

ICE HOCKEY COACHING DEVELOPMENT

THE DEVELOPMENT OF AN ELITE ICE HOCKEY COACH

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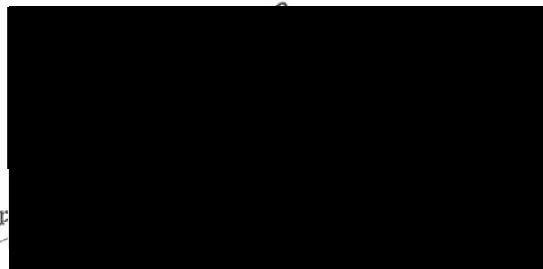


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CHAPTER 1

Introduction

Until recently, most of the ice hockey literature has been comprised of autobiographies and characteristics of elite athletes (Howe, 1995; Bloom, 1985; Jagr 1997) or ways to improve athletic performance (Lynch, 2006; Orlick 1986; 1990). There has also been published literature on elite expert hockey coaches (Hunter, 1999; Boudreau, & Leone, 2010; Gilbert, 2010). Although there is an increased interest in the success stories of elite hockey coaches, the published literature available on the development of great coaches from their first sporting experiences to their current levels of coaching expertise is insufficient. Successful professional coaches such as Scotty Bowman, Herb Brooks and Toe Blake have had incomparable success when it comes to producing winning hockey teams.

Each elite hockey coach has had unique athletic and coaching experiences that have led to elite coaching positions. Once these experiences and their evolving coaching methods are known, elite coaches could be seen as an important source of information in order to provide a blueprint for the development of aspiring elite coaches. Furthermore, a study of elite coaches would help strengthen coaching education and certification programs by showing the personal traits and knowledge necessary to become an elite level coach. Such a study would also help youth coaches acquire an understanding of the skills necessary to become an elite level hockey coach.

Coaching education programs have been established in many countries around the world (Carter, & Bloom, 2009), but their effectiveness remains questionable (Wright, Trudel, & Culver, 2007). In fact, when Gould, Giannini, Krane, and Hodge (1990) studied the educational

needs of American born elite coaches, they found that only 46% of respondents believed that, "...there exists a well defined set of concepts and principles for coaches to use." Because there were no ice hockey coaches in their study, one can only wonder whether American born elite ice hockey coaches share the same belief.

Although the USA Hockey Coaching Certification Program does have progressive coaching levels and requirements, (USA Hockey, 2011) the knowledge of expert American coaches was not asked for and added to the curriculum. As a result of the Canadian National Coaching Certification Program having the same problem, Cote, et al. (1995) interviewed expert gymnastic coaches, an individual sport, in order to understand the structure of their knowledge. After analyzing the interviews of 17 expert gymnastic coaches, Cote et al. found that the results of the interviews could be categorized into components of organization, training, and competition. They also found that the athletes' and the coaches' personal characteristics influenced the coaches' knowledge and delivery of information. However, the development of elite hockey coaches has remained unknown until the present. What athletic and coaching experiences developed eventual coaching methods? How did coaching styles develop from early coaching experiences to the present, and why? At which developmental stage did coaching characteristics emerge for the first time? How did these coaching characteristics develop at the elite levels?

Purpose of the Study

There are two purposes for this study: one, this study will identify and analyze each of the career stages of six elite ice hockey coaches selected by USA Hockey. Two, this study will identify factors that influenced the development of expert ice hockey coaches and the acquisition

and evolution of their coaching knowledge. Based on these findings, it is hoped that coaching education programs and mentor coaches will gain a better understanding on how to present and increase the knowledge of aspiring hockey coaches. This study will also provide sport scientists and coaches with a better understanding of instructional techniques when working with coaches who are aiming to coach at an elite level.

Setting

The coaches in this study will be elite hockey coaches. All the coaches who qualify will be identified based on their current elite coaching status. The study will be conducted through communication via email. Expert and expertise, defined for purposes of this study, are below in the entitled section “Definition.”

Limitations and Assumptions

The present study does have some limitations. One concern is if the information by the coaches will be trustworthy and accurate. The core assumption made by the researcher is that coaches may omit or disguise valuable information in order to retain their competitive edge. Coaches do not like to share valuable information that they have picked up throughout the years because they feel that others will copy them and they will lose their competitive edge. Furthermore, as in most interview based research, the interviewer will have to ensure that questioning will be redundant in order to obtain as much valuable material as possible is included in the interview. Additionally, the researcher is aware that as a hockey coach that aspires to the elite status, careful objectivity needs to be invoked to not assign beliefs held by personal experiences in order to not influence the analysis of this body of work.

Definitions

Elite: Elite was defined as a minimum of 10 years of deliberate practice in their field of specialization (Ericsson, Krampe, Tesch-Romer, 1993).

Elite coaches: Coaches who were selected by peers in USA Hockey based on successful university and international level results measured by successful win/loss records, more than 10 years of coaching experience at the elite level, and experience working either in university programs or with national teams.

Stages of Development: There are seven chronological stages, each stage depicts professional advancement in the development of the elite coach.

1. Youth Sport Involvement
2. National Sport Involvement
3. International Sport Involvement
4. Early Coaching
5. Developmental Coaching
6. National Coaching
7. International Coaching

Summary

This study will define the career stages and characteristics of expert hockey coaches in a similar way as Bloom (1985) researched the development of world class elite athletes. Bloom emphasized the development of the athlete; however, this study will outline the stages in the development process of elite hockey coaches. Furthermore, this study will also try to explain the

acquisition and development of coaching characteristics starting with early athletic experiences, and ending with current elite coaching practices.

CHAPTER 2

Review of Literature

This study is about the development of elite ice hockey coaches starting with their first athletic experience and ending with their current elite status. There were blatant themes in the literature on the development of elite ice hockey coaches. This literature review will first address those themes, and then will describe their significance. This review will also summarize the current rationale in the field on the development of elite ice hockey coaches.

Talent Developmental Model – A Starting Point

The idea of a talent developmental model in athletics and other fields that require high performance was first introduced by Bloom (1985). Bloom conducted interviews to study the athletic development of elite tennis players, Olympic swimmers, as well as, expert artists and scientists. This study was important because it identified the stages of the athlete's developmental process starting with their first sporting experience and ending with the athlete's elite level status. Furthermore, in Bloom's study, there were similarities in the developmental process of all performance fields studied. The similar stages in development included transition phases for the athletes and the demands made by teachers, coaches, and mentors at each level. Since there have been few studies on the development of athletes, Bloom's talent development model will be used as a starting point for this study.

Stages of Commitment for Athletes

During an athlete's development, Bloom found that their progress was related to personal desire and increased commitment. The athletes Bloom used in his study went through three

separate levels of commitment while they developed. The first stage was defined as the initiation or introductory stage, the second stage was identified by the athletes' developing more commitment and getting hooked to their sport, and in the third stage, the athletes became obsessed with their sport of choice.

During the initiation stage, as children, the athletes became involved and motivated because of the enjoyment they received from participating in the sport, and the support they received from parents and coaches. Bloom began studying these athletes when they were between five and seven years of age. Bloom stated that, "They mostly played because it was fun, they enjoyed it, and they got attention for playing," (p.232, 1985). This was important to note because it means that the children wanted to become better in their sport before the pressure of competition began. Therefore, Bloom believed that a healthy supportive sporting environment combined with enjoyable initial sporting experiences were the reasons why the athletes initially became committed to their sport.

Bloom found that as the athletes became more involved in their sport, they began to focus on skill development and performance. Bruce Boudreau, former player of the Washington Capitals, talked about when he first began to compete seriously in high school, and described this stage of development as: "Once I started getting seriously interested in hockey, I listened when my coach told me something...I was able to recover every piece of instruction," (Boudreau, p. 27, 2010). Because of an increase in commitment level and focus, the athletes became even more motivated by improvements in their performance and they placed even more focus on continued development in their sport. Bloom believes that this change in mindset was because the athletes realized that, "The demands of the instruction at this level required a great deal of practice time," (p. 245, 1985).

In the final stage the athletes became obsessed with their sport of choice, and therefore focused on improved performance. Bruce Boudreau described the intensity of his early love for hockey as, “My whole life still revolved around hockey. I liked girls, but I was really in love with hockey and nothing else was even close,” (Boudreau, p. 76, 2010). In this stage of development, each athlete had experienced success, and realized that they were very good at their sport. Furthermore, the athletes became aware that they were better than their teammates and most of the opposing players. Because of this self-perception of rare talent, the athletes set themselves apart from the average athlete and separated themselves from their peers. Even though these changes in behavior were extreme, Bloom found that it was also a necessary part of the athletes’ developmental process.

Because of the athletes’ increased commitment and motivation during these three stages of development, the athletes needed better coaching that reflected their personal and performance needs.

The Coach’s Relationship with Athletes

Bloom described the relationship between coaches and athletes at each stage of development. During the introductory stage, early sport instructors started and supported the athletes’ passion in their sport, and were very encouraging in the athlete’s efforts at performing the skills of their sport. Bloom believed that the athletes’ interest and enthusiasm in the sport was more important than their performance level (1985). Therefore, coaches took a sincere interest in their athletes, “Usually because they perceived the...player as being motivated and willing to work hard, rather than because of any special physical abilities,” (Bloom, 1985, p. 225).

Furthermore, many of the coaches had friendly relationships with the athlete's family before any coaching began.

The second stage of development between the coach and the athlete was described by a greater focus on formal training and on exercises for skill development. In a combined effort with their parents, the athletes often switched coaches in search for more knowledgeable and higher caliber instructors in order to learn the more technical skills needed to perform at higher levels of competition. This marked the start of competition becoming a method of measuring performance level and skill development. The relationship between athlete and coach changed as the athlete started to become self-directed. The role of the coach was then changed to balance the technical skills of the sport with positive reinforcement.

The athletes' transition to the final stage of development was described by a complete focus and commitment to their sport. In this third stage, the athletes took full responsibility for the achievement of the highest performance levels. The relationship between the coach and the athlete was more professional and respectful as the athlete searched for a coach who would evaluate and provide feedback of performance unlike an earlier coach whose purpose was to motivate and encourage the athlete.

Elite Coaching

There have been numerous studies on the development and attributes of elite athletes, however, few studies have explored the development of elite coaches. The following section will examine previous research on the development of elite coaches.

Developmental Stages of Elite Coaches

Through interviews with ten expert ice hockey and field hockey coaches, Salema, Draper, and Dejardins (1994) tried to identify the developmental stages of becoming an elite coach. From their study, they found six developmental stages: diffused involvement in sports, initial coaching role, the passive to active transfer of coaching knowledge, the established coaching role, the specialist coach, and the coach who has eminent awareness. Results showed that, first, as athletes, all the coaches played many sports and were very committed and dedicated to their early athletic experiences. When they began coaching, many of them coached different sports which helped them gain basic coaching knowledge and experience. This knowledge and experience was also aided by contact with other coaches and participation in coaching clinics. For example, Herb Brooks described his process of knowledge as, “The reason I became an assistant coach was to gain more knowledge about the subtleties of coaching,” (Gilbert, 2010, p. 231). When the coaches got their first established coaching positions, the coaches specialized in one sport. Being viewed as an elite coach meant that the coaches had successful winning percentages, became mentors to other aspiring coaches, and became innovators within their sports.

Based on the work of Salema, et al. (1994), it was apparent that in ice and field hockey, coaches went through a long learning process before they became elite coaches. Furthermore, Dodds stated that, “Elite coaches need to have a strong passion for their sport and refined observational skills in order to analyze each component of the skills in their sport,” (1994, p. 14).

Developing Expertise in Performers

Cote et. al., were interested in, “Identifying the content, structures and processes that are responsible for skilled performance,” (1995, p. 6). Furthermore, researchers Ericsson, Krampe, and Tesch-Romer, (1993), have tried to study the competency levels and demands made on novice and elite athletes in their specified field. These studies provided researchers with a method of observing elite and novice athletes within a controlled environment.

According to Ericsson et al. (1993), in order to become elite, one must go through a minimum of 10 years of deliberate practice in their field. While studying elite musicians, expert chess players, and athletes, Ericsson and his colleagues believed that in order to aid this development of becoming elite, “Their education should balance deliberately set instruction from elite teachers with specifically designed practice programs that the developing student could carry out,” (1993, p. 35). Deliberate practice was defined as, “Activities that have been specifically designed to improve the current level of performance,” (Ericsson, Krampe, & Tesch-Romer, 1993, p. 368). Furthermore, the actual activity was intended to be strictly task related, instead of only being enjoyable. Therefore, because of the demands placed on the performer during deliberate practice, skill improvement was the only goal.

Based on the idea of deliberate practice, Ericsson et. al., studied performance levels of pianists and violin players. In their first study, four different groups of violinists were interviewed; potential professional musicians, good performers with less capability than the best performers, musicians who would most likely become music teachers as opposed to performers, and international level musicians. The four groups were interviewed and then evaluated in order to account for the differences in their performance levels. Despite the differences in

performance, the three groups that didn't have professional potential shared many similarities including the age which they first received music lessons and the amount of playing experience years. Results showed that of these three groups of music students, the two higher groups practiced 24.3 hours per week as compared to the lowest group who spent 9.3 hours per week. When comparing the two strongest groups of music students, the best students had practiced 7,140 hours before reaching the age of 18 as opposed to 5,301 for the lowest level students (p.372). Therefore, the number of practice hours influenced the performance level of the students once they were given the opportunity to practice over an extended period of time.

If Ericsson's developmental model of becoming elite is correct, then coaches could evolve into elite level coaches because of the amount of hours spent coaching and deliberate practice in their specific sport (Salmela, 1994). Furthermore, coaches could develop and produce elite level athletes by providing the athletes with training programs that require deliberate practice and amounting to at least 10,000 hours over the course of 10 years. However, a coach could then hinder the athlete's development by failing to provide the correct training program to produce elite level skills.

Although, the quantity and quality of practice improves performance levels in athletes, an elite coach's knowledge could improve the performance of athletes as well. This realization was the driving force behind Cote, Salmela, Trudel, Baria and Russell's (1995) study on how to identify the conceptual knowledge of elite coaches.

Conceptual Knowledge of Coaches

Cote et. al.(1995), studied 17 elite Canadian gymnastic coaches in order to provide a sport specific conceptual model of their knowledge structure. Every coach studied, had at least

10 years experience in the coaching profession, at least one gymnast at the international level, two gymnasts at the national level and were classified as experts by the Canadian Gymnastics Federation. Cote et. al.'s(1995) conceptual model included the following categories: competition, organization, training, the coach's and the athlete's personal characteristics and contextual factors, the athlete's personal characteristics. The combination of these coaching components played a role in the development of the gymnasts.

Cote et. al's (1995) study aided sport psychology in two ways. First, it provided the sport researcher with a study where research was collected and then qualitatively analyzed. Second, Cote et. al., identified the conceptual and operational knowledge of elite gymnastic coaches. The study concluded that elite coaches have developed and refined coaching methods that develop elite level athletes.

It is clear from the results of previous studies that athletes do not develop by themselves. Even the most focused and committed athletes need an elite coach in their field to aid in their development. The coaching profession is developing and coaching education programs have been established in many countries around the world (Carter, & Bloom, 2009). Although these programs are in place, coaches need to understand the successful coaching methods in order to improve the development of coaches and athletes. Studies that identify and define the development and knowledge of elite coaches will aid in the development of future coaches.

Summary

The current study will use Bloom's (1985) model of three stage development, and shift its focus from the athlete to the ice hockey coaches. The stages of athletic and career development will surface from the interviews. This study will outline the career development of

elite ice hockey coaches beginning with their first athletic experiences and ending with the coaches' current elite level status. Successful elite ice hockey coaches develop their coaching methods over the course of their lives, both before and during their professional careers.

Therefore, this study will determine the career development stages of elite level hockey coaches along with the coaching methods that develop at each stage.

CHAPTER 3

Methodology

The purpose of this study is to determine the developmental process of elite ice hockey coaches from their first athletic experience and culminating with their current elite coaching status. This chapter will describe the setting and participants studied, discuss the development of the interviews, and will conclude with a description of the process used to gather and analyze the data.

Setting and Participants

The coaches interviewed in this study were 6 elite American born hockey coaches. All of the coaches who qualified for this study were identified by peers in USA Hockey based on successful University and International level results measured by successful win/loss records, more than 10 years of coaching experience at the elite level, and experience working either in university programs or with national teams. Five of the six coaches had previously or presently coached USA National hockey teams and at the highest university level, with the other coach presently coaching at the highest university level. The average age of the hockey coaches was 54.5 years, and they had been coaching at the elite level for an average of 18.5 years. This meant that they had met the criteria for being labeled elite.

Research Design

Six elite hockey coaches were selected by USA Hockey's Director of Coaching as being the most successful in the country. I contacted the USA Hockey Director of Coaches via email in order to receive the elite coaches contact information. These coaches were then contacted individually by the researcher via email with an explanation of the study and to request

participation. There was a concern that some coaches may refuse to participate in this study. However, that was not the case, all of the original six coaches selected by the Director of Coaching agreed to participate. The researcher then sent the letter of consent to the six elite coaches for request to participate. Once the letter of consent was signed, the researcher sent the first of the four interviews via email to each of the coaches. The coaches then responded to each of the questions in each of the interviews within a four week time frame.

Interview Format Chronology

There was a predetermined chronology in the interview format for all six elite ice hockey coaches to study the development of their coaching knowledge from their athletic experiences and concluding with their elite level coaching positions. There were four interviews in this process. Interview one was entitled, “Pre-interview Briefing.” Interview two was entitled, “Athletic and Coaching Development,” and focused on what contributed to current coaching knowledge and philosophies. Interview three was entitled, “Current Coaching Procedures,” and focused on coaching approaches during both practices and games. Finally, interview four was entitled, “The Future Direction of Coaching,” and focused on the possible future direction of coaching in hockey from the interviewed elite coaches. All interviews will now be discussed in greater detail.

During the “Pre-interview Briefing,” the researcher was able to introduce and define the purposes of the study, which gave the elite coach an outline for important information to discuss. The other purpose of this interview was to establish informal and friendly conversation.

During the “Athletic and Coaching Development,” interview, the researcher was able to distinguish the chronological order of the development of the elite hockey coach from their first

athletic experiences to their current elite level coaching positions. The themes obtained from this interview were; first experiences with hockey, experiences with coaches while still an athlete, experiences that made the individual want to coach as a profession, early coaching experiences and styles and how these combined at the elite level.

The “Current Coaching Procedures,” interview was used to identify the elite coaches’ procedures for both practices and games. The main focus was on identifying any similarities or differences between the elite coaches’ instructional or interpersonal styles while working with their athletes. The researcher also tried to understand how early athletic and coaching experiences developed the elite coaches’ philosophies.

The final interview, “The Future Direction of Coaching,” focused on the six elite coaches’ suggestions on the future direction of ice hockey coaching. The elite coaches based their suggestions on the needs of athletes, the USA Hockey Coaching Certification Program, coaches, and hockey in general.

The interviews were emailed by the researcher on the Monday of each week in February, 2012. The researcher had never met the six elite coaches prior to the interviews, so no information was considered obvious. All interviews were in English, the elite coaches’ first language. All the elite coaches’ completed each interview within 7 days of receipt.

Patton states that, “Asking questions that are clearly understood is equally important as the content of each interview” (Patton, 1987). The researcher’s job was to get as much information about each elite coach’s knowledge of working with their hockey athletes, and how these coaches developed this knowledge over time.

The purpose of this study was to provide a clear understanding of each elite coach's professional development and philosophy when working with athletes. Therefore, the elite coaches were questioned to the point of redundancy so that no information was overlooked by either the researcher or elite coach (Cote, 1993). Furthermore, the last question of each interview asked the elite coaches whether any important information was overlooked during the interview. This helped to ensure that the data collection process was exhaustive. The strategies mentioned above helped the credibility of the data collection process.

However, there were problems with conducting interviews via email. For example, the coaches used terminology that was confusing and the coaches inadequately answered some of the question. However, during the email interviews, "probing" was used to redefine and further elaborate some of the terminology used by the coaches whenever it was confusing or lacking in detail. The data was collected from January 1st, 2012 to February 29th, 2012. Furthermore, there were no formal incentives to participate. However, there may have been intrinsic motivation for the coaches to provide valuable knowledge to the ice hockey coaching field.

Data Gathering and Analysis

All interviews were transcribed from their original emails to a typed format immediately after each interview was completed. There were forty pages of double spaced interview transcripts. Changes to the transcripts included removing the names of each coach which provided anonymity.

During this study, the researcher conducted four email interviews with six elite American born hockey coaches. The interview questions were predetermined and asked with the purpose of

extracting the influences, approaches, and attributes of the elite hockey coaches as they evolved in their coaching careers.

The fact that the researcher will not have direct face to face interviews with the coaches could present a potential problem in overlooking information by both the researcher and the elite coach. In order to avoid this problem, each coach was questioned to the point of saturation, which included additional follow up questions, during the interview leaving little room for overlooked information. The format of the interviews started with early athletic experiences of these coaches and extended through their progression of the coaching stages, and up to their current elite level positions. Furthermore, at the end of the interview, the coaches' demographic information was asked for and obtained.

Analysis

The main objective of the analysis was to clarify and interpret the developmental process and knowledge of elite ice hockey coaches. Smith (1990) believes that research clarified itself the best when information was categorized into distinct sections. Therefore this analysis of the research showed the differences and similarities between the six elite ice hockey coaches. Thus, the categories surfaced from the data themselves instead of from any presumptions that the researcher had.

Categorization

The first step was to cut and tag all the research into free standing sections of text termed meaning units (Glaser & Strauss, 1967). This process included a, "detailed examination of the data to identify topics which best described particular segments of text" (Cote, Salema, Baria & Russell, 1993, p. 132). Therefore, when information from the interviews stood out as important,

it was singled as a separate piece of text, or unit, from the rest of the interview. The second step involved tagging each piece of text from its perceived meaning.

Creating tags

Once all the email interviews were tagged, the next step of the analysis was to create consistent tags for the similar pieces of texts by listing and then comparing and contrasting the information. The similarities created “tag units” so that the content could be compared with other meaning units from the same coach and the other coaches. The tags already categorized by the development phases were further put together by their content. Therefore, all material was “re-contextualized” into a “preliminary organizing system” (Cote, Salema, Baria & Russell, 1993, p. 131).

Once the tags were created, the similarities and differences between the units were compared along with the characteristics that made each stand out. From this structured material, the researcher tried to identify and define the development of the elite coaches, and outline the process and content of each elite hockey coach’s knowledge. The focus of this study was to identify the developmental process of the coaches as individuals and as a group. Therefore, there were many similarities and differences found between the coaches.

This analysis involved two separate phases: creating categories and creating tags. The first step was the categorization of data. That step was followed by creating consistent tags and the process of conceptualizing the tags. Categorization in a qualitative study led the researcher to the identification of themes. These themes then led the researcher to the construction of the 7 developmental phases.

Summary

The current study enabled the determination of the stages in the development and process of American born elite hockey coaches. This study explains the acquisition and development of coaching characteristics starting with early athletic experience, and ending with current elite coaching practices.

CHAPTER 4

Results and Discussion

There were two main purposes of this research. One was to find out the professional development process of elite hockey coaches from their first sporting experiences as a child to their current expert level coaching positions. The second one was to find out the similarities and differences among the coaches by comparing them across the stages of their athletic and coaching careers.

In order to find out the contributing factors to each expert coach's development, the coaches' personal playing experiences were accounted for. While the coaches reflected on their playing experiences, they elaborated on the influences of their family and the lessons learned from their coaches. Furthermore, as the coaches were developing professionals, they were influenced by mentor coaches, athletes, education programs, and their spouses and children. Lastly, the coaches reached their elite status with personal philosophies which they installed when working with their athletes. Throughout the coaches' development, the elite coaches learned lessons that helped strengthen or change their coaching philosophies and procedures in hockey. The development of the elite coaches' communication skills as related to goal setting, interpersonal skills, problem resolution, and leadership styles were analyzed. Therefore, because of the responsibility coaches have, most of the elite coaches talked about how their professional lives have a negative impact on their personal lives. All of these components played a role in the results and discussion of this research study.

Nature of Data

After the analysis of the data was completed, 731 meaning units represented the six expert coaches' interviews. By using inductive analysis, all the material was grouped into seven

developmental stages. Furthermore, the coaches' roles were grouped into their athletic influences and the development of coaching philosophies. During the coaches' athletic careers, they learned lessons from their first sport experiences and their significant others. After that, the coaches talked about their love for hockey and, as a result, how early coaching characteristics emerged. When they began to coach hockey, the coaches acknowledged the influences of educational programs and the difficulties they experienced at each coaching level. Lastly, the expert coaches also talked about the process of how their teaching styles developed from the early to expert coaching levels.

The results began with the coaches' first athletic involvement and experiences, and then went into the phases of coaching development. The analysis resulted in seven phases: Youth Sport Involvement, National Sport Involvement, International Sport Involvement, Early Coaching, Developmental Coaching, National Expert Coaching, and International Expert Coaching.

The Phases of Coaching Development Defined

Youth Sport Involvement: started with the first informal sport experience and ended with competition at the state championship level. These first sport experiences were different because of the parents, coaches, rink availability in their community and the athlete's interest in the sport.

National Sport Involvement: defined as athletes who played on a State, University, or professional team in competition. The athletes graduated to this level after high school and city level sport experiences.

International Sport Involvement: defined as athletes who were listed to a national team and represented their country in competition.

Early Coaching: defined as a coaching position that did not include organized or formal competition. Teaching the sport was done at schools, community centers, or when they were still athletes and helped out with hockey clinics.

Developmental Coaching: defined as a position at the high school level, junior hockey level, or they were hired by an elite team for a short trial period.

National Coaching: defined as a position at the national level by working with a University team or State team at the national level competitions. In these positions, the coaches were refining the elite level athletes instead of working with the recreational or entry-level athletes in the previous coaching positions.

International Coaching: defined as a position with a national team at an International Ice Hockey Federation event. These coaches prepared their athletes for elite level competition.

Youth Sport Involvement

For some of the coaches, sport participation was influenced by youth sport environments. Some of the coaches became involved in hockey to get accepted by their friends. Some of the coaches became involved in hockey because they had frequent access to out-door ice rinks in their cities. Therefore, some eventual coaches participated in hockey as their first youth experience, and then remained committed to the sport. This study reflected similar findings to Ericsson, Krampe and Tescg-Romer's study (1993), that it is important to have environmental resources to foster elite performance in sport.

- Every day and night after school in the winter, I would be on my back yard rink that my dad made for me. I played for hours and hours. I believe that is where most of my skill development took place. I was able to go and practice for hours on my own. I would try to imitate what I saw on TV. My brother would play with me a lot, but I would usually be on my own (C2).

- I began playing hockey because I lived in Minnesota and there were outdoor hockey rinks everywhere! I had unlimited ice time in the winter, and the best part was that it was free. All the indoor rinks in my city also made it easy to skate in the summer months (C4).

Four of the six coaches were also introduced to a wide variety of sports and participated in other sports alongside hockey. These coaches believed that they were able to take fundamental lesson from their youth sport coaches and involvement.

- I wanted to play other sports, I was told at an early age that overall athleticism is the best skill to have. I took that to heart and tried to be the best I could at many different sports (C1).

- The coach who had the biggest influence on me was my baseball coach. The things I learned from him are what make me who I am today, they are what I believe in. He was a very detail-oriented coach (C3).

- Growing up in California, I never played ice-hockey. It was all roller hockey and football, because ice-time was so expensive and there were hardly any rinks. The roller hockey rules transferred over to ice hockey a little, but I never really learned ice hockey as a youth (C5).

- I played all the sports I could. My buddies and I always tried every sport, it wasn't always on an organized team. We just loved sports and that's how I spend most of my time throughout elementary, middle-school, and high-school (C6).

Learning From Significant Others

Research in ice hockey has rarely looked at the youth sport involvement of the athlete's career. However, Bloom's (1985) study found that coaches and parents both played important roles in the development of the youth sport athlete. For example, the parents were supporters on the financial and emotional side and the coaches were there to foster a fun environment. The current study found this to be true as well, as many of the coaches talked about the important role that their family and their former coaches played throughout their youth experiences as athletes.

Parents. Three of the six coaches mentioned family as a factor in their initial development of love for ice hockey. The coaches believed that the family members provided them with material resources and life values which were a part of their eventual coaching philosophy.

- My parents were a major influence on me growing up. They helped me all the way. I wasn't aware of how much they influenced me, but I am now, and it was key in my development as a person and as a coach (C1).
- If I had a hockey game, it took precedence over everything. My parents were understanding enough that I missed half of my 8th grade church confirmation ceremony (C3).
- Growing up, I was always very competitive. I don't know if it was my dad's influence, or my mom's because they are both very competitive people. My compete level was raised at an early age and I used it to excel in hockey (C4).

Coaches. All the coaches were strongly influenced in their youth experiences by their coaches. The eventual coaches watched and acquired a coaching philosophy from their first coaches. They learned how to best teach and approach their athletes. Some of the eventual coaches even adopted the teaching style of early coaches because of the positive impact on them.

- It wasn't until I was done playing for him when I really started to appreciate the guy. He was a very intense and passionate coach, he always dealt with you one on one. I really admired that because most of my coaches after that never really dealt with me on a personal level (C2).
- I was lucky to have such a committed and supportive coach. He helped me get better. He not only helped me athletically, but he made me a better person. I think those years I really fell in love with the game (C3).

Early coaches not only helped in developing the eventual coaches athletic ability, but they also taught them important life lessons. These life lessons eventually formed the coaching philosophies of the elite coaches.

- He taught me that I had to drive myself out of my comfort zone, to the places that you normally do not want to go and to fatigue yourself. When you are tired, you learn how to deal with those emotions and pressures. I learned a lot about myself then, and I took that philosophy in to how I train my athletes today (C2).
- He helped me believe. We had an average group of kids with average talent, but he had good coaching and leadership and we worked our bags off. That was proof that if you do things the right way, and prepare, you can compete with anybody (C4).

Early experiences with early coaches also helped the eventual coaches learn how to not coach. Hardships and humiliation played a role on the eventual coaching philosophy. After these

experiences, the eventual coaches promised that they would never do the same things as the early coaches they learned from when they were athletes.

- My high school coach was too intense. You weren't allowed to talk in practice. If someone did not finish a drill he would make the whole team skate. He was very intimidating (C1).
- I did not like how he would never communicate directly with you. He rarely dealt with any of us on a personal level. He would never explain things to us, like why we are doing this drill, why we are doing this system. I liked some things about him but looking back he negatives blur them out (C2).
- The thing I remember most about my peewee hockey coach was that he discouraged people more people than he encouraged. I couldn't stand that, how can you be so negative all the time? I told myself that if I were to ever coach I was going to try and be positive 90% of the time (C5).

Love of Sport

All of the eventual coaches had a love for sport regardless of youth sport experiences. All of the eventual coaches had an interest in playing as youth and one even considered or acknowledged a future in coaching hockey. The eventual coaches were intrinsically motivated to continually develop their athletic skills and they enjoyed their youth sporting experiences more than their peers.

- I was unusually obsessed with the game. A lot of the elite coaches I know were like that as players, and that is why they are still around the game. When I was younger, I would go to the outdoor rinks all the time searching for pick-up games (C4).
- In order to be considered an elite player, you had to put in the hard-work and the time. I would work extra hard off the ice in order to be in the best shape possible. I shot thousands of pucks every summer to improve my shot (C3).

These eventual coaches had a great passion for their sport and as a result, they were determined to improve their athletic ability and become an elite level athlete. This relates to Bloom's (1985) second stage of performance development of being hooked. Bloom believed that the levels of the performer's development were directly related to the level of commitment. The

present study shows that early levels of commitment were there during the eventual coaches youth sporting experiences.

Initial Coaching Characteristics

Even during the youth sport participation stage, there were early indications of evolving coaching philosophies. Some of the coaches believed that as a youth they had interpersonal and leadership skills. Some of them knew that they were more committed and motivated to their sport than their peers. These were the two main factors for future coaching philosophies.

- When I was growing up, I played a lot of sports, I was very good in hockey and football. I was also very good at dealing with my teammates and my coaches (C1).
- I think I could have been a better player if I had a coach who would have developed my self-confidence. I just needed some positive encouragement. His coaching style was a do as I say type of style, instead of explaining why we are doing things (C5).
- I really enjoyed being involved in hockey, it was fun. I was better than a lot of people I knew in hockey and in coaching. I knew I was good in this area and I was comfortable, it was natural (C6).

Conclusion on Youth Sport Involvement

Many lessons were learned during the youth sport involvement phase. Parents and available resources determined the athlete's availability to sport opportunities and coaches. Youth sport coaches coached and taught these eventual coaches with positive and negative coaching philosophies and styles. The experiences learned by the eventual coaches from their youth sport coaches made some emulate the experiences and others to never repeat the experiences. There was clear evidence that eventual coaching philosophies began to develop at the youth sport involvement phase. The lessons learned at this phase of development included love of the sport, commitment, motivation and communication skills. These lessons were fundamental to the eventual professional development of the eventual coaches.

National Sport Involvement

Initial Elite Level Athletic Experiences

All of the interviewed coaches were athletes that developed into elite level ice hockey players. Five of the six coaches competed at the division 1 NCAA level, while the remaining coach competed at a national level. Therefore, every coach had experience at the elite level before working with elite level athletes. These initial elite level experiences helped their coaching philosophies.

- I wanted to go Harvard, and become a lawyer, and I used hockey in order to get in there. It wasn't until I got the taste of elite level college hockey that I really fell in love with the game and I decided to stay involved in the game after hockey (C1).
- I went to my hometown University and played hockey. My first year was a bad experience, I never played. I played four years total and the last three years were awesome and very competitive, I played a lot. But I still remember how awful that first year was (C2).
- At the Division 1 level, there were some players that were not as committed as I was. Our team did have a very dedicated core group of guys, and because it was the first time a lot of us had at the elite level we thrived (C3).
- I played all the positions growing up and in college. I was a forward throughout youth and high-school hockey. I played my freshman year as a forward, but my final three years I played defense and I loved it. I am lucky enough to have seen the game at both positions, and therefore I knew them both very well (C4).
- I was considered an elite hockey player at my hometown. When I went to play Juniors I realized that it was going to be very tough for me to play professionally. I played two years at the Junior level and then went to school (C5).
- I was playing high-school hockey and I turned down an academic scholarship to a big University in order to play Juniors for hockey. I ended up getting an athletic scholarship for hockey at a large University but that decision meant I was in hockey 100% of the time, 365 days a year (C6).

Bloom's (1985) study showed three stages in the performer's development, with the final one being world class performance. Both Bloom and the current study show elite level

performance in their developmental models. Lessons learned by these former elite level athletes varied, however they seemed to help prepare them for eventual elite level coaching positions.

Development of Coaching Traits

The elite coaches believed that their personal elite level athletic experiences led to the development of their coaching philosophy. The coaches learned lessons on the professional opportunities in hockey, how to plan practices, how to be athletic enough to play all positions, the importance of selecting/recruiting talented and committed players, and coaching philosophies on winning/losing.

- I like the ability to make the calls while I was playing. It helped me out a lot later on because I would spend a lot of time preparing for the games. I studied each system and play and broke them down into little pieces and then built them back together. I think that helped my hockey smarts. As a coach, I try to do the same. I break the individual skills down piece by piece and then progress until they master the skill. I also do that with systems (C2).
- In college, some of my teammates weren't as committed as I was. We did have a good core of committed players. Every team you are on, there is a great core group of guys and then there are the people on the peripheral, people who aren't as committed. If you have a strong core, the whole team is better (C3).
- I played defense and forward throughout my hockey career. I shaped my coaching philosophy from my experience on the ice and in the classroom. I didn't try to be like one certain coach, I took bits and pieces from each one and tried to be myself (C4).

There has been little research on the development of elite coaches. Berliner's (1988) study found that educators base their initial teaching methods on knowledge learned from theory and academic curriculum. The present study shows that in the coaching profession, because the coaches had been elite level athletes, they had already gained the skills necessary to work with teams on issues such as conflict resolution, short and long term planning, and systematical strategies for games. These skills helped the coaches become successful.

Learning From Other Coaches

In general, at the elite level, the importance and influence of a player's parents diminishes. However, the eventual coaches did state that their elite level coaches continued to contribute to the development of their coaching philosophies. The lessons learned as an elite level athlete included mental toughness, emotional control, and communication skills.

- Our team was very committed and talented, and he put us all together on one team. He pushed us in practices and in games so that we were never complacent. We simulated different situations in practice, and showed us that we could handle adverse situations. He taught us a lot and it helped us at the elite level (C3).
- Our coach was a fundamentalist. He helped me control my emotions, I was very emotional and intense. He kept me in line and taught me what was an acceptable display of emotions. It was a tough time for me because I was so competitive and physical, probably too intense and I didn't have emotional control. He taught me the importance of control, it was a very important skill to learn for life (C4).
- Coach was just perfect at team organization when we practiced. He would break down drills into the simplest form and in language that everyone could understand. I already knew I wanted to be a coach, but after having him as a coach, I was convinced (C6).

Coaches as Elite Athletes Conclusion

In the present study, all of the coaches interviewed were elite level ice hockey players before they were ice hockey coaches. The lessons that the eventual coaches learned at this stage were different than the ones they learned in the youth sport involvement stage. At the elite athlete stage, the eventual coaches dismissed their parents importance. The eventual coaches also observed their own coaches and learned lessons in practice planning, athlete selection, mental toughness, and how to deal with adversity.

According to Berliner's (1988) study, these eventual coaches would have been considered novices. However, this study shows that the elite ice hockey coaches acquired their coaching philosophies while being an elite athlete which was long before they became coaches.

This would then make them elite level coaches long before they acquired their 10 years of coaching experience.

International Sport Involvement

International Sport Experiences

It was not a requirement for the elite coaches to play on a national ice hockey team before they began their coaching careers, but, two of the six coaches interviewed did. Which is why the international sport involvement was included as a developmental stage for a couple of the coaches. There is no hard-evidence that this international involvement as athletes improved their coaching abilities. However, the former national team athletes later coached national teams. Also, another one of the elite coaches tried out for a national team, did not make it, but now coaches a national ice hockey team.

- When I went on to play Division 1 in college, I was one of the top players on my team and in the country. I was the captain of the U-20 National team and I learned a lot about leadership. I was also the captain of my high-school teams, it helped me develop into a leader (C3).
- I played two sports throughout high school, both football and ice hockey. The hockey coach wouldn't let me play both because he had players in the past get hurt playing football, so I stuck with hockey. I ended up playing on 4 different USA national hockey teams throughout my career. I am pretty happy I didn't get hurt playing football (C6).

Conclusion of International Sport Involvement

Of the six coaches interviewed, only three of them tried out for a national ice hockey team. Only two of those actually played, and represented their country internationally. During the interviews, it was clear that one of them was extremely motivated to represent the USA, while the other was driven to reach the highest athletic performance level. Both of these coaches, along with another coach who tried out for a national team, became national team coaches.

While being an elite level athlete was not a requirement to international coaching, it did help the coaches understand what it takes to compete and coach at that level.

Early Coaching

Transitioning from Playing to Coaching

Some of the coaches knew they wanted to make coaching their profession from an early age. Others wanted to become a doctor or another type of professional before they became a coach. Therefore, not all coaches interviewed were committed to coaching as a profession.

- I had always wanted to be a doctor but, I had a friend whose dad was a coach. One day I was over at a BBQ and I was speaking with my friend's father. He said, "In order to enjoy something, you really have to want to do it, and it sounds like you don't really want to be a doctor. It sounds like you want to be a coach, so be a coach (C1).
- I was thinking about being a teacher, and I eventually committed to coaching. I was an assistant coach at the time, and I had to do a lot of the grunt work. I had to do a lot of scouting reports and office work in order to make it easier for the head coach. I really enjoyed it and I fell in love with the hard-work of being a coach (C2).
- My university head coach was very driven and committed. He was constantly trying to get better at coaching. He always wanted to learn, I would even go to some of the coaching education workshops with him, even before I wanted to be a coach, I just loved hockey. I saw how passionate he was about the game and I fed off of it (C3).
- I had always wanted to be a coach. I took courses in college that would help me become a better coach. I had a wide variety of coaches throughout my playing career, they all had different personalities and philosophies. I think I stole something I liked from each one of them (C4).
- I always wanted to be a hockey coach, but in California, coaching ice hockey wasn't really looked at as a profession. Ice hockey was not very big in California yet, not until Gretzky came. Then it took off, and I was able to be the ice hockey coach I wanted to be (C5).
- I was always comfortable in a sport setting, it was just a natural step for me to stay involved in the game and coach ice hockey (C6).

First Coaching Positions

The eventual coaches first coaching experiences were each unique. Some of the coaches started with full time positions that included academic teaching responsibilities. Some coached at a recreational and youth level, and another coach was a player/coach his last year of playing professionally.

- I was the ice hockey and math teacher in a public high-school. I was kind of thrown into a pretty demanding coaching position. I was pretty sloppy at times but by the end of the year I think I had the boys clicking (C1).
- I knew I was going to retire at the end of the upcoming season and I knew I wanted to get into coaching hockey. I asked the head coach at the time if he would allow me to be a player/coach. It was great, it kept me honest, I had to lead by example. Everyone on the team knew I was going to work harder than everybody else (C2).
- I always felt I was a step above the players on my team, I was always the oldest guy on the team and I was always the mediator between the players and the coaches. I told the coach when players were unhappy and I told the players when the coach was unhappy. I felt like an assistant coach (C3).

Early Coaching Struggles

Even though the coaches had good experiences as athletes and had a tremendous amount of love for the game, a lot of them experienced early struggles in coaching because they had a lack of coaching knowledge. Therefore, learning the content and process of coaching happened at the same time as developing athletes.

- I had no idea how to do tryouts. I could obviously run the on-ice portion of a tryout, but managing the off-ice stuff was so hard. All the registration, the scheduling, the ice-time, the evaluating, getting volunteers, that was all new to me. And it showed, I am sure most of the parents were like who is this idiot (C1)?
- I would get frustrated and yell a lot. I would get so frustrated with these kids not doing what I had just taught them to do. I finally realized that a lot of these kids are smart, and that it was up to me to get to them. I had to do a better job of teaching the skills and the drills (C2).
- I started in a small town, but it was a hockey town. They were always very skilled, the previous coach had got promoted within the youth association and the team I was stepping into had just won state the year before. I tried so hard to be like the previous coach, and I failed miserably. I realized I had to be something different and change the atmosphere in the locker room, by mid-

season we were above .500 and we ended up making it back to state and lost in the semi-finals (B5).

After a few years of youth coaching, the eventual elite coaches began to develop a more flexible coaching philosophy, and they gained a deeper knowledge and understanding of the game. This study shows that coaches learn different coaching skills throughout their youth coaching experiences and that these skills help them in advancing in their coaching careers.

Hands on with Athletes

The coaches used multiple different coaching styles when they first started working with their athletes. These coaching styles differed in leadership style, communication style, motivational tactics as well as coaching philosophy.

Leadership style: During the early coaching stage, a lot of the coaches had an athlete centered coaching style. This type of style included leading on and off the ice, they were not only trying to develop better athletes but better people as well. This type of style was the base for their eventual coaching philosophies as elite coaches. Other coaches styles remained flexible and developed as they progressed and understood what athletes needed at each level.

- I would tell the players that practice ends at 4 and to go home and eat something. I would tell them that I would be back at 7 to help them with their homework if they needed help. I think this gave me some extra time with the kids which helped me develop them as people not just athletes. I felt good about helping them get better in school. All of them were better than average students by the end of the year (C1).
- I lead by example. I think those are the best type of leaders. Talk is cheap. And I would express that to my teams. I knew I worked very hard, I was always a team oriented guy and I tried to be the most positive guy on the ice (C2).
- I coached some higher end hockey summer camps. I would try to get the kids pumped up before the games. I would always try to say things that would have gotten me motivated. I think the kids responded well to it and now I try to do the same things, but at different times (C4).

The coaches knew how important it was to motivate young athletes on and off the ice, whether it was in school or in a job or getting them up to play a weaker opponent. The coaches expressed that the way they communicated and treated the athletes was their number one priority.

The coaches all acknowledged that performance outcomes were important at the elite level, however, only one coach talked about performance outcomes at the early coaching stage. A few of the coaches saw themselves as winning coaches, and when they didn't receive the results, they disciplined their athletes. Some of the coaches saw themselves as a teacher, and stressed values of having fun and teamwork. These coaches' perceptions of performance outcomes were entirely different from the other coaches. All of the coaches re-examined their coaching philosophies and determine whether their methods were helping them achieve their goals.

Communication. A lot of the coaches had troubles balancing between the positive and the critical feedback to their athletes. Early on, most of the coaches tended to be more critical of their team's performance, and stressed the technical aspect of skills and the game. This mindset was eventually modified until the coaches found a balance between positive and critical feedback.

- After being an elite level player for so long, you begin to learn the systems of hockey. I think that was my biggest mistake. I started coaching this youth players and was caring more about the systems than I was the actual kids! I think a lot of former players do that right away, its easier to talk to the whole team at once then it is to talk to them individually (B1).
- I yelled a lot. I didn't know what I was doing, I would just yell. I wasted so much energy yelling at the kids and at the ref instead of just taking the time to teach them. I had a lot of fun yelling at the refs and the kids, but I don't think anyone learned from it except me (C2).
- I had a difficult time communicating and getting my ideas and teaching points across to the kids. I realized that if everyone on the team is doing a drill wrong, I did a bad job explaining it. I

could always tell if my best player didn't know what was going on, then I did a bad job teaching the drill or system (C6).

Early Coaching Conclusion

The early coaching positions either had teaching responsibilities at a school, in a recreational setting, or being a player/coach while still competing at an elite level. Some of the coaches did not know that their coaching involvement would evolve from part-time to an elite level profession.

The coaches used a lot of trial and error with their coaching methods, they were able to experiment with certain styles until they felt comfortable on a philosophy. Because of these early errors, coaches found better ways to motivate their athletes. They also learned how to understand their athletes as people and to coach at an individual level instead of a group. These lessons would prepare the coaches for higher coaching positions. The coaches knew how important it was to motivate young athletes on and off the ice, whether it was in school, a job, or getting them up to compete against a weaker opponent. The coaches agreed that the way they communicated and treated the athletes was their main focus.

Developmental Coaching

Transitioning to Developmental Coaching

The developmental coaching stage was where coaches were hired for coaching positions based on their coaching skills. During this stage, all of the coaches were committed to their profession. All of the coaches expressed their commitment and love of coaching dedicated

hockey players. Performance outcomes were taken more seriously as they began coaching more skilled and competitive teams.

- One of my former teammates was the head coach of a high school team, he gave me the heads up that a position was open at the bordering school. He put in a good word for me and the rest is history (C1).
- I was coaching beginning skaters at the recreational level for a few years. One of the Bantam A team's coaches got fired and I applied for the job. I think they liked that I had some experience as a coach, but they really liked how I wasn't a player's dad and I played hockey at an elite level (C2).
- I moved to Minnesota after I graduated from college and my former coach ended up taking a university position. He asked me to come on the staff. I had just got done playing and I was looking for a job. It was perfect timing. I wanted to stay in hockey so it was exactly what I wanted (C3).
- I didn't like being at the rink with people who weren't good athletes or didn't want to get better. I realized I enjoyed coaching elite athletes and that's what I wanted to do (C5).

Mentors

Four of the six coaches interviewed were mentored by elite coaches. Mentoring was a way for the developing coaches to acquire elite level knowledge from a credible and respected ice hockey coach. Therefore, all of the coaches were able to gain a deeper understanding of coaching styles and philosophies. These styles and philosophies were then integrated with their own philosophy and style.

- One of my former teammates wanted me to be an assistant coach on his staff. He knew the game so well. I really learned a lot from him (C1).
- I was very lucky to have the mentor that I did. He was awesome. He approached the game in such a passionate way. He really enjoyed what he did and everyone in the program fed off it (C2).
- When I was a young coach, I thought that I knew everything. I realized that the best coaches are flexible. I didn't have the personality that my Mentor did, so I had to adopt my own approach and style (C3).

Coaching Styles

In the developmental stage, coaches were able to overcome the youth coaching communication hardship by developing better interpersonal skills. The coaches still emphasized

skill and technical development; however, they now realized that the athletes were best motivated by a balance of positive and critical feedback. Furthermore, the additional coaching responsibilities included making sure the athletes went to class, and helping them with taking the next steps in their playing careers.

Leadership style. At this stage, the coaches did not have to provide positive feedback to their athletes as much because the players were intrinsically motivated and self-directed. The coaches also realized how important team cohesion was. The coaches stressed a team philosophy where every individual player became a part of the greater whole, which was the team. Although the coaches were still developing the athletes' talent and character, they also tried to teach them that the game is not always fun, and that sacrifices have to be made in order to get to the next level. The coaches tried to provide their athletes with life lessons that could be used on and off the ice.

In this stage, the coaches felt that they needed to motivate and improve the confidence of their athletes. In some cases, the coaches led by example and in other cases, the coaches created a motivating environment. The coaches recognized that a structured learning environment was key in the developmental stage.

- I was very passionate; I don't think I yelled a ton. Some kids might have cried the first couple times; I mean I was never ever abusive. I was more of a motivational speaker than I was a coach of hockey (C2).
- Even at the youth level, your practices should be written out and planned beforehand. They should be organized and demanding. The athletes should always be at practice and work hard, but most importantly have fun working hard. I always told them, "You have to fall in love with hard work (C4).
- I was very task oriented. I was very passionate about the game, and I wanted to make the kids feel the same way. I was more competitive than they were and they were the ones playing (C6)!

During this stage the coaches learned how to better motivate their players. They all believed that at this level, they were responsible for creating an environment that was both educational and enjoyable.

The coaches tried to cultivate a team atmosphere with their athletes. The coaches found that team cohesion was directly related to the amount of structured coaching. This led to the formation of their leadership style at the elite level.

- Our final record was something like 45-2. We had a lot of highly skilled players, 10 of the 15 went to go play Division 1, and the other 5 went on to play Division 1 in other sports. The number 1 thing I preached was, “It’s amazing how much a group can accomplish if nobody cares who gets the credit.” I preached unselfish acts the entire year (C1).
- My team’s style of play caught a lot of people’s eyes, both in a good way and a bad way. We were intense, physical, and we would make hard plays. He grinded it out in the corners, and other teams didn’t like it, they were soft. We had a bunch of guys who bought into my system and we were a machine (C2).

Communication. The research showed that in the developmental coaching stage, finding the balance between positive and negative feedback was very important. The coaches also realized the importance of setting boundaries with their players. The coaches agreed that there is a fine line between being a big brother/friend role and the loyalty that the coach has to have to the program. Some coaches had to assume parenting responsibilities for their players. They had to make sure their players went to class and kept good grades. The coaches learned that their expectations for the players had to be communicated clearly, with little room for misinterpretation. The coach also had to sell his players on his coaching philosophy and systems. The athletes then needed to buy into this philosophy. Communicating was the way in which each coach tried to lead.

- It was a challenge to get everyone to school. I had to pick some players up before school in order to make sure they were attending. I remember a few times with this one player, I would come by the house and the mother would say he wasn’t feeling good; I would have to tell her

that we have doctors at the school and that I would get him looked at it. We didn't have doctors at the school, but it never got that far (C1).

One of the coach's communication style had to be changed in order to retain his players' respect. This coach began to work with both female and male athletes on the same team and he quickly realized that females did not respond to his style the same way his male players did.

- I had to take a more encouraging approach with the female players. If a male made a mistake I would yell and say something like, "You have to make that shot." If I did that with the girls I would not get the same reaction from them. I stopped that pretty quickly. I became more of a coach instead of a yeller (C2).

During the developmental stage, the coaches used a variety of positive, critical, and instructional feedback. Eventually, all the coaches found the methods of communication that worked best for them and their players.

Developing the Athlete's Skills

During the developmental stage, the coaches focused on developing the athlete's physical and mental skills. The coaches tried to build the confidence and self-esteem of the athletes in order to compete at the highest level. The coaches also provided the players with fundamental skill development. The athletes were taught a more systematic way to play the game of hockey.

- I established an overall system. I wanted my players to do certain things in all facets of the game. I knew what I wanted my team to be and I had to then look at the talent and put it all together into a organized structure. I then focus on developing the individual skills necessary to play that style of hockey (C1).
- I tried to implement the same style of play in every team I coached. I wanted my teams to be very tough defensively, very strong physically, tough, and hardworking. I wanted to play up-tempo. I sold this style to my players and enjoyed a lot of success (C2).

The coaches understood that they were not there to just develop the players' skills, they were also trying to develop the kids confidence and self-esteem. The coaches tried to instill their players with self-confidence, a team oriented atmosphere, and a strong work ethic.

Developmental Coaching Conclusion

The developmental stage was very different than the youth coaching stage. The coaches continued to develop their leadership style while working with their players. Their philosophies were communicated to the players and it represented their leadership style. The coaches stressed that the athletes needed to buy into the system and that they had to be committed to the rules and guidelines of team. The coaches had to sell their philosophy and style to the athletes.

The coaches were also mentored during this stage which helped them develop a greater understanding of coaching knowledge. The developmental stage was where the coaches took the acquired knowledge and applied it in a practical setting. There were moments where the coaches had to be flexible in their approach with certain athletes and therefore had to find better ways to implement the newly acquired knowledge. There were also times where the knowledge did not fit their own coaching style and therefore had to be dismissed completely.

National Coaching

Elite Level Coaching

All of the coaches wanted to coach at the elite level, however, they didn't know where to start or how to get an opportunity. Most of the coaches' first opportunities of working at the elite level were through pure luck. In some cases, the coaches started at the junior A tier 1 level, which then led to university assignments. In other cases, the coaches were assistants at the university level and then moved on to a junior A tier 1 level head coaching job and then back to a

head coaching job at the university level. Nonetheless, at this elite level, all the coaches had a firm understanding of the game and a coaching philosophy unique to each of them.

- “I got the job because the team was doing very poorly. I wanted a fresh start; I didn’t want to hire anyone who had been involved with the team in the past. I didn’t really think I could turn the team around right away, but I knew it was something I wanted to try,” (C1).
- A junior A tier 1 level coach came and watched a couple of my practices when I was coaching high-school. He came up to me after one practice and said that he wanted me to come on as his assistant, I said yeah. He then retired that summer and they offered the head job to me. I accepted (C2).
- A coaching position opened up at the university. I became an assistant that next year, I was there for two years and the team did such a good job that I got offered the head coaching job at a junior A tier 1 team. I took it and after a few years there I landed the head coaching job at a university (C3).
- At the end of my playing career, I had the opportunity to join the USA National Development Program team for a graduate assistant job. We ended up winning the world championship that year and I then was asked to become the assistant coach at my university (C4).
- I missed the game a lot, I decided to come back and coach again, I applied for a university job and I got it, my buddy was the head coach so I am sure that played a part (C5).

Mentoring Developing Coaches

Due to the success at the elite level, three of the six coaches became mentors to less experienced coaches. The coaches believed that mentoring was a responsibility of being an elite level coach. These coaches wanted to give back to the game and improve the coaching profession.

- One of the best parts of my job as a university coach was that I had the opportunity to work with high-school coaches. I would help them through clinics, inviting them to my practices and games, as well as being available to them for questions (C2).
- I think the best way to develop as a coach is through a mentor. You work together, you respect each other, it’s just two people trying to learn and get better (C3).
- I demand a lot from my assistants. I learned from my mentor that it is your responsibility to make your assistants better. If they don’t get better, it looks poorly on you. I always ask them, “Do you want to coach, do you want to make these players better?” I have a passion for developing athletes, but I have a deeper passion for developing coaches (C5).

The coaches also used mentoring as an opportunity to share their passion and love for coaching with someone who was willing to listen to them and someone who had a desire to learn. Many of the elite coaches interviewed believed that there should be some type of national coaching mentoring program.

Coaching Systems

The national coaching stage was the first time that these coaches were able to solely focus on developing their player's skills. The coaches refined their player's current skills, and introduce their players to new skills and playing styles in order to successfully compete at the university or junior A tier 1 level. The coaches' also believed they had a responsibility to develop positive lifelong values in their athletes through the sporting experience.

Leadership style. In the youth and developmental coaching stages, the coaches were able to experiment with leadership styles. However, at the university level, the coaches had set philosophies which reflected their leadership styles. The elite hockey coaches made it clear to everyone involved in the program that they had the final say on team decisions and objectives, even though the athletes were always involved in the decision making process. The coaches wanted the athletes input to make them feel like they were part of the process and to ensure that they would buy into the system and philosophy.

- I think I am a player's coach, but I am also very demanding. Players want to play for me. I motivate them to go outside of their comfort zone. It's important to let them know it's okay to make mistakes as long as they are pushing themselves to get better. I can always live with hard-working mistakes vs. lazy one (C2).
- On the ice at practice, discipline is coach imposed. I would discipline a player for an action I deemed as unacceptable, whether it be lazy penalties or not finishing the drill (C4).

- It is important to make sure the players are scared to make mistakes. I enjoy my job a lot more when my players are happy. I enjoy what I am doing so much more when I am relaxed. However, I am no less intense, organized, or demanding than before (C5).

At the national level, the coaches expected and demanded more commitment and performance from their players. The training environment became more intense and demanding on the players, and the coaches leadership styles became more of a dictatorship.

One of the key skills that the elite coaches needed at this level was the ability to sell their players on the coaching system and philosophy. The coaches believed that the team's direction for a particular season was determined in pre-season meetings with the players. The coaches realized that they needed athlete support in order to set the team's goals and objectives.

Communication. The coaches' leadership styles were directly influenced by the coaches' communication skills. The coaches laid out their vision for the team's season by determining the team's philosophy and the goals. It was important to share this vision with the players on the team so that they could buy into the coach's direction for the team. The coaches knew that in order to sell the athletes on their vision, they would have to use their communication skills.

- My teams do a lot of team activities. We talk a lot about the history and tradition of the program. We walk about why people want to come here and play here. I always talk about what I expect from the team as a whole (C2).
- You have to make your players buy in. You have to convince them that your way is the best way. You have to define standards and make sure they know when they don't meet those standards. You have to make it seem like it is their decision and not yours (C5).
- As I developed into a better coach, I became a better salesman. My approach to getting the players to buy into the system became better (C6).

The coaches interviewed believed that the buying in process was a way to foster coach-player interactions, where the coach would direct the player on how to use his skill set to suit the team's needs. The coaches believed that once they were able to sell their players on their team vision,

the goal setting process would determine the training methods needed to produce the desired performance results.

Goal Setting through communication. The goal setting process was a season long process that was often times done by communication between the coach and the player. The coach started the season with general goals that directed the players to develop and improve upon certain skills. The coaches used long term goals and short term goals. The long term goals were used to determine the philosophy and intentions of the players and the coaches during the season. The short term goals were used as measures of evaluation to make sure the team was progressing and achieving the initially set objectives. These goals were often times flexible and revised throughout the season and the player's playing career at the university level.

- I am very big on setting goals. I spent a lot of time with my players setting individual and team goals (C1).
- I make a pretty large time commitment to these kids and they should in turn be working to get better. By the time they leave they should be as good as they possibly can be. The goals that they make are carefully monitored. So we can go to them at any time of the year and tell them, this is where you are at, what do you need to do to get where you want to be. It's an ongoing process (C5).

Performance results were used as a measurement in the goal setting process. Long term goals directed the season long plans for the university hockey teams. These goals were usually inflexible because the players and the coaches had already bought into the season's objectives. However, short term goals were set and revised throughout the season. These goals were usually flexible because the coaches and players would have to adapt daily in order to achieve the season's goals.

- We do a lot of performance goals, as well as individual and team goals. Team performance goals are thinks like how we should be playing by this point of the season, or whether we are

ranked nationally and how important we should view that ranking. We talk during the pre-season and what we think is realistic for our team (C2).

- I like to focus on the task at hand and set a lot of short term small goals. I don't like goals that focus on winning. Winning is not an act, you win by doing a lot of little things consistently. So I like setting goals focused on the process, not the end result (C3).

The elite coaches also stressed the importance of performance related goals. The coaches believed that if the athletes were well prepared through training, that the results would come. The current study shows that the coaches placed a stronger emphasis on the process versus the outcome. Therefore, process oriented goals laid the foundation for positive performance outcomes.

The elite coaches directed the goal setting process. Although they let the players become involved in the goal setting process, the goals for the team were determined by the coach well before the athletes were able to voice their opinions.

- I would go into meetings with players and try to guide them through their goals. I felt bad; I was basically feeding them goals of what I wanted for them and the team. But that was better than just writing up goals and handing it out to everyone. I wanted them to have a sense of ownership (C4).
- My staff would provide a guideline for the players as to what we thought it took to be an elite level hockey player. We included the physical, mental, technical, and the social components. My staff all played at the elite level so the players knew we knew what it took. We would tell them that elite players have to work hard, and then we say that they need to get stronger and put more time in the weight room (C5).
- The players know the big picture; we just try to break it down for them. I keep them focused on the process but every now and then I took about the big goal and ask them where we are in terms of achieving it, and what we have to do in order to achieve it (C6).

At the national coaching level, the hockey coaches used their developed communication skills with their players. They had the ability to sell the players on their philosophies and performance expectations. Even though the coaches had a tough and demanding coaching style,

they were very caring of their players. All the coaches were able to play a supportive role with their athletes.

Communication off the ice. The coaches made themselves available for their players to talk to them about personal issues. The most common issues included the players experiencing difficulty balancing their time between school and hockey, and problems in their personal lives. The coaches were able to spend more time with their players at the national coaching level because they had a smaller and more intimate group of athletes to work with.

- I always told my players to come and talk with me before, during, or after practice if something is on their mind. I can usually tell when one of my players isn't performing the way they are capable of and instead of thinking, wow this kid is getting worse, I will know that they had a bad day, or something is effecting them personally (C2).
- Young people in a highly competitive and stressful environment means that you are going to have some problems. When you are dealing with young athletes, you have to be available to them so that you can know what is going on in their lives (C3).
- I have had a few players who come from a tough background. They either come from a very poor family, or have been raised by a single mother. It is really tough to try to relate to some of the issues they are going through, but sometimes just being there is good enough. If they know you care, that is all that matter (C5).

This study shows that the coaches communicated with their athletes on many different levels. The coaches had to sell their philosophy to the players. They had to direct goal setting and critique performance. They also helped their players with personal issues outside of hockey. The coaches agreed that communicating with their players on a personal level was very important; they believed that it was a required skill in order to become a more complete coach. However, the coaches made it clear that the athletes were expected to be committed to themselves and their team in order to develop the mental and physical skills needed to compete at the national level and beyond.

Developing Team Players

Before being selected to a national level team, the players had already acquired some fundamental hockey skills. However, at this level, the coaches developed their players with additional strategic and psychological skills not obtained at the lower levels. The coaches' responsibilities included the further development of the players' skills while also teaching them the strategic playing styles of the team. The coaches also taught mental skills with the support of sport psychologists. This combination of mental and physical skills was required in order for the individual player and the team to reach their desired performance results.

- In training camp we do a lot of conditioning. You have to individualize it a little bit because some people need extra training and some people need less. That can be demoralizing in a team setting. You have to find the right balance, because when you make it too individualized you lose the team building aspect and team morale (C3).
- The technical part of skating, shooting, stickhandling, and those types of skills we work with the players individually. We break down their passing, shooting, and their skating. We try to break their skills down, get rid of the bad habits, and then build them up again (C5).
- We try to provide the players the outline or the model for how to become an elite athlete. We try to break it down into the 4 components of physical, mental, technical, and social. We tell them that this is what we believe makes an elite athlete, and these are things that each one of you guys need to work on (C2).

As the coaches received higher level coaching positions, the coaches' responsibilities increased as well as the expectations from the players and administration. Besides developing the players' hockey skills, the coaches also taught their players life skills which included how to balance their time between hockey and academics, problem resolution, and working in a team environment. The coaches also learned that they had to find a healthy balance between their professional and personal lives.

Coaches' Personal Life

At this level, coaching was more than just a job; it was a way of life. Because of the added professional responsibilities, some of the coaches had trouble budgeting their time for personal relationships. Some coaches also found it hard to let go of the hardships experienced from coaching when they left the rink every night. All of the coaches ended up marrying someone who accepted the responsibilities of coaching. Most of the coaches actually married other coaches or former elite athletes.

- The hardest part of my job is leaving my family. Would you want to leave home for 6 months? I don't (C4).
- I don't have any children and I married a female hockey coach. She is very supportive and we spend a lot of time watching hockey together. It is a hard lifestyle because you are coaching late at night and you are away on the weekends (C3).
- I don't spend a lot of time with hockey people outside of the rink. I think it is good to take some time away from the game and not be constantly reminded of it. You have to be good at being able to manage everything (C5).
- I have been married twice now. During the first marriage, coaching came first, and we got divorced. I am now married to another coach and we have to social life. She wants to fix it, but we both understand it will get better eventually (C6).

At the elite level, long working hours were part of the job, as well as a lot of travel, which meant time away from families. Some of the coaches had marriage difficulties and regretted that their professional problems carried over into their personal life. However, there were some coaches who were able to enjoy their personal lives. In these cases, the coaches were married to other coaches or former elite athletes. The coaches shared their passion for hockey and developing players with their spouses. The coaches all agreed that support from their family was very important.

National Elite Coaches Conclusion

During the youth and the developmental coaching levels, the coaches struggled to find their own coaching philosophy and knowledge. They then developed their personal coaching styles and were hired at the university level. The coaches agreed that it was important to have a balance between positive performance outcomes and developing the players as athletes and people.

At the national level the coaches had to sell their athletes on their vision for the team. This process played an important role in the player's commitment to the sport and the team. The coaches communicated their goals to the team prior to the start of the season, which helped develop and foster an environment in which the players wanted to be a part of. Once the players bought into the system, they were then assigned roles within the team in order to achieve the team's goals.

Due to the increased coaching responsibilities, many of the coaches' personal lives were affected. Some experienced major constraints on their family relationships, and some even got divorced. Some of the coaches married former elite athletes or coaches who understood the occupational drawbacks of elite level coaching.

International Elite Level Coaching

Transitioning from national to international level

Five of the interviewed elite coaches went on to obtain hockey coaching positions at the international level. The reasons for obtaining this coaching level were not clear, however all of the coaches had winning records at the university level prior to coaching a National Hockey team.

- I was pretty lucky. We had a lot of tradition and a great group of freshman who came through the program, and by the time they were seniors, it was fun to coach. They were great leaders on and off the ice. We ended up winning a National championship that year (C3).
- It was a tough process, but we turned the mentality of the program around. We went from being worst in the league 3 years in a row to 5th and then to 2nd and then 1st. We were ranked #1 nationally and that was really fun and exciting to be a part of (C4).
- I was given the chance to coach the National men's hockey team. I had had about 7 years at the high school level and 7 at the university level. I was pretty successful at both levels, we produced a lot of wins. I was very excited to get the opportunity to coach the National team and represent my country (C6).

There was a change in coaching style and philosophy between the national and international elite stage. Some of the coaches chose to emphasize performance results more and some decided to emphasize the importance of a balance between sport and social life.

Four of the five coaches who coached at the international elite level had previously been elite level hockey players before they became coaches. This current study supports the findings from Cote (1993), where they stated the importance of previous elite level sport experience as a requirement to coaching at the highest level. In addition to these prior elite level sporting experiences, the elite international coaches also had unique coaching styles while working with international level players.

Working With Players

At this level, the coaches still developed and refined the skills of their players. However, the main emphasis at this level was performance results. Therefore, the coach emphasized performance oriented goals, team building exercises, and skill refinement.

Leadership Style. At the international level, the coaches were performance demanding. Because of the high expectations from administration, media, and the public, many of the

coaches would not tolerate poor performances. The coaches' main goal was to produce successful performance results in the international tournaments and events.

- Responsibility is important. As a player, you have a responsibility to the team the coach and most importantly yourself. As a coach, your responsibility is to myself, the player, and my employers (C1).
- When I am coaching I try to be positive at all times. I am not always positive, it is something I constantly need to work on. I demand my players to have high work ethic and when they are not working I have little patience (C3).
- In coaching, you're always supposed to give positive reinforcements. But life is not like that, it is full of adversity. You can be the most positive person in the world, but if you are not ready for adversity and handling it, you're in for a rude awakening. While coaching I always tried to develop an atmosphere where everyone is trying to get better and everyone gives it their best (C4).
- I hate losing. I am very competitive, and when I make a mistake and my team doesn't perform well because of it, I feel bad. It is my job to create the best situation for my team to excel (C6).

The leadership style of the coaches changed when they worked at the international level.

The players and the coaches understood that the training and the competition would not always be enjoyable at this level. The coaches believed that the amount of pressure at this level of competition would server as motivation along. The coaches learned that timing was important in challenging and complementing their players.

- I think my leadership style was defined by my ethics and values. I wanted to be a good role model. I always tried to be fair in any type of decision or feedback I made. I based by decisions on my ethics and I think my players respected that (C3).
- I always tried to make the players athletic experience an enjoyable one. It is not always enjoyable, but overall I want them to stay in love with the game. The key is to sell them on your philosophy and make them buy in. Have them fall in love with the process instead of the end result, it will help shape their character (C4).

Even though there was a large emphasis placed on winning, two of the elite hockey coaches mentioned how important it is so still have fun playing the game. These coaches believed that having players that were content performed better than players who were dissatisfied. However,

they also knew that if they were not able to produce the winning performance outcomes, then both their and the athletes job would be in a vulnerable position.

Communication. Before working at the international level, the hockey coaches tried to balance hockey skill development and refinery. At these lower levels, many of the coaches were aware that most of the athletes did not want to compete on the national team. Thus, the expectation levels was not as demanding and the communication style was meant for positive reassurment. Prior to this elite international level, the coaches rarely spoke of benching or cutting a player from the team due to bad performance. At the international level, the players and the coaching staff had an understanding that bad performances from athletes were unacceptable. The coaches communicated these high expectations to their players regularly.

- I rarely felt that I wasn't getting the best efforts from my players. I always told them that if they left everything on the ice, I would give them the proper amount of rest the day after (C1).
- I have been lucky with some great young recruiting classes, and everyone has for the most part stayed at least 3 years. My young players come in and see the older guys and how hard they work and it's a continuous working environment. The only thing wrong with having good young recruiting classes is that when the older guys don't play, it can really upset the team culture. But you have to remind everybody, whoever works the hardest is who is going to play (C3).
- I think in order to be a good coach you have to hate to lose more than your players do. You don't have to be all over them all of the time, but they will eventually figure out what is acceptable to you in terms of performance. And they will strive to match it (C4).
- I always stress that if we play the way we can play, then we will give ourselves a chance to win every night. There are a lot of things that you can not control in the game of hockey, but the one thing that you can control is your effort (C6).

With the increased emphasis on performance outcomes and demands on the players, the coaches understood that the players had to be committed to the team's culture. The athlete's input was welcomed by the coaches in this stage. The coaches were very open to the players input on coaching strategies and team visions. This was because the athletes at this level had

already acquired a vast knowledge of the game as elite level athletes. This helped form a coach-athlete relationship of mutual respect.

- As a staff, we didn't always tell the players what we were going to do in practice. This kept the athletes from reserving or saving energy for later on. I think that a little bit of surprise is nice. The players know they are going to get something new every once in a while. They also know that they have the opportunity to provide input on team strategies (C1).
- In order to lead in coaching, you have to communicate your vision of where you want the team to go and then you have to preach that in your coaching philosophy. You also have to show the players your level of commitment (C4).

At the international elite level, clear communication between the coach and the player was critical. The elite coaches required their players to buy into the team's strategy, and the coach's ability to sell their players on the team's strategy resulted in the team's commitment to goal-setting.

Communicating during goal-setting. The national team coaches all talked about how goal-setting was key to the team building process. The coaches' team goals were almost always process oriented even though the coaches and the players know that the season's performance results were what would ultimately be used to measure their success. The goal setting process started as soon as the team was selected. The coaches started this process with season goals for the player and the team. They then used short-term goals to provide the team with a direction and a way to measure the short-term successes.

Some coaches wanted to develop the individual players into better athletes, while others wanted to get their players the best tools possible in order to successfully compete at the international elite level. However, all the coaches had the same view that they controlled the the goals that were set for the team. Although they allowed the players to feel involved in the

process, the coaches knew they were the ones most accountable for the team's performance results.

- Every decision I make is not about the player personally, it is about the player and the team's goals. I think coaches and captains have to make very hard decision because they have to keep that in mind-what are the teams goals and where does this player fit in (C1).
- Throughout the season, the team has small goals, we do this so that the players don't look to far down the road. The easy part is setting the goals, the hard part is figuring out how to reach them (C3).
- The goals that are finally formed are always the coach's goals. The coach is possibly the most loyal guy to the team because he knows that the team's success is his success. You need to include the players in the process so that they buy in, but realistically, the goals end up being the coaches (C6).

In the youth and developmental coaching stages the expert coaches usually took the individual players into account as they decided on the teams seasonal goals. At the international level, the expert coaches only assessed the performance of their players, and whether those players were contributing to the team's goals. The coaches immediately evaluated their players on how they helped the team's performance. The coaches made decisions based on how it would affect the performance outcome. However, all the coaches were able to develop and maintain strong friendships with their players.

Non-Hockey communication with the players. The coaches understood the immense amount of pressure for successful performances. However, they all still used the interpersonal skills they learned in previous stages. The coaches agreed that at the national team level, the coaches developed a listening skill in order to enhance the player performance. The coaches know that athletes performed best when they had access to a good listener to share their thoughts and ideas with.

- I always tried to spend some time one on one with each of my players. It was pretty hard to do, we always had 20 or more players on the team. I tried to spend time with the best player, the worst player, the trainer, the equipment manager, anybody who was associated with our team (C1).
- I was able to have the same group of players for 2 years. I taught them everything, from diet to fitness to rest. I could always tell when one of them was mentally drained. I would give them time to regroup (C6).

The expert coaches were able to use their skills to listen and to motivate their players with decisions that produced successful performances. Even though the coaches stressed performance results, they also fostered a healthy communication environment between their athletes.

However, as the players felt comfortable, they began to share their views with the coaches, the difference in opinion sometimes resulted in problems. This tested the coaches problem resolution skills.

Problem resolution. There was not a lot of difference between the problem resolution skills of the national elite level and the international elite level. The coaches wanted to work out the differences between their athletes. Even though the coaches allowed the athletes to share their point of view, the coaches believed that they should have final say on problems between their players.

- I believe leadership can be taught to a certain point. There are a lot of factors that weigh in there like how they were brought up, morals, as well as communication ability. I believe some people are just better than others at knowing if there are problems or not, and trying to read a situation before it happens. I think conflict resolution can be taught as well (C3).
- I always approach the player and tell them we need to talk or that they need to come see me. When a player comes up to me and says, "Can I talk to you?" I always ask what the topic is so I can be ready. I try to get them to talk about it a little bit right then and there too just so that the concerns don't get to build up in their head (C6).

The elite coaches talked about the importance of communication skills in order to sell the team's vision, foster and maintain honest relationships with their players and to resolve

problems. Communication, therefore, is the key to fostering a team environment where the players can compete at their full potential. The main task of the international level coaches was to perfect and refine the physical and mental skills of their players to compete at their optimum level.

Skill refinement of players. At the international elite level, the player's mental and physical skill refinement was the main focus of the coaches. Because the administrative responsibilities were given to other members of the staff, the coaches were able to strictly focus on individual player skill refinement and the performance level of the team as a whole.

- I have to remind myself that each athlete has a life outside of the rink. If they are having trouble at home or if they are struggling in school, it will effect their on-ice performance. I try to develop the mental skills that allow the athlete to leave everything else away from the rink and when they are here, they focus on getting better and vice versa (C1).
- Part of our training was to simulate the crowd noise of Russia during a World Championship game. I had been a member of the staff that went to Russia 3 years prior and I still had the game tape. I had the video coordinator transfer the crowd noise off the tape to a CD and I played it over the loud speakers for a week during practice. I wanted the players to know what it was going to be like playing in that hostile of an environment (C2).
- When I got to the International level, we really focused on being energy wise. I didn't do as much energy conservation in college as I did at the International level because we needed to perform at our full potential every single game. We talked a lot about how taxing travel is on your body and the best ways to avoid the negative effects (C6).

The elite coaches taught and refined their player's mental and physical skills. They prepared them to deal with hostile environments and as well as difficult travel situations. The coaches talked about pushing their players to their physical and mental limits during training. There was also training that included long distances traveled together as a team which strengthened team cohesion. However, the expert coaches knew that physical and mental training as well as long trips together were not enough to create a "team above all else" environment.

Team building. While the coaches worked with their players, they strived to foster a team-first environment. They believed that a team-first mentality would lead to a well prepared team. All the athletes at this level were extremely talented; however the coaches knew that having a team full of talent was not enough to compete successfully as a team. Therefore, the coaches used both formal and informal methods in order to foster an environment where teams became a tight knit group and were committed to the same goals.

- We don't talk about winning, we talk about playing the best way we possibly can. If we play our best, no one can beat us, and if they do, we will have nothing to be ashamed about. Winning is a byproduct of continually doing the right things (C1).
- The ultimate team is taking your 20 players and creating something that is bigger than just the individual players. If you have done a successful job as a coach, it means you have made the parts of your team individually look better than they really are. It is your job to organize and piece together the talent on the team and make it come together (C4).
- Team cohesion is all about having the right core players. Those players will do a lot of the work for you. If your core is strong, the players buy in to the way those guys are acting, if you have good guys and they are leading by example, team cohesion can be easy to foster (C6).

During the national and international elite coaching level, the elite coaches identified fostering a team first environment as one of their top priorities. However, at the international elite level, the hockey coaches knew that they had to spend more time on fostering the team environment in order to compete against the best players and teams in the world. The coaches purposely selected their teams well before the international tournaments in order to jumpstart the cohesive team building process. The ability to create a cohesive team determined varying levels of international elite level success for the interviewed coaches.

Conclusion on International Elite Coaches

The coaches who reached the international elite level had to continually change their coaching style and philosophies in order to work and succeed with the international elite level

athletes. During the previous stages, the coaches stressed skill work, at the National team level, the coaches focused on skill perfection and being able to perform as the highest level in international competition. Most of the coaches stressed that positive performance results were the primary goal at the international level. The coaches demanded that the athletes perform at their highest level at all times. The coaches continuously communicated their standards and goals to their players and what they expected them to achieve. The coaches' ability to produce positive performance results in competition directly influenced their future position with the National team.

The hockey coaches also used the interpersonal skills that they had developed during the previous coaching stages. The coaches spent time off the ice in order to communicate and listen to their athletes on non-hockey related issues. The coaches felt that even at the international elite level, the athletes needed a coach who cared about them on a personal level.

CHAPTER 5

Overview of Results and Future Research

The purpose of the current study was to identify and explain the athletic and career stages of elite ice hockey coaches and to provide an understanding of the knowledge gained at each stage and how it affected the development of the coaching philosophies. The following section will provide the findings of the current study as well as recommendations for future research.

The Career Stages of Elite Ice Hockey Coaches

Previous research of elite or expert development looked at either the development of teachers (Berliner, 1988), athletes (Bloom, 1985), or the development of coaches ending with their first coaching position (Draper, Salmela & Dejardins, 1994). The current study was different because it looked at elite development from the coach's athletic and coaching careers. When studying the coaches, they all said that they acquired coaching knowledge and methods when they were kids and as time went on, they developed and matured to the strategies they use today with elite level athletes.

The current study identified three athletic stages that aided in the development of the elite ice hockey coaches. Early sport participation began with the introduction to the sport and ended with the athlete playing at the division one university level or semi-professionally. All of the elite coaches became elite level hockey players, however, only two of them were selected as international level players. Therefore, being an international elite level athlete was not required

to become an elite coach. There were also a lot of differences between the individual coaches in their development as athletes.

There was a lot of knowledge acquired during the athletic stages. During early sport participation, the eventual coaches watched their youth coaches and learned how to inspire or discourage developing players while they learned the basic skills of hockey. The eventual coaches also learned the value of goal-setting and working hard to achieve those goals. Because of early sport participation success, the eventual coaches eventually played on division one college teams or semi-professional teams. They eventually all played at an elite level and acquired even more knowledge there. All of the coaches stated that their first experiences with team building and goal-setting strategies came at the elite level. The coaches who went on to the international elite level as an athlete believed that those experiences helped them in understanding the pressures associated with international level training and performance pressures.

All of the coaches stated that it was a smooth transition between playing and coaching. The elite coaches all had an initial passion for hockey from their childhood and then became committed to the sport during their playing and early coaching careers. Some of the coaches knew they wanted to become coaches early in their playing career while others did not commit to the profession until they were coaching at the development level. This study revealed that coaching was an obvious decision for all of the coaches.

During the youth and developmental coaching stages, the eventual elite coaches gained knowledge and coaching methods in different ways. Some were introduced to coaching by being a player-coach, while others became involved with coaching hockey through youth or

association roles. The coaches who began through a player-coach role used the lead by example method and served as the communication facilitators between the coaches and players. Most of the coaches had strong interpersonal communication skills while dealing with their players, while others experienced difficulties communicating with their players.

The developmental stage was the first coaching position which required formalized coaching on a part-time basis. Because of the high level of commitment, the coaches sought knowledge from courses or from mentor coaches. During the developmental stage, the coaches took the performance results seriously and therefore set training programs for their players. The coaches knew that in order to achieve the desired performance outcomes, they had to establish team rules and make sure the players knew that the coaches had final say on team conduct.

All of the coaches had a high level of success at the developmental stage which led to higher coaching positions with university teams. This transition was smooth because, according to the coaches, they had already acquired most of the formalized coaching methods and philosophies through their previous playing and coaching experiences. At the national elite stage, the coaches focused on selecting the team and then motivating and preparing their players for competition. The coaches all believed that at this level, they needed to develop the individual on and off the ice. The coaches taught life skills such as time management, conflict resolution, and how to balance academics and sport. The current study found that by the national elite level, the coaches all had similar coaching methods and philosophies.

All of the coaches were successful at the national elite stage and eventually became international level coaches. The biggest difference between the national and international level was that the international coaches made positive performance results their number one priority.

Future Research Direction

The present study provides a better understanding of the professional development of elite ice hockey coaches over time. Previous research has stated that coaches do not develop in a vacuum and that they are nurtured in special learning environments (Salmela, 1994). Furthermore, similar to the research study done by Cote, Salmela, and Russell (1995), the current study shows that elite coaches use specific coaching methods and philosophies with their players at the elite level.

The direction of future research on ice hockey coaching development could explore whether elite coaches only exist at the elite level or if there are elite coaches at the youth levels. If it is found that there are elite coaches at the youth levels, then future research should examine their coaching methods and philosophies as well as their career stages. The understanding of elite coaches will ultimately help improve coaching certification programs and produce better athletes and coaches at all hockey levels.

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APPENDIX A**The Career Stages of Expert Ice Hockey Coaches
INFORMATION AND CONSENT FORM****Introduction:**

You are invited to participate in a research study investigating the career stages of expert ice hockey coaches. This study is being conducted by Trent Palm, a graduate student at the University of Minnesota Duluth under the supervision of Randy Hyman, a faculty member in the Department of Education. You were selected by your USA Hockey peers as a possible participant in this research based on your successful university and international level results measured by successful win/loss records, more than 10 years of coaching experience at the elite level, and experience working either in university programs or with National teams. Please read this form and ask questions before you agree to be in the study.

Background Information:

There are two purposes for this study: one, this study will identify and analyze each of the career stages of six expert hockey coaches selected by USA Hockey. Two, this study will outline factors that influenced the elite coaches philosophies and also show the evolution of their coaching knowledge. Based on these findings, it is hoped that coaching education programs and mentor coaches will gain a better understanding on how to present and increase the knowledge of aspiring hockey coaches. This study will also provide sport scientists and coaches with a better understanding of instructional techniques when working with coaches who are aiming to coach at an elite professional level. Approximately 6 expert ice hockey coaches are expected to participate in this research.

Procedures:

If you decide to participate, you will be asked to complete 4 in-depth email interviews over a period of four weeks (one interview each week). The first interview will be called the "Pre-Interview Briefing" and should take approximately 10 minutes of your time. During this first interview, there will be introductory comments, the purpose of the study will be explained, and I will record any of the explanations.

The second interview will take approximately 30 minutes of your time and will be called the "Athletic and Coaching Development." During this interview you will be asked to describe how you became involved in hockey, your athletic experiences, your mentors and the early development of a personal philosophy, early coaching experiences, educational experiences, and your career opportunities and transitions.

The third interview will be called, "Current Coaching Procedures" and will take about 30 minutes of your time. In this interview, you will be asked to talk about your coaching philosophy and approach, and your training and competition considerations.

The final interview, entitled, "The Future Direction of Coaching" will take about 10 minutes of your time. In this interview you will be asked to give recommendations for the future direction of coaching and hockey. This study will take approximately 80 minutes of your time over 4 email interviews.

Risks and Benefits of being in the study:

This study has minimal risk. The fact that the researcher will not have direct face to face interviews with the coaches could present a potential problem in overlooking information by both the researcher and the expert coach. In order to avoid this problem, each coach will be questioned to the point of saturation, which will include additional follow up questions, during the interview leaving little room for overlooked information.

There will be no formal incentives to participate. However, there may be intrinsic motivation for you as a coach to provide valuable knowledge to the ice hockey coaching field.

Confidentiality:

Any information obtained in connection with this research study that can be identified with you will be disclosed only with your permission; your results will be kept confidential. In any written reports or publications, no one will be identified or identifiable and only group data will be presented. No one besides the researcher will know who participated in this study.

I will keep the research results in a password protected file on my personal laptop computer and only I will have access to the records I work on this project. I will finish analyzing the data by May 19, 2012. I will then destroy all original reports and identifying information that can be linked back to you.

Voluntary nature of the study:

Participation in this research study is voluntary. Your decision whether or not to participate will not affect your future relations with (the name of his hockey team) or the University of Minnesota-Duluth in any way. If you decide to participate, you are free to stop at any time without affecting these relationships.

New Information:

If during course of this research study I learn about new findings that might influence your willingness to continue participating in the study, I will inform you of these findings.

Contacts and questions:

If you have any questions, please feel free to contact me, Trent Palm, at 612-849-7256. You may ask questions now, or if you have any additional questions later, I will be happy to answer them. If you have other questions or concerns regarding the study and would like to talk to someone other than the researcher, you may also contact Dr. Randy Hyman, my faculty advisor, at 218-726-8505.

You may keep a copy of this form for your records.

Statement of Consent:

You are making a decision whether or not to participate. Your signature indicates that you have read this information and your questions have been answered. Even after signing this form, please know that you may withdraw from the study at any time.

I consent to participate in the study.

Signature of Participant

Date

Signature of Researcher

Date

APPENDIX B**Letter of Recruitment**

Dear USA Hockey Director of Coaching:

I would like to let you know about a research study that may be of interest to your coaches and ask you to consider referring six of your coaches for possible participation.

This research study will be investigating the career stages of expert ice hockey coaches. This study is being conducted by Trent Palm, a graduate student at the University of Minnesota Duluth under the supervision of Randy Hyman, a faculty member in the Department of Education.

There are two purposes for this study: one, this study will identify and analyze each of the career stages of six expert USA hockey coaches. Two, this study will identify factors that influenced the philosophical development of elite coaches as it contributed to the acquisition and evolution of their coaching knowledge. Based on these findings, it is hoped that coaching education programs and mentor coaches will gain a better understanding on how to present and increase the knowledge of aspiring hockey coaches. This study will also provide sport scientists and coaches with a better understanding of instructional techniques when working with coaches who are aiming to coach at an elite professional level.

The coaches will be asked to complete 4 in-depth email interviews over a period of four weeks (one interview each week).

There will be no formal incentives to participate. However, there may be intrinsic motivation for the coaches to provide valuable knowledge to the ice hockey coaching field.

Expert coaches that meet the following criteria may be eligible:

- Successful University, Professional, and International level results measured by successful win/loss records.
- More than 10 years of coaching experience at the elite level
- Experience working either in University programs or with National teams.

I look forward to speaking with the coaches in USA Hockey who may be interested in participating in this study. Please feel free to contact me with questions, or have your coaches contact myself on their own, using the contact information provided below.

Thank you for your time and consideration.

Sincerely,

Trent Palm

Email: Trentpalm5@gmail.com

Cell: 612-849-756

APPENDIX C**Letter of Selection**

Dear Coach, LAST NAME,

I am writing to tell you about a research study that will be investigating the career stages of expert ice hockey coaches. This study is being conducted by Trent Palm, a graduate student at the University of Minnesota Duluth under the supervision of Randy Hyman, a faculty member in the Department of Education. I received your name from the USA Hockey Director of Coaching because you met the following criteria of an expert ice hockey coach:

- Successful University, Professional, and International level results measured by successful win/loss records.
- More than 10 years of coaching experience at the elite level.
- Experience working either in University programs or with National teams.

There are two purposes for this study: one, this study will identify and analyze each of the career stages of six expert USA hockey coaches. Two, this study will identify factors that influenced the philosophical development of elite coaches as it contributed to the acquisition and evolution of their coaching knowledge. Based on these findings, it is hoped that coaching education programs and mentor coaches will gain a better understanding on how to present and increase the knowledge of aspiring hockey coaches. This study will also provide sport scientists and coaches with a better understanding of instructional techniques when working with coaches who are aiming to coach at an elite professional level.

If you decide to participate, you will be asked to complete 4 in-depth email interviews over a period of four weeks (one interview each week).

It is important to know that this letter is not to tell you to join this study. It is your decision. Your participation is voluntary. Whether or not you participate in this study will have no effect on your relationship with USA Hockey.

1. If you would like to participate in this study, please contact myself by using the contact information provided below.
2. If you do not wish to participate in this study and do not wish to be contacted again about this study, please contact myself by using the contact information provided below.

If I do not receive your reply within a week, I may send you another letter and/or contact you by phone.

Thank you for your time and consideration.

Sincerely,

Trent Palm
Email: Trentpalm5@gmail.com
Cell: 612-849-756

APPENDIX D

Interview Questions

- How did you become involved in sport? (Early Involvement)
- What are the things that came out of your own personal history as a player that were important to you? (Early involvement, playing experience, mentor)
- How did your personal sport experience translate into your coaching at the high school level? (Early coaching, first competitive team)
- How did you get involved at the university level? (Moving to another level, luck break, building self confidence)
- At the university level, did the commitment come from you, or from the other players? (Early coaching, committed athletes)
- How do you conceptualize training from a long-term perspective? (Mature coach, training, athlete mind set, total fulfillment of potential)
- How would you best define your role as a coach? (Mature coach, role of coach)
- Is it a hard process planning each practice?
- What role do basketball coach's play during the game?
- What do you see as the future development of coaching?

Reflection of Coaching

- As an established expert in the American ice hockey coaching community, you have acquired a large body of specific skills and knowledge which has allowed you to achieve your present status. Could you share with us the major obstacles in your career, and how have you gone beyond them?
- What do you see as the future direction of coaching? –Is there any information, strategies, or experiences that aspiring American Ice Hockey coaches could benefit from in their education in order to rise further in the ranks of expert coaches?
- How did you become an expert hockey coach? – The fundamental thing here is how did you learn what you know, and what is the best way of acquiring this knowledge and these skills?
- Tell me about your personal athletic experience
- What were some of your more memorable formal/informal education experiences?
- What were the major influences / moments later related to coaching?
- What role did your mentors play in your development?
- What do you think are the qualities of a successful coach?
- What are the key moments in your career? Tell me about them?
- What would you change?
- What wouldn't you change?

- How do you differ from other top coaches?

Training consideration

- Is it clear that effective training leads to successful competition?
- In what ways do you personally prepare yourself and your athletes for each training session from a technical perspective? From a tactical perspective?
- How is your long term planning organized?
- How is the season planned for?
- How is the week of practice planned for?
- How do you plan for each day/each practice?
- How do you teach mental skills/technical skills?
- How do you give feedback?
- How do you deal with discipline?
- Can you think of your best ever practice? What happened?
- How do you motivate your athletes to train?
- How do you monitor your athletes' goal setting
- How do you dealing with athletes' stress?
- How would that preparation change for you in dealing with high or low skilled athletes, veterans/ rookies/women/men and amateurs/ professionals?
- How could your knowledge or preparation of technical and tactical skills in training be best communicated to aspiring American hockey coaches?

Competition Considerations

- Being able to “deliver the goods” when it counts in competition is a central part of the coach’s task. In what ways do you personally prepare yourself and your athletes for each competition from a technical perspective? From a tactical perspective?
- What was the game that you were best prepared for? The worst?
- How do you deal with winning?
- How do you deal with losing?
- How do you, personally, mentally prepare for competition?
- What are your sources of stress or concern?
- How could your knowledge and skills in competition be best communicated to aspiring American Hockey coaches?
- What are the qualities that you believe are necessary to provide the necessary leadership to high level achievement in your sport?
- Since coaching by definition is a social activity, and you are central to this group, what are the important leadership qualities that you possess, and how do you refine them?
 - What crucial factors affect performance?
 - What needs to be done in developing athletes?

- How do you evaluate talent?
- What are your visions of coaching?
- What are the main concerns of players?
- What are the moral/ethical standards of conduct?
- What are the fundamental, personal over-riding principles?
- How do you build a team? What are your view points on team-building?
- Talk about your relationships with players, coaches, family, and the media
- How do you effectively deal with sport administration?

APPENDIX E

IRB Letter of Approval

UNIVERSITY OF MINNESOTA

*Twin Cities Campus**Human Research Protection Program
Office of the Vice President for Research**D528 Mayo Memorial Building
420 Delaware Street S.E.
MMC 820
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Website: <http://research.umn.edu/subjects/>*

03/06/2012

Trenton G Palm

RE: "Class Protocol: EDUC 7001: The Development of Expert Ice Hockey Coaches"
IRB Code Number: **1202P10342**

Dear Mr. Palm:

The referenced study was reviewed by expedited review procedures and approved on March 5, 2012. If you have applied for a grant, this date is required for certification purposes as well as the Assurance of Compliance number which is FWA00000312 (Fairview Health Systems Research FWA00000325, Gillette Children's Specialty Healthcare FWA 00004003). Approval for the study will expire one year from that date. A report form will be sent out two months before the expiration date.

Institutional Review Board (IRB) approval of this study includes the consent form and letter to coaches, both received February 20, 2012.

The IRB would like to stress that subjects who go through the consent process are considered enrolled participants and are counted toward the total number of subjects, even if they have no further participation in the study. Please keep this in mind when calculating the number of subjects you request. This study is currently approved for 6 subjects. If you desire an increase in the number of approved subjects, you will need to make a formal request to the IRB.

The code number above is assigned to your research. That number and the title of your study must be used in all communication with the IRB office.