorite things is seeing young athletes achieve more than they thought was

possible. Do things they didn't think they were capable of. So that belief and confidence, leadership. (group 2, question 2)

Blaire mentioned that experiencing personal success along with being able to play alongside lifelong friends, made her basketball experience much more fulfilling:

I like the team aspect. I like being a part of a team and I was good at it. I had experienced success with my experiences in basketball and I think probably that's what kind of kept me in it. (Appendix 22 - general PIA 5)

Assistant Coach. During her five years as a university basketball player, Blaire recognizes that the communication channels between herself and her coaches could have been much better. She recalled that while everyone knew the head coach had a team strategy, as a player, she did not fully understand it or what it entailed. They simply followed instructions without questioning because no one on the team felt empowered to voice concerns or had the confidence to ask the coach questions:

I had an unbelievable experience playing at [University], but I remember every year we'd have a different offense and some of this stuff we ran. I look back on it and I'm like why did we do that? It just doesn't make any sense. (Appendix 24 - coaching PIA 3)

In working as an assistant coach for four years, Blaire was exposed to the concept of *teaching for understanding* which was briefly mentioned in the coaching experience section. This concept can be interpreted as helping players (and assistant coaches) understand that every coaching decision has a purpose and aims to foster a meaningful learning experience. The goal is to develop a deeper understanding of underlying principles so that knowledge can transfer to new and different contexts. It encourages questions from players and assistant coaches. Blaire said that this was eye opening for her:

His approach to teaching the game and teaching for understanding. It just changed the way that I looked at things and how I looked at coaching and I know one of the things that impressed me the most about him [head coach] and I hadn't, I didn't feel like I'd experienced before was you could ask him anything. Why do you do it this way or why do you do this? I think it really, really increased my knowledge and IQ and the way that I think about the game which has set me up for again where I'm at now. So that obviously was a hugely critical moment and working with him. (Appendix 24 - coaching PIA 3)

The *teaching for understanding* concepts is integral to Blaire's coaching practice today. During individual player meetings, she emphasized the importance of explaining why they need to address their weaknesses. Opening this line of communication increases trust between coach and player and encourages them to "buy in" to improve. It also places some responsibility on the player when they understand how their development contributes to the team's success:

Here are the areas that we need to get better at and so for me to be able to sit down with an athlete and say okay, what is your role, what are you good at, what you want to be good at, what areas do we have for improvement? Where does your skill set, and role fit into the bigger picture and how do we improve in those areas? It really creates a buy in from their perspective so they're not like—why am I only doing left hand dribbling drills? (group 4, question 5)

As long as players understand the reasoning and rationale behind her coaching decisions, Blaire believes it will motivate them to work harder and contribute to the team culture she is trying to establish.

How Does Coach Blaire Experience the ADM in Her Coaching Practice?

First Exposure

When Blaire was introduced to the ADM, she was immediately impressed by its objective. She saw the ADM as a tool that could help all coaches involved in player development to follow a common path for athlete development. Additionally, she viewed it as an important document for young coaches to reference:

I think my first experience with it and learning from it, learning about it and its purpose was it was really positive because I thought that one of the biggest things missing in the coaching world was some sort of direction in terms of here's what coaches should be teaching, here's the certain ages the type of things that kids should be learning. So, I thought it was awesome. I certainly, in my early days of coaching and particularly coaching younger age groups, used it as a reference point and a guideline in terms of—okay at this age, these are the types of skills we should be doing, these are the type of concepts we should be talking about, this is where our athletes should be in their development. (group 4, question 1)

Having a background in science, Blaire believes that the ADM is set up in a clear and logical manner. She can follow the thought process that went into the ADM and sees that it is set up to build upon skills learned at each age development level. The ADM shows coaches what individual success looks like and for that reason, it is an excellent template for coaches. Where it falls short according to Blaire is that it lacks information in helping coaches on how they should be teaching the recommended skills:

I think it does a very good job of saying what. I don't think it does a great job of saying how. I mean that's coaching so individual coaches have to figure out how to do each of

those, but my recommendation would be to look at it and know it because you can't set your athletes up for success if you don't know about it. (group 4, question 8)

Teaching the skills recommended in the ADM was easy for Blaire due to her extensive experience—17 years of playing, four years as an assistant coach, and two years as head coach—which provided her with a wealth of knowledge to draw from. Additionally, she has a relatively small book of drills that she uses repeatedly, sticking to the basics rather than getting too fancy. Blaire believes that a new drill isn't necessary for every skill, and by keeping it simple, the transition to incorporating ADM principles was smooth:

I don't have a huge book of drills. I think about what I do want to achieve, what is it that we (as a team) need to get better at and then I design something that's going to do that, also because of that we use a lot of the same things over and over again—maybe with different points of emphasis just because they work. (group 3, question 8)

Adapting the ADM to the Local Context

Because Blaire was excited to apply the ADM to her coaching practice, Blaire followed the recommendations for the specific age ranges of her players. As the year went on, she was not able to help them acquire the technical skills because they did not have the base skills to build upon. Somewhere along the way, a step in their development was missed:

In my early years, I tried to follow. To make sure that each stage of development, athletes were working on the things that athletes should be doing in that stage of development. The difficulty comes when you're in a certain stage of development, and they don't have the skills from the previous stages to be able to do what they should be working on at their current stage—technical current stage of development. So, they might be in the Train-to-Compete age level (15-18 years old) but they're still working on Train-to-Train

(11-14 years old) skills that they didn't learn in the Train-to-Train phase. (group 4, question 3)

When Blaire goes out to recruit, she says it is not hard to find players that are athletic or big enough that can play the game at a high level. Coaches like herself are always willing to take a risk on athletic talent. But what she is experiencing with these players is that somewhere along their development path, critical development skills have not been acquired by the players. She calls them 'partial players' because they are missing some critical skills to be a complete player. Blaire shared a story where she was running a common defensive drill in basketball called the *shell drill* with her university team. She had a player who did not have the knowledge of how to play help side defense. Help side defense can be described as being one step away from helping your teammate. A concept that should have been introduced to her in junior high:

You do a shell defensive drill and we're doing something similar in early practice and the ball—she was on the weak side guarding the girl on the weak side and so the ball over here and she's just glued to her check, and I was—what wait a minute—what are you doing? Well, I'm covering my girl and I'm like well, but the ball is over here. She's like yeah. What are you doing? Guarding my girl ... well in my high school I just always guarded the other team's best player, and my job was to not let her catch the ball. (group 4, question 3)

Blaire is frustrated in situations like this one but understands that not all coaches prioritize the development of basketball players. She believes high school and club coaches are uniquely positioned for athlete development but can be individualistic. Having been a high school teacher/coach herself, Blaire recognizes the challenge of balancing teaching responsibilities with athlete development due to limited time and resources. This is where

Blaire's frustration arises as she sees a bigger picture for player development in Alberta if the ADM was a requirement for all coaches. She wants Alberta Basketball to cultivate a culture of success for all youth basketball players, drawing from the principles she explored in her Master's thesis.

As Blaire transitioned into her first year as head coach, she noticed that the team she inherited, comprising players whom she did not recruit, lacked physical literacy skills and basketball skills that ideally should have been taught years earlier had the principles of the ADM been followed:

When I took over this program, I came in on the first day, I was like—we don't know how to run or move or jump and land and all of those things that actually happen on an early stage and you know the phases of trainability. You know you missed that window and it's like well okay, we can try and improve it as much as possible—stuff like passing and catching. (group 4, question 4)

When assessing the athletes on her team, Blaire evaluates their current skill levels and understanding of the game. Instead of worrying over whether some of them may lack the skills outlined in the ADM for their age level, she engages in discussions with players to identify their existing strengths and areas for improvement. Blaire applies the *teaching for understanding* concepts with the ADM by ensuring that her players understand their roles on the team and contribute meaningfully to its success. She achieves this by challenging her players to set and achieve weekly and annual goals, a practice she follows.

Her main concern is their unfamiliarity with the increased complexity of the game as they transition from high school to post-secondary basketball. She noted that this jump in the level of

play is not adequately reflected in the ADM, making it challenging for coaches to prepare their players accordingly:

I get asked a lot what the biggest transition is going from high school to university and yes, the physicality is there, and the pace of play is there for sure but oftentimes I say, it's the complexity of the game. (group 4, question 3)

Blaire expects players to possess not only technical knowledge, but also an understanding of the game to succeed at the university-level. She draws from her own experience transitioning to university-level play to emphasize the importance of this understanding.

Barriers to Knowledge

Not Practical. As Blaire gained more coaching experience, she began to question the lack of detailed implementation steps within the ADM. While it provided valuable insights into player development milestones, it fell short in guiding coaches on how to assist players in reaching those milestones. Despite this limitation, Blaire views the ADM as a valuable framework for the sport. Fortunately, her experience with playing and coaching the game has enabled her to fill in the implementation knowledge gaps. She said, "I think that the idea is great. I think it's needed. I think that it's a good idea. The execution and implementation of it are not so good" (group 4, question 1).

Blaire empathized with coaches who find the ADM frustrating, especially considering her own experience with the NCCP courses, where the practical implementation details surrounding the ADM were not covered.

No Free Rides. Blaire observes that many club basketball programs across the province operate for profit. These programs aim to attract enough participants to generate revenue, which covers expenses such as gym rentals, coaching honorariums, uniforms, and other costs. Given

the abundance of club programs offering similar promises of skill development, competition is fierce. To distinguish themselves, coaches prioritize winning games, as success on the court garners attention:

I've seen club programs that are wildly successful, and their programs win a ton of games, and they advertise that, and it attracts people to their program, and they have a really great experience, which is awesome. Which is what sport should be but none of those players make it to the next level. They go on to play high school and they're okay high school players but none of them make it to the next level because they've never had the chance to develop skills to get there. (group 4, question 2)

Parents also play a significant role in deciding which program to place their child in.

Many parents associate winning with success and view it as a measure of their child's achievements and development. Consequently, they often prioritize joining club programs or schools with successful teams, rather than considering the quality of development offered. Blaire believes this mindset influences the choices made by both children and parents when selecting programs or schools:

They just miss out on that key developmental step because the end result is winning and winning is exciting and fun. They think that it's okay and coaches sometimes think about their reputation, and I wonder what their motivation or purpose behind it is because they are now coaching to win games and attract athletes but they're missing the developmental piece. (group 4, question 1)

The pursuit of profit and parental priorities can be significant barriers to the widespread adoption of the ADM among coaches in Alberta.

Lack of Vision. Blaire believes that Alberta Basketball has not effectively promoted the ADM. She noted that there is no requirement for club programs to follow the ADM in order to be registered, and the benefits of being a registered club, such as competing in provincial club championships, are not enough incentive. Blaire feels that there should be more measures in place to make it a requirement or necessary for coaches to pay attention to the ADM. She commented “I don’t feel like it’s promoted enough, and I don’t feel like there’s enough measures in place to make it a requirement or necessary for coaches to have to pay attention to” (group 4, question 7).

Blaire believes that not all coaches are aligned when it comes to player development. Many club coaches believe they know best how to develop their players because they have played the game. When Blaire was a university assistant coach, the head coach attempted to establish a program for club teams to be able to send their best players for additional development opportunities at no cost. His goal was to introduce and cultivate skills necessary for players to advance to the next level in accordance with the ADM. However, this initiative faced pushback from coaches who were concerned about not receiving credit if their players became successful, which they feared could harm their reputation and, consequently, their club program revenue. Until coaches collectively prioritize the development of all basketball players across the province, many athletes may find their careers limited to high school due to a lack of fundamental and technical skills necessary for advancement.

Implementation of ADM

Club Team. Blaire and her fellow university coaches recognize the limitations of club programs in properly developing basketball players. In response, they created a youth league for 15U and 17U players. Blaire committed to fielding two club teams: one 15U and one 17U girls

team. For these club teams, she has committed to adhere to the ADM development principles because she wants these players to be successful wherever they decide to play in the future:

So, we have our 15U and 17U teams and we have committed to stick to the basics and really focus on skill development. So, I would say, in a sense, in those programs, we really do stick to the basics of the ADM. At 15 years and under, what are the things that they should be working on? At 17 years and under, what are the things that should be working on? Helping young athletes make that transition prepares them to make that jump to the next level because the university coaches felt that they were missing something along the way and putting them in this environment would help. (group 4, question 3)

As a result of this club program, she now sees club program alumni on her university team who have a solid development foundation, eliminating the need for a "skill catch-up" which confirms the benefits of the ADM:

Usually with first-year athletes I have to teach this [basic fundamentals] and I'm not anymore because you've done it for three or four years. It's part of our junior program. So, I guess there's an example of sort of how I implemented it. (group 4, question 3)

Recommendations to Coaches. Blaire has advice for coaches planning to incorporate the ADM into their coaching practice. She emphasized the importance of understanding how the technical skills are ladderred and ensuring that players have basic physical literacy skills:

I would say that probably two, I mean looking at the individual skill component and the progression of those for sure. The introduction of certain team concepts also. I would say not that you follow it to the letter but it's more the progression as opposed to that at this stage, you do this it's like well once you've done this now, we're ready to move on to

this. I think one of the most underrated things that's not focused on and something that I actually spent a fair bit of time on with our university athletes is literacy—fundamental literacy skills. (group 4, question 4)

Blaire recently had a former player reach out to her with a similar question. The former player was asked to coach a team and sought Blaire's advice on where to start. Despite acknowledging that the ADM is far from perfect, Blaire guided her to the ADM and advised her to review the recommended skills for the age group:

Instead of giving them a drill book or something, I'd send them that [ADM] and say hey, this is the age group you're working with here's an idea of the things that you should be looking at with that age group and so I share in that context. I will share that or have coaches have questions about it. I certainly share that as a great starting point and then of course, we can talk more about how to do that. (group 4, question 5)

Blaire is committed to sharing the ADM with as many coaches as possible in order to foster a unified approach to player development.

Sharing ADM with Athletes. As a key stakeholder in the use of the ADM, Blaire chooses not to share the contents of it with her athletes. However, she does keep the development principles in mind when discussing areas for improvement with her players and how they can contribute towards the team's success:

We have conversations about it but not in the context of—this is what the athlete development model says you should be doing so this is why we're going to work on this now. It's more in terms of our own context—this is the action we run—in order to execute this action, you have to have these skills, or you have to have this decision-making ability. Therefore, we're going to make sure you're good at those things, so you

can execute this action within the bigger picture of what we're trying to achieve as a team. (group 4, question 5)

Conclusion

Blaire's extensive life experiences have shaped her view of the ADM, which she considers a valuable document. She believes that the fundamental skills outlined in the ADM are timeless and essential for success in basketball:

We have to dribble, pass, shoot, defend like actions are—everything kind of goes in style and then goes out, and then it comes back in and then it goes out. So, the basic things that it's teaching are the right things. We're never going to be in a game where you don't have to pass, shoot, dribble, defend, screen, like all of that stuff. (group 4, question 8)

To facilitate player development effectively in Alberta, Blaire emphasized the importance of aligning all development coaches in the use of the ADM. Her stance on this matter was influenced by her research for her Master's thesis, where she compared the success of the Australian youth program to that of Canada. Blaire believes that Alberta Basketball needs to establish a unified coaching culture that all can embrace:

That was the most connected I would say I've felt the country perhaps was in terms of ... you knew that that top tier of what our athletes were involved in CP (Centres for Performance). They were doing the same things in Alberta that they were doing in BC, that they were doing in Manitoba and Ontario. (group 4, question 6)

Blaire recognized a looming concern regarding the absence of fundamental physical literacy skills, which often result in overuse injuries. Although this concept is addressed in the ADM, it is ignored by some coaches. Blaire highlighted that without this integration, coaches

may overlook the importance of these skills, potentially leading to early departure from the sport for young players due to injuries:

What is it getting back to our context I think we see some of these overuse injuries and chronic injuries because athletes just physically don't have the basic skills about running, jumping, landing, pivoting, lateral movement, skipping. It's amazing you get in the gym with 15-year-olds and how many of them don't know how to skip. It's crazy. (group 4, question 4)

Chapter 8: Coach Owen

The interview with Coach Owen was conducted on February 12, 2021, using the Zoom meeting platform and lasted one hour and fifty-two minutes. Unfortunately, some of this time dealt with an unstable video connection which disrupted the session. This led to the majority of the interview being conducted as an audio-only session to conserve bandwidth. As a result, potential body language cues or physical reactions during Owen's stories were not observed, which could have provided additional insights into the narratives shared. Despite this challenge, a total of 91 stories were identified in the interview transcript using the NVivo software and analyzed to extract key ideas, insights, and topics.

At the time of the interview, Owen was teaching and coaching the same boys' high school program at an Alberta high school for 21 years and entering his sixth summer as a member of the provincial team coaching staff. Names of any schools or persons have been changed or hidden to protect the identity of the coach.

Background

Young Athlete

Owen expressed a strong interest in sports during his youth. Owen's early exposure to soccer, introduced by his Scottish granddad, sparked his interest in sports from a young age. He also developed a keen interest in basketball during this time. He recounted how he had a strong work ethic in junior high and was able to stand out from others in track and cross-country running. The strong work ethic came in handy when he reached high school. He spoke about trying out for the basketball team and quickly realizing that he was not as tall as some of the others so he would have to make the team by putting in more effort than anyone else:

I'm not a big guy, but I worked hard and when I saw these 6'3" kids, 6'4" kids, I realized if I wanted to do anything or if I wanted to be better, I've got to do something. What can I do better than that other guy? My big thing in high school and even in junior high was I'm going to outwork them. (group 2, question 2)

Growing up in a small community meant that Owen was quite familiar with all those around him. This made competing in sports alongside his friends especially rewarding. Competing on high school teams taught Owen the importance of teamwork and numerous life lessons that he still carries with him today:

I think you learn how to work well with others. I think you learn how to solve problems and I think you also learn how to cope with different situations. At the same time, you can become a leader. I think those are the biggest things that you can learn in any sport. (group 2, question 2)

Owen believes that the skills and work ethic he learned from participating in sports transfer to any environment whether it be sport or work. Owen added, "Whether it's basketball, volleyball, badminton, anything ... I think that sport can bring those out and really improve or enhance people for any type of job environment or career environment as well" (group 2, question 2).

Relaxation Time

As a full-time high school teacher and coach, the school year can be quite stressful, and Owen seeks opportunities to step away from it when possible:

Just being in a situation as a teacher and a coach, I'm always around people where my brain is always go-go-go with interactions whether it's relationship building or having

communications or thinking about what I'm going to do next on or off the court.

(Appendix 26 - general PIA 4)

Owen is able to find some solace in solo activities. One of his favorite pastimes is woodworking, as he enjoys working with his hands and devoting his focus to a singular activity. In response to a question prompting him to depict an engaging activity (Appendix 26), Owen drew a beach scene. This illustration reflects his artistic creativity and attention to detail, featuring multiple layers such as sand, water, sky, clouds, birds, and the sun on the horizon. Owen also wishes he had more free time during the school year to spend with his daughter, he said, "... because of coaching, I sometimes miss a lot of things and that's one of the biggest issues that I have is that sometimes with coaching and being with other athletes, I miss out on some things on my own daughter" (group 1, question 1). Owen's level of commitment to helping his students as a teacher and coach shows that he is willing to and has made sacrifices.

Owen's planning and organization skills serve him well given his busy schedule. He describes himself as a planner, stating, "I'm very logically oriented. I guess with even holidays, we all plan everything out. I don't know why I do that. I'm a planner" (group 1, question 6). He attributes this trait to his dislike of surprises and uncertainty.

Tough Times

In sharing stories about his drawing for general PIA 5 (Appendix 27), which prompted participants to draw five scenes in a movie about their lives, Owen depicted a poignant first scene portraying an unstable home environment with an abusive father. He recounted how his mother bore the brunt of his father's abuse and how he vividly recalled witnessing these distressing events, which remain etched in his memory today. He willingly shares the same story with his students to warn them about the dangers of alcoholism and alcohol abuse. Owen

considers himself lucky as he and his mom were able to remove themselves from that situation by moving in with his grandparents. In the second scene of general PIA 5 (Appendix 27), it shows his relationship with his granddad who became his de facto dad who is reading him bedtime stories and teaching him how to ride a bike. His granddad became his first mentor and lifelong friend. Owen said, “the first two [scenes] are actually really impactful in the fact that they impacted who I am today” (Appendix 27 - general PIA 5).

Support System

Owen illustrated his extensive support system in response to general PIA 7 (Appendix 28). He highlighted how, depending on the situation, he has a diverse array of people he can turn to for support and assistance. Not surprisingly, his mom is the first person he turns to for advice on many of his tough decisions. Owen sees her as the bravest and wisest person he knows due to the way she dealt with his dad’s abusive behavior. Anytime he has an emotional decision to make, Owen consults with mom:

My mom’s always been one of those who I think knows what’s going on. Based on the situation she’s been in and how she was brave enough and strong enough to leave my dad when I was young, and she made that choice and said enough is enough and I think she’s just a little bit more compassionate and empathetic towards the situations and has an idea of what’s going on in that situation. (Appendix 28 - general PIA 7)

Being empathetic and compassionate are characteristics that Owen possesses and traits learned from his mom and which he uses in his interactions with his players and students.

Also, part of his support system are his wife and his grandparents. Owen relies heavily on his wife for emotional support. As a volleyball coach, she understands the stressful nature of coaching and Owen appreciates her ability to help him calm down in difficult situations:

I lean on my wife a lot for certain things, especially the emotional stuff. The mental stuff that really drains me I guess, and I vent sometimes, and she just brings me back and reminds me that you know some things are in your control and some things aren't and that's the biggest thing that a lot of coaches do is they always hold things close to their heart sometimes and so being able to let go of things. (Appendix 28 - general PIA 7)

It was Owen's grandparents who helped remove him and his mom from the abusive household and they remained important sources of support for Owen until their passing:

I was kind of lucky because I did have a good support network and the fact that my grandparents were living close to my family at the time, my grandfather more importantly, was quite the mentor for me and he basically—probably saved my mother and myself from the relationship that we had with my dad and with her husband. Got us out of that situation where we actually ended up moving in with him [granddad].

(Appendix 27 - general PIA 5)

Owen's grandad became his surrogate dad for a long time and was the first male role model that Owen looked up to. Much of who his granddad is, is ingrained in Owen's character, alongside his mom's influence. Granddad's influence is evident in how he builds and maintains relationships with his players and students, demonstrating genuine care and offering unwavering support. Owen's commitment to his players extends beyond graduation, exemplifying his dedication to their well-being and growth which has them in touch regularly:

There's also kids that have gone away that consistently are on my Facebook or my social media and they fire me messages all the time checking in and stuff like that to make sure I'm okay and I send them messages all the time to make sure that they're okay. There's

not too many people in my group of athletes that I don't keep in contact with. (Appendix 28 - general PIA 7)

Owen shared that he was deeply affected when a former player of his took his own life. He continues to reflect on the situation, wondering if there was anything he could have done differently to prevent the tragedy:

I think that weighed pretty heavily on myself and you know you always reflect back as a coach. You never want to have anything happening to your athletes and I think that was one of those situations where I look back and thought, what could I have done differently at that period of time to help him out. (Appendix 28 - general PIA 7)

Owen wholeheartedly believes that the cornerstone of his ability to build lasting relationships with his players is the element of trust. This is a vital element in his ability to establish and sustain meaningful connections with them. He explained:

That's the biggest thing. I think that they trust me. I remember [Player] for example when he was 15U. I remember driving down and picking him up and I know he had a tough go with some family issues and stuff like that and I think that by picking him up, it gave him someone else to talk to—you know someone different. So, we'd have conversations on the way to and from practice or training. (group 3, question 5)

In looking at the narratives from Owen's background, he has developed into a person who cares. He cares about all those who are around him as evidenced by his support system and he cares about those players and students who he interacts with as a teacher and coach. His relationships with them extend beyond high school, which demonstrate the impact Owen has had in their lives.

Experience with Coaching

The Beginning

Upon graduation from university, Owen secured a position at a small community high school where he initially coached basketball alongside other sports such as volleyball, badminton, cross-country, and golf. While basketball remained his favorite due to his prior experience playing at the provincial level and in high school, he acknowledged that he was not as serious a coach with the other sports. As a first-time basketball head coach, he applied lessons learned from observing coaches on television:

I was young, I was 23 coming out of university. I was one of those people that in high school had a ‘yeller’ as a coach. So, he would yell at us and stuff like that, and then what I saw on TV. When I was watching March Madness, I think that my expectation was that in order to get kids to do stuff, you had to yell at them. So, when I went in, it was more like okay, I’m the boss here. I’m the dictator and that’s how it all started. (Appendix 31 - coaching PIA 5)

Of course, Owen emulated what he knew and was a ‘yeller’ himself and was really hard on his players. This he attributed to his own childhood experience where his step-dad (his mom remarried) was the authority figure:

This goes back into my childhood to where my step-dad always told me to do something, you do it right. You listen to your elder’s right? You do what you’re told and if you’re not doing what you’re told—there’s going to be a consequence. (Appendix 29 - coaching PIA 6)

Another focus for Owen when he started out coaching was winning. At that time, he believed that winning was the most crucial aspect of coaching and the primary measure of success as a coach:

I think that I felt that I could be in control and going back and reflecting, I think that's why I was so hard on my kids and challenged them every single practice. Near puking at every practice or when they're so sore after every practice, probably because I took it personally when we lost because I was so competitive and so wound up with it. If the team loses—I lost. That was on me. I didn't do enough, and I think that that was how I viewed the outcome when I was first starting out. (group 3, question 1)

The wins did not come frequently during Owen's first three years, leading him to doubt his coaching ability. However, when success did come using his dictatorial coaching style, the smiles on everyone's faces confirmed that he was indeed a successful coach. He said:

When we first won our first zone championship, that was in 2002. I think everybody was bawling on our bench. All the athletes were crying, the parents were crying, and it was because we had finally reached the pinnacle of our goal over the three years that we'd put that plan in place and I think that's where for me, that was the biggest thing is it gave a little bit of substance to what I was doing. (group 3, question 3)

As Owen reflected on this time period, he acknowledged that he was a "dark coach" meaning he was overly focused on winning, which may have alienated some students from playing basketball. As he matured both personally and professionally, he felt embarrassed about his past behavior and took the initiative to apologize to a player several years later:

I pulled him aside and I said you know [Player], I owe you an apology. He goes what are you talking about coach? I said no, I owe you an apology for how I handled you when

you were in grade 10, 11 and 12 and I was really hard on you. He's like you know what I get it, but I always knew what you wanted from me. You always wanted the best out of me. You knew what I could do coach and I said I did, but how I did it reflecting back—I think how I handled it was not the best and that's why I'm apologizing, and he said no, you don't owe me anything we shook hands and stuff like that, and we are really good friends to this day. (Appendix 31 - coaching PIA 5)

This story emerged from a discussion about accountability, one of the words that Owen believes a coach must possess. Although the player accepted Owen as their coach and may not have agreed with his coaching style, he believed Owen had his best interests at heart. Despite this, Owen feels the need to be accountable for his actions regardless of the situation. He added:

I've had to eat crow and I've been willing to do that a couple times throughout my career to apologize for how I treated some kids early in my coaching just because I think that's the best thing to do. You have to show them that if something was wrong and you believe it was wrong, then I think that you have to be accountable. That goes back to that leadership term that we talked about earlier in those 20 words for coaching. Being accountable and I think I had to be accountable to him for sure because I was really hard on him at that time period. (Appendix 31 - coaching PIA 5)

Lifelong Lessons

Owen is no longer overly concerned about winning, particularly with his high school team. While competition remains important, his primary objective is to challenge every player to be their best:

I still want to have success, not only for the kids, but myself right as a team. So, I think that I'm still that way. Also, I'll still push kids, but not as hard but in a more positive

light, I guess you might say. I still stress that competition is important because I think it is important. I think that kids still need to learn that there are going to be ups and downs in competition, because when they go into the real world, to be honest with you, not everything is going to be rosy and they're going to fall down, but they got to be able to get back up. (group 3, question 6)

A notable change in Owen's coaching approach through the years is how he now shares responsibility with players for both team and individual success. This shift is exemplified by a story about how he engages his players during practice:

Once I go through things, I let them give me their feedback. So now I'm taking more information from the kids rather than I do from myself. Okay, how do you feel, what do you think is going to go on, what's your choice, what do you want to do? So, I'm putting a little bit more of the onus on the athlete now more than I ever have. So, I think it's completely flipped since I first started where I was the dictator and now it's more of how the kids are being more—given more opportunity to voice what they think or give their feedback. (Appendix 31 - coaching PIA 5)

The journey toward this coaching transformation has been lengthy. Owen has transitioned from a coaching dictatorship to fostering a collaborative environment that empowers his players to contribute. He aims for them to take a proactive role in their learning, hoping that this empowerment will extend to other aspects of their lives:

They're more empowered now. I think that's the biggest thing that I've allowed my athletes as I've given them that say that voice so now, they don't feel threatened or feel like they're going to get knocked down. So that when they leave me, and they go on to the next level they feel empowered to communicate with their coaches and not be

intimidated to stand up for themselves or even in a classroom or for someone who's not empowered. (Appendix 31 - coaching PIA 5)

Over the past 21 years as a coach, Owen has come to cherish the relationships he has built with his athletes above all else:

I think that that's as I've aged, I'm more about the relationships that I have with my kids. So that they understand that I care about them, and I want the best for them so that they can go on to a college or university and get a good job, a good career to support their own families ... I think that more kids are getting more minutes now than when they did when I was first starting out where I'd be like okay, you're getting 38 of the 40 minutes and this other kid's getting a minute, so I think I've opened that up as well. (group 2, question 3)

Owen recognizes that his role as a basketball coach extends beyond the court, providing an opportunity to instill valuable life skills and physical literacy in his players. His dedication and hard work in this regard were acknowledged by the community when he was awarded the Alberta School Award of Merit for his contributions as a mentor and basketball coach—a recognition that Owen was very proud to receive.

Provincial Program

Owen's initial reason for volunteering for the provincial program was to challenge himself. Coaching in a small town and having moderate success pushed Owen to see if he could take his coaching to another level. He said, "I looked at my goals and reflected on my past and where I wanted to go, which was being part of the provincial program" (Appendix 29 - coaching PIA 6). When he was accepted as an assistant coach with the 17U boys program, two things transformed him as a coach. First, he was able to work with the mentor coach who helped him

move away from the dictatorial approach to more of a collaborative coaching approach, as well as working with other elite coaches who were also part of the coaching staff. The second was an understanding that to work with elite players; the “I am the boss—you do what I tell you to do” coaching style would not work. Owen realized he needed to change. He said, “Oh crap if I want to do this—I need to change my behavior. I need to change how I interact with athletes. I need to change my attitude towards certain things” (Appendix 29 - coaching PIA 6).

Owen’s 21 years of coaching experience have endowed him with the wisdom and insights that accompany years of practice. This wealth of experience will undoubtedly shape how the ADM is implemented in his coaching practice.

Acquisition of Coaching Knowledge

Coaches obtain knowledge through three primary channels: formal, informal, and non-formal learning. Formal learning, according to Coombs and Ahmed (1974), takes place in structured, institutionalized settings; informal learning arises from daily experiences; and non-formal learning involves organized educational opportunities outside formal education systems. This knowledge informs coaches' practices, influencing their approach to coaching. This section will explore some of the knowledge that Coach Owen accumulated in relation to coaching.

Formal Knowledge

Owen attended university in Edmonton, Alberta and earned a Bachelor of Kinesiology and Bachelor of Education over a five-year period. This combined degree program requires students to accumulate 150 credits throughout their studies. Despite Owen’s success in graduating, it was a challenging journey for him as he had to cope with a personal loss, which had a ripple effect on various aspects of his life:

It was just a lot of work, and I wasn't strong in English, and I had to take English 101.

That was a tough year because I was here [Edmonton] my first year and that year, my grandfather passed away in the spring and that was one of the tough things that I was having to deal with. It ended up that I actually failed English 101. (group 2, question 2)

Owen made it through English 101 the second time around with the help of a tutor and successfully graduated. His time at university equipped him with valuable time management skills and the resilience to overcome personal setbacks. Moreover, his dual degrees provided him with content knowledge, pedagogical skills, and an understanding of the diverse set of needs within a classroom, all essential qualities for a successful teacher and coach.

NCCP Courses. Coach Owen has acquired his first and second levels of certification in the National Coaching Certification Program (NCCP). By reaching level two, Owen possesses the coaching competency and ability to work with athletes at a more advanced level. NCCP Level two certification is also a requirement for involvement with the Alberta provincial teams. Owen said that he would pick up some of his coaching knowledge from other coaches who attended the NCCP clinics with his main interest being to hear how other coaches interacted with their players:

You do a couple of clinics. Your level one clinic or level two clinic and hear some coaches and how they interact with their kids and again, it might have been just that time or the people that were putting them on, maybe that's how they interacted with their kids, so I picked up some of those traits. (group 3, question 2)

Owen integrated the various perspectives on player interaction into his coaching practice from the other NCCP attendees.

Informal Knowledge

Owen draws upon various sources of informal knowledge, including his playing experience, mentorship, and his visual learning style, to inform his coaching practice and guide his implementation of the Canada Basketball Athlete Development Model (ADM).

Playing experience. Owen's journey as a basketball player reached a fairly high level, including playing on provincial teams and participating in various sports such as track, cross-country, and soccer during high school. Owen's key learning experiences from his sports background are multifaceted. They include the importance of teamwork and hard work, the ability to balance competitiveness with enjoyment, the value of quality time spent with friends while competing, and the skill of problem-solving in uncertain situations. However, his sports involvement tapered off during university as he focused on his combined degree. Owen resumed his sport participation after the completion of his degree.

Mentors. Mentors seem to have influenced Owen very much as a person and as a coach. His childhood mentor was his granddad who taught Owen how to ride a bike and play soccer. His granddad was a person who would "... tell you how it is type thing but at the same time he'd give you a hug when you needed it" (Appendix 27 - general PIA 5). One of the more significant lessons Owen learned from his granddad was not to be afraid of the obstacles that come his way:

That was the biggest thing that he taught me; to conquer my fears and don't be fearful, stand up for yourself and don't be scared of the things that are going to be in front of you and he taught me a lot with the bike there. (Appendix 27 - general PIA 5)

Another mentor during Owen's formative years was a high school teacher/coach, who Owen said went out of his way to help others:

His name was [Mr. A]—great guy. He was the type of teacher that if you ask him for something, he would help you out no matter what and he was one of those guys who was probably one of the biggest role models. (Appendix 27 - general PIA 5)

Owen recalled that Mr. A would consistently arrive before school started and stay late to work with students on their basketball skills, as he was the school basketball coach. Owen attributes his own dedication to coming in early, staying late, and in the gym on weekends to Mr. A's influence. He does not hesitate to help out students who are eager to improve.

Another one of Owen's mentors is a coach whom Owen met when he played on the provincial team. Owen and Coach D have stayed in touch ever since and Owen holds Coach D in high regard. Coach D is a men's post-secondary coach and is always willing to assist Owen with his coaching practice, much like Mr. A did during Owen's playing days in high school. Owen said this about Coach D:

He's one of those guys who no matter what, he's always helpful, He's always caring.

He's always basically willing to give me feedback and it's honest feedback whether or not I like it or not but he's one of those guys that you know personality types. He's got a great personality to joke around with but he's willing to tell you how he sees something.

(group 2, question 4)

Another impactful coaching mentor for Owen was the main coach for the Alberta Basketball development program, Coach S. Before meeting Coach S, Owen exhibited dictatorial coaching tendencies, as depicted in coaching PIA 6 (Appendix 29), where he portrayed himself as a dominating coach, yelling and screaming at his players. However, under Coach S's mentorship, Owen began to explore alternative methods of communication with players. Coach S emphasized the importance of a balanced power dynamic between players and coaches, rather

than the one-sided approach Owen had previously employed. This newfound knowledge was instrumental in Owen's coaching transformation, leading to a positive shift in his relationships with his players:

I think that the journey that I've had is—we went from a dark situation to a lighter situation whereby now there's communication between both of us. To have that success and understand that we're on the same page and that we're also on the same level and I think that's worked in building a lot of the relationships and I think that's the reason why I've had a lot of success in my current local, as well provincial team. (Appendix 30 - coaching PIA 1)

Visual Learner. One of Owen's early methods of learning how to coach was by watching coaching videos. He recalled watching numerous videos when he first started out as a coach. Additionally, he mentioned acquiring knowledge by observing other coaches. He cited being a big fan of Bobby Knight, who was regularly featured on television despite being known for his fiery temperament. This exposure to Knight's coaching style may have influenced Owen's dictatorial coaching approach. Furthermore, Owen learns by observing his colleagues' coach and has no hesitation approaching them for feedback on his coaching techniques.

Non-Formal Knowledge

One of the non-formal knowledge experiences that Owen shared was his attendance at basketball coaching conferences in Las Vegas where renowned coaches presented their coaching drills and other valuable coaching information. However, Owen noted that it was a challenge to apply these insights due to the skill level of his players. Despite finding the information interesting, he struggled to incorporate the information into his coaching practice.

Owen's coaching knowledge stems from a variety of sources, including formal, informal and non-formal avenues. While each has had an impact on Owen, the most influential learning experiences that shape his use of the ADM come from the lessons he has learned from his mentors.

How Does Coach Owen Experience the ADM in His Coaching Practice?

First Exposure

The introduction to the ADM was through one of Owen's mentors, Coach D, who was Alberta Basketball's lead development coach. It was around 2011 when Coach D asked Owen to assist in teaching the ADM development principles to coaches across the province:

So, Coach D would come up here and he would talk to me about the long-term developmental model and show me it. I got a binder from him and then he was like Owen, I'm looking at doing some coaching education and I'm like, oh that's cool and he said, would you like to help out? (group 4, question 8)

Since Owen was working with less skilled players at the time, he was already focused on teaching the basics. When he was introduced to the ADM, he found that it aligned closely with what and how he was teaching foundational basketball skills for the different age groups, so he found it easy to implement:

When I first started, it was interesting because I think because I'm from a small community, I find that a lot of the kids don't have the same access to coaches or higher-level trainers and as a result, what I'm doing is basically the basics. So, for myself, it [ADM] wasn't a big shock. I didn't find it too big of a jump or change going to the ADM and as a result, I took a lot of the different drills and activities that they did. Even today, I include them in some of my high school kids stuff... so it wasn't like it was over the top,

like oh my God how am I going to implement this? For me it wasn't such a big jump to be honest with you. (group 4, question 1)

Owen particularly appreciates how the ADM is organized according to age levels and outlines the physical and mental skills players should have at each stage. This structured approach resonates with Owen's logical thinking process:

I think it's how it's laid out with sequential groupings or levels; I think the biggest thing with regards to that. Just so that you can move from one phase to the next phase to the next phase, the order sequential development with regards to the ADM. So, you have an idea of where kids should be or what they should be doing for each phase. I think that's the biggest thing for these athletes that you could get from the ADM for a coach. (group 4, question 5)

Owen finds the ADM's organization by age intuitive and easy to comprehend. It serves as a clear guide for coaches on how to progress athletes along their developmental journey. Moreover, it offers coaches a structured framework for assessing current players and determining their developmental stage. This structure provides Owen with a level of certainty regarding the skills required at each age level.

Owen was an early adopter of the ADM due to his relationship with Coach D. This personal connection made it easier for Owen to transfer the knowledge from the ADM into actionable strategies for his coaching practice.

Adapting the ADM to the Local Context

In addition to coaching a boy's high school team, Owen also operates a year-round basketball academy catering to kids aged seven to 17. Given the wide age range the academy works with, Owen believes that the concept of fun varies depending on the age of the players:

The reason why I say it depends on the level is that the younger kids like it simple. They still like competition, but they don't need to compete against each other, like a one on one or two on two. It can be something like just a race. Like a ball race, a basketball race. It can be working on a crossover or challenging them to find a different way to score, playing a game of horse. As they get older though, kids want to compete, especially the junior high school kids where they more likely will want to compete one on one or two on two ... because then it becomes a personal bragging right. (group 3, question 8)

Understanding the importance of keeping basketball enjoyable for players like it was for him as a youngster, Owen integrates the principles of the ADM in different ways to cater to the different age groups while keeping it fun and challenging.

Another aspect of how Owen has adapted to the ADM relates to the ratios of how much time during a practice/week should be devoted to fundamentals, technical skills, strategy, or game tactics. Prior to implementing the ADM, Owen says he was coaching with no clear direction on how to organize his practices or season. He has adopted the recommended training-to-competition ratio as suggested by the ADM for each age group. For example, for the Learn-to-Train stage (8-12 years old), it is recommended that there is a 4:1 training-to-competition ratio, and for the Train-to-Train stage (13-16 years old), it is a 3:1 training-to-competition ratio.

How I've organized my practices definitely has [changed]. Before I wasn't so much of an organizer. I was a little bit disorganized or an 'on the fly' coach and played it by ear coach but now it's more of a scheduled organized approach. Just so that I can break things down, especially using the Canada Basketball models that they have for planning. So, I think that scheduling has been improved from my perspective and organization

definitely from my perspective, as the types of drills I'm putting into place. (group 4, question 3)

Owen also spoke about how he has adapted his coaching drills to be able to 'load' them. Loading a drill refers to adding difficulty or complexity to the drill to challenge the players with the objective of facilitating skill development, improving conditioning and developing mental toughness:

I think the competition component and how to load drills ... sometimes I can find some other drills that might work better for loading different drills but then I'm thinking okay well if Canada Basketball wants us to use this type of format, then maybe this is the way but that's all I'd probably say with regards to that. (group 4, question 4)

Owen has integrated changes into his coaching practice regarding how he conducts team warm-ups. Before the introduction of the ADM, warm-ups for Owen's team consisted of static movements aimed at preparing the body for physical activity. However, with recommendations from the ADM and guidance from Coach D, Owen now incorporates dynamic warm-ups. These involve continuous movements that mimic the actions players will perform during practice and games:

Warm-ups are the primary aspect that I've changed, for example, starting with warm-up activity games going into dynamic warm-ups depending on the level of kids that we're dealing with and moving up to the next level. (group 4, question 3)

It was not difficult to get Owen to apply the ADM with his players and within his basketball academy. Because Owen is good at building relationships, he had access to the ADM early and with it came an opportunity to learn from his mentor. The ADM helped with his planning. When Owen said he was not an organized coach, it was surprising as one of his

dislikes is uncertainty. With the use of the ADM, it has helped him keep his coaching focused on understanding what needs to be done.

Barriers to Knowledge

Location. Owen is based in a small community with a population of 15,000. The barrier that Owen faces in applying the ADM is that keeping teenagers out of trouble is more important than developing basketball and physical literacy skills:

I know that there were some kids that quit and didn't come back and some kids I had to take off the team just because they got into other things and as a result, they couldn't uphold their duties on the team. Just alcohol and drugs and stuff like that. (Appendix 31 - coaching PIA 5)

Owen prioritizes ensuring that his players do well academically by emphasizing the completion of homework before practices and games. Additionally, he places a strong emphasis on building trust, recognizing it as a fundamental aspect of fostering strong relationships with his players. By prioritizing academics, he aims to keep them focused and engaged in their schoolwork, ultimately reducing the likelihood of them getting into trouble. For Owen, developing their basketball and physical literacy skills serves as an additional benefit that complements their overall growth and development, but first and foremost, they need to stay in school.

Location is not a barrier when Owen works with the provincial program as those athletes are recruited from across the province.

Specializing Too Early. Owen identifies another barrier to the proper implementation of the ADM: the trend of children focusing on a single sport at too early an age. He attributes this partly to parental pressure, as some parents believe their child must excel in one sport early on in

order to secure a post-secondary scholarship. However, this early specialization hampers the development of proper physical literacy skills, which are essential objectives of implementing the ADM:

I think that they're doing that all year round as well and we're seeing more and more injuries at the high school level, as well as university or college level for sure. I think it all stems from intense competition where competition is the main outcome, and some parents go over the top with that competition ... if you want to get a scholarship—you have to train year-round. (group 2, question 2)

Owen believes in lifelong physical activity but worries that some kids may develop serious injuries at a young age, potentially affecting their ability to remain physically active throughout their lives. Parents need to be more informed about the dangers of early specialization in basketball.

Lack of Coach Education. Owen believes that many club basketball organizations are in need of volunteer coaches, yet fail to provide them with adequate training on the principles of the ADM:

I know that a lot of coaches just go in it because a lot of people hire because they need coaches, so they just take them on. At the same time, it's almost like a catch 22 right? The fact that we want them to use this [ADM] but we're not training them on how to use this [ADM]. Do you know what I mean? So, at the end of the day, why are we giving them something to utilize if they're not going to know how to use it? (group 4, question 8)

Owen's concern is that Alberta Basketball and Canada Basketball could do a better job of assisting all coaches throughout the province in successfully implementing the ADM. He

believes that by not standardizing its application for basic coaching requirements, there has been inconsistency in how the ADM is applied across the province:

The biggest thing that I find right now is that coach education needs to be a little bit on the higher front but, in Alberta where we're fighting club systems, who just need coaches to fill gaps and all these coaches, who are filling gaps watch a video or watch basketball NBA and they think they know it all and I just shake my head. (group 4, question 8)

Owen understands that there are costs associated with taking the NCCP courses to learn about the proper use of the ADM. To encourage more coaches to use the ADM, Owen suggested that Alberta Basketball needs to collaborate more effectively with club programs to ensure a consistent application of the ADM. Owen feels that Alberta Basketball should take responsibility to educate coaches by creating free online modules about the ADM for coaches to access:

Some of these coaches feel that why do I need to pay for this course? I don't see why I need it right, and some of these coaches are older coaches and who don't want to go back and take any of these things because they think they know it all. (group 4, question 8)

Implementation of ADM

Owen has implemented the recommendations outlined in the ADM for his basketball academy, which caters to players aged seven to 17. This age range spans four different training stages: FUNdamentals (7-9 years old), Learn-to-Train (9-12 years old), Train-to-Train (12-15 years old), and Train-to-Compete (16-18 years old). By encouraging kids to participate in the academy early and guiding them through these stages, Owen has witnessed considerable success in their skill development. This is evident from the number of kids who continue to participate in the academy year over year, reflecting the effectiveness of the ADM framework and his ability to maintain balance of fun and competitiveness:

I find that a lot of those kids who come in at that seven to 10 age group. They stay with it all the way through. So, they must be having fun but at the same time they're learning those skills, and I don't sit there and come up okay we're going to do five on five today that's not how this works. It's all following the different phases and the different skills that those kids are supposed to be learning for their age group for their phase. So, they're doing really well and that's where I can say that, here in my current locale, I see a lot of success. (group 4, question 6)

Owen observed the success the ADM has had at the provincial level as well. Those selected to join the team have typically participated in youth programs that prioritize ADM principles in player development. As a result, these kids demonstrate the skills and understanding necessary to earn a spot on the provincial team:

If I were to compare provincial team athletes, you look at some of the kids who come up through the provincial team—same observation. Where you see that a lot of those kids who've been part of various types of grass root programs, who are following the ADM—they're starting to find that they're having a lot of success. So, they're coming up, because they have those background skills or those background techniques, I guess you might say that have enabled them to have success at the provincial level as well. (group 4, question 6)

Owen's implementation of the ADM in his coaching practice was due to his access to a network of experts and this facilitated a smooth transition in understanding how to use the ADM effectively. Having knowledgeable individuals to consult with allowed him to learn and adapt the principles of the ADM to his specific coaching context:

Yes, in the fact that I do apply a lot more of the principles that they utilize, especially when talking to, for example, [Coach M] and stuff like that and who's a great resource from Canada Basketball as well and so I do take a lot of stuff that [Coach M] talks to me about with regards the ADM and apply that to my current group of kids just so they have an idea of where we're going and a lot of the beginner stuff leads into something else. Do you know what I mean? So, it goes from one activity to the other activity to the activity. So, they're all joining together. So, it creates a little bit of a flow for my athletes, so I do take some of that stuff and I do apply it on a regular basis, yes, especially in warm up.

(group 4, question 2)

Because of Owen's success in incorporating the ADM into his coaching practice, he actively promotes the knowledge within the ADM to local junior high basketball coaches and elementary physical education teachers, leveraging his connections within the community.

Advice to Coaches. Owen's advice to new coaches is not to rely solely on the ADM. He suggested that coaches should also understand the progression of development at different levels, learn how to adapt drills, and seek guidance from experienced coaches who have implemented the ADM effectively. He said, "I wouldn't necessarily tell them about implementing it right away. What I would tell them is to make sure that they go to various coaching clinics to get a little bit of training" (group 4, question 8).

Conclusion

Owen's life experiences have led him to become a staunch supporter of the ADM. His endorsement of the ADM stems from learning about it through a mentor and receiving guidance on its implementation from others in his coaching network. He integrates it extensively into his

coaching practice and perceives no drawbacks. Instead, he believes the ADM can only enhance players' abilities and position them for success when properly utilized by a coach.

Owen genuinely cares about others, and this sentiment is reciprocated by many people, as evidenced by his robust support network, as discussed in the PIA. Former players often reach out to him via Facebook to check in, demonstrating the lasting impact of his care. Owen's use of the ADM is a manifestation of this care for his players. He wants them to reach their full potential and views the ADM as a tool to help lay out a pathway to becoming better basketball players and remaining physically active for life.

Chapter 9: Coach Danya

This interview with coach Danya occurred on February 26, 2021, lasting one hour and forty-two minutes. A total of 79 stories were identified in the interview transcript using NVivo software. Danya completed four PIAs before the interview date. The narratives from PIAs and semi-structured questions were analyzed to extract key ideas, insights, and topics. At the time of this interview, Danya is the head coach of a girl's high school team and approaching her seventh year as a member of the provincial team coaching staff. Names of any schools or persons have been changed or hidden to protect the identity of the coach.

Background

Multi-sport Athlete

As a youngster, Danya's childhood was filled with diverse sporting experiences. While basketball was her favorite sport, she also played volleyball, soccer, rugby, track, and team handball. With her participation in multiple sports, Danya would have been characterized as a multi-sport athlete. Her height set her apart from many of her peers, which proved advantageous in various sports:

I was always taller than everyone even though I'm not that tall. I wouldn't be considered tall now. I just grew early. So just being the 'tall girl', just being physically more mature than everyone else. That was me as a child and playing through that and then also just being a multi-sport athlete. That was really important to me. I'd go from one thing to another to another and even after I chose basketball as my main sport, I still played a bunch of other stuff, and I wouldn't go back and change that by any means. (group 2, question 1)

After graduating from high school, she was recruited to play post-secondary basketball where she played for a total of three years. Following her basketball career, Danya went on to play competitive rugby post-graduation for a few more years.

Danya's involvement in multiple sports not only brought her joy, but also imparted valuable lessons and forged enduring friendships. Fond memories were etched during road trips, collaborative efforts with teammates, and the guidance offered by numerous coaches along the way. She added:

Oh, there's so many [benefits]. I'd say the biggest thing is just connections with people. Making friends that have like-minded interests and connecting through sport. Getting to travel and see different places. Getting to learn from all kinds of people. To be put in situations where you're uncomfortable and have to kind of put yourself out there a little bit. I'd say that's another one and then just physical and physical and emotional and all kinds of well-being. (group 2, question 2)

Danya continues to cherish the positive experiences because of her involvement in multiple sports at a high level, despite the toll it has taken on her body. She now copes with knee, back, and ankle issues, managing them accordingly, with her most recent knee surgery in 2013. However, she would not change a thing about her athletic journey.

Busy Schedule

In response to general PIA 1 (Appendix 32), which requested Danya to outline her schedule for the year, she showed a packed calendar filled with coaching commitments alongside her full-time position as a physical education teacher. With only two small breaks in her calendar year, her drawing shows that Danya loves to coach by devoting so much time to it. She outlined five distinct coaching phases in her drawing, with four phases related to her high school team

and one phase dedicated to the Alberta provincial team. Recognizing the stress and time-consuming nature of coaching, Danya prioritizes personal time for activities such as working out, golfing, and enjoying the beautiful outdoors. This focus on self-care is a recent addition to her schedule, stemming from a realization a few years ago when she experienced coaching success but felt physically unwell:

But then I kind of stopped between the knee surgeries in that you stop making time to be healthy for yourself. So, I think throughout those 3-4 years, I gained weight and was unhealthy. It's funny, the best year coaching was when we went provincials, I probably was at my worst. I would feel like I was physically the most unhealthy. When I look back at myself and then after that year, it was just a few things, but that made me be like—hey, you have to get it together here. (Appendix 32 - general PIA 1)

As part of her schedule, Danya ensures she allocates time to spend with her best friends and family to maintain a better life balance throughout the year. It is evident that Danya is highly organized to be able to manage a full-time teaching position, coach an elite high school basketball program, and schedule time for herself to maintain a healthy work-life balance. She said:

I am enjoying it [working out] and I know that's something that I need to make time for myself to do even if it's getting up early in the morning. It's not something even for basketball that I'm going to eliminate to put more time into coaching. I need to make sure I do that for myself. (Appendix 32 - general PIA 1)

Support System

With the stressful conditions that come with working and coaching and the stressful nature of both responsibilities, it is no surprise that Danya has a strong support system behind

her. In her drawing in response to PIA 7 (Appendix 33) which asked her to draw her support system, she had this to say:

I'd say every circle on here is on here for a reason because they all do provide me a support system in different ways and I'd say honestly, my parents are the biggest ones and from there out, any one of those could replace or be just as important to me as the next for different reasons. (Appendix 33 - general PIA 7)

As Danya alluded to, her parents are the most important people in her support system, and she relies on different sources of support depending on the situation:

I'm for sure the closest to my parents out of anyone but then after that, you're right, they just fill a different purpose or need in my life depending on the situation. (Appendix 33 - general PIA 7)

For coaching support, Danya looks to her physical education colleagues, with whom she spends a lot of time during the school year. Her colleagues are very supportive and, as a bonus, fun to associate with:

That's part of my favorite thing about my job is the people I work with. I really enjoy our department and they're just my friends too. Those are the people that I would maybe talk to more about the coaching side of things and the day-to-day type discussions. They're really important to me for that but some of the females I work with, we hang out outside of school too. So that's where I would say they're more just my friends. (Appendix 33 - general PIA 7)

Positive Influence

Although Danya's support system is crucial to her, she also endeavors to be a part of her students' and players' support system by always maintaining a positive outlook and being there whenever she is needed:

I would say just being a positive influence in people's lives. That's very general, I know but as a teacher, a coach, and a friend, I think just bringing positivity and something good to someone's life. That's kind of why I do what I do. (group 1, question 2)

Danya learned the importance of being a positive influence at an early age, striving to emulate two basketball coaches who were instrumental in her life: one from junior high and the other from high school. She believes they both have had an influence on who she is now:

I was lucky enough to have from junior high and high school to have two female coaches that really influenced me. My junior high coach is still there to this day and still coaching and I still have a relationship with her. We go for lunch and get together. (Appendix 34 - coaching PIA 3)

Dayna's journey as a multi-sport athlete has been marked by passion, camaraderie, and personal growth. Despite the physical toll of sports on her well-being, she cherishes the positive memories and life lessons gained through sports participation. With a strong support network behind her, Dayna not only strives to be a positive influence but also fosters support in the lives of others. Through her dedication and positive outlook, she continues to inspire, leaving a lasting impact on her players and students.

Experience with Coaching

In the Beginning

Danya transitioned from player to coach in her last year of playing basketball. She began her coaching journey as a volunteer rugby coach and senior girls' basketball team at her high school while finishing her physical education degree. Her first teaching position upon graduation involved coaching the junior girls' basketball team at an inner-city high school. She mentioned that the most challenging aspect of coaching there was not coaching basketball, but rather keeping her players out of trouble. She said "... you're more dealing with issues like a girl smoking weed outside. That's what you're dealing with. You're not dealing with x's and o's, but it was a good place to learn" (Appendix 34 - coaching PIA 3).

Throughout her coaching journey, Danya has consistently sought opportunities to improve as a teacher and coach, always pushing herself to grow. Feeling unchallenged as a coach at the inner-city school, she volunteered to be an assistant coach for a college team, where she remained for six years. During this time, she transitioned to coaching at a high school renowned for its successful senior girls' basketball program. Upon her arrival there, she found that the work ethic she expected from the players was lacking:

So, we were not good and so for a couple of years there—that's why I put 'the struggle' because that's where I had a few non-competitive people that the passion for basketball wasn't there. (Appendix 34 - coaching PIA 3)

To this day, Danya still holds high expectations of her players in terms of work ethic, believing that their dedication and effort should match her own passion and commitment to coaching, as she finds coaching much more fulfilling when she sees her players reciprocate the energy she invests in them:

I'd say just people who didn't want to dedicate the same amount of time or didn't care about improving or competing. This sounds bad but they're literally just there to have fun and that's not to say that having fun isn't important. Just to me, it's more than that so not taking it seriously. I found that very frustrating and not enjoyable when people don't have the same desire to work hard. That irritates me a lot. (group 3, question 4)

Coaching Growth

As alluded to earlier, Danya is always looking to improve and grow as a teacher and coach. As she gets older and acquires more coaching experience, Danya feels she now works smarter and is willing to take risks in the right situations. As a younger coach, she would have made different choices:

I guess this isn't something specific, but I would just say that I've become smarter. I just know the game better and am more willing to change something for the sake of the personnel I have or for the development of the players. Whereas maybe when I first started, I would have just taught what I knew and now I'm willing to explore things I don't know for the betterment of the team and to take those risks. (group 3, question 7)

In coaching PIA 1 (Appendix 35), Danya listed the first six words that are a key part of her personal development. These words were *passion, pride, purpose, heart, family* and *love*:

I honestly split them before I started because the first six words are something I say to myself all the time. So, it's something I've tried to follow for years. So those weren't something I had to think about that's why I didn't give you a separate list because I knew those six words right off the hop and then the rest, I just kind of thought, honestly, the first things I thought about coaching and working with kids and the first words that came to my head I just wrote down. (Appendix 35 - coaching PIA 1)

From her second set of words, Danya said two stood out to her which were growth and competition and went on to expand on her meaning of both. This is what she said about growth:

It's always something you can improve and get better at and there are always new ways to do things and you're always looking up, every team is different, so you have to change your tactics and strategies for your team and that's a big reason why I still coach Provincial teams and why I purposefully choose to assistant coach and not the head coach is to still constantly work with someone new and learn something new from someone every year. (Appendix 35 - coaching PIA 1)

Danya's growth as a coach was evident through her constant acquisition of coaching knowledge and her desire for her players to grow under her direction. This is what she had to say about competing in respect to herself and her players:

I'd say that's more for the athletes because I feel like I have that in me regardless and that to me ... but it's not necessarily about winning or losing, it's just about being competitive and letting that drive you and not being okay with losing. It doesn't have to destroy you or make you cry but if you just can't sit with it be okay with it. It's got to bring something else out of you. I've had a team before that wasn't competitive and didn't care and that just didn't fulfill me at all. So that's a huge quality I look for in my athletes when I'm picking a team is—if they're competitive and in a healthy way. It doesn't mean if you lose, complain about losing, or blame it on something outside of your control. That sort of thing irritates me but it's about being able to compete, leave it at the door, and have something grow from that in some way. (Appendix 35 - coaching PIA 1)

Player Success

Danya takes great pride in helping her players move from playing high school basketball on to a post-secondary team. Danya credits this to her coaching approach which is the belief that practicing is a lot more important in athlete development than playing in a game:

Any good team is going to practice more than they play. So, what are you getting out of your practices and so some people will say—well, they [players] could get way more playing time at this other school. They could play 38 minutes a game. Yeah, but at this school, they're playing 18 minutes a game but they're quality minutes, and then every practice they're having to guard another one of the best kids in the city and that's where they're getting better. They're not getting better at playing another crappy team for 38 minutes. They're getting better by being pushed every day. (Appendix 34 - coaching PIA 3)

Danya highlighted a common misconception among parents, emphasizing that player development primarily occurs during practice sessions rather than during games. She noted that many parents may not fully grasp this concept because they primarily focus on game outcomes and playing time as indicators of success for their child.

For Danya, another measure of player success is witnessing some of her players continue to enjoy basketball after they graduate from high school:

Just as important to me is seeing kids go on and play and I also love seeing them go on and coach. Some of these girls going back and coaching is just as cool to me, but I think that if this past year had not been affected by COVID-19 and they were still involved with their teams, we would have 14 girls from the last four years playing at the post-secondary level. (Appendix 34 - coaching PIA 3)

Many parents and players recognize Danya's success and the dedication she puts into coaching, which is why they often seek to play for her. She has a solid track record of developing players who go on to play post-secondary basketball, with students traveling across the city to join her team:

Yeah there's been a trend and depends on who you talk to, some people get really pissed off about people going across the city to a different high school but there's been a big change in that, and people doing that and I think some people don't like me because of it but it's also I don't want to pump my own tires but I will also say I do more than lots of the other coaches do. (Appendix 34 - coaching PIA 3)

Unlike sports like hockey and soccer, which often have dedicated sport school academies, there is no specialized basketball academy in the area. Therefore, serious basketball players often seek out schools with excellent coaching. Danya's coaching success has made her high school program an attractive option for these players. She has no trouble recruiting players because she feels she has earned this reputation through the success of her teams.

Provincial Team

Danya is entering her seventh year as part of the provincial coaching staff. Her ongoing participation reflects her dedication to continually improving her coaching skills. Interestingly, she mentioned that she prefers not to be the head coach so she can collaborate with different head coaches each year, allowing her to experience different coaching styles and approaches:

Why I really enjoy coaching is that and teaching or professions or activities where you're never done learning. It's always something you can improve and get better at and there's always new ways to do things and you're always looking up; every team is different. So, you have to change your tactics and strategies for your team and that's a big reason why I

still coach provincial team and why I purposefully choose to be assistant coach and not head coach is to still constantly work with someone new and learn something new from someone every year. (Appendix 35 - coaching PIA 1)

Being part of the provincial staff provides her access to expertise she would not have acquired otherwise. She is grateful for the opportunity to learn from experienced coaches and expand her coaching knowledge:

I'd say through experience with the provincial program for sure has helped me learn by working with different people and those are people I've coached with, that is people that were coach technical directors. (group 3, question 2)

In the seven years she's been involved with the provincial program, Danya has observed changes occurring each year. Initially, when she started, all provincial coaches would gather at the beginning of the summer for a coaching seminar focusing on the Athlete Development Model (ADM). These sessions were led by Alberta Basketball's coach development lead. However, with turnover in staff, this type of seminar is no longer conducted for the coaches. Danya believes that Alberta Basketball feels that the National Coaching Certification Program (NCCP) cover the ADM material adequately enough, making it less necessary for it to be a focus for provincial coaches:

It's honestly changed throughout the years of me coaching with them. When I first started and they had [Coach S] in that role, we used to have to do a coaching seminar to start our provincial team season and she would touch on a lot of that stuff [ADM] ... I think without having that role with Alberta Basketball, it hasn't been brought in as much. The way it is by ensuring that the coaches they hire have different certifications, so you know

that because they have this certification they've gone over this stuff before. (group 4, question 1)

Danya mentioned an initiative by Alberta Basketball known as the Targeted Athlete Strategy (TAS). Under this program, specific players are identified, and their club or high school coaches are informed about the skills these players need to develop over the year:

We were provided with a big list of skills we should be covering and that sort of thing from Alberta Basketball. So that was nice to have that to look over to make sure we're kind of progressing through things ... some years Alberta Basketball has picked a group to be this targeted athlete thing, but it's looked very different every year. So honestly, I don't think there's been consistency from year to year as to what that does look like. This year we were given that list of skills and kind of what to focus on with that group. (group 4, question 1)

Alberta Basketball's initiative assists coaches in identifying key areas of development necessary for their athletes to potentially advance to the next level of play. This enables coaches to allocate the appropriate amount of time required to develop these skills. However, it also introduces tension for coaches, as they must balance the time spent on individual player development with team development:

I think the skills would be the same. It's just how they have that targeted athlete thing laid out. It's different every year, whether they pick five players or they pick 15 or they pick none. That's changing every year but whatever fall training we've had that's been through Alberta Basketball, we are given the Canada Basketball outcomes of what we should be teaching. (group 4, question 1)

Player Relationships

Danya has always been a people person. She cherishes the friendships and relationships she formed during her time as a player, considering them the highlight of being on a sports team. As a coach, Danya thrives on the energy of others, a trait she has possessed since her youth:

Yeah, I'd say for sure just the desire to create positive relationships with the girls, with the families. That's a big reason why I coach in the first place and still to this day that's kind of what the big thing that fuels my fire. (group 3, question 6)

The stronger Danya's relationships are with her players and parents, the more kids are inclined to join her team. Danya's reputation within the basketball community has led kids from across the city to travel to play for her, a testament to the positive impact she has on her players and their families:

It's like you said it's their relationships that some of them build with each other out there. It's parents talking to each other and that's one thing I won't apologize for if one parent that had a kid that played for me says yes, you should send your kid to [Danya's HS], then I know I've done something right because their kid enjoyed it. (Appendix 34 - coaching PIA 3)

Danya commented that the hardest thing she finds about coaching is saying goodbye to the players and families she has coached. After spending two to three years with them, seeing them move on is always difficult for her:

One of the hardest things about coaching is you work with kids and families for a set period of time and then they move on. Some stay in touch, some don't but that's kind of hard. It's almost like you create these relationships and then all of a sudden, like you see them every day for years, and then they're gone. So, it's almost like a weird grieving

process every year but I do feel like you constantly are getting new people in the family.

(Appendix 33 - general PIA 7)

Danya attributes her program's success to her proficiency in building relationships.

Through this skill, she established a network that effectively communicated her capabilities as a development coach:

So, I created some relationships with them and then some of their parents knew people I knew and that was just some of those connection things and then one of them was [Player H]. She played for [Coach R] and so she didn't want to go to [High School A] so Coach R was like, you should go to play for Danya and so then I remember thinking at that point with all these girls if I could just if one or two of them came, it would start something because they're just basketball players and then all six of them ended up coming separately. (Appendix 34 - coaching PIA 3)

Acquisition of Coaching Knowledge

Coaches gain knowledge from three primary sources—formal, informal, and non-formal learning. Coombs and Ahmed (1974) characterized formal learning as knowledge acquired in structured, institutionalized environments; informal learning as knowledge derived from daily experiences; and non-formal learning as structured educational opportunities outside formal education systems. This knowledge is integrated into coaches' coaching practice, guiding their approach. The following section will discuss some of the knowledge that Coach Danya has accumulated in her coaching endeavors.

Formal Learning

Danya entered university with the primary goal of playing basketball. However, after three years of experiencing both highs and lows in the sport, she found herself losing passion for

it. This shift in priorities freed up her time, allowing her to explore other interests. After she stopped playing, Danya continued attending classes but also began coaching high school rugby and basketball teams. This experience working with high school students ultimately inspired Danya to pursue a career in teaching. With a renewed focus, she earned a Bachelor of Physical Education degree with a concentration in coaching. It was during this program that Danya was first introduced to the Long-Term Athlete Development (LTAD) framework, which she continues to reference today in her role as both a coach and physical education teacher:

The general LTAD I learned about in university because I did a coaching concentration in my Phys. Ed. degree. So, I took a variety of coaching courses. So that's where I first got some certification and then just continuously, progressively throughout my coaching certifications and that sort of thing. I keep going back to it [LTAD framework] for sure.

(group 4, question 1)

NCCP Courses. Danya recently completed the Train-to-Compete (T2C) coaching modules as part of the National Coaching Certification Program (NCCP). The modules are designed to guide skill development for kids in the T2C age group (15 to 18 years old) and to assist coaches in equipping their players with higher-level technical skills along with helping players begin to specialize in specific positions on a basketball team, whether it be guard, forward, or center. Danya found this course helpful as it established a connection between Canada Basketball's Athlete Development Model (ADM) and her high school team. She noted that she had not previously focused on the *off-season* as much in terms of player development but planned to make adjustments to benefit the team and her players moving forward after completing the module:

I'm going to have to make a yearly training plan (YTP) and so just thinking about that and what that looks like and it's so hard because during high school season it's just it's you practice for a while and then it's a bunch of games crammed in and then you have these weird play stretches—break—play—break and it's all over the place but I think the way I've thought about it more is in terms of how to play around a little bit with intensity and volume depending on the time of year and then there's only so much control you have over their off-seasons but again especially with the need to be constantly playing. To try and maybe have more of those conversations around rest periods, like needing to rest and what that looks like and try and build that into the YTP. (group 2, question 2)

This formal learning experience was impactful for Danya as she was immediately able to apply the information learned from the T2C course.

Informal Learning

Danya's acquisition of coaching knowledge primarily occurs through informal learning, heavily influenced by her experience as a basketball player. Her acquisition of coaching knowledge includes other informal learning experiences such as guidance from role models, collaboration with rival coaches, and the use of video as a daily part of her coaching practice.

Playing Experience. Danya shared a significant negative experience from her first year as a university athlete. She had a male coach who she felt did not understand that berating or talking down to players made them feel bad. She mentioned that his behavior affected her self-confidence as a player:

I think sometimes it's hard for male coaches to understand how females feel when you treat them a certain way. So now thinking back to that as an adult, it was little things that

just kind of eat away at you in a way at your self-confidence. (Appendix 34 - coaching PIA 3)

Because of this experience, Danya and a few other teammates made the decision to transfer to another university as they could not tolerate being treated this way. When Danya became the head coach of her school's girls' basketball program and started developing players who were good enough to play post-secondary basketball, this male coach started to recruit her players. Danya could have easily advised her players not to go to this particular school to avoid a negative experience like she had. Instead, she repaired her relationship with him so it would not affect her players' decisions about where to play post-secondary basketball:

I'm not going to tell the whole story of how we transferred because it's long but since then I've talked to him and we've kind of made peace, which was nice because when I started coaching, he was recruiting one of my players and I thought to myself—I don't want my relationship to inhibit this person from playing post-secondary basketball. So, we got together and chatted and moved on, but I learned a lot of things about how I wouldn't want to coach, but with that being said, I would still go through all that because of the way he pushed me. (Appendix 34 - coaching PIA 3)

Danya's next head coach was more to her liking. While he was also a male coach, he employed a different communication style. The way he interacted with Danya helped her regain her confidence. Having a coach who was clear and honest with her proved to be a breath of fresh air, enabling her to grasp her status on the team and understand what she needed to do to improve. This communication style resonated with her and significantly contributed to both her personal and team success. Danya noted that this experience significantly influences how she coaches today:

I think embracing that and having a coach that was clear with me about that and honestly, I think really helped me have peace of mind and just play kind of free and I feel like I played well that year and then obviously led to us winning nationals. Just being a part of a really good team and that was huge because ... we had a bunch of good players. We didn't have one that scored a zillion points or anything like that. So, playing for [Coach S] definitely influenced me there and winning a national championship. (Appendix 34 - coaching PIA 3)

Role Models. Danya has been fortunate to have strong role models throughout her life, including two schoolteachers who have left a lasting impact on her: one in junior high and the other in high school:

The earliest one that made an impact on me was my junior high coach. I think to this day she still gives every kid a nickname and still calls them that. She'll remember someone from 18 years ago and remember their nickname that she called them ... so she was a big role model for me, as was my high school coach. At that age when you're in high school, there's all kinds of other interpersonal stuff that she just always was there for me if I needed to just talk to someone. I remember going into her office and sitting down and we had an extra special relationship. That resonates with me because I remember thinking, I want to be like her and so that was seeing a female do it while being married and having kids and that sort of thing just resonated with me and I just connected more with her.

(group 2, question 4)

Danya also found a coaching role model in her six years as an assistant coach for a post-secondary program. She holds this coach in high regard for imparting invaluable coaching skills and responsibilities off the court. Danya learned essential tasks such as recruiting players,

planning practices and seasons, and gained a deeper understanding of the dedication and work ethic required to coach at a post-secondary level.

As Danya's coaching progresses, she anticipates witnessing more players graduate and leave their mark on the world. Recently, she had the pleasure of encountering a few of them during a spring league basketball game, an experience she described with immense pride:

One of the coolest moments for me was just in spring league and I was watching a 15U game and I had four—like a coach and an assistant on both sides that were both my kids coaching against each other and it's just cool that they're now mentoring little girls, you know and that to me if I influenced any of them to also now want to be a coach or a teacher themselves, then for me that's like full circle for having had that influence in my own life. (group 3, question 3)

Danya aspires for her players to view her as a mentor, much like she regarded her past basketball coaches who played significant roles in her life. She cherishes the invaluable guidance her mentors provided, recognizing their profound impact on shaping her journey to where she is today.

Peers. One of the more unique informal learning activities that Danya engages in is coaching alongside her biggest rival when it comes to athlete development. During the season, their teams annually compete for city supremacy at the senior girls' level. However, in the pre-season, they collaborate to get their players ready for the season. She said, "When we coach our seasons, we're rivals but when our kids are training in preseason we're working together. So, you learn from them" (group 3, question 2). This collaboration demonstrates Danya's dedication to seeing her basketball players truly develop, as well as her recognition of the value of working

with others for coach learning. It is a testament to her commitment to athlete development, which is shared by her rival coach.

Watching Video. Watching coaching videos and analyzing game tapes of her own team or opponents' games are essential parts of Danya's coaching practice. With the technology available to record high school games at a relatively low cost and easy online accessibility, one of the new coaching skills that has become an asset is the ability to break down video footage. Various software options are available to help isolate specific plays for players to watch with the coach or independently. Danya emphasizes that her proficiency in using video technology enables her to identify and address her players' weaknesses effectively, ultimately making them better players:

I would say using video and how I use video to do things. I know that's very specific to the technical side of coaching, but I've learned more about it and technology has gotten better and I've just used that a lot more. (group 3, question 5)

Danya also mentioned other informal learning methods, such as observing other coaches, learning from mistakes, engaging in self-reflection, and attending coaching clinics. While no significant narratives were found to expand on these informal learning experiences, it is apparent that Danya is committed to improving as a coach through diverse channels of knowledge acquisition.

How Does Coach Danya Experience the ADM in Her Coaching Practice?

First Exposure

Danya was initially introduced to the Long-Term Athlete Development (LTAD) Model during her formal education at university. As she pursued the National Coaching Certification Program (NCCP), she gradually familiarized herself with Canada Basketball's Athlete

Development Model (ADM). Reflecting on this journey, she recalled her first encounter with the ADM:

I think it's a bit overwhelming when you aren't familiar with it and just trying to look through it and kind of differentiating between the levels and what should be different from one page to another and that sort of thing and then how to specifically apply that to your practices and your season. (group 4, question 1)

The ADM initially seemed overwhelming to Danya as she grappled with understanding the distinctions between its various stages and how to integrate this information into her daily team practices and throughout the season. However, with time and experience, Danya gradually learned to adapt the knowledge gained from the ADM into her coaching approach.

Adapting the ADM to the Local Context

Pre-Season. Once Danya grasped the organization of the ADM and understood the distinctions between its various stages, she discovered that integrating the athlete development principles into her coaching practice was not as difficult as she initially thought it would be:

Just tweaking a little bit of what the preseason looks like and ensuring that there's some physical training put in there instead of just more basketball and also incorporating things like proper warm-ups and other neuromuscular stuff injury prevention and trying to teach some of that and incorporate that for the kids. (group 4, question 2)

Her adaptation involved shifting the focus away from basketball during the pre-season and incorporating more cross-training to facilitate the development of diverse sports skills. This approach also addresses the trend of elite players training exclusively in basketball year-round, providing their players with the chance to take a physical and mental break from the sport.

Danya has also adapted to using the ADM during the season for individual training and practice sessions:

I'd say having a combination of types of training and things that you're doing in your practice. So, it can be a variety of like working on individual skills with morning shoots and then again, building on different drills that you would have to progress through different levels. So, it's like you could start something being more skill based and technique based and then add in some sort of defender to make it a little bit different and then add in more people. So, I think just the ability to do that and adapt, I think. (group 4, question 5)

Danya is referring to the ADM concept of *loading*, where a basic drill is modified to gradually increase difficulty, thereby building upon skills and concepts while simulating real game situations.

Skill Based. Another ADM adaptation Danya applies is basing her coaching approach on the skill level of her players rather than solely on their age. Given that the composition of her team changes each year with a mix of Grade 10's, 11's, and 12's, she tailors her coaching strategies accordingly:

I find with the age that I work with, the broadness of what you should be teaching at that age really depends on the skill level of the group that you have. So, for me, it's just adapting based on the group. So, I might need to adapt more as a high school coach having a bunch of grade 10's that haven't worked with me before or haven't played at a certain level before versus having a whole bunch of grade 12's. (group 4, question 3)

Danya finds the ADM to be quite adaptable, as she can always find development information within it that aligns with her players' profiles. However, she emphasizes the

importance of understanding her players' current capabilities and potential for future growth in order to effectively utilize the ADM:

Generally, it falls in the right spectrum, but I mean the ADM is specific but it's also not. So, it's like you can adapt—you can adapt those skills along the spectrum depending on where kids fit. (group 3, question 4)

Danya's adaptations are driven by her commitment to improving her players' skills. As she continues to develop as a coach, she embraces change and is willing to take risks to enhance player development. With a growth mindset, Danya consistently seeks opportunities for improvement, both on and off the court, making these adaptations a natural extension of her coaching philosophy and personal beliefs.

Barriers to Knowledge

Overtraining. Danya has noticed a trend where young athletes are beginning to specialize in one sport at an earlier age. She believes that athletes and their parents feel that continuous year-round training is necessary to keep up with their peers:

I'm continually working on allowing for the kids and it's been a struggle for the last number of years. I think a lot of sports have turned into the point where you can't be a multi-sport athlete where there's stuff going all year long and for me, it's sometimes hard because you feel, and I know parents feel this way and kids feel this way. If you don't do something, you're losing traction compared to other people. (Appendix 32 - general PIA 1)

Danya recounted a situation where a parent posted on social media about taking their child to personal training. She believes that when other parents see such posts, they feel

pressured to do the same for their children, fearing that their children will fall behind. This, in turn, contributes to the pressure on young athletes to engage in year-round training:

I think it's a comparison and maybe I would think social media has a bit more to do with it too and if someone's on a team or playing something or training with someone, the parent can post it, or someone posts it, and everyone sees it and you're like oh that person's training at 7 am I should be training at 7 am. It's this weird competitiveness that sometimes isn't healthy. (Appendix 32 - general PIA 1)

Danya tries to counter this training year-round trend by incorporating more cross-training in her pre-season routine with her team. She is trying to let her players take a break from basketball:

One thing I really try with our pre-season is to really incorporate some physical training. That's something in the last few years that I really pushed and that you don't need to be playing as much basketball or maybe your basketball looks different. That it's okay to work on other aspects of your body and your mind and that sort of thing. So, I think that's something I'm working on too. To understand balance and what that looks like in that you can still be dedicated and elite without needing to spend every second of every day engaged in it. (Appendix 32 - general PIA 1)

Danya is also troubled by the trend she's observing, where children from families who can afford extra training are more likely to be recruited for post-secondary teams. She believes this creates an unfair advantage, potentially excluding talented players from families who cannot afford such opportunities:

I feel like some basketball is turning into more of a pay-to-play type thing where if you can pay for the trainers, if you can pay for the training, all this stuff, and then—especially

on the girl's side—it's becoming more of that where you're successful. Don't get me wrong, it's talent and its work ethic and it's all that but a lot of those kids have parents that can afford it and then that's why they can do it and then maybe the kid of the parent and the parent who can't afford it sees the other ones doing it and they think they're being left behind. (Appendix 32 - general PIA 1)

Life balance is integral to Danya's well-being, as evidenced by her previous struggle with maintaining a healthy balance between coaching and personal life. Recognizing the importance of balance, Danya continually seeks to adjust the basketball season and off-season schedules to ensure that players maintain a healthy equilibrium between school, basketball, and family commitments. This reflects her commitment to holistic player development and emphasizes the importance of nurturing overall well-being alongside athletic pursuits.

Local High Schools. Danya observes a general lack of emphasis on player development in local high schools, despite many players progressing to compete at post-secondary basketball after completing high school. With few exceptions, player development is not a priority in most high schools. As a result, players often seek development opportunities outside of high school or turn to coaches like Danya, who prioritize player development:

They've [high schools] had good coaches that have been with their programs and then they can't or don't get them a job and they've had so much transition in who's coaching their teams over the years. Can you blame kids for not going there when they don't know who is going to be coaching them? It's tough. (Appendix 34 - coaching PIA 3)

True to her emphasis on relationship building, Danya stays in regular communication with post-secondary coaches who often try to recruit her players for their teams. Through these interactions, she senses that post-secondary coaches are frustrated with high schools that do not

prioritize hiring dedicated basketball coaches. However, Danya recognizes that schools primarily serve an educational function, and resources are directed toward academic objectives rather than athlete development. She advocates for greater efforts to involve high schools in fostering the athletic development of basketball players.

Immediate Application. Danya believes that the ADM is a valuable resource, but to fully benefit from it and understand its applicability to your coaching context, it needs to be complemented with other learning sources:

I would say that just reading it is one thing but then learning how to apply it specifically and then actually doing it is another. So the biggest thing, I would say, is a combination of learning in a classroom style environment, combined with practically learning and also observing programs that do use it ... if anyone has the ability to do that; to learn from the best people at your age you coach with then you kind of know what you're supposed to be doing and what that looks like. (group 4, question 8)

Danya emphasized the importance of not only understanding theoretical concepts contained in the ADM but also applying them practically. This is consistent with Danya who values learning through a combination of classroom instruction, hands-on experience, and observation of successful programs.

Misguided Priorities. In the past seven years with Alberta Basketball, Danya feels that they place too much emphasis on game results as a measure of development at a provincial level. True to Danya's coaching perspective, she believes that this approach is misguided, as, from her experience, practice is more conducive to athlete development:

For me, the one thing I find that we are lacking here is and I do think it's a combination of the lack of multi-sport athletes and spending too much time on the wrong things. Other

provinces do a much better job of physical training and strength and those physical aspects of things. Whereas I think in Alberta, it's too much time spent wasted on just playing and I think that's where we failed in the athlete development model. (group 4, question 7)

Danya is referring to the recommended balance between practice and competition ratios outlined in the Athlete Development Model (ADM). For the age group she works with at the provincial level (16–17-year-olds), the recommended training to competition ratio is three to one, translating to 75% training and 25% competition. This is one area that Danya believes can be easily remedied by Alberta Basketball to aid in player development.

Implementation of ADM

In addressing the identified barriers, Danya implements a couple of strategies, including adjusting her season to address overtraining and assisting players in developing the skills necessary for post-secondary basketball.

Changing the Schedule. Danya has taken several measures to address the issue of overtraining among her players. Firstly, she adjusted her high school season by reducing the emphasis on basketball during the pre-season, prompted by her observation of players engaging in year-round training to secure basketball scholarships. Additionally, she implemented the Yearly Training Plan (YTP) tool, learned in an NCCP course right away in order to optimize her understanding of the tool and to maintain the balance between competition and training during the season. Danya is currently focused on determining the appropriate amount of rest for her players during the off-season. These adaptations aim to prevent burnout and injuries among her players.

Staying Proactive. In addressing the barrier of the lack of basketball athlete development at the high school level, Danya maintains regular relationships with post-secondary coaches who are actively recruiting her players. By building strong relationships with these coaches, she gains firsthand knowledge of the skills they seek in recruits. Additionally, her involvement with Alberta Basketball and their Target Athlete Strategy (TAS) allows her to stay informed about the skills emphasized by provincial and national programs for the upcoming year. Canada Basketball, in particular, monitors the international scene to identify emerging styles of play observed in international tournaments. This proactive approach helps Danya tailor her coaching and player development efforts to align with the evolving needs of the sport at higher levels.

In both scenarios, Danya focuses on teaching the desired skills that are needed by post-secondary and national programs, rather than attempting to cover every recommended skill in the ADM. She prioritizes the skills that are most relevant and beneficial for the growth of her players ensuring that her coaching efforts are targeted and effective.

ADM Success. Danya believes that the implementation of the Athlete Development Model (ADM) at the provincial level has been successful. The Alberta girls' program has not been successful for over 10 years, but recent achievements by the team can be attributed to the athlete development philosophy embraced by Alberta Basketball.

I guess a specific example would be seeing a group in Alberta come up through high school and provincial teams and be successful. So, our 17U group last year got silver at nationals. That's the best they've done in a long time and a lot of those girls have done a lot of things together and moved up together so the fact to be successful at that national stage is—you'd hope would be indicative of not only the players but of our development in Alberta too. (group 4, question 6)

Conclusion

Danya expressed surprise at the open-endedness of the semi-structured questions posed during our interview. She mentioned a few times about the broadness of the question, “Again that’s a broad—I’m trying to ... is it meant to be that broad?” I sensed that she might have preferred questions that did not require her to share too deeply about her life outside of coaching basketball. This interview served as a demonstration of how Pre-Interview Activities (PIAs) and general-to-specific semi-structured questions can encourage participants to share more stories, providing valuable insights into their life experiences.

Danya views the Athlete Development Model (ADM) as a valuable and powerful tool for player development, provided it is used with proper guidance. Her perspective on the ADM has been shaped by her coaching and life experiences, including her role with Alberta Basketball and the success she has seen within her own high school program. Growth is a core value for Danya, encompassing goal setting, seeking learning opportunities, and being open to change. The ADM facilitates these aspects, but what matters most to her is ensuring that players have a positive experience under her coaching and continue their involvement in basketball after moving on. In this regard, the ADM serves as a guiding framework for her approach.

Chapter 10: Analysis of Narratives: Discussion, Findings and Implications

This chapter explores the narratives of all coaches to investigate their utilization of the Athlete Development Model (ADM) within the framework of the Knowledge-to-Action (KTA) framework. While the study avoids seeking generalized findings, its focus lies in uncovering shared experiences among six coaches deeply committed to their coaching endeavors. Through a comprehensive examination of their narratives, this chapter aims to illuminate how these coaches navigate the complexities of coaching, shedding light on their approaches to athlete development within the context of their life experiences. The ultimate goal is to provide insight into the research question that motivated this study: *What has been the experience of coaches in incorporating Canada Basketball's Athlete Development Model into their coaching practice in the Province of Alberta?*

The chapter is organized by an introduction to the participants in the study and their initial thoughts about the ADM when they were first exposed to it. In the 'Adapting the ADM to Local Context' section, I introduce several key themes or "Big Ideas" from the narratives: ADM is not for post-secondary athletes, selective adaptation of the ADM, and ADM as a communication tool. Following this, the chapter will discuss the findings about the barriers the coaches feel they needed to overcome to use the ADM, as well as external barriers that need to be addressed to encourage more Alberta coaches to use the ADM. Additionally, it will cover the implementation attempts by three of the coaches to share knowledge of the ADM with other coaches in the community. The chapter will conclude with coaches' reflections on athlete development, emphasizing its holistic nature beyond mere skill acquisition. Finally, it will explore the implications of these findings and propose avenues for future research.

Participant Information

The six participants in this study were almost all born and raised in Alberta, with the exception of one coach who has since made Alberta their home. The purposeful sample consisted of three male and three female basketball coaches, including two who coach at the high school level and four who coach at the post-secondary level. Among them, one male coach leads a women's team, while the others coach teams of the same gender as themselves.

Five of the coaches have a bachelor's degree in post-secondary education, while two hold a Master's degree in coaching. Notably, all coaches with post-secondary education also have degrees in education and have either worked in the K-12 system or continue to do so. All participants have completed their National Coaching Certification Program (NCCP) education, spanning from Training to Train (11–16-year-olds) to Train-to-Compete (15–22-year-olds) stages. Additionally, each of the coaches has worked with provincial teams, with their involvement ranging from one to eight years.

Participants' Initial Introduction to the Framework

The methods by which Canada Basketball's Athlete Development Model (ADM) is introduced to basketball coaches can vary. In this study, three of the coaches were introduced to the ADM through NCCP courses. Two of these coaches were very receptive to the ADM. The third coach was also receptive but unclear about how to apply it to his coaching practice after taking the courses. Of the remaining three coaches, one encountered the LTDSFA framework during her post-secondary studies, while the other two were introduced to the ADM through fellow coaches.

Coaches Blaire, Alex, and Ken initially encountered the ADM through the NCCP courses, which they all found useful. Coach Alex mentioned that the NCCP program allowed

him to deeply explore the LTAD/ADM frameworks. Each NCCP module integrated aspects of both frameworks, enabling Coach Alex to gain a comprehensive understanding:

... but where I really, really learned it [ADM] was the NCCP coaching certification. Because it became very clear what they were in those courses and for a coach, for me, going through each one of those modules and trying to get my coaching certification, that's where I learned it and understood it and could apply it and because it was so encompassing ... I don't know how else I would understand it fully—unless it was immersed into it through the NCCP coaching certification. (Coach Alex - group 4, question 1)

The third coach, Ken, found the information provided about the ADM in the NCCP course useful but was left wondering how he could apply it to his team, as he had hoped for more practical information.

Coach Danya was introduced to the LTDSPA framework through her undergraduate degree as a coaching major:

I learned about it [LTDSPA] in university because I did a coaching concentration in my Phys. ed. degree. I took a variety of coaching courses. So that's where I first got some certification and then just continuously, progressively throughout my coaching certifications. I keep going back to it for sure. (Coach Danya - group 4, question 1)

Coach Danya's introduction to the ADM came later, although the exact details of when she learned about it were not mentioned in the interview.

Coach Owen was introduced to the ADM through a coaching mentor who sought to educate basketball coaches during the initial rollout of the framework in the early 2010s:

So [Coach D] would come up here and he would talk to me about the long-term developmental model and show me it. I got a binder from him and then he was like, I'm looking at doing some coaching education and he said would you like to help out?

(Coach Owen - group 4, question 8)

Similar to Coach Owen, Coach Sarah learned about the ADM through another coach when she was an assistant coach for a youth development club. She recalled that the head coach of the program developed the teaching curriculum based on the ADM framework, which she found impressive:

It really resonated with me, because I think it goes along with my philosophy of coaching which is—you have to walk before you can run. You know I think there's so many skills, where there are coaches who are all they're doing is teaching their kids how to press and play zone, and then we get them in high school and they're like, I don't know how to play man to man defense and it's like oh god. Yeah, it resonated with me in terms of those pieces. (Coach Sarah - group 4, question 4)

Trudeau and Charest (2020) identified that coaches typically learn about the LTDSFA framework from four main sources: 1) formal coach education (NCCP courses), 2) mentorship from other coaches, 3) post-secondary education, and 4) observing other clubs. The participants in this study corroborate these findings on how coaches acquire knowledge of the ADM except for observing other clubs which was not discussed by any of the participants. This study also aligns with Trudeau et al. (2021) findings that more experienced coaches tend to possess a solid understanding of the LTDSFA framework because they have had many years of exposure to the framework via workshops as well as being able to discuss with other coaches about the ADM.

Banack et al. (2012) found in their cross-country coaching study that NCCP courses effectively imparted LTDSPA knowledge to coaches. This aligns with the experiences of three of the coaches in the current study.

Given that this study focused on coaches with provincial team coaching experience, it is reasonable to expect that they would be familiar with the LTDSPA and ADM frameworks, as a certain level of NCCP certification is required before they can be considered for these provincial team coaching roles.

Future research related to coach education could explore whether youth basketball coaches are knowledgeable about the ADM and if they acquired this knowledge from the four learning sources outlined by Trudeau and Charest (2020). Additionally, it could assess the efficacy of athlete development principles' transfer to youth coaches in NCCP courses. Frankish et al. (2012) suggested that coach education is linked to how coaches understand the information in the ADM.

Coaches' Initial Thoughts of the ADM

One of the open-ended questions asked coaches what it was like for them when they first learned about the ADM. Responses to this question were interesting because their previous experiences elicited varying answers. For two of the coaches that had post-secondary playing experience, their initial responses to the ADM differed: one was not impressed, and the other was impressed. Meanwhile, two of the coaches who were working with younger players had a favorable initial response while three of the coaches found the ADM overly complex upon their first impression.

For Coach Sarah, who played seven years of elite-level basketball under high-quality coaching, her initial impression of the ADM was that it contained nothing new to her. The information in the ADM aligned with her existing coaching beliefs:

I think, for the most part, it was things that we had been doing or stuff that I knew. It wasn't really earth-shattering. So I don't know that I really—it didn't change my life.
(Coach Sarah - group 4, question 1)

Coach Blaire, who also played eight years of basketball at an elite level with high-quality coaching, viewed the ADM favorably, believing it would provide a unified direction for the development of basketball across the country. Having witnessed the success of the Australian program, Blaire was pleased to see a similar initiative like the ADM in place for Canada:

I think my first experience with it and learning from it, learning about it and its purpose was it was really positive because I thought that one of the biggest things missing in the coaching world was some sort of direction in terms of here's what coaches should be teaching, here's the certain ages the type of things that kids should be learning. So I thought it was awesome. (Coach Blaire - group 4, question 1)

Coach Blaire also found the ADM useful when coaching young players. Proper development of skills and techniques is important to her, as she believes in teaching it right the first time:

I certainly, in my early days of coaching and particularly coaching younger age groups, used it [ADM] as a reference point and a guideline in terms of—okay at this age, these are the types of skills we should be doing, these are the type of concepts we should be talking about, this is where our athletes should be in their development. (Coach Blaire - group 4, question 1)

Coach Owen agreed with Coach Blaire about the value of the ADM in developing younger athletes. He explained that he incorporates it into his club program because it provides a clear and structured approach to teaching the essential skills and techniques, which he believes are crucial for the athletes' overall growth and success:

I think it's how it's laid out with sequential groupings or levels. Just so that you can move from one phase to the next phase to the next phase, the order sequential development with regards to the ADM. So you have an idea of where kids should be or what they should be doing for each phase. I think that's the biggest thing for these athletes that you could get from the ADM for a coach. (Coach Owen - group 4, question 5)

Coaches Alex, Danya, and Ken had significantly different experiences with their initial exposure to the ADM. Both Alex and Danya found the model overly complex and set it aside for a time:

I think it was overwhelming because there was a lot there, and you go whoa, I hadn't really thought about it and as I said, I probably really got into it—I would say, probably, it was already going to be about three or four years into my career is when I really discovered it. (Coach Alex - group 4, question 1)

I think it's a bit overwhelming when you aren't familiar with it and just trying to look through it and kind of differentiating between the levels and what should be different from one page to another and that sort of thing and then how to specifically apply that to your practices and your season. (Coach Danya - group 4, question 1)

This initial impression of the LTDS/ADM being overwhelming is raised by Beaudoin et al. (2015), Fiander et al. (2013), and Van Kooten (2016) where coaches in their studies found the model too complex to apply to their respective sports.

Even when coaches take NCCP courses, they may struggle to understand the ADM without the ability to apply its concepts. Coach Alex often observes coaches attempting to apply athlete development principles without considering whether they are appropriate, and instead, imposing them on their athletes:

I don't know if those coaches understand the model, but I see it happening. I'm not sure if they're looking at the model applying it that way or if they're just making up their mind and doing it, regardless of the model. (Coach Alex - group 4, question 7)

For Coach Ken, his expectations regarding the ADM were quite different from the information he initially encountered:

I guess it was a lot different than I thought it would be quite honestly. Like I said when you first get into it, you thought it was going to be—well here's the x's and o's, and here's the drills you're going to run if you were coaching 12 year olds and here's what you're going to do if you're coaching university players and so it still fits with those age categories as you progress through, it's not really about that at all. So coming to understand what it really was about and it was about that development, more so than about trying to win at those levels. So that was definitely eye-opening for me as I got into it. (group 4, question 1)

Banack et al. (2012), Callary et al. (2012), Frankish et al. (2012) and Trudeau et al. (2021) emphasized that coaching education, playing experience, and compatibility with personal values shape a coach's attitude toward the ADM. For Coach Sarah, her extensive playing experience left her unimpressed by the ADM, while Coach Blaire, who had a similar playing background, found the model impressive because it aligned with her value of cultivating a strong basketball culture.

Beaudoin et al. (2012), Brooks (2016), and Whittaker-Campbell (2017) highlighted that the strength of the LTDS/PA/ADM lies in its straightforward language and consistent information across all age levels. This clarity makes the framework particularly appealing to Coach Owen and Coach Ken who said, “it’s kind of hard to screw up if you just follow along, quite honestly” (group 4, question 7).

However, other research presents a contrasting view. Many authors (Beaudoin et al., 2012; Black and Holt, 2009; Chevrier et al., 2016; Fiander et al., 2013; Frankish et al., 2012; Lang and Light, 2010; Van Kooten, 2016) mention that the LTDS/PA/ADM can be challenging to understand and implement. Coaches in these studies often choose one of two paths: either abandoning their attempts to implement it or seeking additional resources to integrate the athlete development principles it promotes (Frankish et al., 2012). Coaches Alex, Danya, and Ken persevered in their efforts to incorporate the ADM into their current coaching practice. Coach Ken added that the ADM resonated with his search for knowledge acquisition:

I got exposed to that curriculum and it kind of completely changed the way that I thought about it and still influences it now ... but you know way more on decision training, way more on game like situation, small-sided games. These things that I hadn’t really thought of before. (Coach Alex - coaching PIA 5)

Future research avenues could explore resource accessibility and coach support for effective ADM implementation following its introduction. Investigating basketball club and youth coaches’ perspectives upon their initial exposure to the ADM could provide insights into whether the ADM offers too much information, potentially causing coaches to ignore it. Additionally, research could examine how past experiences and personal values shape coaches’ initial understanding of the ADM.

Adapting the Athlete Development Model to Local Context

In my study, I categorized the large number of narratives about coaches adopting the Athlete Development Model (ADM) into three overarching themes or "Big Ideas": ADM is not for post-secondary athletes, selective adaptation of the ADM and ADM as a communication tool. Appendix 36 presents a matrix table illustrating how I organized these "Big Ideas" alongside the coaches' narratives and my interpretations of the underlying stories.

Of the six coaches included in the study, five incorporated the ADM into their regular coaching practices, while one coach, Sarah, preferred not to use it, citing a lack of perceived benefit for her players' advancement to higher levels of competition. Initially, the five coaches who adopted the ADM based their adaptations on player skill level rather than age. Subsequently, the adaptations varied among the coaches.

Coach Owen seamlessly integrates the ADM into his physical education classes, practice organization, and his team's pre-game routine. In contrast, Coach Alex and Danya have modified their off-season team and planning regimens to align with ADM principles. Additionally, Coach Blair and Owen have specifically tailored their youth club programs to the ADM framework.

Interestingly, Coach Alex stands out as the only coach who utilizes the ADM as a communication tool, albeit exclusively with his assistant coaches, rather than with athletes or parents.

ADM is Not for Post-secondary Athletes

Coach Sarah is the only coach that said that she does not use the ADM at all. She highlights a couple of reasons for this. The first is that for the level of athlete that she currently coaches, Learn-to-Win (18-23 years old), following ADM principals will not make them become better basketball players:

I think with a lot more time spent around it; my perspective is that it really affects younger athletes than what I deal with for the most part. The reality of being university coaches, there's not a whole lot of kids that are unable to—you know they're pretty much developed at that point. (Coach Sarah - group 4, question 1)

Neto et al. (2021) conducted a study that applied the LTDSOA framework to the area of fitness training of post-secondary rugby players and found that it made very little difference to their fitness level. This is what coach Sarah believes as well.

The second reason she hesitates to use the ADM is that for national level assessment camps, assessors are not looking at whether the players possess the skills that are listed in the ADM, instead they look for different attributes. Sarah noted:

[I've attended] a few national team camps, and they don't think about it at all. They're looking for the best athlete, kid, work ethic, the regular things that you and I would look for. They don't have an ADM out. (Coach Sarah - group 4, question 2)

Whittaker-Campbell (2017) found that the participants in her study (coaches and administrators) felt the ADM was designed for widespread use by the general population, rather than specifically for further developing already elite players.

For Coach Sarah, there is little benefit in applying the ADM to her current role as a post-secondary head coach. Instead, she would rather spend her time and energy on trying to win a league championship and developing her players' skills such as leadership, communication and responsibility, which will be useful for them outside of basketball. Sarah does acknowledge that the ADM is effective and does recommend it be adopted for coaching younger age groups. The lack of long-term studies on the effectiveness of the LTDSOA/ADM does not give Sarah

confidence in adopting the framework herself. She noted that even if players are developed according to the ADM guidelines, there is no guarantee they will become elite athletes:

I'm sure that there are things that they're saying that Olympic level athletes have but it's hard to look at a kid and be like hey—if you do this, this and this you're going to be in the Olympics. It just doesn't work like that. (Coach Sarah - group 4, question 5)

Sarah has made the decision to not adopt the ADM mainly because following the recommendations for the Learn-to-Win age group will not make them better basketball players. Sarah's decision to forgo using the ADM is based on the age of her players and her belief that using the ADM will not improve their basketball skills.

Selective Adaptation of the ADM

The other five coaches chose to incorporate the ADM according to their local context, focusing not on age but on the level of skill their athletes possess. Instead of strictly following age-based guidelines, they selectively use aspects of the ADM that align with their coaching goals and the specific needs of their players. This adaptation is described in Frankish et al. (2012), which found that cross-country coaches were able to select the aspects of the LTDSOA that best suited their athletes' needs. This flexibility made the coaches more inclined to incorporate the LTDSOA into their coaching practice. Coach Alex and Ken had this to say about how they adapt the ADM to their specific context:

I'm coaching Learn-to-Win (L2W) athletes at the college level, but I knew I was at Train-to-Compete (T2C) level, so I had to try to make sure that I was being consistent with what was in T2C because that wasn't going to be a full picture. If I started to kind of cherry pick what I wanted from L2W, I feel like it will lose consistency or if I was trying

to force them to be a Learn-to-Win team, but we don't have the basics that are going to transition us to get there—then it's not going to work. (Coach Alex - group 4, question 4)

Well, kids at ages are often similar and that's why we do have this. Everyone's group of athletes is going to be at a different point in their skill acquisition in their athletic abilities in their growth, their physical growth, they're going to be at all different stages of those things, regardless of their age. (Coach Ken - group 4, question 5)

You can take a basic two on one full court drill and turn it into all kinds of different things and it's still basically the same drill, but it's how have you adapted that drill to fit the context. How have you manipulated the parameters to emphasize something in particular that you want your players to work on and that you want to tie into your larger strategy? ... so the drill itself aren't what's necessarily important but how to know what to do with them. (Coach Ken - group 3, question 8)

Some of the other ways that coaches have adapted the ADM principles include modifying the pre-game routine, adjusting the pre-season regimen, altering practice structures, and tailoring programs for their club teams.

Coach Owen has changed his pre-game routine to include a dynamic warm-up which is recommended in the ADM instead of his previous static stretching routine:

Warm-ups are the primary aspect that I've changed, for example, starting with warm-up activity games going into dynamic warm-ups depending on the level of kids that we're dealing with and moving up to the next level. (Coach Owen - group 4, question 3)

Danya has changed her team's pre-season routine to follow ADM recommendations about cross-training, rest, intensity, and volume:

... it's so hard because during high school season it's just it's you practice for a while and then it's a bunch of games crammed in and then you have these weird play stretches—break—play—break and it's all over the place but I think the way I've thought about it more is in terms of how to play around a little bit with intensity and volume depending on the time of year and then there's only so much control you have over their off-seasons but again especially with the need to be constantly playing. To try and maybe have more of those conversations around rest periods, like needing to rest and what that looks like and try and build that into the YTP. (Coach Danya - group 2, question 2)

Coach Danya also focuses on the training-to-competition ratio. She believes in the importance of practicing as a measure of development rather than competition:

Any good team is going to practice more than they play. So what are you getting out of your practices and so some people will say—well, they [players] could get way more playing time at this other school. They could play 38 minutes a game. Yeah, but at this school, they're playing 18 minutes a game but they're quality minutes, and then every practice they're having to guard another one of the best kids in the city and that's where they're getting better. They're not getting better at playing another crappy team for 38 minutes. They're getting better by being pushed every day. (Coach Danya - coaching PIA 3)

Coach Alex also made an adjustment to his training to competition ratio and uses the ADM recommendations as a benchmark on how he is doing following those recommendations:

I think what it did was when I look at the level I was at and they have percentages of how much should be in each level. I would take my season planning, I would take what I had done in the past year and sort of check it against it. So that's maybe where it changed—

like maybe I didn't have enough technical or I'm not planning to have enough tactics in here, or what am I defining as a tactic or whatever, and so I think in my planning is where it had its most impact. (Coach Alex - group 4, question 2)

Chevrier et al. (2016) focused on the training-to-competition ratio and found that volleyball coaches struggled to meet the recommended ratio due to external factors such as gym availability and league schedules. For coaches Danya and Alex, the exact training-to-competition ratio is not a primary concern, as long as it is not excessively imbalanced in either direction.

Coach Owen operates a basketball academy with players as young as seven years old. For him, he has already seen the benefits of adopting the ADM with his academy players:

When I first started, it was interesting because I think because I'm from a small community, I find that a lot of the kids don't have the same access to coaches or higher-level trainers and as a result, what I'm doing is basically the basics. So, for myself, it [ADM] wasn't a big shock. I didn't find it too big of a jump or change going to the ADM and as a result, I took a lot of the different drills and activities that they did. (Coach Owen - group 4, question 1)

Coach Blaire grew frustrated with players who joined her post-secondary team lacking proficiency in the most fundamental basketball skills:

You do a shell defensive drill and we're doing something similar in early practice and the ball. She was on the weak side guarding the girl on the weak side and so the ball over here and she's just glued to her check, and I was—what wait a minute—what are you doing? Well, I'm covering my girl and I'm like well, but the ball is over here. She's like yeah. What are you doing? Guarding my girl ... well in my high school I just always

guarded the other team's best player, and my job was to not let her catch the ball. (Coach Blaire - group 4, question 3)

She took action and adopted the ADM recommendations with her 15U and 17U summer club teams, achieving positive results:

So, we have our 15U and 17U teams and we have committed to stick to the basics and really focus on skill development. So, I would say, in a sense, in those programs, we really do stick to the basics of the ADM. At 15 years and under, what are the things that they should be working on? At 17 years and under, what are the things that they should be working on? Helping young athletes make that transition prepares them to make that jump to the next level because the university coaches felt that they were missing something along the way and putting them in this environment would help. (Coach Blaire - group 4, question 3)

Coach Owen adopted ADM recommendations by altering the way he conducted his daily on-court practices with his high school team:

How I've organized my practices definitely has [changed]. Before I wasn't so much of an organizer, I was a little bit disorganized or an 'on the fly' coach and played it by ear coach but now it's more of a scheduled organized approach. Just so that I can break things down, especially using the Canada Basketball models that they have for planning. So, I think that scheduling has been improved from my perspective and organization definitely from my perspective, as the types of drills I'm putting into place. (Coach Owen - group 4, question 3)

Coach Danya adopted ADM recommendations by modifying how she structures her pre-season activities:

Just tweaking a little bit of what the pre-season looks like and ensuring that there's some physical training put in there instead of just more basketball and also incorporating things like proper warm-ups and other neuromuscular stuff injury prevention and trying to teach some of that and incorporate that for the kids. (Coach Danya - group 4, question 2)

ADM as a Communication Tool

Only Coach Alex has utilized the ADM as a communication tool, referencing it when speaking to his assistant coaches with the players as a group:

Realising what the elements look like in all of my planning then explaining it to my staff and making sure that they have an understanding and giving them the model to look at and then I think in a way of explaining it in some way to the athletes, maybe not as technical as here's the what you should be at this development model but here are the things that we're going to focus on the here's why and a lot of that ties directly back to the LTAD. (Coach Alex - group 4, question 5)

Alex refrained from referencing the ADM during one-on-one individual meetings with his players, as he worries it might make them feel inadequate:

I don't think I've ever shown it to them [players]. I'm not sure why I haven't but I don't think I have because I would also say this too—I guess why I wouldn't do it is—I don't know that it's always all applicable. There are a couple of things that I think you have to—you have to pick from other levels so maybe I don't want to stick them in a box or make them think that they're completely short of something because they're not all the way there. (Coach Alex - group 4, question 5)

Coach Blaire does not reference the ADM either in her one-on-one meetings with her players:

We have conversations about it but not in the context of—this is what the athlete development model says you should be doing so this is why we’re going to work on this now. It’s more in terms of our own context—this is the action we run—in order to execute this action, you have to have these skills, or you have to have this decision-making ability. Therefore, we’re going to make sure you’re good at those things, so you can execute this action within the bigger picture of what we’re trying to achieve as a team. (Coach Blaire - group 4, question 5)

The coaches in this study did not view the ADM as a communication tool. Other studies (Black & Holt, 2009; Brooks, 2016; Frankish et al., 2012; Norris, 2010) praise the LTDSOA for its effectiveness as a stakeholder communication tool. Black and Holt (2009) discussed resources created by the PSO for cross-country skiing coaches and parents to understand how the LTDSOA framework benefits athlete development. However, such resources are lacking for basketball coaches, parents, and players in Alberta forcing all to find their own way to learn more about the ADM. This raises the question of whether the ADM is currently designed for coaches to communicate with each other excluding other stakeholders.

Further research could explore different methods of sharing the benefits of the ADM with stakeholders, including parents and athletes. Holt et al. (2018a) investigated the use of partnerships and social media as a way to share knowledge of the LTDSOA to a broader audience. Investigating why athletes are uninformed about the ADM could shed light on whether players prefer to focus solely on playing while leaving development concerns to the coach or if there is a perception that athletes lack the maturity to understand the broader athlete development picture. Future studies could also examine young athletes’ awareness of the LTDSOA/ADM and how they feel they could be more actively involved in their own development process.

Barriers

The KTA framework (Graham et al., 2006) defines barriers as what coaches have had to overcome to further adopt the ADM. Two main barriers were identified by the coaches. The first is that the ADM, at first glance, appears complex (Beaudoin et al., 2015) and overwhelming, as expressed by four of the coaches. The second barrier is that two coaches noticed their players are involved in basketball year-round. This focus on one sport is not recommended in the ADM, which values multi-sport activities for young athletes.

Upon first exposure to the ADM, Coaches Alex, Blaire, Danya, and Ken found it complex and overwhelming which has been a common experience for coaches in other sports (Beaudoin et al., 2015; Fiander et al., 2013; Van Kooten, 2016). To overcome this barrier, coaches had to find ways to learn more about it in order to integrate it into their coaching practice.

For Coach Ken, he was able to take a deeper dive into the document to understand how he could apply the recommendations. His preference for book learning allowed him to sit down and digest the information more effectively.

Coaches Alex, Robyn, and Blaire tackled the complexity of the model through formal learning. Robyn and Blaire enrolled in the Master's of Coaching program, where they gained intimate knowledge of the ADM through various assignments and projects. Similarly, Coach Alex signed up for additional NCCP courses that required him to use the LTDSPA/ADM for his assignments and projects. Their roles as post-secondary coaches motivated them to thoroughly understand the ADM. However, what all these coaches needed was more time—time to grasp the objectives of the document and explore how it could be applied to their coaching practices.

Coach Danya and Owen have observed a rise in injuries among their players. As high school coaches, their basketball season typically spans from the middle of November to the middle of March. They attribute the increase in injuries to year-round basketball training. The ADM advocates for young athletes to engage in various sports to develop a range of physical attributes such as strength, endurance, agility, and speed. Concentrating solely on one sport heightens the risk of overuse injuries. Danya and Owen speculate that this shift towards year-round training is primarily motivated by the desire to secure post-secondary athletic scholarships:

I think that they're doing that all year round as well and we're seeing more and more injuries at the high school level, as well as university or college level for sure. I think it all stems from intense competition where competition is the main outcome and some parents go over the top with that competition. If you want to get a scholarship, you have to train year-round. (Coach Owen - group 2, question 2)

It's been a struggle for the last number of years. I think a lot of sports have turned into the point where you can't be a multi-sport athlete where there's stuff going all year long and for me, it's sometimes hard because you feel, and I know parents feel this way and kids feel this way. If you don't do something, you're losing traction compared to other people. (Danya - general PIA 1)

To overcome this barrier, Owen and Danya have adjusted their relatively short high school season to make sure they do not contribute to any overuse injury that may already exist in their players.

Club Basketball System

All coaches in this study felt that the club basketball system currently in place in Alberta presents a significant barrier to using the ADM as a guide for all levels of coaching. From their

perspectives as post-secondary and provincial-level coaches, the general consensus is that club team coaches do not adhere to ADM principles for various reasons. They place too much emphasis on "winning" rather than athlete development, as winning leads to attracting more players and generating more revenue. Coaches also feel that Alberta Basketball needs to do a better job of requiring clubs to expose their coaches to ADM. Additionally, they believe that there is not enough practical information in the ADM for club coaches to want to use and that NCCP courses may be too costly for volunteer coaches.

Coach Ken and Blaire reference this focus on winning by club basketball coaches as they observe tournaments across the province:

There are still lots of coaches, who don't buy into this model, and who still are very competition/talent-driven. They want the best players all the time ... what I see quite often in some of these coaches is—I'll just get this really good club travel team together.
(Coach Ken - group 4, question 7)

They just miss out on that key developmental step because the end result is winning and winning is exciting and fun. They think that it's okay and coaches sometimes think about their reputation, and I wonder what their motivation or purpose behind it is because they are now coaching to win games and attract athletes but they're missing the developmental piece. (Coach Blaire - group 4, question 1)

One of the reasons that prevent club coaches from using the ADM is that clubs need revenues, and in order to attract players, they need to be seen as successful and play in top tournaments. Winning is considered a success for many people in sports. Coach Blaire comments that this is not necessarily the best choice for players who want to progress to the next level:

I've seen club programs that are wildly successful, and their programs win a ton of games and they advertise that and it attracts people to their program and they [players] have a really great experience, which is awesome. Which is what sport should be but none of those players make it to the next level. They go on to play high school and they're okay high school players but none of them make it to the next level because they've never had the chance to develop skills to get there. (Coach Blaire - group 4, question 2)

The focus on winning is discussed in Chevrier et al. (2016) and Millar et al. (2020), who also felt that clubs and coaches placed too much emphasis on winning. Beaudoin et al. (2015) raised concerns about a sports' organizational structure that rewards coaches for short-term success over a long-term focus on athlete development.

Coaches in this study also believe that there is not enough practical information in the ADM for club coaches to be able to make immediate use of it. They know the *why* but not the *how*. Coach Ken commented earlier about his expectation for the ADM to contain more drills that he could use right away. Coach Sarah suggested that the ADM could be supplemented with easy-to-implement tips and drills to enhance its usability:

So, it's like the ADM is this beautiful theoretical document that is seventy-five pages long, but what the general public needs to make it usable is for someone to spend time and say you know here's a drill or here's three drills that apply to this skill. (Coach Sarah - group 4, question 8)

Sarah's suggestion is not to change the ADM but to supplement it with more information that coaches could immediately apply to their coaching practice. This desire for additional drills and technical information to complement the ADM among club coaches aligns with the requests made by cross-country coaches in Banack et al. (2012).

Another deterrent for club coaches is the cost of taking the NCCP courses to learn about the ADM, especially if they have to pay out of their own pocket:

There are many things about the NCCP that are very confusing and convoluted to me.

I've never done the fundamentals course but it's crazy to me that Learn-to-Train is one weekend, Train-to-Train is one weekend and then you get to Train-to-Compete and it's like three weekends and 10 extra courses. How much money do you think people have?

(Coach Sarah - group 4, question 8)

Given that many club coaches are volunteers primarily focused on providing kids with the opportunity to play, they often hesitate to invest in NCCP courses because of the cost. As their priority is not athlete development, they rely on their own experiences to guide their coaching:

The biggest thing that I find right now is that coach education needs to be a little bit on the higher front, but in Alberta where we're fighting club systems, who just need coaches to fill gaps and all these coaches, who are filling gaps watch a video or watch basketball NBA and they think they know it all and I just shake my head. (Coach Owen - group 4, question 8)

There are studies that show how clubs have supported their coaches with NCCP and LTDSPPA training (Banack et al., 2012; Black & Holt, 2009; Frankish et al., 2012; Lang & Light, 2010; Millar et al., 2020) by offering in-house education, financial support, and developing support materials on how to apply LTDSPPA principles.

Research is needed on the club basketball system in Alberta and the reasons that the coaches in this study feel that it is a barrier to more coaches using the ADM. Areas to inquire about would include how club coaches feel about the ADM, whether their clubs require them to

use the ADM, and what type of support the clubs provide. Currently, there are no studies addressing these specific aspects.

More Accountability is Needed by Alberta Basketball

Another external barrier that coaches feel hinders the use of the ADM more is Alberta Basketball (AB BB) not adequately ensuring that all coaches adhere to the ADM. Coaches believe that AB BB should mandate the application of ADM principles for all BB AB sanctioned tournaments.

Coach Blaire, who attends tournaments through the province, feels like youth coaches do not understand its importance for athlete development:

I don't feel like it's promoted enough and I don't feel like there's enough measures in place to make it a requirement or necessary for coaches to have to pay attention to.

(Coach Blaire - group 4, question 7)

Unfortunately, AB BB lacks the financial resources to promote the use of the ADM throughout the province (Jurbala & Stevens, 2022). However, with technology becoming increasingly accessible and video conferencing and online courses becoming the norm, AB BB and other Provincial Sport Organizations (PSOs) may find more cost-effective options for coaches to enroll and take NCCP courses. This would enable them to engage in discussions with other coaches who have experience using the ADM.

Implementation of the ADM

The KTA framework defines implementation as how coaches disseminate information to promote awareness of the ADM to external audiences. Two of the coaches in the study act as NCCP course facilitators. They suggested that the quality of the course facilitator is an important factor when exposing youth coaches to the ADM. They are regularly asked what to do, and their

recommendation is to first determine their personal team context and then focus on the competition-to-training ratios. Additionally, one of the coaches shares the ADM with his fellow physical education teachers in junior high and elementary schools hoping that they incorporate it in their classes. Other advice the coaches offer those seeking to learn about the ADM is to take NCCP courses and to request to observe a coach who integrates the ADM as part of their coaching practice.

Coaches Ken and Alex are NCCP course facilitators and comment that it depends on the course facilitator on how effective they are in exposing coaches to the ADM and how it applies to their coaching practice:

There's a bunch of slides at the start of every unit that you do. They [facilitators] will walk you through that and they immerse that into the curriculum [ADM] a ton. So now it depends on your facilitator how much you're going to focus on it but it's [ADM] all over the material, especially—Learn-to-Train. (Coach Alex - group 4, question 1).

During these courses, both coaches get a lot of questions and interest about the ADM and are asked the best way to apply the ADM:

Okay, piece number one would be to know your context so know who you are, who you're coaching, what you want to accomplish, what's important to you. Understand that because once you know your context, you can fit into this model easier. If you just go up and say oh, I coach this level so I should be here but you don't have an understanding of what kind of came underneath that and how it's going to apply, it's not going to work for you. (Coach Alex - group 4, question 8)

Coach Alex also suggested that coaches start by focusing on the competition-to-training ratios:

I think that is the best place to start, because if you were to come in and you're working with eight- to 11-year-olds, and you go okay, I need about 20% fundamentals in every daily plan I have, about 20% technical and about 10% strategy. That's going to really help. My numbers are off, but have those percentages and if I can look back on my planning day to day, week to week and then season to season and have a pretty good split of that, I'm definitely on the right path so before I understand anything else, understanding what those what fundamentals were the technical, the strategy, the tactics, what the differences are and where my focus should be that will get you the farthest ahead, I think. (Coach Alex - group 4, question 8)

Because of Coach Owen's success in using the ADM into his coaching practice, he actively promotes the ADM knowledge to local junior high basketball coaches and elementary physical education teachers by leveraging his connections within the community.

I can share this with my junior high coaches or the elementary level phys. ed. teachers, so that they can apply some of these in their PE classes (Coach Owen - group 4, question 1)

There are currently no publications that address the dissemination of ADM knowledge by basketball coaches. The current literature mainly focuses on the sport application of the LTDSOA and how coaches have applied it to their coaching practice (Arifin et al., 2020; Banack et al., 2012; Beaudoin et al., 2015; Black & Holt, 2009; Callary et al., 2012; Chevrier et al., 2016; De Haan, 2017; Fiander et al., 2013; Frankish et al., 2012; Hidayah et al., 2023; Lang & Light, 2010; Millar et al., 2020; Neto et al. 2021; Sullivan et al., 2010; Van Kooten, 2016) but not how they share their knowledge and expertise with others or in the community. What role or

responsibilities should basketball coaches take to promote the ADM, or should this be the main responsibility of the clubs and the PSOs?

The coaches in the study were asked if they had any advice for other coaches interested in adopting the ADM for their coaching practice. Their suggestions included enrolling in additional NCCP courses and reaching out to other coaches familiar with the ADM. Coach education through the NCCP is an important way to disseminate information about the ADM in order to understand its complexity (Trudeau & Charest, 2020). Frankish et al. (2012) found lack of education to be the main reason cross-country coaches were hesitant to adopt the LTDSPA framework.

I wouldn't necessarily tell them about implementing it right away. What I would tell them is to make sure that they go to various coaching clinics to get a little bit of training. (Coach Owen - group 4, question 8)

I would say that just reading it is one thing but then learning how to apply it specifically and then actually doing it is another. So the biggest thing I would say is a combination of learning in a classroom style environment, combined with practically learning and also observing programs that do use it ... if anyone has the ability to do that; to learn from the best people at your age you coach with then you kind of know what you're supposed to be doing and what that looks like. (Coach Danya - group 4, question 8)

Another way to learn about how to use the ADM is to reach out to coaches who are familiar with the ADM. Basketball coaches are open to having new/young coaches ask them questions about anything regarding their coaching practice. Coach Sarah's recommendation is to contact them and ask to observe them using the ADM principles in their daily coaching routine:

Hey, can I come to your provincial team tryout and just sit there and watch and listen? I think those things are more practical than reading the ADM even though there's a lot of good information in there, I just think it's above a lot of people's heads like it was above mine as a young coach my first few years. I just used what I knew as a player because you don't know enough. I don't think for the ADM to be this bible of how I do things. (Coach Sarah - group 4, question 5)

Trudeau and Charest (2020) concurred that observing other coaches is a good source of informal learning for the ADM.

Coach Blaire was recently asked by one of her former players who was interested in knowing what skills she needs to introduce to the players. She said:

Instead of giving them a drill book or something, I sent them that [ADM] and say hey, this is the age group you're working with, here's an idea of the things that you should be looking at with that age group and so I share in that context. I will share that or have coaches have questions about it. I certainly share that as a great starting point and then of course, we can talk more about how to do that. (group 4, question 5)

Holistic Approach to Athlete Development

The ADM is a document that promotes a holistic approach to athlete development. However, the details on how to achieve this holistic approach are not very clear within its pages. The coaches in this study find their own ways to coach holistically. One coach recommended fostering proper team dynamics conducive to individual performance, while four coaches emphasize the importance of cultivating a positive player-coach relationship and share some of the potential consequences when this relationship is negative.

According to Bruner et al. (2014), having the proper environment for team cohesion leads to better individual performance. Coach Sarah offers the first piece of advice in the holistic approach to athlete development: create an environment conducive to player development. She shared a story about the importance of preventing cliques from forming on teams, as this can lead to dissension within the team:

I think sometimes sports teams can be cliquey if they're not managed properly and you know, being part of a cliquey sports team could drive a kid away pretty quick. I know from doing my Master's degree there was a lot of information about hockey. Losing kids because they just didn't feel like they were part of the cool kids club and so, that was a big detriment. (Coach Sarah - group 2, question 2)

The second piece of advice is to develop a healthy coach-player relationship, which is an important component and also has a significant effect on athlete development (Vella et al., 2013). Coach Sarah found that she did not get the best from her players until she got to know them:

As a young coach, I think I just pushed kids and demanded from kids and you know, maybe there wasn't a lot of understanding that kids need to know you like them before you can really demand from them. (Coach Sarah - group 2, question 3)

I touch base a lot more with my athletes now more than I used to. It's a really time consuming process or practice but I found it really builds those relationships. I just think that relationships are so vital to getting the most out of your athletes. (Coach Sarah - coaching PIA 3)

Coach Owen has similar feelings about this topic. As he has matured as a coach, he has seen the importance of the coach-player relationship:

I think that as I've aged, I'm more about the relationships that I have with my kids. So that they understand that I care about them, and I want the best for them so that they can go on to a college or university and get a good job, a good career to support their own families. (Coach Owen - group 2, question 3)

Danya has experienced the negatives of a poor coach-player relationship which caused her to lose her confidence as a player:

I think sometimes it's hard for male coaches to understand how females feel when you treat them a certain way. So now thinking back to that as an adult, it was little things that just kind of eat away at you in a way at your self-confidence. (Coach Danya - coaching PIA 3)

Sarah had a similar story in reference to one of her players who she met in her first year as her head coach:

... no one ever told her that she was smart. You know what I mean? Kids form these—in the absence of feedback they form opinions. So, most females, I think, form negative opinions right ... it wasn't like I taught her all these brand-new things but that one conversation was just like she really needed that belief and for me to voice that. (Coach Sarah - group 1, question 2)

The importance of fostering a positive coach-player relationship cannot be overstated, as it is crucial for coaches seeking to maximize their players' skill development.

There is, however, a risk in opening up about oneself when attempting to establish this relationship. Coach Sarah spoke about her experiences with opening up and sharing life details, "I've let kids know a lot [about myself]. I really like to let kids into my life. I've always been very much like a storyteller and want to share my experience" (group 3, question 3).

Danya, who also maintains a close relationship with all her players, mentioned that when you open yourself up, it becomes difficult to say goodbye when players graduate:

One of the hardest things about coaching is you work with kids and families for a set period of time and then they move on. Some stay in touch, some don't but that's kind of hard. It's almost like you create these relationships and then all of a sudden, like you see them every day for years and then they're gone. So, it's almost like a weird grieving process every year but I do feel like you constantly are getting new people in that family.

(Coach Danya - general PIA 7)

Developing the Whole Person

While not all athletes are destined to become elite sports players, sports can develop skills and build relationships that extend for a lifetime (Jones & Lavalee, 2009). Five coaches commented on developing the whole person, not just their basketball skills, in preparation for life beyond basketball. These include graduating, lifelong relationships, developing community leaders and being able to solve problems.

At the beginning of his coaching career, Coach Alex pushed his players hard in order to get wins. However, as he has matured, he wants to ensure that they leave his program poised for success in life:

As much as I want to win and push this person to be the best—you know shooter/dribbler that I can—there's more to life out of this and seeing players graduate and going into the real world and having success. I think that perspective over my time has really changed my view of what I needed to develop and what I need to focus on. (Coach Alex - group 2, question 3)

Coach Ken emphasized the importance of getting-to-know his players and showing genuine care for them. He wants to help them grow as individuals:

The people side of it has become much more important to me than the just winning game side and again that part will never go away as I've said before. That's always going to be part of what I enjoy about coaching, but also an increased importance on the people side and letting your athletes be who they are, giving them time and space when they need it.

(Coach Ken - group 3, question 5)

Blaire is dedicated to fostering the development of young women as future community leaders and valuable contributors to society:

So yes, we compete and I'm competitive and I hate losing but ultimately, do I judge my success on whether or not we win games? Other people do, but I don't. For me, it has inspired the young women that I work with to be great leaders in the community, to pursue their passions, to accept challenges and to overcome adversity. That's more about what it is for me. (Coach Blaire - coaching PIA 1)

Coach Owen utilizes basketball as a means to teach his students problem-solving skills that can be applied in any environment:

I think you learn how to work well with others. I think you learn how to solve problems and I think you also learn how to cope with different situations. At the same time, you can become a leader. I think those are the biggest things that you can learn in any sport.

(Coach Owen - group 2, question 2)

The coaches in this study are dedicated to their craft and highly value winning and competition. However, as their players graduate and move on, their ultimate goal is to ensure that these individuals have acquired a new set of life skills that they can apply for the rest of their

lives. While the ADM may not be perfect, it does take a holistic approach to athlete development, aligning with the aspirations of the coaches who were part of this study.

Research Questions

Upon embarking on this research project, there were four themes regarding coaches' use of the LTDSPA framework that I wanted to explore based on the literature review. These areas were:

1. Coaches desire more scientific evidence concerning the concept of windows of opportunity.
2. There is a general agreement that the framework serves as an effective communication tool for all stakeholders.
3. Coaches request more resources to implement the framework effectively.
4. Tension between short-term and long-term outcomes, as well as between coaches' knowledge and the demands placed on them by the framework.

Not Inclined to Seek More Scientific Evidence

In this study, the coaches did not express a desire for additional scientific evidence regarding the effectiveness of the ADM. The studies advocating for more scientific evidence were primarily requested by sport scientists (Ford et al., 2011; Frankish et al., 2012; Holt, 2010; Lloyd & Oliver, 2012; Treffene, 2010). Nevertheless, the basketball coaches regarded the ADM as a valuable tool for their coaching practice, consistent with the findings of Trudeau and Charest (2020) study. Trudeau and Beaudoin et al. (2015) also found that coaches use the ADM more as a guide than a strict prescriptive document. While the coaches in our study are not scientists (although two were former science teachers), they value using the information in the ADM that pertains specifically to matching the skill level of their team. Their coaching experience has

enabled them to adapt to the shortcomings of the ADM, thereby facilitating its use in the development of their players, both presently and in the future. What they do want is for more youth coaches to embrace ADM principles, and they are interested in finding innovative ways to promote this.

Not an Effective Communication Tool for All Stakeholders

The LTDSOA is considered an effective communication tool by administrators and coaches (Black & Holt, 2009; Frankish et al., 2012), with its greatest attribute identified as such (Brooks, 2016). In this study, only one coach (Alex) used the ADM as a communication tool, and this was limited to interactions with his assistant coaches. None of the other coaches in this study viewed the ADM as a communication tool with key stakeholders, including players and parents. Coach Alex commented that he does not share it with his players because it may make them feel inadequate, as they may not possess the skills expected for their age level. Similarly, the two high school coaches (Danya and Owen), who interact with parents throughout the season, also do not share the contents of the ADM with parents or players. The ADM appears to serve as a good communication tool among administrators and coaches only.

Club Coaches Require More Resources

The coaches in this study did not feel they needed more resources to implement the ADM. However, what they do call for is more resources for club coaches in the province. They have observed instances where youth coaches ignore ADM principles with their teams, which concerns them regarding the development of their players. They have speculated on the types of resources that coaches need, including financial support and access to other coaches. Jurbala and Stevens (2022) pointed out that Provincial Sport Organizations (PSOs) lack financial resources, raising the question of where additional funding for clubs could come from. While our coaches

believe that taking National Coaching Certification Program (NCCP) courses is beneficial, they acknowledge that more resources are needed to help club coaches adapt the ADM to their local context.

Tension Between Short-term and Long-term Outcomes

The first point of tension I was wondering about was whether the desire to win creates tension with athlete development. All six coaches in this study emphasized the importance of winning, especially when they started coaching. As early-career coaches, there was no tension, as winning trumped athlete development. However, as the coaches learned more about the Athlete Development Model (ADM) and the importance of holistically developing their athletes, the tension between winning and athlete development reached a healthy level. Winning remains important to the coaches, but it now encompasses a broader meaning that includes setting up their players with life skills they can use for a successful future beyond basketball. Coaches commented that they continue to observe club coaches equating winning games as successful athlete development, which makes them uncomfortable.

The second point of tension I wanted to explore was whether the direction from the PSO pressured coaches to adhere to a specific adoption of the ADM, rather than allowing coaches to adopt it according to their own preferences and the needs of their local context. The closest I came to addressing this question was through Danya's involvement in the Targeted Athlete Strategy (TAS) program mandated by the PSO. TAS aimed to cultivate specific skills identified by the PSO as crucial. Danya's response to the program did not indicate any tension. Perhaps because she perceived the acquisition of these skills as beneficial for the players, and she trusted the PSO's expertise in determining what was needed at the broader level.

The apparent absence of tension in both inquiries seems to stem from the fact that no one is held accountable for using the ADM. Its adoption remains optional for coaches at every level, with the responsibility of disseminating its use falling on Alberta Basketball (AB BB). However, the lack of uptake by club coaches suggests that AB BB may not have effectively stressed the importance of the document nor provided the appropriate support. Through interviews with coaches, it became evident that they are not held accountable for implementing the ADM by PSOs, post-secondaries, high schools, or clubs, hence the lack of tension. They have decided to hold themselves accountable to follow ADM development guidelines. The most significant source of tension I interpreted was the discrepancy between elite coaches' expectations for athlete development and the perceived lack of it by club coaches.

Recommendations for Future Studies

The literature on coaches' perspectives regarding the implementation of the LTDSPA/ADM is lacking (Holt et al., 2018b). Moreover, research on the adoption and implementation of Canada Basketball's ADM is even scarcer. In fact, there are zero studies related to the ADM's adoption and implementation by Canadian coaches, with only a handful of studies from other sports in Canada on the adoption and implementation of their respective LTDSPAs (Banack et al., 2012; Black & Holt, 2009; Callary et al., 2012; Chevrier et al., 2016; Millar et al., 2020). Given the lack of published studies, there are numerous areas for further research identified in my study.

1. Investigating Coaches' Learning Sources and Confidence Levels:

- Examine the methods through which club basketball coaches obtain knowledge about the ADM and investigate whether their learning aligns with the four learning sources identified by Trudeau and Charest (2020).

- Assess the extent of knowledge possessed by youth basketball coaches regarding the Athlete Development Model (ADM) and evaluate their confidence levels in implementing it with their teams.

2. Evaluation of Coach Education and Implementation:

- Evaluate the effectiveness of transferring athlete development principles and the ADM to youth coaches through NCCP courses. Building on findings by Frankish et al. (2012), explore the relationship between coach education and coaches' comprehension and application of ADM principles.

3. Understanding Barriers and Promoting ADM Adoption:

- Investigate the barriers for Alberta Basketball (AB BB) in promoting the ADM. This inquiry could identify challenges and obstacles faced by AB BB in effectively disseminating and advocating for the ADM within the basketball community and club coaches in particular.
- Further research is warranted on the club basketball system in Alberta, specifically exploring the reasons why coaches in this study perceive it as a barrier to broader adoption of the Athlete Development Model (ADM).
- Investigate the possibility of the creation of supplemental materials to work alongside the ADM. What types of supplemental materials would be most beneficial for youth coaches using the ADM? How can these materials be effectively developed to address the needs of different coaching contexts and sports and what are the most accessible and user-friendly formats for delivering these materials to youth basketball coaches?

4. Role of Coaches and Promotion of ADM:

- What roles and responsibilities should elite basketball coaches assume in promoting the Athlete Development Model (ADM)? Alternatively, should the primary responsibility for promoting the ADM lie with the clubs and Provincial Sport Organizations (PSOs)? Further exploration of this question could provide valuable insights into the distribution of responsibilities for ADM promotion within the basketball community.

5. Communication Dynamics and Strategies:

- Explore the communication dynamics facilitated by the ADM among administrators and coaches, with a focus on understanding its effectiveness and potential areas for improvement. Additionally, investigate the limitations of the ADM as a communication tool with other stakeholders, such as players and parents, to provide a comprehensive understanding of its communication effectiveness and areas for enhancement.
- Explore various strategies for disseminating the benefits of the ADM to stakeholders, including parents and athletes. Previous research by Holt et al. (2018a) investigated the effectiveness of partnerships and social media as methods for sharing knowledge of the LTDSOA with a broader audience.
- What is the level of stakeholder understanding concerning the effects of year-round training? Would a better understanding of the ADM prevent injuries? Research has shown that sport specialization for youth under 18 puts them at greater risk for overuse injuries (Bell et al., 2018). Additionally, does year-round training effectively contribute to obtaining post-secondary scholarships? Research could investigate if

there is a correlation between year-round training and the likelihood of receiving post-secondary scholarships in basketball in Alberta.

Chapter 11: Concluding Thoughts

Having coached basketball passionately for 13 years at all levels, it remains a significant part of my past. I continue to be deeply invested in the success of all players engaged in the sport in Alberta. Regrettably, my schedule no longer permits me to volunteer as a coach. However, I embarked on this study with the hope that it would allow me to contribute to the advancement of the sport and the development of athletes in Alberta.

As I embarked on this research journey, I felt a sense of pioneering spirit, recognizing the absence of studies on the application of Canada Basketball's Athlete Development Model in published literature. While research exists in other sports, basketball remains largely unexplored in this context. As evidenced by my suggestions for future research, there is ample opportunity for further exploration and advancement in this area.

I found great satisfaction in every aspect of the research process. Whether it was conducting interviews via Zoom, exploring each coach's Pre-Interview Activities (PIAs), or crafting narrative portraits, I thoroughly enjoyed the journey. True to the methodology, each review of the stories sparked further questions and insights. I aspire to pursue similar research endeavors in the future, as this methodology aligns well with my strengths and passions.

During the process of writing the narrative portraits, I invested significant time and effort to ensure that readers would truly feel acquainted with each participant. It was important to me that their stories came to life on the page. I sincerely hope that I have succeeded in achieving this goal.

I intend to disseminate the findings of this study through three distinct papers:

1. An exploration of how Alberta basketball coaches learn and implement the Athlete Development Model.

2. An examination of the use of Pre-Interview Activities in sports coaching.
3. A knowledge transfer paper/presentation aimed at providing practical advice to youth coaches interested in utilizing either the ADM or LTDSPA.

In looking ahead to future research endeavors, I am particularly drawn to two key areas:

1. Democratizing athlete development: Many young athletes miss out on crucial opportunities for development due to late maturation, leading to disparities in skill acquisition and performance. I aim to investigate the feasibility of measuring unconscious competence at an early age, thereby allowing athletes who have not yet physically matured to receive elite-level training. This concept is inspired by insights shared in Malcolm Gladwell's book 'Outliers,' which highlighted the advantage gained by individuals born in specific months due to physical maturity. By leveling the playing field, we can ensure that all athletes have equal opportunities for growth and success.
2. Coaching and metacognition: Through interviews conducted for this study, it became evident that many coaches prioritize their own experiences, past decisions, prior learning and winning over thinking deeply about their coaching methods. I am eager to look deeper into this area and explore how coaches can enhance their practice through metacognitive processes. By fostering greater awareness and understanding of their own coaching methods, coaches can optimize their effectiveness and positively impact athlete development.

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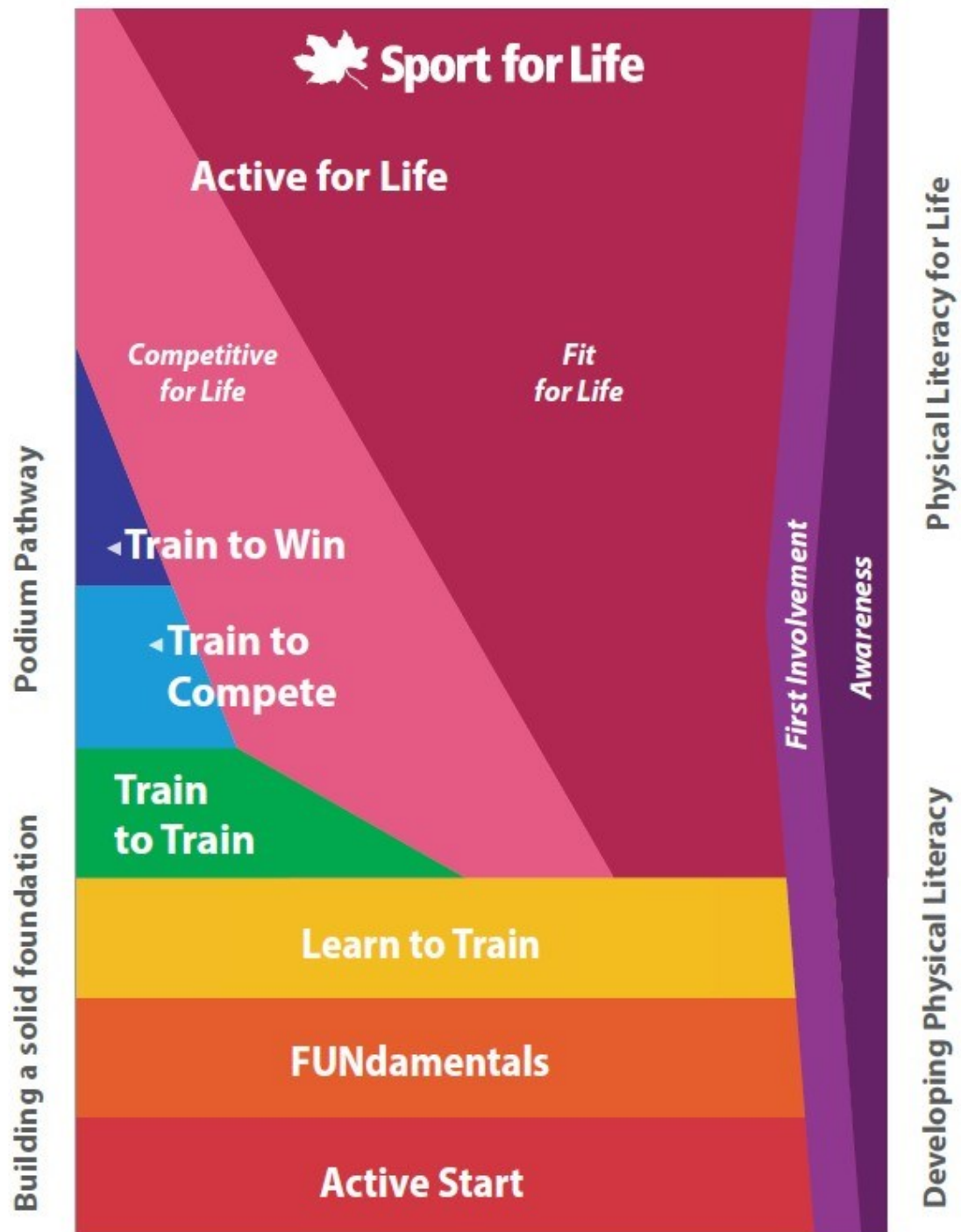
Appendices

Appendix 1: Key Factors Underlying Long-Term Development in Sport and Physical

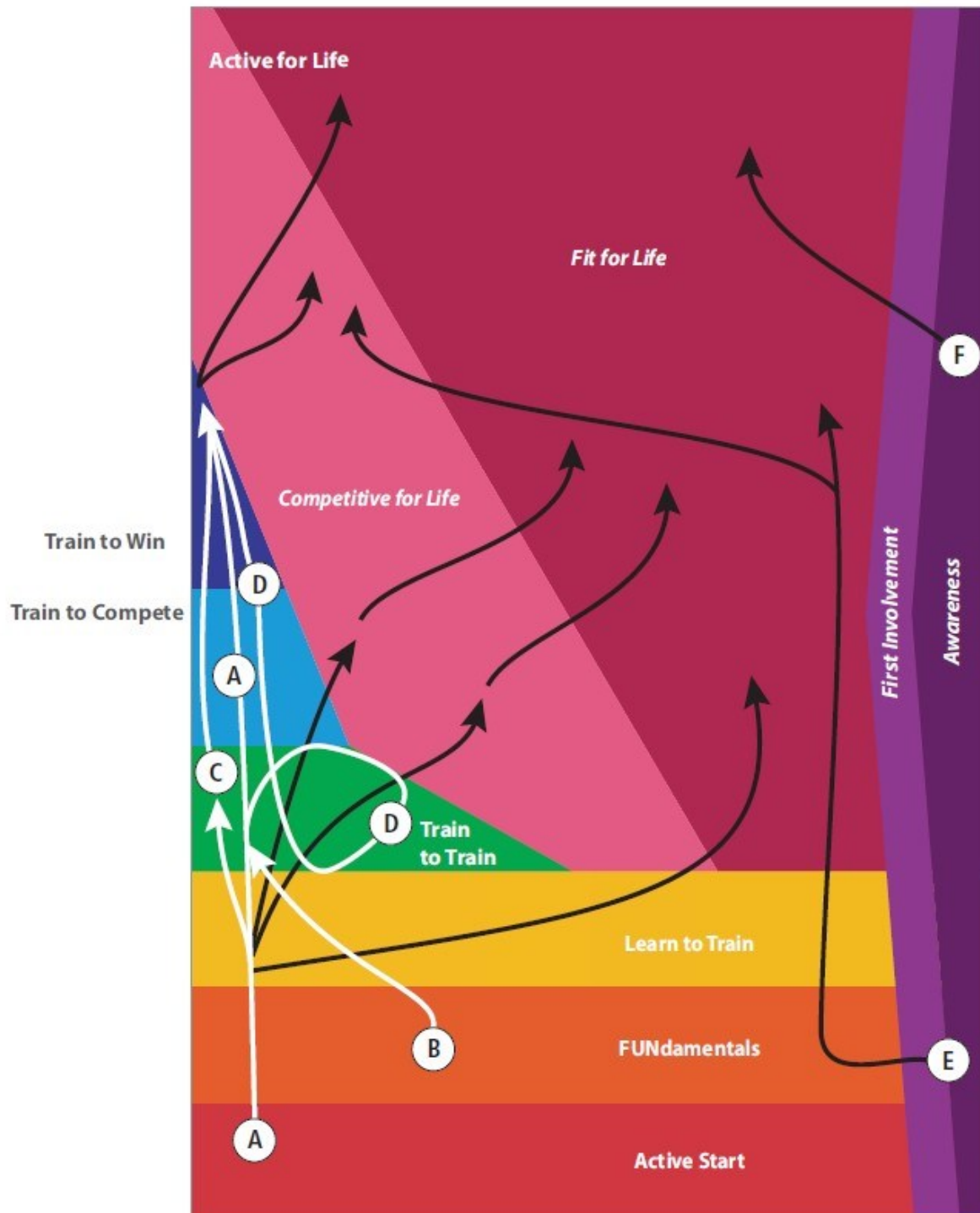
Activity Framework

Personal Factors	Organizational Factors	System Factors
Developing physical literacy in early stages	Sports need time to update LTDSPA	Collaboration between organizations
Quality environment for participation	LTDSPA is fully embedded throughout the sports organization	System alignment across all documents
Developmental age of participant	Awareness and first involvement of all sport and physical activity opportunities	Safe and welcoming to all participants
Awareness of sensitive periods	Different activities have different pathways	Diversification of activities and sports
Predisposition of individual to learn a sport	Appropriate specialization periods	Long-term development takes time
Excellence takes time	Periodization plans	Continuous improvement of the LTDSPA
For life approach	Competition to training ratios	Evidence based framework
	Well executed transitions in sports and between sports	

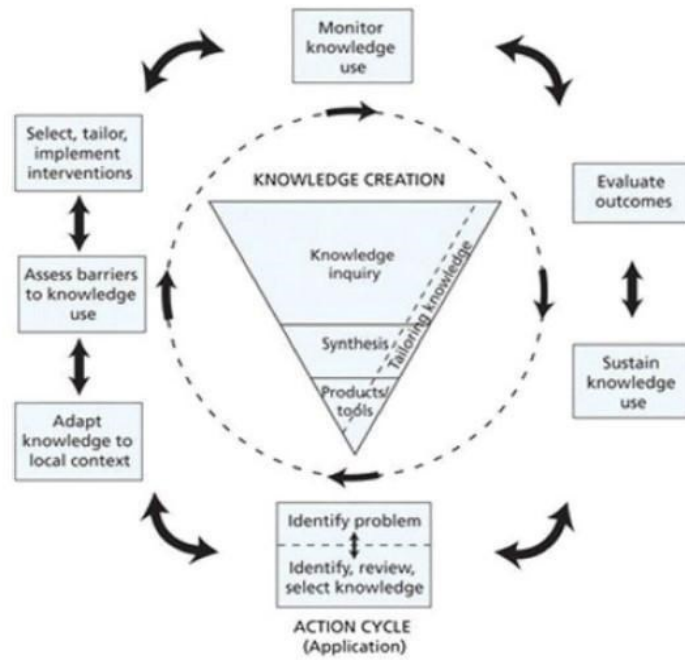
Appendix 2: LTDSPA Rectangle



Appendix 3: Unique Pathway for Everyone



Appendix 4: Knowledge to Action Framework



Appendix 5: Template for Preparing PIA Prompts and Open-ended Questions

Purpose of the interview:

My research interest is in the topic of coaching. More specifically, I am interested in the way coaches use Canada Basketball's Athlete Development Model (ADM) in their coaching practice in the Province of Alberta. I hope to learn more holistically how coaches experience learning and incorporating the ADM objectives in their work with their athletes in the Province of Alberta.

There are two parts to the interview:

- Pre-Interview Activities (PIAs) and
- Open-ended Questions

Pre-Interview Activities (PIAs)

In my research, I ask participants prepare at least four diagrams, drawings or other visual representations to represent or explore:

1. some aspect of what is generally important to them in their lives, and
2. something that has been important to them regarding the research topic.

Please use pens, pencils and preferably colored markers on blank paper when completing these. We will begin our interview by having you show me these and tell me about them.

There are a number of purposes for using the PIAs. For one, by completing these PIAs in a quiet time you may have a better chance to remember more ideas or details to include. And for another, if I can look at the diagrams or drawings while you talk about them it can help me see how your ideas fit together and what you mean by some of the words you use. The PIAs can give us a better chance for you to help me learn about your experience.

Open-ended Questions

After we finish chatting about the Pre-Interview Activities you bring, I will ask some open-ended questions that may help you think of other memories or stories you might be able to share. The first group of these open-ended questions will be “getting to know you questions” that can help me get a sense of some of your interests and what is important to you. The other groups of questions are about the research topic or larger experiences leading up to the research topic. For example, I will ask for some of your recollections about your own early sport experiences and your own early coaching experiences before asking about your views about what it is like to

incorporate ADM ideas in your coaching. By learning more about the “big picture” in this way I will better appreciate what you say about working with the ADM in your coaching. So, in preparation for the interview can I please ask you to complete at least four Pre-Interview Activities (PIAs)—at least two from each of the groups below.

Thank you again for your time!! Here are the PIAs.

Pre-Interview Activities (PIAs): About the person in general

Please **complete two or more** of the following visual representation activities and bring them to our interview. Please use pens, pencils and preferably colored markers on blank paper. We will begin our interview by having you show me and tell me about the ones you completed.

1. Draw a schedule for your day, week or year and use colors to indicate how time is spent. Make a legend to explain the colors.
2. Draw a picture or diagram of a place that is important to you and use keywords to indicate the parts or what happens in each of the parts.
3. Think of a component of your life that is very important for you (for example, sports, money, school, home, relationship with a particular person, travel). Make a timeline listing key events or ideas that changed the way you experience it.
4. Think of an activity that is very engaging for you. Use three colors to make an abstract diagram that expresses what it is like for you to do this activity.
5. Imagine that someone will make a movie of your life. List or draw 5 scenes that would be important or pivotal moments of your life in the movie.
6. Think of an important event in your life. Make two drawings showing what things were like for you before and after the event. Feel free to use thought bubbles or speech bubbles.
7. Draw a diagram to show where your support or support systems come from.

Pre-Interview Activities (PIAs): About coaching

Also please **complete two or more** of the following visual representation activities and bring them to our interview. Please use pens, pencils and preferably colored markers on blank paper. We will begin our interview by having you show me and tell me about the ones you completed.

1. Make a list of 20 important words that come to mind for you when you think of “coaching” and then divide the list of words into two groups in any way that makes sense to you. Please bring both the original list and the two smaller groups of words to the interview.

2. Think back to your earlier experiences with coaching. Make two drawings: one showing a good coaching session and one showing a “not so good” coaching session. Feel free to use thought bubbles or speech bubbles.
3. Make a timeline listing key events or ideas that changed the way you have experienced coaching over the years.
4. Think of an important activity that is part of your coaching routine. Use three colors to make a diagram or abstract drawing that expresses the way you experience that activity.
5. Use colors to make three drawings that symbolize how your experience of coaching activities has changed over time.
6. Think of something important that changed things in your approach to coaching. Make two drawings showing what things were like for you before and after the change. Feel free to use speech bubbles or thought bubbles.

Groups of Open-ended questions:

Group 1: Getting to know you questions:

1. What would you like to be really good at doing?
2. What surprises you the most ... in nature? ... about people? ... in general?
3. If you had one week off a month, what are some of the things you would like to do with your extra time?
4. If you could spend two weeks with someone who does a special kind of work, who might you choose?
5. If you could pick something that you would not have to worry about anymore what is one of the things you might choose?
6. Have you done anything that has surprised other people?

Group 2: Questions about experiences in sport:

1. When you think back to your early memories of sport, what are some of the memories that come to mind?
2. What are some of the benefits of being involved in sports? What are the negatives?
3. As you have gotten older, what parts of or what aspects of sport have become more important to you?
4. Is there anyone in sport that you would consider a role model for yourself or others?

Group 3: Questions about experience coaching:

1. When you first started coaching, what did you look forward to or hope for?
2. What are some of the ways you learned to do coaching?
3. In your early time as a coach, what are some of the aspects of coaching that you found most rewarding?

4. In your early time as a coach, what are some of the aspects of coaching that you found most challenging?
5. Over time, are there some parts of coaching that have become increasingly important to you?
6. Would you say that there are some aspects of your coaching that have remained the same over time?
7. What aspects of your coaching would you say have changed the most over time?
8. When you think about different drills that you can use, what would say makes some of them preferable to other ones?

Group 4: Questions about experience with Canada Basketball's Athlete Development Model:

1. What was it like for you when you first learned about the ADM or started trying to follow it?
2. Have you thought about changing the way you coach as a result of the ADM?
3. Do you recall the ways you have changed your coaching approach as a result of the ADM?
4. What aspect of the ADM do you find the most important to focus on?
5. What are some of the approaches or strategies you have found helpful in implementing athlete development concepts (... ADM)?
6. Can you think of any experiences that has shown that the ADM has been successful?
7. Can you think of any experiences that has shown that the ADM has not been successful?
8. What advice would you offer to a coach who is thinking about using the ADM as part of their coaching practice?

Appendix 6: Sample Matrix to Collect Stories and Identify Topic, Key Phrases, Key Ideas from Each Story

Story No.	The story (with some ellipses)	Key phrases in story	Topic of story	Key ideas expressed (motivations, beliefs, values, preoccupations)	Possible themes or topics that these key ideas may fit into
PIAs					
1					
2					
3					
4					
Questions above are PIAs. Questions below are interview cluster questions					
Group 1	Getting to know you questions				
1					
2					
3					
4					
5					
6					
Group 2	Questions about experiences in sport:				
1					
2					
3					
4					
Group 3	Questions about experience coaching:				
1					
2					
3					
4					
5					
Group 4	Questions about experience with the Canada Basketball Athlete Development Model (ADM):				
1					
2					
3					
4					
5					
6					

Appendix 7: Excerpt of Matrix Used to Identify Topics, Stories, Key Ideas and Themes

Across the Interview

Person	Story No.	Context: PIA or Interview Question	The story (with some ellipses)	Topic of Story	Key ideas expressed or revealed (motivations, beliefs, values, preoccupations, interpretive metaphors)	Possible themes or topics that are related to these key ideas
Sarah	1	Appendix 10 - general PIA 3	We spent two months at home in [Province A] that summer, and this was a summer before grade nine and I just was like no, I'm not going back. I don't want to go there, so it was a big mess in terms of parental pressures and stuff, but I actually then stayed in [Province A] and spent my grade nine year living with my stepdad.	Moving away from home	home, safety, being comfortable	home sick, childhood trauma, growing up fast, teenager
Sarah	2	Appendix 10 - general PIA 3	I went to [University A] and I went there to play but I think at the time, there was a lot of emphasis on you know, saving your years and, playing a full five years and I think that within the first couple months I didn't really feel like [University A] was the best fit for me and I majorly	decided to red shirt. lost identity, not having fun anymore	being lost, home sick, tough living away from home	maturing, homesickness, independence, thinking about future vs now, mental health, loss of identity

			<p>struggled there. When I decided to redshirt, I think just everything in my life shifted.</p> <p>Basketball was always that super consistent thing for me. So that definitely made me look at basketball differently and almost resent it in a sense. I don't know.</p> <p>It wasn't the same thing it always been and a source of fun, it was like work. So that was tough.</p>			
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Appendix 8: Invitation to Participate in Interview Activity

Date

Dear coach,

I am contacting you to ask whether you would be interested in participating in an interview with me to have a conversation about the topic of basketball coaching and Canada Basketball's Athlete Development Model (ADM).

I am currently working to complete the requirements of a doctoral degree in the Faculty of Education at the University of Alberta. I would like to do the interview to use in my research dissertation about what it has been like for basketball coaches to use the ADM in their coaching practice. I will be transcribing our interview and writing about how coaches' experience with the ADM in order to give the basketball coach perspective in my dissertation and any journal articles and conference presentations.

If you were interested in participating, our interview activity would have three parts. As part one, I would ask you to complete pre-interview activities which entail making four (4) diagrams, time-lines, or other visual representations about a) events/activities in your life in general and b) about some of your experiences related to the topic of coaching. As for part two, we would meet for approximately one hour in person or through a video meeting to discuss the visual representations and to use some of my interview questions to invite your reflections and memories. Some of these questions are "getting to know you" questions" and some are about the interview topic. Two sample interview questions are: *"What would you like to be really good at doing?"* or *"Have you done anything that has surprised other people?"* The interview would be scheduled at your convenience. As for part three, after I had studied and transcribed the recording of the interview, I might ask you to clarify one or two points from our discussion.

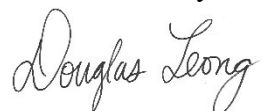
Your participation is voluntary. If you consent to be involved in this interview activity, your anonymity will be maintained. You would be free to withdraw at any time. If you decide to withdraw your participation after the interview, any data collected from you would be withdrawn from my research study. A video and audio recorder will be used to record our interview and I will transcribe the recording. I will use a pseudonym to represent you in all work that is written about the interview, and I will keep your interview recording, any visual representations (drawings, diagrams, or word lists prepared by you) and transcripts locked in a secure place and encrypted on my computer. I will destroy the audio and video recordings and all notes and digital files and presentation material at the end of the study.

I do not foresee any harm resulting from this activity. Instead, people often find the opportunity to reflect on their experiences to be beneficial. I would share with you the notes I write to clarify themes or insights I develop in my analysis of the interview.

If you have any further questions about the interview activity, please feel free to contact me at (780) 266-3269, my dissertation supervisor, Dr. David Chorney at (780) 492-0916, or the Interim Chair of the Department of Secondary Education, Dr. Thomas Dust, at (780) 492-0751.

Please complete the attached consent form to indicate your decision. If you are willing to participate, please return the consent form to me. Thank you for considering this request.

Yours sincerely,

A handwritten signature in cursive script that reads "Douglas Leong".

Doug Leong

The plan for this study has been reviewed for its adherence to ethical guidelines and approved by Research Ethics Board 1 at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-0459.

Appendix 9: Information Letter and Consent Form

Study Title: Coaches' Experience Using Canada Basketball's Athlete Development Model
REB PRO#: 00099621

Research Investigator:

Douglas Leong
 551 Education South
 Edmonton, AB, T6G 2R3
 dleong@ualberta.ca
 780-266-3269

Supervisor:

Dr. David Chorney
 448 Education South
 Edmonton, AB, T6G 2R3
 dchorney@ualberta.ca
 780-492-0916

Background

I am currently working to complete the requirements of a PhD in the Faculty of Education at the University of Alberta and recruiting participants for my research study. My area of interest is coaching and the Canada Basketball Athlete Development Model (ADM) and I would like to interview you as part of my research dissertation about what it has been like for basketball coaches to use the ADM as part of their coaching practice.

My study will involve interviewing five to eight basketball coaches who have been involved as a coach with the Alberta Provincial basketball program from 2014 to 2020. Alberta Basketball is assisting me with identifying coaches for my study and providing contact information.

Before you make a decision, I will go over this form with you. I encourage you to ask questions if you feel anything needs to be made clearer. You will be given a copy of this form for your records.

Purpose

The Long-Term Development in Sport and Physical Activity (LTDSPA) framework has been developed to promote physical activity and athlete development. Based on the principles of the LTDSPA framework, Canada Basketball has developed a sport-specific long-term development framework called the Athlete Development Model (ADM) and have asked basketball coaches throughout Canada to use it as part of their coaching practice. My research interest is to learn how basketball coaches' make sense of the ADM and their experience in using it in their coaching practice.

Information from interviews will be used to provide a coaches' perspective about what it has been like to incorporate the ADM in their coaching practice.

The interviews that I have with you will be used in my dissertation and in any future journal articles and conference presentations.

Study Procedures

The interview activity consists of three parts:

1. I would ask you to complete Pre-Interview Activities (PIAs) which entail making four (4) diagrams, time-lines, or other visual representations about:
 - a. Events/activities in your life in general
 - b. Some of your experiences related to the research topic

The amount of time you spend on the pre-interview activities will vary depending on which ones you choose to complete.

The PIAs would be sent to you **at least one week** prior to our interview date and ask that you scan or take photos when you have completed the PIAs. After you have scanned or taken photos of your completed PIAs, you can send them to me in advance of our interview date by email to **dleong@ualberta.ca** OR have them ready to share virtually during our interview.

We will begin the interview by having you show me and tell me about the PIAs you have completed.

The purpose of completing the PIAs is to: i) provide you a better chance to remember more ideas or details to include in your response; ii) help me see how your ideas fit together and what you mean by some of the words you use while you talk about them in our interview and; iii) provide context (general PIAs) to help me learn about how your coaching experiences fit together with other important aspects of your life.

2. At our scheduled interview time, we would meet for approximately 1.0-1.25 hours using the zoom meeting platform to discuss the completed PIAs and to use some of my interview questions to invite your reflections and memories. Some of these interview questions are “getting to know you” questions and some are about the interview topic. Two sample interview questions are: *“if you could spend two weeks with someone who does a special kind of work, who might you choose?”* or *“When you first started coaching, what did you look forward to or hope for?”* If we were unable to get through all the questions in 1.0-1.25 hours, we may need to set up a second meeting time to finish the remaining questions. A video recording and a backup audio recorder will be used to record our interview for transcription purposes.
3. After I have studied and transcribed the recording of the interview, I might ask you to clarify one or two points from our discussion.

Benefits

Participants in this type of study may benefit from being able to reflect upon their experiences and learn more about themselves as a coach. Being a basketball coach myself, I will be able to highlight some of the unique things you do for your athletes and to help reveal things that you may not be able to see about yourself and your coaching practice.

Risk

Participants may experience an emotional reaction (sadness or joy) as they share a coaching experience during the interview process.

In order to minimize risk and discomfort during the interview, I will give you time to recover after sharing the emotional story by taking a break from the interview process and only proceed when you are ready to do so. I will also ask during the interview to see if you would like to keep the story as part of the transcript.

As I work through the transcript and start identifying themes, I will offer to show you some of the key themes that I have identified in the stories about your own athletic experience, stories about your coaching experiences, and stories about your experience incorporating the ADM into your coaching practice. It is important that you feel comfortable with what will be presented about you in a public document even though you are not identified in the work.

Also to mitigate risk, I will change details that could make your identity identifiable to others. I invite you to provide a pseudonym that you wish to be used in this study. Further, if changing details in the stories is not sufficient to conceal your identity, then I will use aggregate reporting rather than presenting entire individual case studies. Aggregate reporting draws illustrative stories or excerpts from across all of the participants to elaborate or illustrate each theme presented. Pseudonyms, changing stories and aggregate reporting will also be used to protect the identity of community members at large that are mentioned in the interview.

Confidentiality & Anonymity

Information from the research will be used in my dissertation and any journal articles and conference presentations.

Only I will know the names of the participants. Each participant will be given a pseudonym to represent the work that is written about the interview so that participants cannot be personally identified. Again, I invite you to offer your own pseudonym to be used in the study.

As mentioned earlier, I will offer to show you some of the key themes that I have identified in your stories. This is so that you feel comfortable with what will be presented about you in a public document even though you are not identified in the work. Direct quotes will be shared in my dissertation and in any future presentations or publications but anonymity will be maintained. I will also change details of a story that could make your identity identifiable to others. If

changing details in the stories is not sufficient to conceal your identity, then I will use aggregate reporting rather than presenting individual case studies. Aggregate reporting draws illustrative stories or excerpts from across all of the participants to elaborate or illustrate each theme presented.

The transcript, recordings and all data related to our interview will be kept confidential and only I will have access to this information. I will keep the interview recording, any visual representations (drawings, diagrams, or word lists prepared by participant) locked in a locked cabinet and/or on a password protected with files encrypted on my computer. I will destroy the audio and video recordings, all notes, transcripts and any digital files and presentation material at the end of five years (as per University of Alberta Policy).

Voluntary Participation

Your participation in my study is completely voluntary and you are not obliged to answer any specific questions even if participating in the study.

Freedom to Withdraw

Your anonymity will be maintained and you are free to withdraw at any time. If you decide to withdraw your participation after the interview, the interview transcript and any data from the transcript will be withdrawn from the research study.

Contact Information

If you have any further questions about the interview activity, please feel free to contact me at (780) 266-3269, my supervisor, Dr. David Chorney at (780) 492-0916, or the Interim Chair of the Department of Secondary Education, Dr. Thomas Dust, at (780) 492-0751.

The plan for this study has been reviewed by a Research Ethics Board at the University of Alberta. If you have questions about your rights or how research should be conducted, you can call (780) 492-2615. This office is independent of the researcher.

Consent Statement

I have read this form and the research study has been explained to me. I have been given the opportunity to ask questions and my questions have been answered. If I have additional questions, I have been told whom to contact. I agree to participate in the research study described above and will receive a copy of this consent form. I will receive a copy of this consent form after I sign it.

Participant's Name (printed)

Participant's Signature

Date

Name of Person Obtaining
Consent (printed)

Signature of Person Obtaining
Consent

Date

**AFTER SIGNING ABOVE, PLEASE SCAN OR TAKE A PHOTO OF THIS CONSENT
FORM AND EMAIL IT TO DLEONG@UALBERTA.CA**

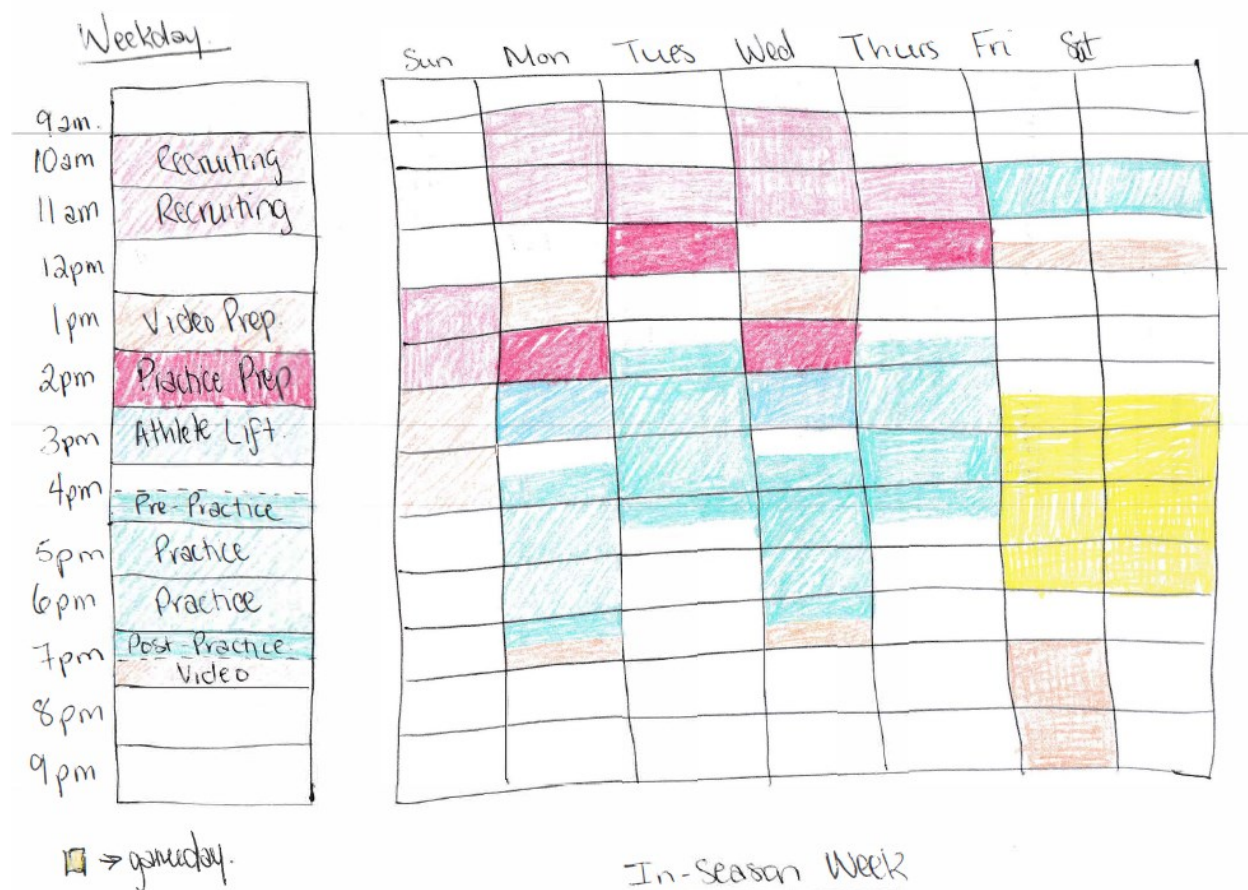
Appendix 11: Coach Sarah - Coaching PIA 3

Make a timeline listing key events or ideas that changed the way you have experienced coaching over the years.

- Coaching Progression
- 2006 • coached first camps as a group leader/demonstrator
 - 2007 • graduated high school
 - 2008 • season at [REDACTED] (redshirt)
 - 2009 • season at [REDACTED]
• coached w PGC.
 - 2010 • season at [REDACTED]
 - 2011 • first HC experience.
 - 2012 • graduated undergrad.
• first provincial team [REDACTED]
• moved to Alberta.
 - 2013 • first trip to Nationals. (13/14)
 - 2014 • second trip to Nationals (14/15)
 - 2015 • third trip to Nationals. (15/16)
 - 2016 • first Alberta provincial team.
 - 2017 • first post-secondary HC job.
 - 2018 • [REDACTED]
 - 2019 • moved to [REDACTED]
• first provincial team @ nationals
 - 2020 • graduated masters

Appendix 12: Coach Sarah - General PIA 1

Draw a schedule for your day, week or year and use colors to indicate how time is spent. Make a legend to explain the colors.



Appendix 13: Coach Sarah - Coaching PIA 1

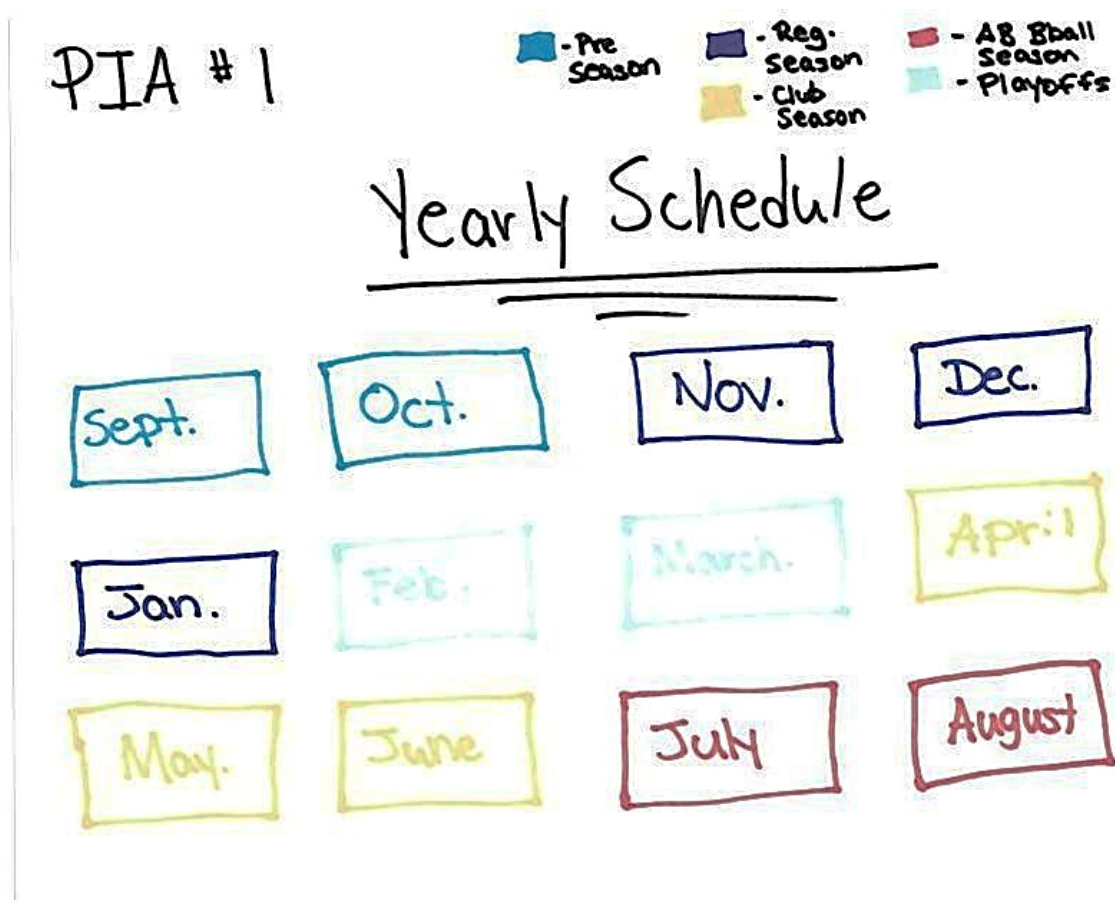
Make a list of 20 important words that come to mind for you when you think of “coaching” and then divide the list of words into two groups in any way that makes sense to you. Please bring both the original list and the two smaller groups of words to the interview.

20 coaching words

	<u>"hard"</u>	<u>"soft"</u>
passionate	passionate	compassionate
compassionate	energetic	teacher
teacher	leader	balance
energetic	detailed	assertive
leader	organized	intuitive
balance	focused	interested
detailed	aggressive	student
organized	relentless	fun
assertive	resilient	corteous
focused		creative
intuitive		communicator
interested		
student		
fun		
corteous		
aggressive		
relentless		
resilient		
creative		
communicator		

Appendix 14: Coach Alex - General PIA 1

Draw a schedule for your day, week or year and use colors to indicate how time is spent. Make a legend to explain the colors.



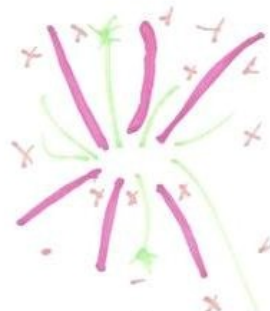
Appendix 15: Coach Alex - Coaching PIA 5

Use colors to make three drawings that symbolize how your experience of coaching activities has changed over time.

5. How Coaching Has Changed



Early, I always pictured coaching as rigid & tough, like 1970's NFL coaches, who often wore derby hats on sideline.



Worked with mentor who brought ideas of challenging me to see coaching differently & it sparked my knowledge to learn



Now I view it as collaboration through empowerment & autonomy

Appendix 16: Coach Alex - General PIA 5

Imagine that someone will make a movie of your life. List or draw 5 scenes that would be important or pivotal moments of your life in the movie.

- PIA #5 Important Scenes In
My Movie
- ① Poor High School Bball Experience
 - ② Joining College Bball Program as Asst.
 - ③ 4th quarter Comeback as Head Coach in ACAC Final.
 - ④ Leaving [REDACTED] to Asst. Coach in [REDACTED]
 - ⑤ Being named Interim Coach at [REDACTED] mid pre season in October

Appendix 17: Coach Alex - Coaching PIA 1

Make a list of 20 important words that come to mind for you when you think of “coaching” and then divide the list of words into two groups in any way that makes sense to you. Please bring both the original list and the two smaller groups of words to the interview.

#1

20 Important Coaching Words

respect
integrity
relationships
success
empowerment
practice planning
organization
communication
listening
details
collaboration
game management
intention
understanding
~~meeting people~~
autonomy
character
systems
adaptability
big picture

Self Concepts

integrity
relationships
empowerment

planning
organization
listening
details

game management
intention
understanding

Team Concepts

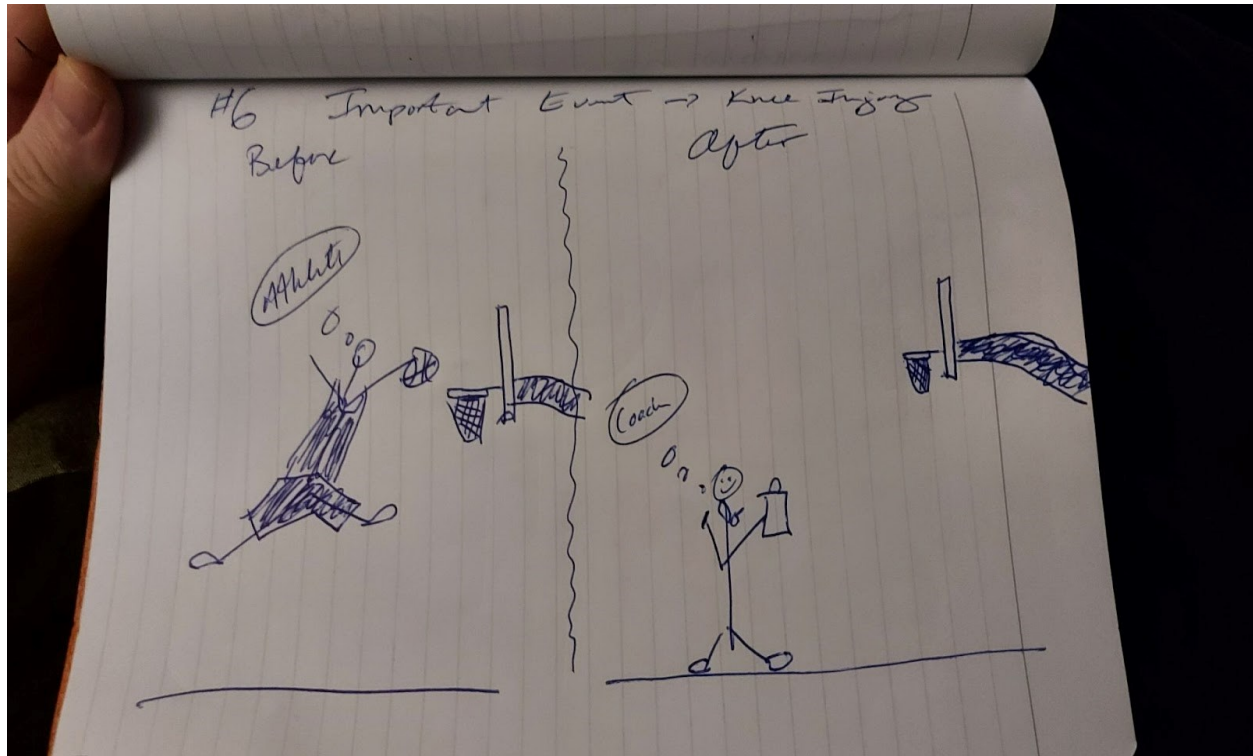
respect
success
communication

collaboration
autonomy
character

systems
adaptability
Big Picture

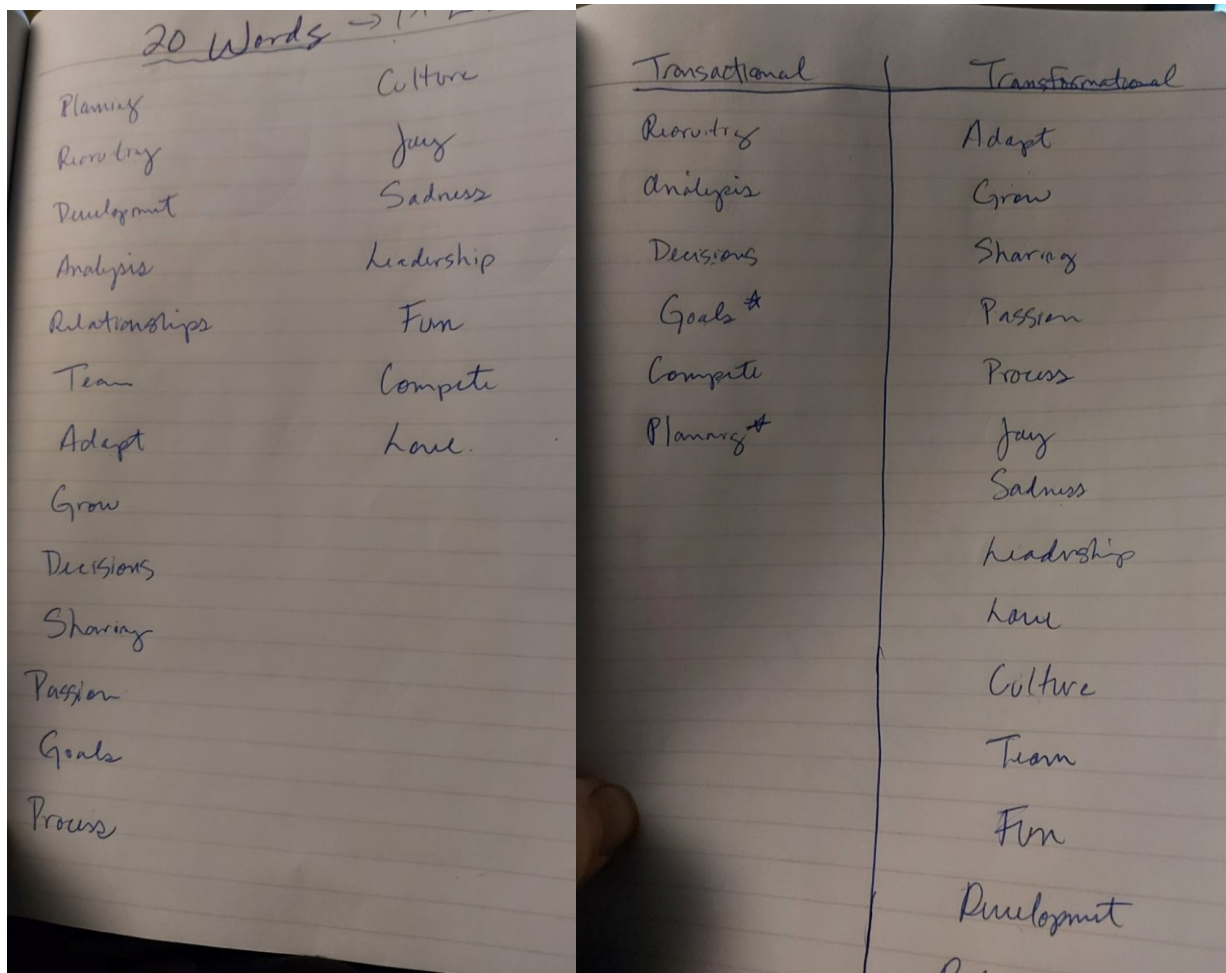
Appendix 18: Coach Ken - General PIA 6

Think of an important event in your life. Make two drawings showing what things were like for you before and after the event. Feel free to use thought bubbles or speech bubbles.



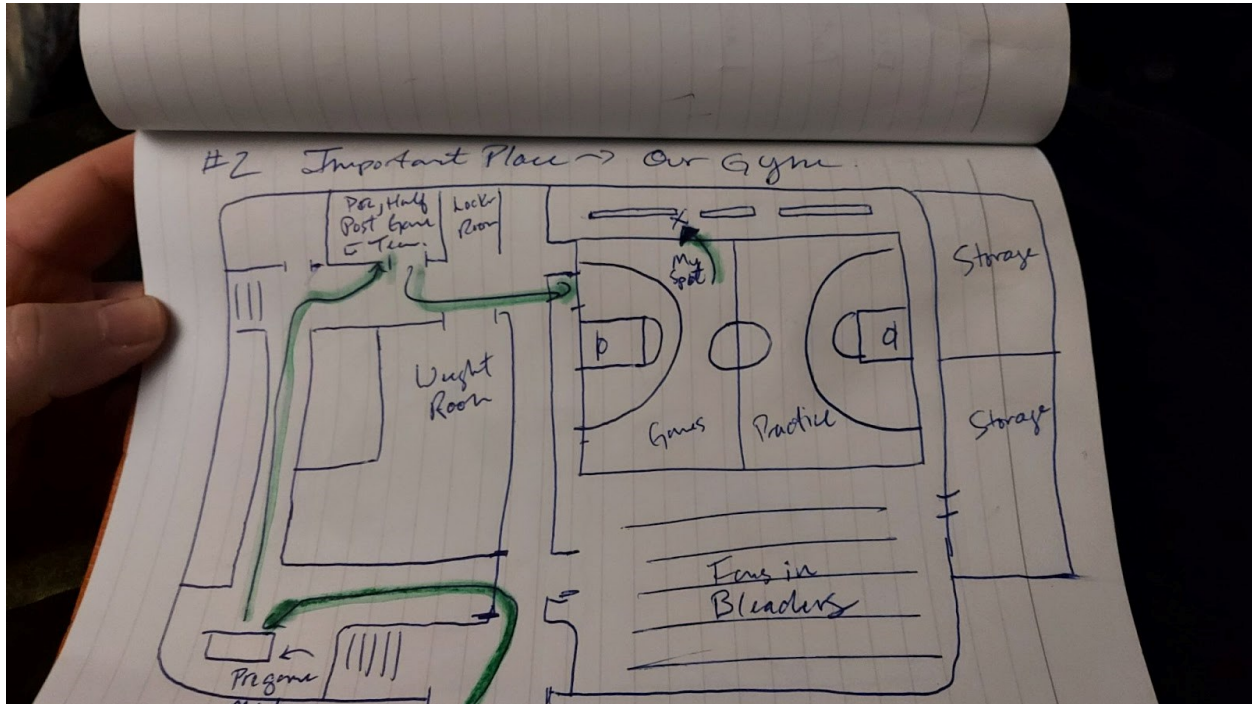
Appendix 19: Coach Ken - Coaching PIA 1

Make a list of 20 important words that come to mind for you when you think of “coaching” and then divide the list of words into two groups in any way that makes sense to you. Please bring both the original list and the two smaller groups of words to the interview.



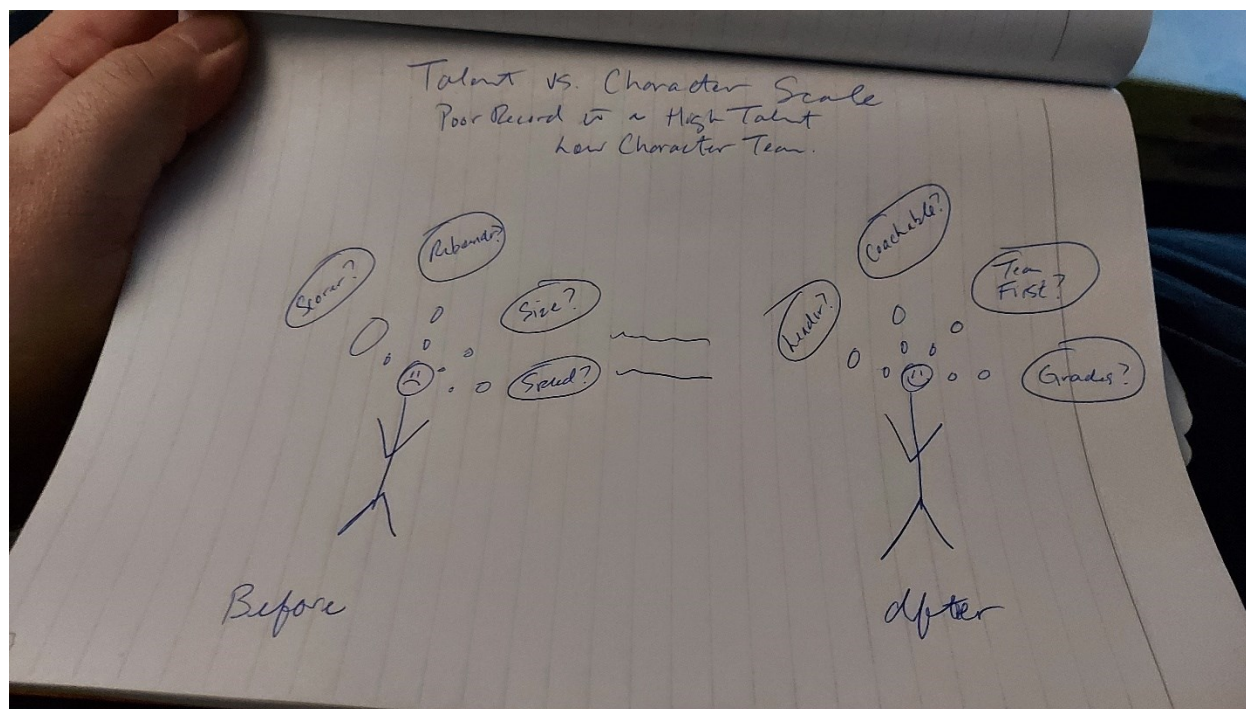
Appendix 20: Coach Ken - General PIA 2

Draw a picture or diagram of a place that is important to you and use keywords to indicate the parts or what happens in each of the parts.



Appendix 21: Coach Ken - Coaching PIA 2

Think of something important that changed things in your approach to coaching. Make two drawings showing what things were like for you before and after the change. Feel free to use speech bubbles or thought bubbles.



Appendix 22: Coach Blaire - General PIA 5

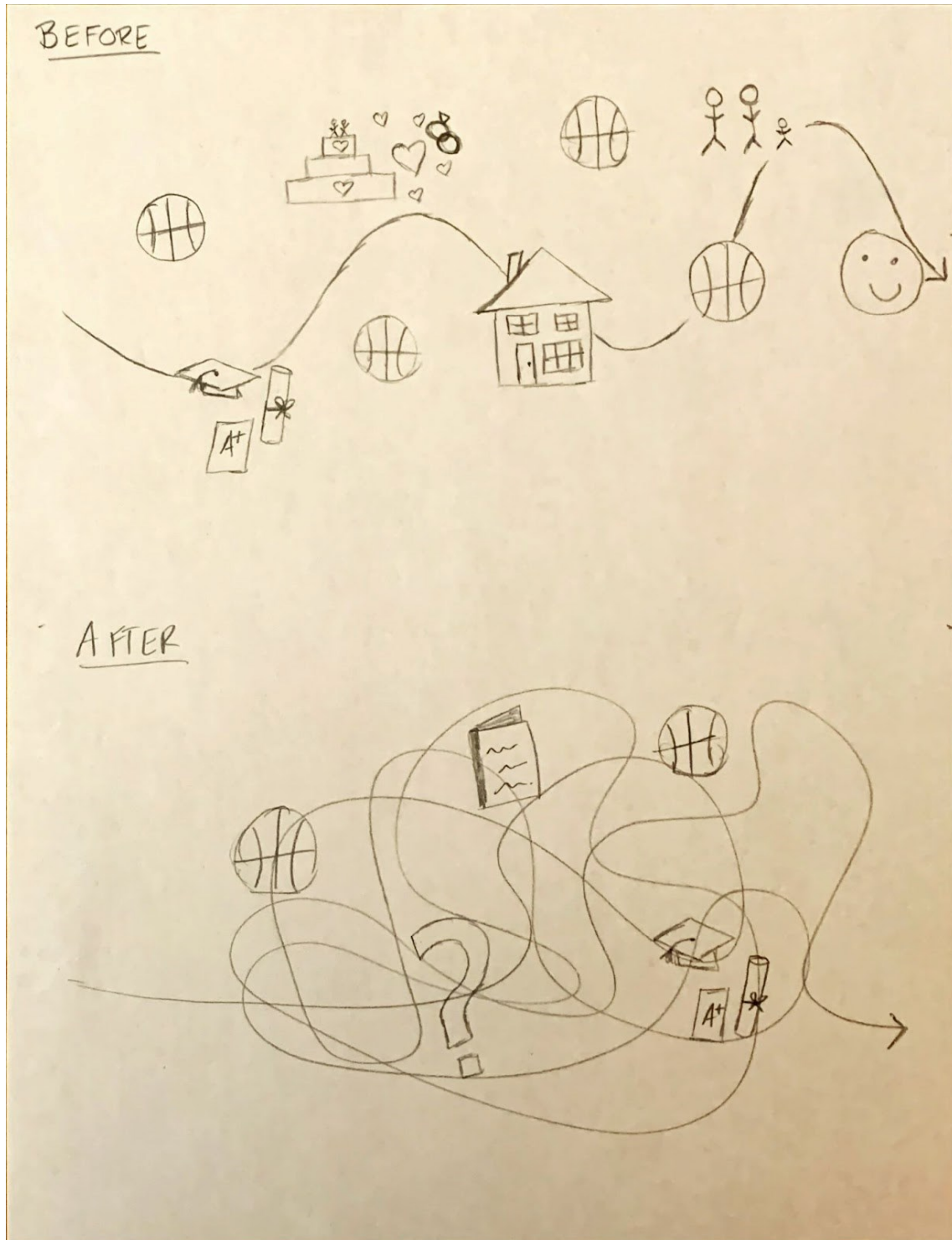
Imagine that someone will make a movie of your life. List or draw 5 scenes that would be important or pivotal moments of your life in the movie.

5 Scenes of Pivotal Moments in My Life

- 1) Biddy Ball
Grade 3
 - introduction to basketball at my friend's church
 - Saturday mornings @ 6:30 am
- 2) Senior Night
after 5 years w/ Dinos Basketball
 - Win vs. [REDACTED]
 - Career high in pts
 - Surrounded by my support system
- 3) One Year Travel to Australia + SE Asia
 - 2 day trek through the jungle in Laos
 - first time really away from home
 - an introduction to travel and different cultures
- 4) Completion of my MEd in Coaching Studies at the [REDACTED]
 - introduction to graduate studies
 - research trip to Australia
 - fulfilled requirements to be hired as a USports head coach
- 5) Divorce
 - just when you think you have things figured out life throws you a curve ball
 - the biggest opportunity for personal growth and development

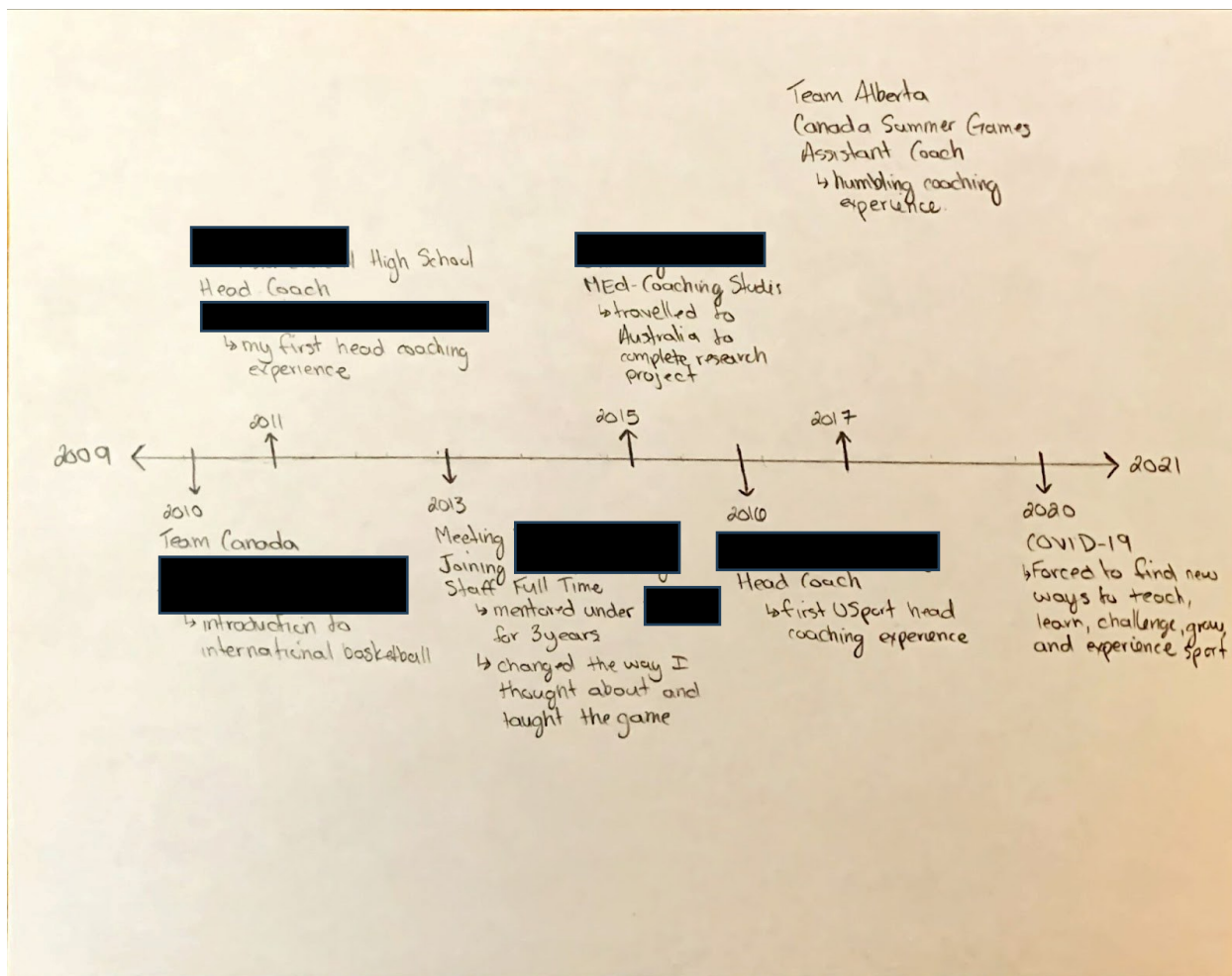
Appendix 23: Coach Blaire - General PIA 6

Think of an important event in your life. Make two drawings showing what things were like for you before and after the event. Feel free to use thought bubbles or speech bubbles.



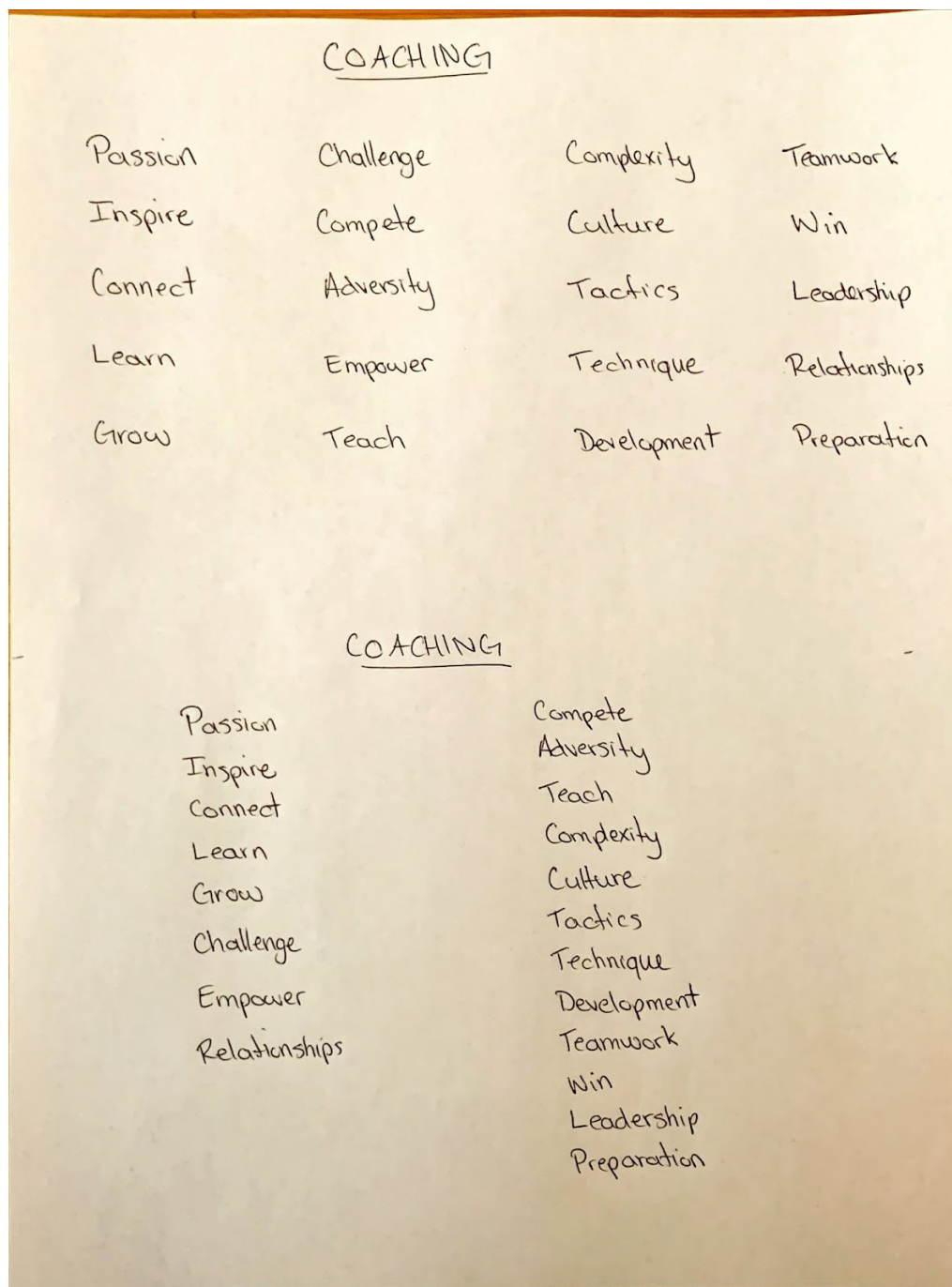
Appendix 24: Coach Blaire - Coaching PIA 3

Make a timeline listing key events or ideas that changed the way you have experienced coaching over the years.



Appendix 25: Coach Blaire - Coaching PIA 1

Make a list of 20 important words that come to mind for you when you think of “coaching” and then divide the list of words into two groups in any way that makes sense to you. Please bring both the original list and the two smaller groups of words to the interview.



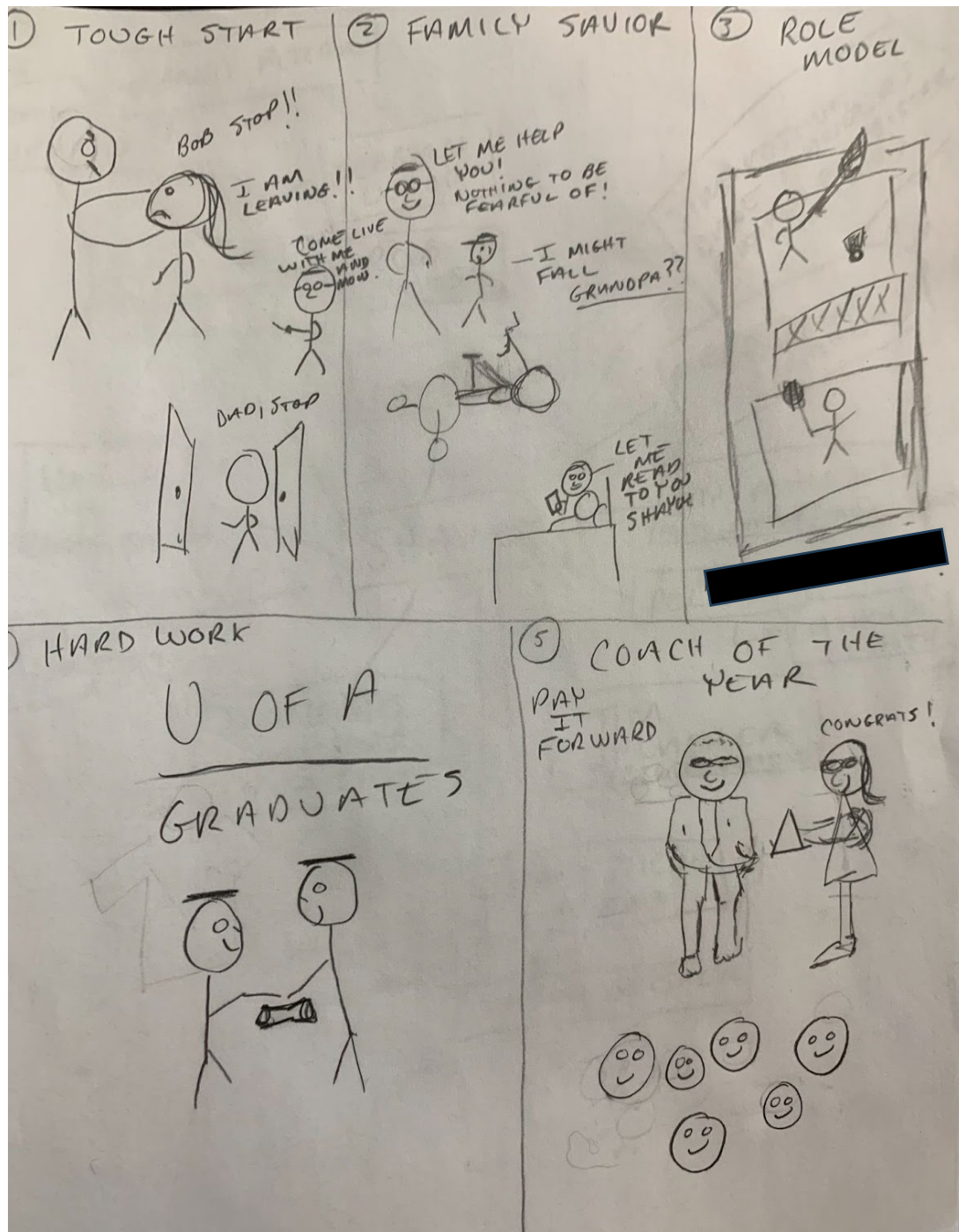
Appendix 26: Coach Owen - General PIA 4

Think of an activity that is very engaging for you. Use three colors to make an abstract diagram that expresses what it is like for you to do this activity.



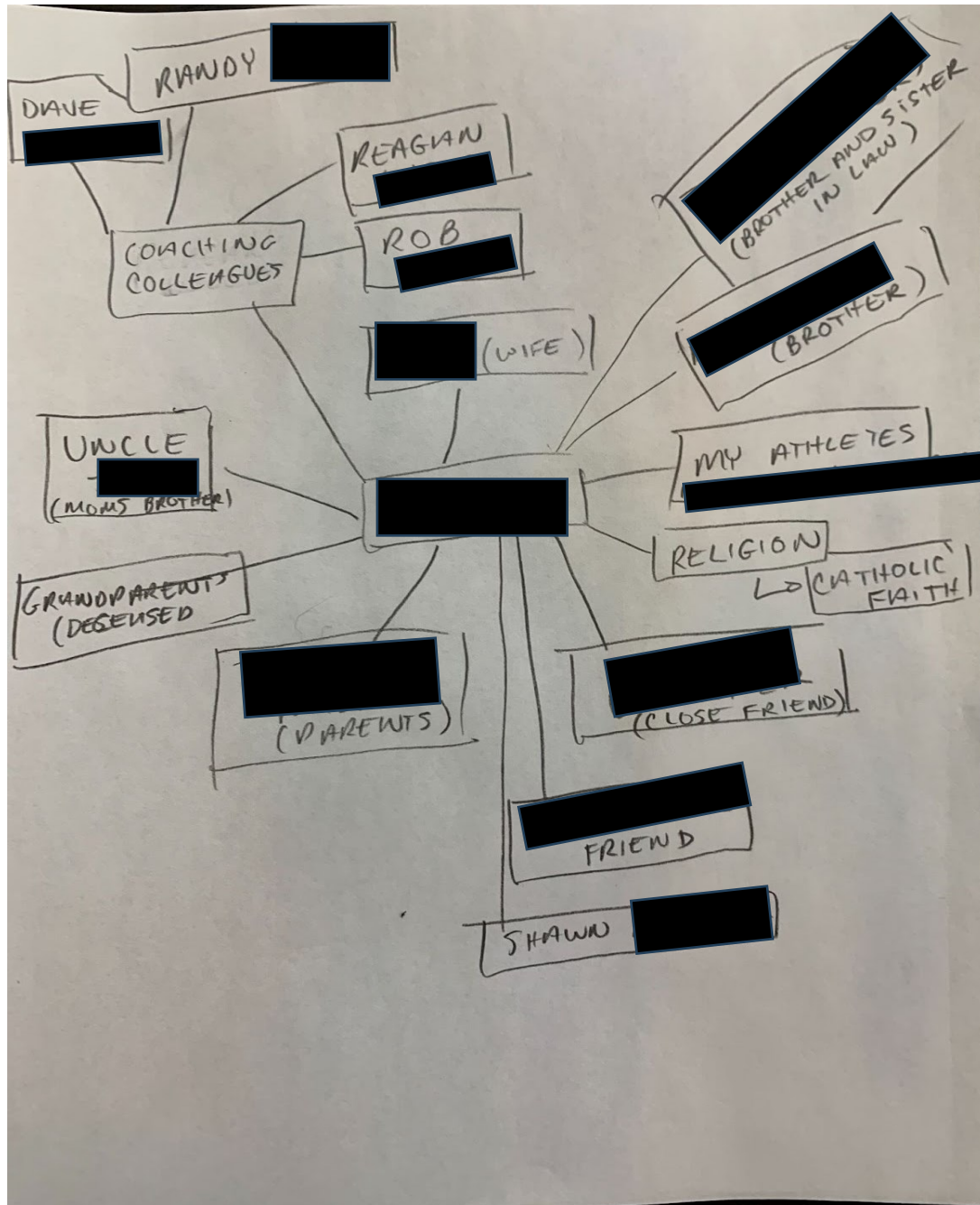
Appendix 27: Coach Owen - General PIA 5

Imagine that someone will make a movie of your life. List or draw 5 scenes that would be important or pivotal moments of your life in the movie.



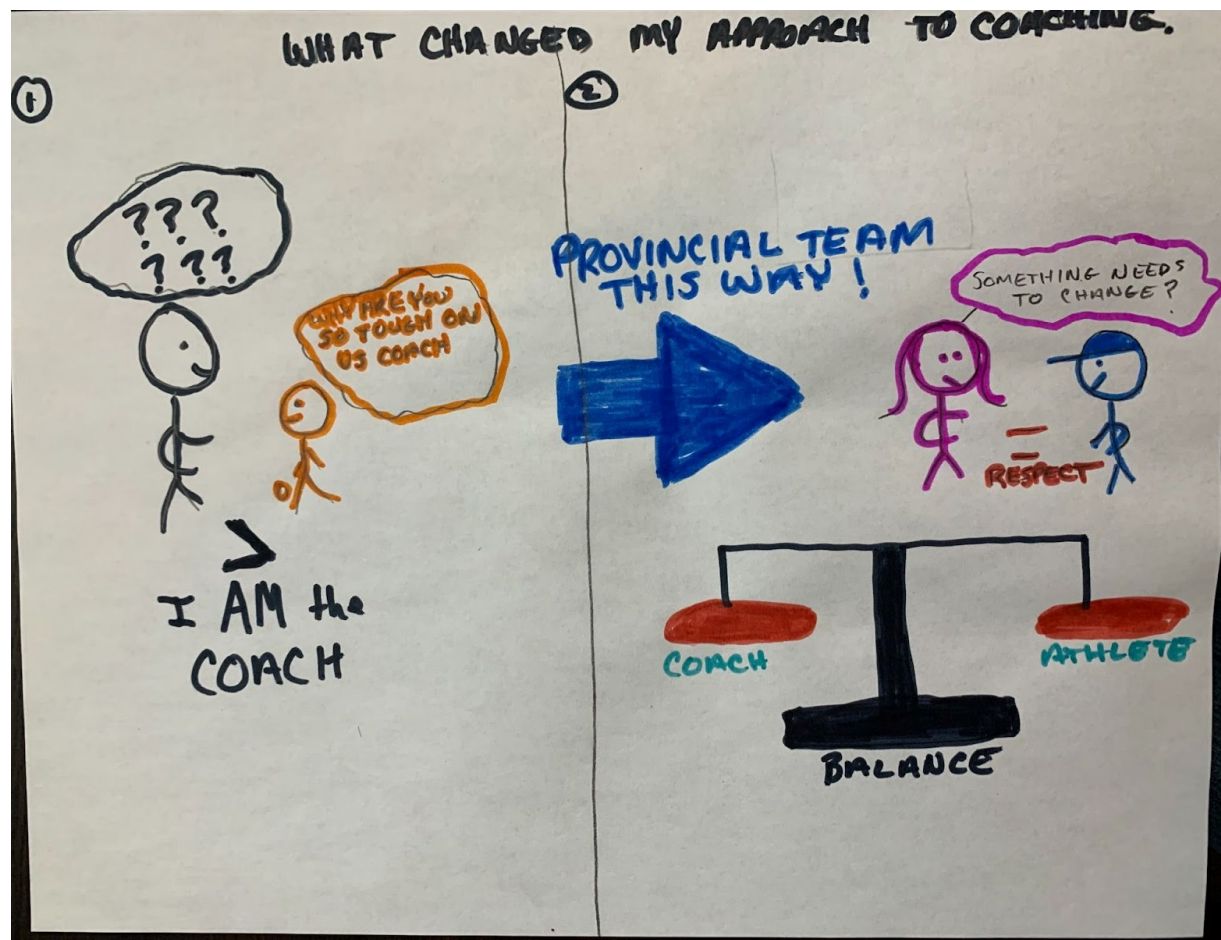
Appendix 28: Coach Owen - General PIA 7

Draw a diagram to show where your support or support systems come from.



Appendix 29: Coach Owen - Coaching PIA 6

Think of something important that changed things in your approach to coaching. Make two drawings showing what things were like for you before and after the change. Feel free to use speech bubbles or thought bubbles.



Appendix 30: Coach Owen - Coaching PIA 1

Make a list of 20 important words that come to mind for you when you think of “coaching” and then divide the list of words into two groups in any way that makes sense to you. Please bring both the original list and the two smaller groups of words to the interview.

The image shows a handwritten document on a piece of paper. At the top, there is a list of 20 words, each followed by a checkmark. A box in the center of the list contains the text "20 IMPORTANT COACHING WORDS". Below the list, the words are categorized into two groups: "MUST HAVES (BASE DESCRIPTORS)" and "ADDITIONAL SUPPORTS (LIFELONG COACHES)".

20 IMPORTANT COACHING WORDS

1. LEADER ✓
2. PATIENT ✓
3. ORGANIZED ✓
4. KNOWLEDGEABLE ✓
5. COMMUNICATOR ✓
6. ETHICAL ✓
7. MENTOR ✓
8. ROLE MODEL ✓
9. LISTENER ✓
10. DECISION MAKER ✓
11. HONEST ✓
12. TEACHER ✓
13. PROCESS ORIENTATED ✓
14. GOAL DRIVEN ✓
15. LIFELONG LEARNER ✓
16. ADAPTABLE ✓
17. EMPATHETIC ✓
18. ACCOUNTABLE ✓
19. RELATIONSHIP BUILDER ✓
20. INSPIRE ✓

LIST

MUST HAVES (BASE DESCRIPTORS)

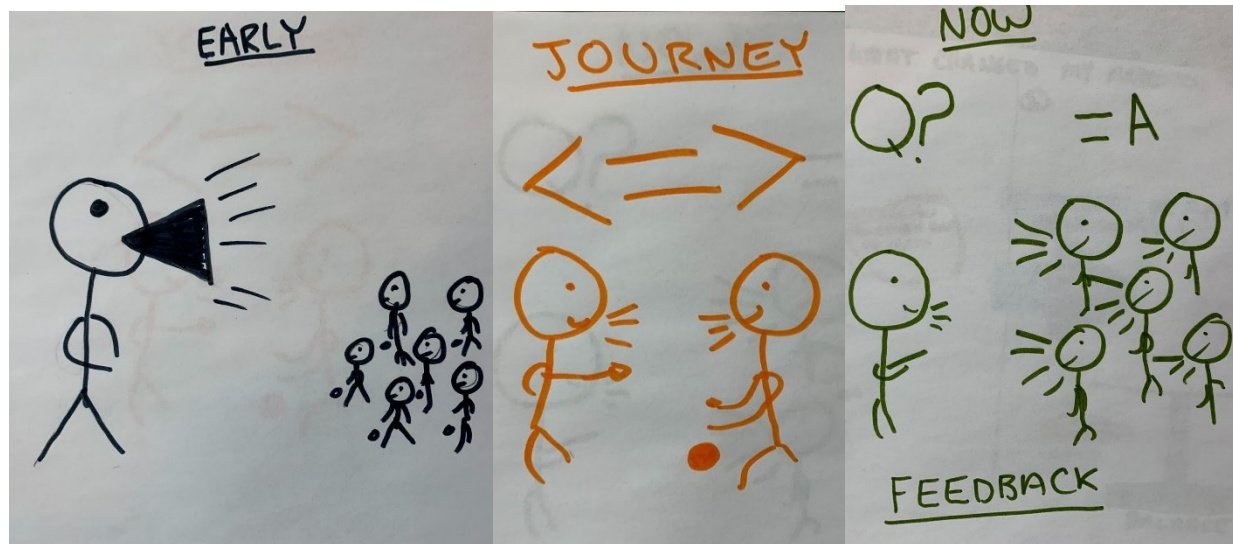
1. LEADER
2. TEACHER
3. ACCOUNTABLE
4. LISTENER
5. COMMUNICATOR
6. PROCESS ORIENTATED
7. KNOWLEDGEABLE
8. PATIENT
9. DECISION MAKER
10. RELATIONSHIP BUILDER
11. ADAPTABLE

ADDITIONAL SUPPORTS (LIFELONG COACHES)

1. ROLE MODEL
2. ETHICAL
3. GOAL DRIVEN
4. ORGANIZED
5. MENTOR
6. EMPATHETIC
7. INSPIRE
8. HONEST
9. LIFELONG LEARNER

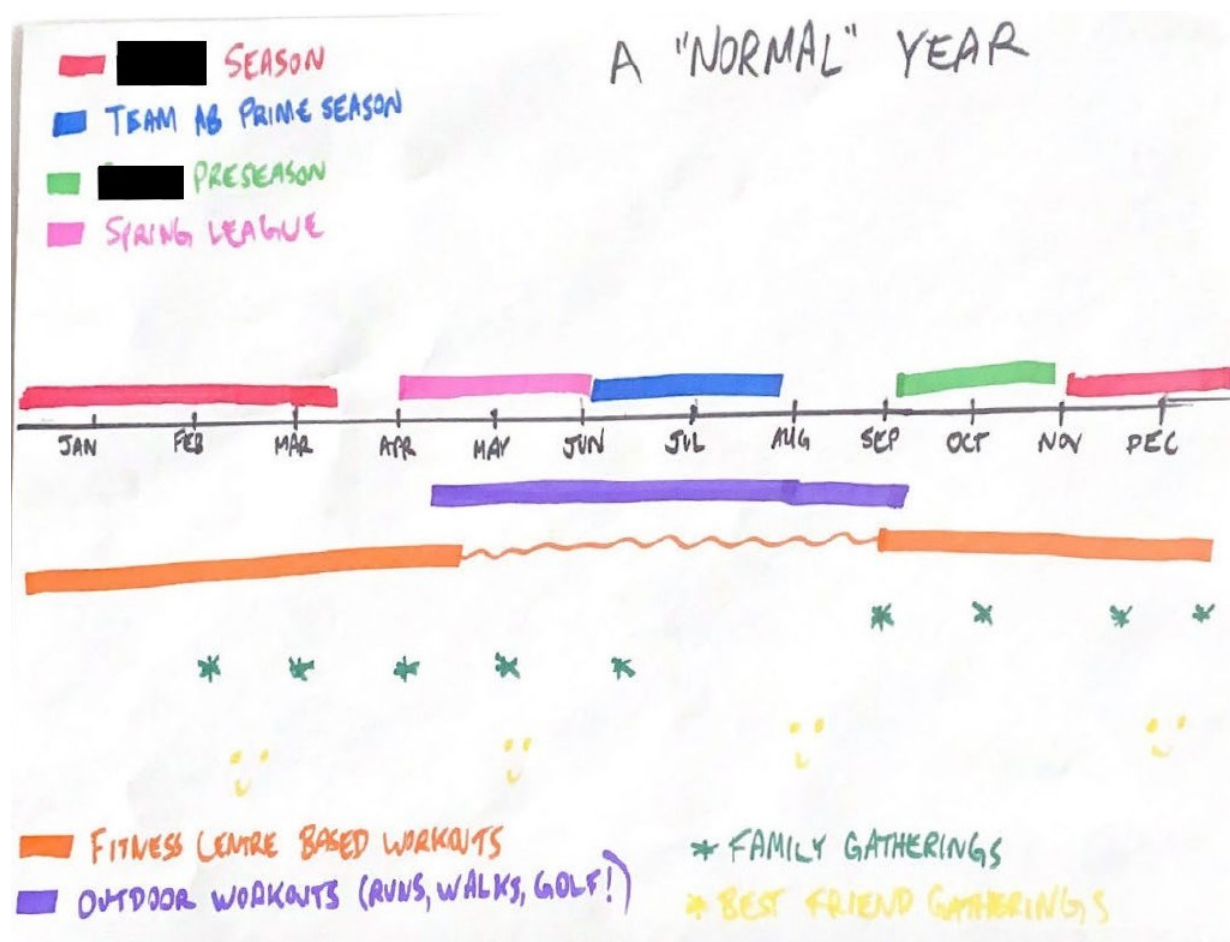
Appendix 31: Coach Owen - Coaching PIA 5

Use colors to make three drawings that symbolize how your experience of coaching activities has changed over time.



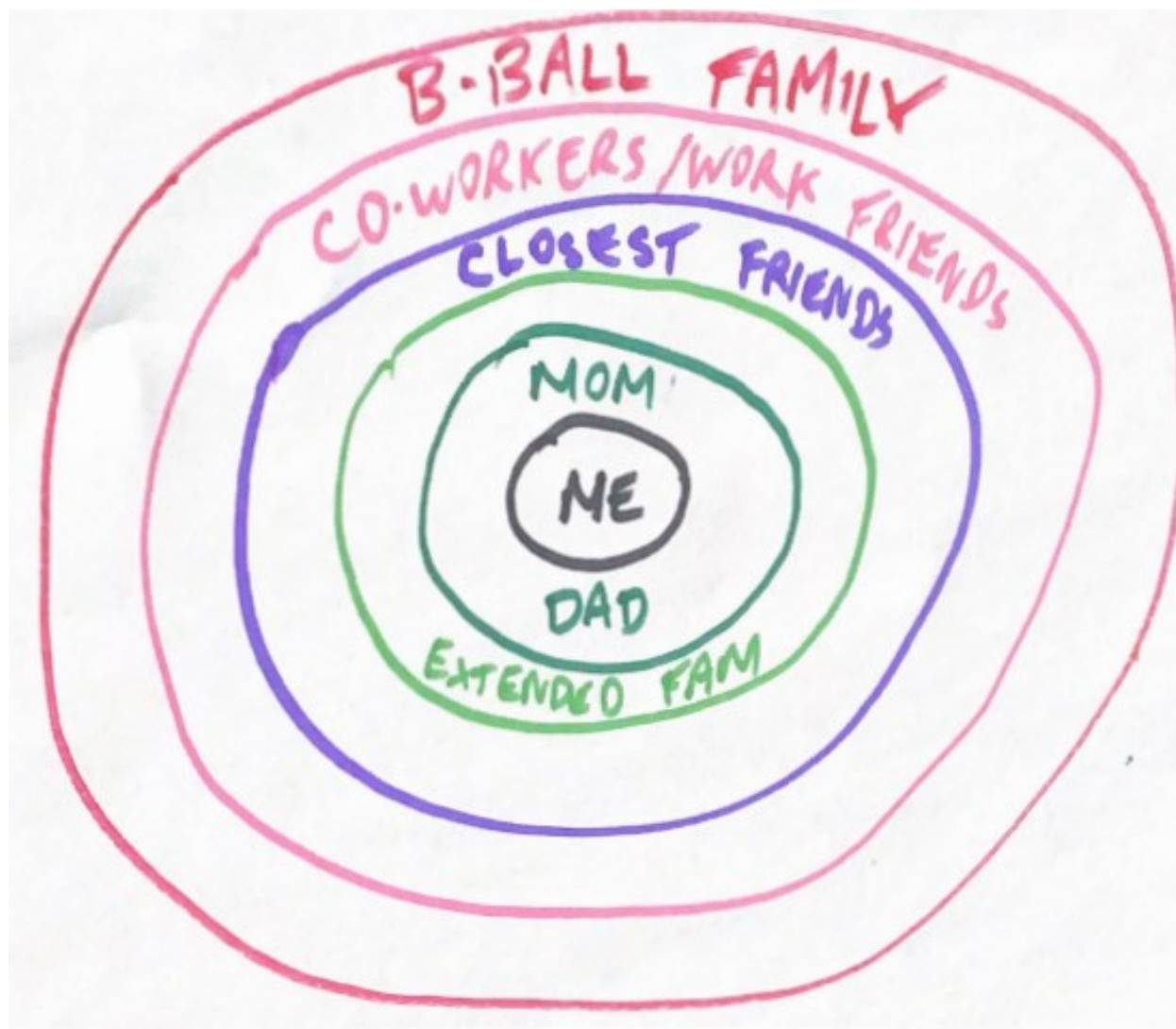
Appendix 32: Coach Danya - General PIA 1

Draw a schedule for your day, week or year and use colors to indicate how time is spent. Make a legend to explain the colors.



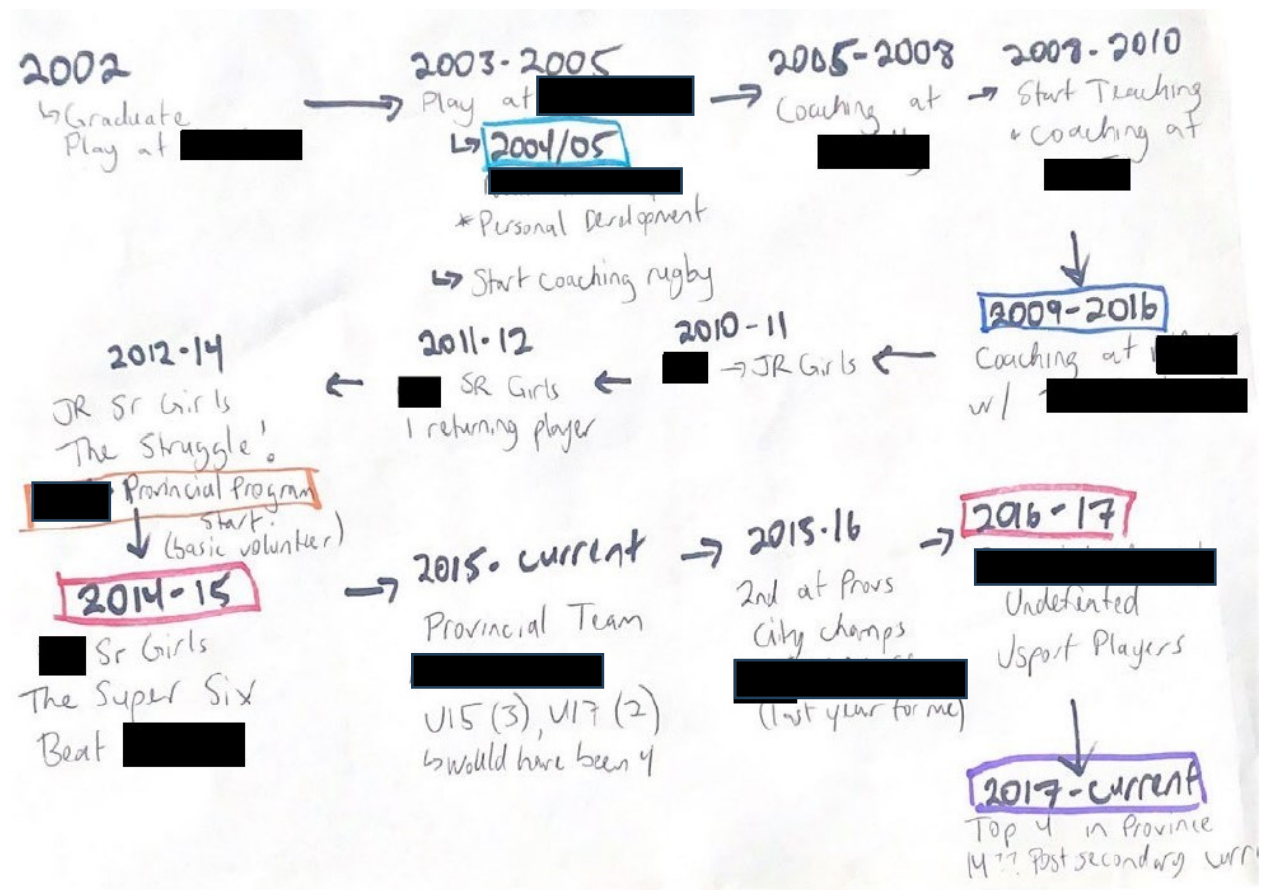
Appendix 33: Coach Danya - General PIA 7

Draw a diagram to show where your support or support systems come from.



Appendix 34: Coach Danya - Coaching PIA 3

Make a timeline listing key events or ideas that changed the way you have experienced coaching over the years.



Appendix 35: Coach Danya - Coaching PIA 1

Make a list of 20 important words that come to mind for you when you think of “coaching” and then divide the list of words into two groups in any way that makes sense to you. Please bring both the original list and the two smaller groups of words to the interview.



Appendix 36: “Big Ideas” in Relation to Adopting the ADM

Big Idea	Participant	PIA or Interview Question	The story (with some ellipses)	Topic of Story
ADM not for post-secondary athletes				
	Sarah	group 4, question 1	I think with a lot more time spent around it, my perspective is that it really affects younger athletes than what I deal with for the most part. You know the reality of being university coaches, there’s not a whole lot of kids that are unable to - you know they’re pretty much developed at that point.	ADM not for her age group of athletes, won’t be getting better
	Sarah	group 4, question 2	[I’ve attended] a few national team camps and they don’t think about it at all. They’re looking for the best athlete, kid, work ethic, the regular things that you and I would look for. They’re not - they don’t have an ADM out.	ADM not used for national team selection
	Sarah	group 4, question 5	No, I don’t think so to be frank. I can’t see anything in there that ... I’m sure that there are things that they’re saying that Olympic level athletes have but it’s hard to look at a kid and be like hey - if you do this, this and this you’re going to be in the Olympics. It just doesn’t work like that. (group 4, question 5).	Using the ADM does not guarantee success at the next level even if you follow it word for word
Selective adaptation of the ADM				

	Alex	group 4, question 4	I'm coaching Learn-to-Win (L2W) athletes at the college level but I knew I was at Train-to-Compete (T2C) level, so I had to try to make sure that I was being consistent with what was in Train-to-Compete because that wasn't going to be a full picture. If I started to kind of cherry pick what I wanted, I feel like it will lose consistency or if I was trying to force them to be a Learn-to-Win team but we don't have the basics that are going to transition us to there – then it's not going to work.	How to use the ADM for his specific group of players
	Ken	group 4, question 5	Well, kids at ages are often similar and that's why we do have this. Everyone's group of athletes is going to be at a different point in their skill acquisition in their athletic abilities in their growth, their physical growth, they're going to be at all different stages of those things, regardless of their age.	Understanding that athletes are at different stages of development during adolescence and puberty - meet them where they are at
	Blaire	group 4, question 3	So we have our U15 and U17 teams and we have committed to stick to the basics and really focus on skill development. So, I would say, in a sense, in those programs, we really do stick to the basics of the ADM. At 15 years and under, what are the things that they should be working on? At 17 years and under, what are the things that should be working on? Helping young athletes	Use of the ADM at 15U and 17U which is starting to show that the ADM works if applied properly

			make that transition prepares them to make that jump to the next level because the university coaches felt that they were missing something along the way and putting them in this environment would help.	
	Owen	group 4, question 1	When I first started, it was interesting because I think because I'm from a small community, I find that a lot of the kids don't have the same access to coaches or higher-level trainers and as a result, what I'm doing is basically the basics. So, for myself, it [ADM] wasn't a big shock. I didn't find it too big of a jump or change going to the ADM I and as a result, I took a lot of the different drills and activities that they did. Even today, I include them in some of my high school kids stuff... so it wasn't like it was over the top, like oh my God how am I going to implement this? For me it wasn't such a big jump to be honest with you.	Took the ADM in stride and was easy to incorporate into coaching practice. Uses it in his PE classes
	Owen	group 3, question 8	The reason why I say it depends on the level is that the younger kids like it simple. They still like competition, but they don't need to compete against each other, like a one on one or two on two. It can be something like just a race. Like a ball race, a basketball race. It can be working on a crossover or challenging them to find a different way to score, playing a game of horse. As they get older	Competitiveness is important for motivation but is different based on age

			though kids want to compete, especially the junior high school kids where they more likely will want to compete one on one or two on two ... because then it becomes a personal bragging right.	
	Alex	group 4, question 2	<p>I think it [ADM] made me check my coaching. So, you know, the one thing I always think of is they have this little pyramid where they break down. On it, it's broken into fundamentals, technical, strategy and tactics and I think what it did was when I look at the level I was at and they have percentages of how much should be in each level. I would take my season planning, I would take what I had done in the past year and sort of check it against it. So that's maybe where it changed - like maybe I didn't have enough technical or I'm not planning to have enough tactics in here, or what am I defining as a tactic or whatever, and so I think in my planning is where it had its most impact.</p>	Taking the ADM and compared it with his current coaching practice
	Ken	group 3, question 8	<p>You can take a basic two on one full court drill and turn it into all kinds of different things and it's still basically the same drill but it's how have you adapted that drill to fit the context. How have you manipulated the parameters to emphasize something in particular that you want your players to work on and that you want</p>	Changing drills to make them more effective by incorporating ADM

			to tie into your larger strategy ... so the drill itself aren't what's necessarily important but how to know what to do with them.	
	Owen	group 4, question 3	How I've organized my practices definitely has [changed]. Before I wasn't so much of an organizer, I was a little bit disorganized or an 'on the fly' coach and played it by ear coach but now it's more of a scheduled organized approach. Just so that I can break things down, especially using the Canada Basketball models that they have for planning. So, I think that scheduling has been improved from my perspective and organization definitely from my perspective, as the types of drills I'm putting into place.	Practice adjustment made because of the ADM
	Owen	group 4, question 3	Warm-ups are the primary aspect that I've changed, for example, starting with warm up activity games going into dynamic warm-ups depending on the level of kids that we're dealing with and moving up to the next level.	Warm-ups change because of the ADM
	Danya	group 2, question 2	I'm going to have to make a yearly training plan (YTP) and so just thinking about that and what that looks like and it's so hard because in high school season it's just it's you practice for a while and then it's a bunch of games crammed in and then you have these weird play stretches - break - play - break and it's all over the place but I think the way	Season planning changed based on ADM after attending an NCCP course

			<p>I've thought about it more is in terms of how to play around a little bit with intensity and volume depending on the time of year and then there's only so much control you have over their off seasons but again especially with the need to be constantly playing. To try and maybe have more of those conversations around rest periods, like needing to rest and what that looks like and try and build that into the YTP.</p>	
	Danya	Appendix 3 - coaching PIA 3	<p>Any good team is going to practice more than they play. So, what are you getting out of your practices and so some people will say - well, they [players] could get way more playing time at this other school. They could play 38 minutes a game. Yeah, but at this school they're playing 18 minutes a game but their quality minutes and then every practice they're having to guard another one of the best kids in the city and that's where they're getting better. They're not getting better playing another crappy team for 38 minutes. They're getting better by being pushed every day.</p>	Practice and playing with good players is part of athlete development
	Danya	group 4, question 2	<p>Just tweaking a little bit of what the preseason looks like and ensuring that there's some physical training put in there instead of just more basketball and also incorporating things like</p>	Slightly changing the preseason to avoid overuse injuries

			proper warm-ups and other neuromuscular stuff injury prevention and trying to teach some of that and incorporate that for the kids.	
	Blaire	group 4, question 3	<p>You do a shell defensive drill and we're doing something similar in early practice and the ball – she was on the weak side guarding the girl on the weak side and so the ball over here and she's just glued to her check and I was - what wait a minute - what are you doing? Well, I'm covering my girl and I'm like well, but the ball is over here. She's like yeah. What are you doing? Guarding my girl ... well in my high school I just always guarded the other team's best player and my job was to not let her catch the ball.</p>	Players lack fundamental skills even when they make it to post-secondary
ADM as a communication tool				
	Alex	group 4, question 5	<p>I don't think I've ever shown it to them. I'm not sure why I haven't but I don't think I have because I would also say this too - I guess why wouldn't do it is - I don't know that it's always all applicable. There is a couple things that I think you have to - you have to pick from other levels so maybe I don't want to stick them in a box or make them think that they're completely short of something because they're not all the way there but the general concepts...</p>	Can't go by age group. only a few things that are applicable

	Alex	group 4, question 5	Realising what the elements look like in all of my planning then explaining it to my staff and making sure that they have an understanding and giving them that model to look at and then I think in a way of explaining it in some way to the athletes, maybe not as technical as here's the what you should be at this development model but here are the things that we're going to focus on the here's why and a lot of that ties directly back to the LTAD.	Sharing knowledge about the ADM to assistants who may have not had the opportunity to take NCCP courses yet
	Blaire	group 4, question 5	We have conversations about it but not in the context of - this is what the athlete development model says you should be doing so this is why we're going to work on this now. It's more in terms of our own context - this is the action we run - in order to execute this action, you have to have these skills or you have to have this decision-making ability. Therefore, we're going to make sure you're good at those things, so you can execute this action within the bigger picture of what we're trying to achieve as a team. (group 4, question 5)	Why she does not directly reference ADM in player conversations