EXPLORING YOUTH SPORT CONTEXTS: A LOOK AT YOUNG FEMALE ATHLETES’
PERCEPTIONS OF THEIR SPECIALIZED SPORT EXPERIENCE

by

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A thesis submitted to the School of Kinesiology and Health Studies in conformity with
the requirements for the degree of Master of Arts

Queen’s University
Kingston, Ontario, Canada
September, 2011

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Abstract

In sports like gymnastics and figure skating where peak performance occurs before physical maturation it logically follows that athletes need to be dedicated to their athletic development at a young age if elite performance is to be attained. However, countless studies have reported that early specialization in a single sport exposes youth to elevated risks of negative physical, psychological or emotional outcomes associated with sport participation (Côté & Fraser-Thomas, 2007). As such, it is important that we develop an understanding of the contextual factors or features of specialized youth sport environment(s) that are having positive impacts on youth growth, development and long-term commitment to sport. By harnessing an understanding of the features of specialized youth sport environments that positively contribute to the youth sport experience, we will be better equipped to mitigate the increased risk of negative outcomes in these environments.

Using the National Research Council Institute of Medicine’s (2002) eight setting features as a framework, the general goal of the current study was to explore the specialized youth sport environment as it is experienced by young athletes. Photo-elicitation was used to conduct interviews with 15 female athletes between the ages of 8 and 13 who primarily participated in one sport for 12 or more hours per week, for at least 9 months of the year. Two over-arching dimensions of the specialized youth sport experience emerged from the themes generated by the interviews: program design and interaction. Program design represents six themes underpinning the program’s inherent structure and organization: personal performance emphasis, consistent training structure, adaptable practice activities, rule guided engagement, appropriate equipment set-up and maintenance, and supervision by one or more adults. The interaction dimension represents six themes that emerged as a result of relationships with key social agents (e.g.,
parents, coaches, peers, community) of the sport environment: tangible support, informational support, emotional support, cultivation of camaraderie, achievement recognition, and opportunities for autonomy. These findings add to the literature as they provide a first step in understanding the specialized youth sport environment from the athlete’s eyes. That is, they not only help us understand the elements of the youth sport environment that youth perceive as important, but they also provide us with a working framework of the key features that are likely to contribute to positive outcomes in specialized sport environments.
Acknowledgements

First, I’d like to thank my two supervisors Dr. Jean Côté and Dr. Janice Deakin for their continued patience and support as I worked to complete my thesis. While juggling impressive careers of your own, you have always made time to listen to my ideas and provide valuable direction and guidance. For that I am forever grateful. I am also appreciative of the support of Dr. Elaine Power. Thank you for helping me hone the methodology I used as having children take pictures was novel to the sport psychology domain. Angie Maltby – thank you for always having an answer to my questions and never giving up on me. Without your help I would not have been able to complete this thesis.

I was very fortunate to be surrounded by such wonderful people in the lab and I can’t possibly thank them enough for their continued support. To start, I credit Dr. Sean Horton for helping me decide to pursue graduate studies and then taking me under his wing and showing me the ropes. I probably owe Dr. Leisha Strachan and Dr. Dany MacDonald an apology for having to listen to what must have seemed like my never-ending woes! I hope at least some of it provided you with a little humor to your day. Dr. Mark Bruner – you are a great role model and I appreciate the countless hours you spent helping me shape my ideas by providing insightful comments on early versions of my thesis. Your kindness and wisdom did not go unnoticed. (Dr.) Karl Erickson – I always looked up to you as you are much more knowledgeable than I. You played an important role in keeping me motivated as a graduate student. To everyone else who I was fortunate enough to meet along the way – I am a better person for having met each one of you and wish you all nothing but success and happiness as you pursue your careers.

Importantly, I cannot thank my family and friends enough for supporting me in my academic pursuits. To my parents, Brenda and Murray, without your constant encouragement
and confidence in my ability I would not be where I am today. Your emotional support and unconditional love has always been much appreciated. My sister, Michelle, you inspire me to strive for greatness and to work hard to achieve my goals. I cherish our special bond and love you dearly. Lorraine, thank you for being patient and standing by me the last couple of years. I know that it hasn’t been easy. I look forward to starting our life together. I love you.

Finally, I am indebted to all the coaches who agreed to let me come into their program and to the parents who allowed me into their homes as this study would not have been possible without their willingness to participate. As well, I would be remiss to not thank all of the athletes who participated in this study. Your thoughtful and often eloquent responses are what made these research findings possible.
Table of Contents

Abstract .............................................................................................................................. ii
Acknowledgements .......................................................................................................... iv
Table of contents ............................................................................................................... vi
List of tables ..................................................................................................................... ix
Chapter 1: Introduction ................................................................................................. 1
Chapter 2: Literature review .......................................................................................... 5
  Program design: Early sampling versus early specialization ........................................ 6
  Social influences: Understanding interactions in youth sport .................................... 9
  Interaction of context and individual: A bidirectional phenomenon ......................... 10
  The eight setting features .............................................................................................. 11
  Photo-elicitation: A research method ........................................................................... 15
  Rationale ......................................................................................................................... 16
Chapter 3: Methods ......................................................................................................... 18
  Participants ...................................................................................................................... 18
  Data collection ............................................................................................................... 19
  Data analysis .................................................................................................................. 22
  Trustworthiness and reliability ..................................................................................... 23
  Privacy and confidentiality .............................................................................................. 24
Chapter 4: Results ............................................................................................................ 26
  Program Design ............................................................................................................. 28
    Personal performance emphasis .................................................................................. 28
    Consistent training structure ...................................................................................... 29
Adaptable practice activities ................................................................. 30
Rule guided engagement .................................................................. 30
Appropriate equipment set-up and maintenance ................................. 31
Supervision by one or more adults ..................................................... 31
Interactions ......................................................................................... 32
Tangible support .............................................................................. 32
Informational support .................................................................... 33
Emotional support ......................................................................... 34
Cultivation of camaraderie ............................................................... 35
Achievement recognition ................................................................ 36
Opportunities for autonomy ............................................................. 38

Chapter 5: Discussion ....................................................................... 40
Athletes’ perceptions of the youth sport experience ............................ 41
Program Design............................................................................... 41
Interactions .................................................................................... 43
Athletes ‘perceive’ the environments as positive, but are there any costs? .. 44
Creating efficiencies in the specialized youth sport environment .......... 50
Role of peers ..................................................................................... 50
Role of coach(es) ............................................................................ 51
Role of parents .................................................................................. 53
Methodological considerations ......................................................... 54

Chapter 6: Summary and conclusions .............................................. 57
References ......................................................................................... 59
Appendix A – recruitment poster .................................................................74
Appendix B – letter of information ...............................................................76
Appendix C – consent form ........................................................................78
Appendix D – camera directions .................................................................80
Appendix E - demographic/screening questionnaire ...................................82
Appendix F – interview guide .....................................................................84
Appendix G – photo-elicitation: A novel methodology .................................86
List of Tables

Table 1. Features of youth sport programs and their implementation as perceived by participating athletes…………………………………………………………………………26
Chapter 1: Introduction

Several studies have demonstrated the potential for organized youth activities, like sport, to provide for experiences that ultimately nurture childhood growth and development (Eccles & Barber, 1999; Larson, 2000). Under favourable conditions a child’s initiative, independence, self-esteem, and identity can be enhanced through involvement in sport and physical activity (Fraser-Thomas, Côté & Deakin, 2005). Additionally, sport provides a medium through which children can acquire such pro-social behaviour as cooperation and responsibility (Côté & Hay, 2002). We also know that physical activity and sport participation exposure early in life are associated with lower levels of obesity and higher levels of continued activity in adulthood (Must & Tybor, 2005).

Although sport has been heralded as an important and popular activity among youth from around the world (De Knop, Engstöm, & Skirstad, 1996) beginning and sustaining physical activity is a complex process. Work by Fraser-Thomas, Côté and Deakin (2005) suggested that more than one third of youth aged 10 to 17 withdraw from sport each year. This alarming statistic suggests that we are failing to create appealing physical activity environments that recruit and retain young athletes. Given the ever-present shift in youth activity patterns to more sedentary past-times it becomes not only important but necessary to critically examine the youth sport experience. While all youth sport programs have the potential to positively contribute to youth development and long-term participation, this does not occur automatically and is ultimately a product of the socially constructed environment within which the sport takes place.

A thorough understanding of the contextual features of the youth sport environment has not yet been achieved or fully explained by the various models of youth sport development that have been proposed. One model, developed by Côté and colleagues, outlines the various stages,
pathways and contexts of youth sport involvement (Côté & Hay, 2002). The Developmental Model of Sports Participation (DMSP) suggests that inherent in each developmental stage are differences in the type and amount of involvement in sport. Sport programs that focus on high amounts of practice/training in one particular sport during childhood are consistent with the ‘early specialization’ trajectory of the DMSP. More often than not these specialized sport programs are designed with the long-term objective of producing elite level athletes. Characterized by high volumes of deliberate practice and low amounts of deliberate play in one particular sport some studies support early specialization as a suitable path towards elite performance (Law, Côté & Ericsson, 2007; also see Ward, Hodges, Williams, & Starkes, 2004 for a review ).While some research suggests that deliberate practice can be enjoyable (Hodges & Starkes, 1996; Starkes, 2000), Ericsson, Krampe, and Tesch-Römer (1993) postulated that because deliberate practice activities are effortful – purposeful bouts of training that are intended to improve performance – they are not generally motivating or enjoyable.

Although the DMSP provides a robust starting point for studying youths’ movement through sport, we do not yet have a solid understanding of the features of the youth sport environment that work to collectively affect youth development and influence future participation. The National Research Council Institute of Medicine (2002), based on a thorough review of the youth development literature, outlined eight features of settings that are most likely to promote positive assets in youth. These eight setting features (NRCIM, 2002) include: a) physical and psychological safety, b) appropriate structure, c) supportive relationships, d) opportunities to belong, e) positive social norms, f) support for efficacy, g) opportunities for skill building, and h) integration of family, school, and community efforts. With approximately 2.2 million Canadian children ages 5-14 (54%) participating in some kind of organized sport
(Corbeil, 2000) it is important to gain an understanding of how these setting features materialize in sport contexts.

Of particular importance are the ‘early specialization’ environments as described by the DMSP. Much research has shown that youth who find themselves progressing through this pathway are prone to higher levels of drop-out (Fraser-Thomas, Côté & Deakin, 2008), burnout (Côté & Fraser-Thomas, 2007), and exposure to fewer positive developmental experiences (Côté, Lidor, & Hackfort, 2009), than their peers who participate in a variety of sports during their formative years. However, other research posits that youth who spend a greater number of hours per week engaged in an organized activity report higher rates of initiative, identity formation, emotional regulation, and positive social interactions (Hansen & Larson, 2007). Similarly, some researchers even suggest that burnout might be preventable depending on the social organization of the sport (Raedeke & Smith, 2004). These contradictory findings seem to imply that the resultant experiential outcomes afforded by any one sport context are dictated by differences in ‘how’ the environment is constructed. This proposition is consistent with the bioecological model of human development (Bronfenbrenner, 1999), which provides for the fact that different social settings produce different learning environments, resulting in different experiences from one activity to the next. From a sports perspective this means that some sports environments will inevitably produce more positive outcomes than others – depending on the features of the environment.

Using the National Research Council Institute of Medicine’s (2002) eight setting features as a framework the general goal of the present research project was to examine the construction of highly competitive youth sport environments (i.e. early specialization). The objective was to provide a preliminary framework that can be used by coaches and sport administrators in the early
specialization trajectory to create positive sport environments. This project is the first step in constructing early specialization trajectories that better afford opportunities that are beneficial to positive development and long-term commitment to sport. Specific attention was given to the following research questions:

1. What are young athletes’ perceptions of their highly specialized sport experience?

2. How can highly specialized youth sport environments be structured so as to create better opportunities for positive youth development?
Chapter 2: Literature Review

Research has shown that structured activity involvement is important for healthy child development (Eccles, Barber, Stone, & Hunt, 2003; Hansen, Larson, & Dworkin, 2003). Specifically, participation in youth-sport activities has been linked with identity development (Eccles, Barber, Stone, & Hunt, 2003), higher self-esteem (Horn, 2004), greater scholastic achievement (Eccles & Baber, 1999), and enhanced social development (Côté, 2002). Participation in youth-sport activities also promotes a healthy lifestyle by giving youth a chance to experience enjoyment while acquiring such positive outcomes as enhanced physical and mental health (Fraser-Thomas, Côté, & Deakin, 2005). It has been demonstrated that physical activity and early sport exposure are associated with reduced rates of both obesity and sport participation attrition later on in life (Robertson-Wilson, Baker, Derbyshire, & Côté, 2003; Yang, Telama, Leskinen, Mansikkanemi, Viikari, & Raitakari, 2007). Fraser-Thomas et al. (2005) suggest that under favourable conditions youth initiative and independence can also be enhanced through involvement in sport. With more than 90% of Canadians believing that sport involvement has a positive influence on youth development, sport has the potential to be a medium through which youth can acquire pro-social behaviours and values (Canadian Centre for Ethics in Sport, 2002). However, mere participation in sport does not guarantee such positive outcomes. Sport programs need to be explicit in their design to create environments that will teach the skills they wish youth to acquire (Perkins & Noam, 2007). Mahoney and Stattin (2000), in their study of adolescent leisure activities, found that it was the structure and social context of the activities rather than the activity itself that determined whether developmental outcomes were positive or negative. Similarly, in their review of positive and negative factors that affect development through sport, Fraser-Thomas and colleagues (2005) identified program design and
social influences, as two contextual items that consistently affect the degree to which an environment is perceived to be a positive or a negative one.

Program design: Early sampling versus early specialization

In an effort to better understand youth and their movement through sport, Côté and colleagues proposed The Developmental Model of Sports Participation (DMSP; Côté, 1999; Côté, Baker, & Abernethy, 2007; Côté & Fraser-Thomas, 2007). The DMSP is a conceptual framework that integrates the developing person in their environment and therefore is consistent with a developmental theory approach, such as the bioecological model of human development (Bronfenbrenner, 1999). The DMSP was developed and refined over the last 10 years and presents a set of concepts about athlete development that are quantifiable and testable. Ultimately, the DMSP provides a framework for understanding youth sport and its various trajectories (Strachan, Côté, & Deakin, 2009). It suggests that between the ages of 6 and 12 there are two distinct pathways of youth sport involvement – Early Sampling and Early Specialization – which occupy positions at opposite ends of a continuum. Physical and psychosocial outcomes can be placed along the continuum, from those that are primarily motivated by a process-experimentation perspective (sampling) to those that are motivated by a goal-directed perspective (specialization).

Of growing concern, and considerable debate, is the decision for athletes to pursue an early specialization sport trajectory in sports such as gymnastics, figure skating and diving (Leglise, 1996; Wiersma, 2000). In these sports, where peak performance often occurs before physical maturation (i.e. adolescence instead of adulthood), early specialization is often seen as imperative if elite performance is to be attained. Early specialization is characterized by low amounts of deliberate play (i.e. informal play activities that are within a structure that is designed
to maximize enjoyment) and high volumes of deliberate practice in one particular sport.

Ericsson, Krampe, and Tesch-Römer (1993) define deliberate practice as any training activity a) undertaken with the specific purpose of increasing performance, b) requiring cognitive and/or physical effort, and c) relevant to promoting positive skill development. By focusing on outcomes rather than processes deliberate practice activities tend to be rigid, literal and demanding of considerable effort (Ericsson et al., 1993). Although some studies in sport support the fact that deliberate practice activities can result in pleasurable or enjoyable affect (Starkes, 2000), others find deliberate practice to be extrinsically motivated and not inherently fun (Ericsson et al., 1993). Grupe (1985) suggests that specialized youth sport programs are concerned with the deliberate advancement of training whereby the ultimate goal is to attain top level performance in sport. As such, youth who progress through this pathway generally focus their efforts in a single year-round sport activity (Hill & Hansen, 1988). Similarly, given that the objective of this pathway is performance improvement, sport programs that focus on early specialization are often competitive in their attempts to produce elite level athletes.

Although explicit support for early specialization is scarce in the youth sport literature many parents believe that early specialization will enhance their child’s prospects for later elite performance (Côté & Fraser-Thomas, 2007). Research confirms that from a skill acquisition perspective early sport specialization can be effective in producing elite level performers (Law, Côté, & Ericsson, 2007; Ward, Hodges, Williams, & Starkes, 2004) as athletes learn sport specific skills and develop considerable self-confidence in one particular sport (Côté & Fraser-Thomas, 2007). Some athletes in activities that demand high performance even report gaining insight into how to manage strong emotions such as anger and anxiety (Dworkin, Larson, & Hansen, 2003). Marsh and Kliettman (2002) and more recently Hansen and Larson (2007) found
that higher dosages of an activity (e.g. more time spent in sport) led to increases in developmental outcomes like self-esteem, initiative and identity development. One may argue that these positive findings advocate high levels of sport investment. However, it is important to note that these findings do not differentiate between the time spent in one specific sport versus participation for the same number of hours in a variety of sports. Therefore, this research is not able to discern whether the actual experience of being involved in one particular sport differs from the experience of being involved in a variety of different sports for the same combined total number of hours. In fact, research suggests that there may be important differences, in terms of developmental outcomes, if the time spent in sport occurs in predominately one activity (specialization) or is a culmination of a variety of sport activities (sampling) (Strachan, Côté, & Deakin, 2009).

For example, early specialization has been suspected of leading to greater rates of overtraining, muscle overuse, injury and athletes’ failure to develop transferable skills (Hollander, Meyers, & LeUnes, 1995). Early investment in one particular sport has also been suggested to have harmful effects on emotional and psychological development including burnout (Strachan, Côté, & Deakin, 2009), missed social opportunities (Wright & Côté, 2003), reasons for disengagement (Hill, 1988), and decreased enjoyment (Boyd & Yin, 1996). Alternatively, sampling a variety of sports affords youth the opportunity to explore a range of skills and interests while gaining exposure to a variety of people and experiences (Busseri, Rose-Krasnor, Willoughby, & Chalmers, 2006). Thus, a sampling trajectory in sport provides youth with opportunities to develop diverse physical and mental skills through engagement in a range of social interactions. This diversified set of experiences may ‘better’ equip youth to achieve developmental success than if their participation had been limited or constrained to one sport
activity (Shanahan & Flaherty, 2001). Similarly, exposure to an array of growth-related opportunities may afford samplers a greater amount of resiliency against negative sport experiences as they have the opportunity to replace or compensate for a problematic activity with that of another (Iso-Ahola, 1980). As well, youth who are exposed to more than one setting with similar positive social norms are more likely to internalize the norms than someone who only has the experience from one setting (Eccles & Gootman, 2002).

While findings seem to suggest that the relationship between youth sport involvement and development may vary as a function of which ‘pathway’ the athlete follows we do not yet know ‘how’ outcomes (positive or negative) are acquired. To date, little work has been done to ascertain what characteristics or features of the youth sport environment combine to produce either a positive or negative experience.

Social influences: Understanding interactions in youth sport

Much of our childhood growth and development can be attributed to social learning (Babkes & Weiss, 1999; Bandura, 1986). It is through an individual’s interactions with others that individuals develop their self-concept, identity, attitudes, dispositions and behaviours (Coakley, 1998; Côté & Hay, 2002). Coakley (1998) suggests that the socialization process is an active ‘two-way’ process of give and take, and that it is constantly evolving. Recognizing that sport is inherently social, researchers have taken an interest in the role that various social agents play in the youth sport arena. In fact, various lines of research tout the important roles coaches (e.g., Smoll, Smith, Barnett, & Everett, 1993), parents (e.g., Scanlan & Lewthwaite, 1986), and peers (e.g. Ullrich-French & Smith, 2006) play in the development of youth through sport. These relationships may be supportive, growth promoting, and of tremendous personal meaning, but they also may be confrontational, growth inhibiting, and disheartening. However, while these
relationships form a central part of one’s sport experience (Jowett & Timson-Katchis, 2005) the research to date has often been limited to understanding specific social behaviours in isolation without reference to how these behaviours affect or are affected by other social agents in the youth sport environment (Heath, 1994; Smith 2003). And so, while we know that an athlete’s experience in sport is largely the result of the environment’s social construction (Timson-Katchis & Jowett, 2005), Smith (2003) suggests that it would be worth examining not only the unique but interactive contributions of different social agents when attempting to understand psychosocial outcomes in youth physical activity. In the context of the current work it is the extent to which social processes work to collectively enhance or hinder development in highly committed athletes.

Interaction of context and individual: A bidirectional phenomenon

Contemporary developmental science has come to recognize development as a bidirectional relationship between individual and context (Garcia Bengoechea & Johnson, 2001; Bronfenbrenner & Morris, 1998). Specifically, ecological systems theory suggests that both human development and behaviour are the product of reciprocal interactions between human agents and the objects, symbols and people in their environments (Bronfenbrenner, 1995, 1999). The use of such an ecological approach for the study of youth sport has received traction in recent years (Garcia Bengoechea & Johnson, 2001; Strachan, Côté, & Deakin, 2009b). By their very nature, youth sport programs are ecological systems as they engage multiple facets of the physical and social environment (Strachan, Côté, & Deakin, 2009b; Stokols, 1992). Although there has been a great deal of research on various issues of youth sport (Weiss & Raedeke, 2004) much of this research has focused on specific elements (e.g. motivation, anxiety, coaching) at one point in time without considering how these issues relate to or interact with other features of the sport environment. As such, this perspective does not account for the interrelatedness of
processes and mechanisms of change that occur in various youth sport contexts. Assuming that youth sports adhere to the ecological systems theory, studying just one component or feature of the environment produces an incomplete picture of a youth’s experience in what is a fluid and undeniably intertwined phenomenon (Garcia Bengoechea, 2002).

*The eight setting features*

Research by the National Research Council Institute of Medicine (NRCIM, 2002) suggests that there are certain features of settings which can positively or negatively influence the youth activity experience. Specifically, the NRCIM outlined a provisional list of eight setting features that are most likely to foster positive development and long-term participation in youth. They include: a) physical and psychological safety, b) appropriate structure, c) supportive relationships, d) opportunities to belong, e) positive social norms, f) support for efficacy and mattering, g) opportunities for skill building, and h) integration of family, school, and community efforts.

First, positive settings must be of adequate structure and safety – free from violence as well as other forms of unsafe physical and mental health conditions including fear, feelings of insecurity, and verbal abuse. Evidence indicates that without stability and order youth cannot engage in physical, cognitive, emotional or social growth (Eccles & Gootman, 2002). In fact, applied research has shown that in all settings studied, adolescents benefit from experiencing clear rules, discipline and limits on their behaviour (Connell & Wellborn, 1991; Jackson & Davis, 2000). It is not surprising that positive development is unlikely to occur in environments that are disorganized, too rigid, or that have inconsistent rules and expectations. A study by Mahoney and Stattin (2000) found that leisure programs lacking structure resulted in more problem behaviours among youth than did youth recreational programs with greater structure: regular participation schedules, rule-guided engagement, presence and direction of activity
leaders, emphasis on skill development, activity performance requiring sustained attention and clear feedback given on performance.

In terms of supportive relationships, the NRCIM (2002) suggests that an environment that fosters a sense of connectedness, warmth, open communication, and support is most conducive to positive youth development. For example, we know that in sports youth develop greater self-esteem and lower anxiety when coaches focus on creating an environment that supports the development of skills rather than emphasizing winning (Seefeldt, Ewing, & Walk, 1995; Roberts & Treasure, 1992). It is important to note, however, that research suggests that these environmental characteristics reside less in the adult and more in the adolescent’s perception of, and interaction with, the adult (Eccles et al., 2003). Ultimately it is not what adults ‘see’ or think that is important but rather it is how the child perceives and engages in the environment.

Sport programs should also boast opportunities for meaningful inclusion through various forms of social engagement and integration while simultaneously empowering youth with opportunities to develop autonomy and personal improvement (Eccles & Gootman, 2002). For example, we know that in classrooms where teachers provide opportunities for all students to participate and feel valued, students perform better on a wide range of academic outcomes (Eccles, Wigfield, & Schiefele, 1998). Similar research in other non-sport settings indicates that adult over-control is related to fewer positive outcomes (Eccles et al., 2003) while adolescent driven activities that promote cooperative rather than competitive goals cultivate positive intergroup relationships (NRCIM, 2002).

Exposure to various intentional physical, intellectual, emotional and psychological learning experiences creates opportunities for skill building while a concordance among family,
school, community and sport activities is important in creating synergy in youth development.

Finally, although all youth environments produce a set of social norms the question becomes whether or not these values, morals, and ‘ways of doing things’ promote positive youth behaviour. Côté, Baker and Abernethy (2007) suggest that sport programs do, in fact, have the potential to instill values like fair play, respect and cooperation. It is important for youth sport programs to foster environments that promote such values because research across multiple settings indicates that youth perceptions of social norms have not only immediate but lasting effects on behaviour (Guerra, Huesmann, & Hanish, 1994).

Although many of these features are assumed to be facilitated by youth sport programs (Fraser-Thomas, Côté, & Deakin, 2005), the eight setting features have only recently received empirical support for their existence in youth sport. Strachan, Côté, and Deakin (2011) sought to explore the existence of the eight setting features within elite youth sport contexts from a coach’s perspective. Qualitative interviews with five elite-level youth coaches coupled with direct observation revealed 31 categories of the eight setting features specific to sport contexts. Importantly, the authors coalesce their findings into three key elements that they suggest apply to the delivery of positive youth development programs in an elite sport setting: (1) the existence of an appropriate training environment, (2) the provision of opportunities for physical, personal and social skill development, and (3) the presence of supportive interactions. While this study provides a useful starting point for a discussion of the eight setting features in youth sport contexts, the authors recognize that more research is needed in this area – specifically, with respect to the perceptions of program delivery from the athletes themselves. Such an observation is laudable and is consistent with a line of research that suggests adult recounts/observations are not always consistent with a child’s own understandings or perceptions (Cook & Hess, 2007;
Scott, 2000). Understanding this is vital because it is likely that how young athletes perceive elements of their context is as important, if not more important, than what might be called the objective or intended context as observed by adults (Schulenberg, 2006; O’Kane, 2000). The importance of examining sport contexts from an athlete’s perspective is supported by work which suggests that the eight setting features are, by and large, a product of youth’s perceived interaction with the social setting (NRCIM, 2002). As such, without the athlete perspective we are left with an incomplete picture of how the features manifest themselves in youth sport environments.

In the ever increasing organization of youth sport, a realistic appraisal of current programs would seem to indicate that not all youth sport programs are designed with the intentions of providing environments with the eight setting features in mind. In fact, it may be unrealistic to expect that every sport program will be able to provide all eight features to all youth. However, the evidence, although incomplete, seems to suggest that the more of the eight features a program has the greater the contribution it will make to the positive development of youth (Merry, 2000; McLaughlin, 2000). Further research is needed to understand how the eight setting features exist in and are experienced by athletes in specialized youth sport programs.

*Photo-elicitation: A research method*

Self-generated images are used to symbolize and “make visible” aspects of the self in both the physical and social environment (Harrison, 2002). Visual images capture the moments or “truths” that are decisive and significant, depict important social relationships, and offer testimony to people’s perceptions and meanings (Harrison, 2002). Photo elicitation is an innovative method of data collection that has been shown to be highly effective in soliciting the perspectives and experiences of children and youth (Bolten, Pole, & Mizen, 2001; Dell Clark, 1999; Morrow, 2001). This technique involves giving participants cameras to photograph subject
areas specified by the researcher (Harper, 2002). Although the researcher dictates the subject areas to be photographed, the participants are in control of the camera and so the photographs will reflect what they, not the researcher, consider to be important about the subject area (Cook & Hess, 2007). The resulting photographs then form the basis of discussion. Given that the participants take the photographs the stimulus for discussion starts from their interests and experiences.

This type of participatory research is especially useful when working with vulnerable groups, like children, who often find it easier to represent themselves through visual rather than textual means (Chaplin, 1994; Wang & Burris, 1997). This is because children often struggle to understand and describe abstract concepts and are less adept at information processing (Brustad, 1998). By explicitly acknowledging that the participants know more about the world they inhabit than the researcher, the literature suggests that they engage in the interview with less hesitation (Harper, 1998). Bolton, Pole and Mizen (2001) note that the photo elicitation component of their research project with young people extended their understanding and provided opportunities for analysis at a deeper level than what textual methods alone would have allowed. Power (2003) suggests that the use of photographs, taken by children, expanded and deepened knowledge production in subsequent interviews. Cook and Hess (2007) highlight a study whereby primary aged children were given cameras and tasked with capturing what they considered important to enjoying school life. Even at a young age these children used their pictures as aids to discuss complex social phenomena. One child took a picture of the school hallway and when asked ‘why’ he described how it represented a band he and his friends had formed and how they played in the school hallway. What’s more is that the child went on to explain how it made him feel. It is this use of an abstract image to represent the notions of a shared history and feelings of
belonging that make this methodology valuable. This project revealed the strength of children’s ability to express themselves on their own terms. The researchers speculate that it would have been unlikely to have reached so far into the children’s lives had they merely asked, “What makes you feel included in your school?” (Cook & Hess, 2007). Discussions of photographs have the potential to reveal complex and in-depth conceptualizations while introducing unexpected topics that may prove meaningful for young interviewees.

Given that this study concerns understanding how youth perceive their collective sport experience it is important that the stimuli for discussion be participant driven. Moreover, since conceptualizing many of the eight setting features requires ‘abstract’ thought (e.g., psychological safety, positive social norms) it may be difficult to develop conversations around these ideas by solely using a textual interview technique. Photographs provide an opportunity, in the form of a visual prompt, around which the child can talk about their experiences as a young athlete.

**Rationale**

Despite the contention that youth sport programs are made up of individual-contextual interactions, little empirical attention has been given to the joint examination of these dimensions. Concurrently, a limitation of the research to date is that it fails to collectively consider the program’s design, its social process and does not report information about how youth perceive their experience(s) (Busseri et al., 2006). The link between youth sport involvement and positive and negative outcomes has been clearly established, yet descriptions of young athletes’ perceived experiences have yet to occur.

Fraser-Thomas et al. (2005) suggest that one of the next steps for research in this area is to examine the features of youth sport environments that are most consistently associated with positive youth development and how successful programs integrate these features. Examining
how youth ‘see’ their sport environments gives us the potential to understand how the features of youth sport contexts materialize and ultimately affect youth development in different sport settings. While we know that youth sport programs have the potential to contribute to positive development (Côté & Fraser-Thomas, 2007), their outcomes hinge upon both the physical and social environment within which the sports take place. Given the number of youth who regularly take part in organized sport, gaining an understanding of their perceived quality of involvement is of particular significance. This is an important area to explore as we know that early specialization in sports where “peak” performance occurs before physical maturation (e.g. figure skating and gymnastics) is not only common (Hill, 1993) but often necessary if athletes wish to attain elite level status by the time they reach adolescence. Profiling athlete experiences is an important next step in a line of research that is attempting to understand how the contextual features of the youth sport environment are woven together.
Participants

Fifteen female athletes between the ages of 8 and 13 years (M = 11.3, SD = 1.3) participated in the study. This sample size is consistent with other work that has used photo-elicitation methodology with youth in this age bracket (Morrow, 2001; Power, 2003; Wilson et al., 2007) This age range is also consistent with Côté and colleagues’ (2007) ‘sampling years’ framework and represents a key stage for youth development in terms of developing motivations, values and beliefs about sport that remain critical for long-term involvement in physical activity (Côté & Hay, 2002). The study population was restricted to females as there is some research that suggests boys and girls show differences in perception patterns (Bell, 1997; Bridges & del Ciampo, 1981; Holt & Morley, 2004). An integral part of the inclusion criteria was that each participant not only be currently involved in organized sport, but specialize in one particular sport year round. An organized youth sport program was operationally defined as a team/club that has a coach, holds regular practice and competes in regular games/competitions (Wankel & Kreisel, 1985). Specialization was defined to mean participation in 12 or more hours per week in one sport for at least nine months of the year (Strachan, Côté, & Deakin, 2009). Many athletes invested much more than the defined minimum number of hours, resulting in a range of 12-28 hours (M=18.6, SD=5.4). Athletes had 4-10 years of experience in their primary sport (M= 6.6, SD = 1.8) with most athletes beginning participation before age five (M=4.8, SD=2.7).

Participant recruitment began with the posting of flyers at arenas, gym clubs and pools (see Appendix A) as well as by contacting head coaches of all of the gymnastics, figure skating, diving, trampoline, and swimming clubs in Ontario. Other recruitment efforts included presentations to elite ‘just for girls’ hockey and basketball camps in the Toronto region.

Collectively, these efforts resulted in a sample representing five different sporting domains.
including gymnastics (N=9), figure skating (N=3), diving (N=1), trampoline (N=1) and baton twirling (N=1). However, contacting head coaches proved to be the most fruitful exercise as 12 of the 15 participants were recruited through this effort. No more than two participants were selected from each club as it was important to hear from participants who had been exposed to different environments. In fact, 13 elite sport programs throughout Ontario were represented from the cities of Ottawa, Toronto, Etobicoke, Mississauga, Kingston, Barrie, Orillia, and Pembroke.

Data Collection

This study consisted of two distinct steps. First, the primary researcher met with athletes (and their parents) who met the eligibility criteria for participation. It was at this meeting that the study was outlined in detail, parental consent was obtained and disposable cameras distributed. In addition to receiving a demonstration of the camera’s functionality participants were also given written, stepwise instructions for the camera’s use. Following the tutorial on camera use, and consistent with other work that has been done with children and cameras, participants received a list of instructions outlining what to take pictures of (adapted from Power, 2003; see Appendix D). The instructions of what to take pictures of were designed using the eight setting features (NRCIM, 2002) as a framework and served as a guide to help participants create an all encompassing ‘visual log’ of how and/or what they see, feel and think about their sport experience. For each of the eight themes denoted by the setting features one topic area was carefully designed for inclusion in the participant’s instructions. As a result, eight age appropriate statements were created: 1) The following people involved in your sport

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1 Given that the research question surrounded the contextual nature of the sport experiences that are most conducive to PYD and long term participation, the actual vehicle through which these were delivered (i.e. type of sport) was irrelevant in the context of understanding the eight settings as they relate to all youth sport settings. It may have even been beneficial to have perspectives from various domains.
experience(s): parents, coaches, 2) Where you practice, compete, or ‘do’ your sport, 3) The rules and expectations that are part of your sport experience, 4) Your relationship with your teammates or other friends in sport, 5) What you have learned from participating in sport, 6) Things that are important for others to know about your experience in sport (i.e. what do you think I need to know to understand your experience), 7) The roles, responsibilities, or leadership tasks you have had in practice or competition, 8) How your sport experience(s) affects other areas of your life like time with your family or school. The purpose of the instructions was to help ensure that the pictures reflected each of the eight setting features – positive or negative. Participants were then instructed to take up to three pictures that they feel represent their experience as it relates to each of the eight items on the instruction sheet. By having participants take multiple pictures about each of the features, it provided athletes with the opportunity to create a visual compendium through which to discuss each setting feature. This allowed for a more complete discussion (with greater ease) about each topic area. Athletes were also told that their pictures could be of people, objects, or other items that the athlete feels explains how they perceive their sport experience. The participants had their cameras for one week after which they were collected by the primary researcher. The pictures were then developed and subsequently used in an interview with the participant to elicit information about the picture’s content.

Step two of the procedure consisted of conducting interviews with each participant surrounding the meaning they attached to each of their photographs. Before discussing the athlete’s pictures some general demographic questions were answered by the athletes, with the help of their parents (see Appendix E). Given that some of the demographic questions were retrospective in nature (e.g., age at which they began participating in sport), research suggests
that the presence of a parent will increase the reliability of the information (Law, Côté, & Ericsson, 2007).

The interview technique, named photo-interviewing (Hurworth, 2003), was used to conduct the remainder of the interview.² As such, the interview was driven by the series of photographs the athletes took as they were used as a springboard for discussion. The course of the interview proceeded systematically by first laying out all of the pictures on a table and asking the athlete to select which photograph they would like to talk about first.³ The open-ended question “tell me about this photograph” (Oliffe & Bottorff, 2007; Power, 2003) was then asked of the picture. It was important for questions to be open-ended, allowing athletes the opportunity to use their own words to describe their sport experience and the social processes involved; however, various other probes were used to ensure that a thorough understanding of the photograph was garnered (Patton, 2002). At the completion of the discussion of each photograph the athlete was asked to select another photograph for conversation, and a similar line of questioning ensued. This process repeated itself until all of the photographs had been discussed. As the athlete chose the photograph for discussion the interviewer kept track of the order in which the pictures were discussed (pictures were numbered) making it easier for any subsequent analysis that required matching the picture to the information gathered. In addition to discussing the meanings attached to each of the photographs four broader summary questions were also asked of the athletes after all of the pictures had been discussed. The purpose of these questions was to have the athlete think more globally about her experience, across all of the eight setting features combined (see Appendix F). All interviews took place in a location of the participant’s

² The decision to use this methodology came as a result of a pilot interview using a more ‘traditional’ semi-structured interview format. During the pilot interview, the primary researcher found it challenging to elicit detailed information from participants in this study’s demographic.
³ Although using digital images was considered, the physical nature of paper pictures has been shown to help relax participants as it provides them with something tangible to handle (Hazel, 1995).
choice. As such, some interviews were conducted at the athlete’s training location while others were completed at the athlete’s home. Regardless of the location, all interviews were completed one-on-one. Interviews occurred one week after the distribution of the cameras, were tape recorded and generally lasted one hour. It was important to conduct interviews in addition to taking the photographs because as Berger (1972) reminds us, “photographs are not a mechanical record…although every image embodies a way of seeing, our perception of appreciation of an image also depends on our own way of seeing” (p.10). It is the exploration, through discussion, that will enable us to make sense of the understandings youth have about their world. In addition to receiving a copy of all the photos they took, athletes also had their name entered into a draw for a digital camera and one of two $25.00 gift certificates to a sport store.

Data Analysis

The tape-recorded interviews were transcribed verbatim resulting in 278 pages of transcripts. Data was analyzed both inductively and deductively, according to standard interpretive techniques (Miles & Huberman, 1994; Patton, 2002; Ryan & Bernard, 2000). Analysis first proceeded inductively by coding based on the themes and dimensions inherent of the athletes’ descriptions of their experience. Following this inductive approach, the eight setting features were used as a framework for deductive inquiry to understand how the athletes’ experiences materialize or relate to the eight setting features. Specifically, the eight setting features were mapped onto the emergent themes during the latter stages of data analysis. Such a combination of inductive and deductive content analysis is advanced by qualitative methodologies as the most pragmatic way of conducting content analysis (Patton, 2002; Vazou, Ntoumanis, & Duda, 2005). This process involved “immersion” in the data, with multiple close readings of the transcripts. Specifically, early data analysis involved tagging participant
responses in an effort to produce a set of concepts that adequately represented the information contained in the interview transcripts (Côté, Salmela, Baria, & Russell, 1993). Following this, similar tags were combined to create categories and placed under the appropriate setting feature. This involved a progressive process of sorting and defining the data, and as analysis proceeded, categories became more specific, comprehensive, and systematic. Categorization served to “re-contextualize” the data and formed the basis of a preliminary organization system (Tesch, 1990) elucidating the eight setting features’ application to sport contexts. The categories remained flexible throughout the investigation and continued to be refined until a categorical classification system evolved that best represented the qualitative material (i.e. high degree of agreement) while limiting any overlap between categories.

**Trustworthiness and Reliability**

As a competitive athlete, and product of Côté and colleagues’ sampling trajectory (Côté, Baker, & Abernethy, 2007; Strachan, Côté, & Deakin, 2009), I approached this research project with some skepticism. I assumed my research project would unearth a series of negative attitudes and unhealthy comments about early specialization. I anticipated that participants would share stories of how their parents were pushing them too hard, or how they did not really want to train as much or as long as they were expected to. However, recognizing my preconceived understandings of early specialization I made a conscious effort to keep an open mind throughout this project by continually questioning my interpretations of the data by returning to the transcripts multiple times. Kvale and Brinkman (2009) suggest that such an iterative process is a necessary part of the research validation process, whereby the researcher must be critical of their findings and ask questions from different perspectives, which may, or may not, support the researcher’s own understandings. Specifically, I addressed issues of trustworthiness at the outset
of my research project by completing a reflexivity exercise about how my own sport experience could influence the research process. I completed a detailed list of any and all thoughts, feelings and emotions relating to the research topic, in an effort to identify and control any theoretical and experiential preconceptions of the specialization phenomenon. Moreover, during the interview process I sought to ensure the trustworthiness of what I was hearing by repeating my understanding of an athlete’s narrative to gain confirmation or clarification. During data analysis, I made sure to tag and subsequently address all data collected, whether or not it seemed to “fit” with the overall theme of my research. Finally, after all relevant themes and categories had been constructed the interview transcripts were re-read to ensure that all important aspects had been addressed.

To ensure reliability, 15 percent of meaning units were randomly selected from the transcripts and an independent researcher familiar with qualitative research analysis was asked to categorize these meaning units into the themes and categories provided. The primary researcher and independent analyst demonstrated high agreement (112 out of 123 meaning units; 91%).

Privacy and Confidentiality

No descriptions or images that could identify the participants are used here, or will be used in any publication, conference presentation or other written or verbal report arising from this research. Pseudonyms were used throughout this research project, including interview transcripts, to protect the anonymity of the participants and potentially photographed individuals. Given that this research project was interested in learning about the socially constructed environments of the participants, participants were encouraged to take pictures of those people (parents, coaches, and peers) whom they feel are important to their sport experience. Consistent with other work that has been done with cameras participants were instructed to seek consent
before taking pictures of any potential subjects (Wang & Redwood-Jones, 2001). Audio-tapes, photographs, transcripts and computer files of data continue to be kept in a secure location accessible only to the primary researcher and his supervisors.

Chapter 4: Results

Two over-arching dimensions of the youth sport experience emerged from the themes generated by the interviews: program design and interaction. Program design was the term coined to represent the themes underpinning the program’s inherent structure and organization. Equally, the interaction dimension represents the themes that emerged as a result of relationships with key social agents (e.g. parents, coaches, peers) of the sport environment. Table 1 provides a comprehensive overview of the component parts of both the program design and interaction dimensions. It also outlines ‘who’ participants perceived as responsible for contributing to each feature of the sport environment and suggests which of the eight setting features is promoted through the implementation of the emergent themes.  

Table 1.

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4 The use of photo-elicitation as a methodology proved invaluable. Appendix G provides a series of illustrations from the data (i.e. interview photographs) in an attempt to showcase the usefulness of this methodology in an interview process with children.
Features of youth sport programs and their implementation as perceived by participating athletes

<table>
<thead>
<tr>
<th>Feature</th>
<th>How to Implement</th>
<th>Actor Responsible for Implementation</th>
<th>Setting Feature(s) Subsumed</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program Design</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal Performance Emphasis</td>
<td>Emphasize appropriate development and skill acquisition, not relative success or winning. Focus is on learning, self-improvement and enjoyment.</td>
<td>Coach</td>
<td>PPS, AS, SR, OB, SEM, OS</td>
</tr>
<tr>
<td>Consistent Training Structure</td>
<td>Training days/times are consistent to allow for the development of a routine. Allotted training time consistently provides for minimal downtime through activities designed to sustain attention. Competition opportunities are available with a schedule provided well in advance.</td>
<td>Coach, Parent, Athlete</td>
<td>AS, OS</td>
</tr>
<tr>
<td>Adaptable Practice Activities</td>
<td>While the general training environment is structured and predictable, there is room to modify training based on athlete progress (e.g. to account for injury) and to incorporate ‘free-play’ activities</td>
<td>Coach</td>
<td>AS, SR</td>
</tr>
<tr>
<td>Rule Guided Engagement</td>
<td>Program outlines clear training and behavioural expectations with consequences</td>
<td>Coach, Parent, Athlete</td>
<td>PPS, AS, SR, PSN, OS</td>
</tr>
<tr>
<td>Appropriate Equipment set-up and Maintenance</td>
<td>Ensuring personal safety of all participants through the appropriate use and regular maintenance of equipment</td>
<td>Coach</td>
<td>PPS, SR</td>
</tr>
<tr>
<td>Supervision by one or more adults</td>
<td>Supervision considerations reflect age, numbers, and nature of the skill being performed.</td>
<td>Coach</td>
<td>PPS, AS, SR</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tangible Support</td>
<td>Furnishing of material assistance such as time, transportation and finances (includes making familial sacrifices and parental volunteer work related to the sport program)</td>
<td>Parent and Community</td>
<td>SR, IFSC</td>
</tr>
<tr>
<td>Informational Support</td>
<td>Sport specific - Provide athletes with advice, direction, technical information, and confirmation of performance General – using sport participation as ‘teachable moments’ to impart information with respect to life skills or values</td>
<td>Coach and Teammates (sport specific), Parent (general)</td>
<td>SR, PSN, SEM, OS</td>
</tr>
<tr>
<td>Emotional Support</td>
<td>Involves feeling cared for by others as well as the reinforcement of self-esteem/self-</td>
<td>Parent, Coach, Teammates</td>
<td>PPS, SR, OB, PSN</td>
</tr>
<tr>
<td><strong>Cultivation of Camaraderie</strong></td>
<td>Opportunity to engage in social/recreational activities with peers both within the context of the sport program and outside of sport (i.e. Social bonding).</td>
<td>Coach, Teammates</td>
<td>SR, OB, PSN</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>------------------</td>
<td>------------</td>
</tr>
<tr>
<td><strong>Achievement Recognition</strong></td>
<td>Acknowledging and rewarding the work being performed by athletes, but also challenging them to do more or attain higher levels of performance</td>
<td>Coach, Parent, Teammates, and Community</td>
<td>PPS, AS, SR, OB, PSN, SEM, OS, IFSC</td>
</tr>
<tr>
<td><strong>Opportunities for Autonomy</strong></td>
<td>Fostering athletes’ decision making, responsibility and initiative development. Avoid placing pressure on athletes to participate or perform</td>
<td>Parent and Coach</td>
<td>SR, PSN, SEM, OS, IFSC</td>
</tr>
</tbody>
</table>

**Note:**
PPS = Physical and Psychological Safety  
AS = Appropriate Structure  
SR = Supportive Relationships  
OB = Opportunities to Belong  
PSN = Positive Social Norms  
SEM = Support for Efficacy and Mattering  
OS = Opportunities for Skill Building  
IFSC = Integration of Family, School and Community

**Program Design**

Six themes formed the program design dimension: personal performance emphasis, consistent training structure, adaptable practice activities, rule guided engagement, appropriate equipment set-up and maintenance, and supervision by one or more adults.

*Personal performance emphasis.* This dimension evolved from athletes’ depictions of their sport experience as one that was designed to focus mainly on self improvement. This theme was supported by comments that suggested an emphasis on achieving individual goals, learning, and a view of mistakes as a necessary part of the skill acquisition process. One athlete, in discussing her nervousness at competitions, remarked that “well my coaches say that I will do all right in competitions and that they are for fun and it doesn’t matter if you win or lose.” Similarly, another athlete said,

But, like if we mess up a skill that maybe we have trouble with, then they [coaches] are going to be like, it’s fine you can do it again. They won’t be that upset because everybody
falls…it’s not always about winning, it’s about hard-work and having some fun at the same time.

However, it was common for a poor performance or mediocre execution to result in some form of punition. As one athlete recounted, “they give you more repetitions to do, and like they start not paying much attention to you while you’re doing it and going to other athletes more.” What’s interesting, though, is that the focus was always on self-improvement as athletes never commented on being reprimanded for losing, or how they finished with respect to their competition – only information related to competence was provided as it related to mistakes in their own execution. Participants also felt that their training progressed based on their skill level. One athlete noted that “They [coaches] first start progressions, and when you have done really well in them they take it step by step by step.” Another athlete described that when learning a new skill on the beam, “…I do it a lot on the floor beam and then I do it on the beam pad and if I feel really comfortable with that, I do it on a yoga mat, cause we put yoga mats on the beam and then just that’s when I’ll do it on the regular beam.”

*Consistent training structure.* Both the training days/times and practice breakdown were consistent to allow for the development of a routine. Athletes explained that while they had some choice in the days that they trained, it was their parents and coaches who primarily worked together to create training times that best worked for them. These schedules were quite rigid as athletes were able to recount, with a surprisingly high level of detail, not only when they would train but the types of activities they would be doing at certain times. Participants often provided a time-line of how a typical practice would progress,

…from 2:00 to 2:45 you would probably see us doing our warm-up, then from 2:45- 3:45 I would be doing tumbling. From 3:45 to 3:55 I would be on break. Then from 3:55-4:30 I’d be on bars… [she continues in the fashion until 7:30]. Then you can go back to events and fix all the things that you were doing wrong.
Athletes said that they liked this structure and that they thought it was “helpful” because “with the schedule you can’t waste any time…you get really good at time management.” The consistent structure also seemed to provide for minimal downtime as athletes said that they knew what they were supposed to be doing and when. Several participants added that “you always keep moving. There is no time to just stand around.” This sentiment was echoed by another athlete who stated, “Our coaches, they don’t like us standing around, so normally we have to work on something, maybe on floor beside the beam while somebody else is going.” Finally, participants were provided with various competition opportunities and were able to speak to the number, locations and dates of their competitions. Athletes explained that usually this information is decided at the beginning of the year and that knowing this information well in advance was important in their preparation (e.g., setting goals).

*Adaptable practice activities.* Although the organizational structure of the practice was fairly regimented athletes also described a certain amount of plasticity or flexibility in the teaching structure or actual content of practice. “…they [coaches] sort of focus on you, like to try new stuff in case that something doesn’t work. So they basically keep on trying different things and try to help you in certain ways.” Similarly, another athlete contributed with, “If I’m doing something wrong like a skill that I just can’t understand, they will try and think of different ways to get me to understand.” The importance of flexibility was also explained by athletes in terms of their coach’s ability to vary practice plans as a result of their comfort level with the skill and any physical limitations that might be plaguing their development (e.g., injuries). One athlete, in acknowledging her coach’s ability to meet the needs of her situation, discussed how she felt no pressure to continue regular training when injured, and was given modified exercises to do that were commensurate with her ability. She said, “Injuries are very common, but I am always given
time off from my regular program because they [coaches] say don’t come back until it’s better, because if you do your regular training on it, it could get worse.” The notion of inherent flexibility in practice activities was also evidenced by comments suggesting spontaneity such that opportunities for play were sometimes available in the form of games or free-time.

**Rule guided engagement.** Coaches, in consultation with parents and athletes, developed clear expectations for program participants. Athletes spoke of the fact that they were expected to be at every single practice and that although they could miss every once in awhile, “you don’t want to miss a night or you lose a lot.” One participant remarked, “I can’t miss gym very much, I have only missed it twice in the past two years.” Participants reported that when they did miss practice they were expected to work harder upon their return. For some athletes there were codes of conduct posted in their training facilities, which acted as a reminder “to try their best and never cheat,” to “never over-exaggerate sickness or injury” and to “sleep well. Sleep really makes you feel good. After training especially, so that is like an expectation, to sleep well.” In terms of consequences for breaking the rules most athletes said that they would first have to change their behavior and then depending on the rule they might be asked to leave to cool down or, “…you’ll probably like do extra conditioning or something like that and she [coach] will have a talk with you.”

**Appropriate equipment set-up and maintenance.** The fact that participants felt comfortable in each of their respective sporting environments was a recurrent theme found in all of the interviews. Many of the physical safety items athletes spoke of included regular equipment checks and the importance of keeping equipment neat and organized in their facilities. One athlete remarked that, “…cause when we train in the gym it’s not too messy and it feels like home.” Another athlete said that because of the fact that the gym was so “tidy” that she “could
come blindfolded and know where everything is.” Similarly, when learning a new skill some athletes noted that there would be increased safety equipment (e.g., mats) or that the equipment would be modified (e.g., lower the beam, bubble machine turned on in diving) to enhance safety.

*Supervision by one or more adults.* In all of the environments participants spoke of adequate supervision. Athletes explained that their coaches always knew what they were working on and that they were not allowed to use certain equipment or try certain skills unless their coach was watching. Moreover, in each of the environments there were low ratios of adults to athletes (e.g., 4-6 people in a training group in gymnastics) and all athletes reported appropriate ‘spotting’ such that they were confident that they would not get hurt. One participant took a picture of her favourite animal and a blanket. When asked to explain the picture she commented that, “they make me safe, just like [coach] when he spots me on things I am not used to doing.” The nature of the sports surveyed in this study also meant that many athletes had multiple coaches (e.g., a strength and conditioning coach, jumps coach, technical coach, floor coach, beam coach… etc.) so there was often more than one adult present during practice.

*Interactions*

Interestingly, even though all of the participants were involved in what would colloquially be dubbed ‘individual sports’ athletes’ comments, almost without exception, revolved around the social interactions they experienced in sport. Parents, coaches, peers and the community provided a range of information, opportunities, and support which influenced the quality of the sport experience. Six such themes emerged: tangible support, informational support, emotional support, cultivation of camaraderie, achievement recognition, and opportunities for autonomy.
Tangible support. This category denotes the perception that others provided concrete assistance to athletes either in the form of material aid or other forms of physical help. In each case, parents were heavily involved in their child’s sport experience. Parents provided athletes with the necessary equipment with which to train, regularly drove athletes to and from practice/competitions, and played an important role in managing the athlete’s diet. As one athlete quipped, “I depend on my parents to drive me there [to practice] and back.” Parents were also responsible for helping out with various club activities, “Well we sell chocolates for a fundraiser for the gym and my parents help me with that. They take the chocolates to work. My parents also help with bingos and my mom is president of the club.” For most athletes their familial schedule revolved around their sport schedule and so sacrifices in ‘time’ were the norm. One participant, in commenting on how supportive her family was, recognized that “they [her family] travel all over the place. It is a lot. They [her parents] have jobs, my brother has school and sports too so sometimes it’s tough. We can’t always do everything.” Athletes also pointed out various school accommodations that made balancing their training and school progress manageable. Some participants went to special sport schools where they attended class in the mornings and trained in the afternoon. Others were accommodated by being let out early, by being allowed a considerable number of excused absences, or by being given much flexibility in the time frame with which to complete assignments.

Informational support. The importance of communication was a theme that emerged in all of the interviews. The term ‘informational support’ broadly refers to the perception that others provided specific advice and guidance in regards to both their sport (e.g., preparing for competitions) and the world at large (e.g., commitment, respect…etc.). Coaches and teammates provided sport specific support by giving corrections and feedback on skill execution. One
athlete said, “…if somebody is struggling we normally help them. Like if maybe we do that skill too, but we are doing it pretty good we will give them some pointers.” In a similar way, parents used sport as a vehicle to teach important life skills. For example, one athlete remarked,

Ever since I was little my parents taught me that if you don’t respect your teammates and people you compete against they don’t respect you, and diving isn’t all about beating other people it’s about the friendships that you make and having fun…at the same time as working really hard to achieve your goals.

Similarly, the value of hard-work was echoed by another participant who said,

I feel like that since I don’t get everything I want, that’s why I try so hard at gymnastics. So if I ask my mom and dad for something I don’t always get it. Well, actually I never get it, except for my birthday. So that’s why my mom says I’m such a great gymnast, because I try so hard. Cause I have to work for everything I get.

Other participants noted that their parents have taught them about how their sport performance is related to healthy living habits. “It’s good food versus a big Hershey’s bar…you have to choose the good food. It is basically how you get around in training. If you don’t have the right food, you don’t sleep well. So, yeah I have learned to select the right food choices and stuff.”

Emotional support. This form of support involves the perception that others offered comfort, reassurance, and encouragement during setbacks as well as provided an “outlet” for athletes to talk about what they are going through in their sport experience. Emotional support also encompasses the reinforcement of athletes’ self-confidence and esteem. Participants reported that they were encouraged and felt cared for by parents. One athlete remarked, “they say like good job, and that they could tell I was trying really hard…or if I am having a bad day they’ll say think of all the good days I’ve had and that I am still doing amazing.” One 11 year old described her parents as, “gardeners. I am the plant and they cut and prune and stuff and they give you flowering stuff and they help you grow. They basically cheer you on. If I am nervous in the morning, they say don’t worry about it you’ll be fine.” Participants noted that the role of
peers as providers of emotional support was a result of their ability to identify with an athlete’s experience and to understand what it is like for them. One athlete commented, “If you are having trouble with a coach you can tell them [peers] about it because they understand. And they are always there to keep secrets and stuff like that.” Another participant stressed that in the context of someone struggling with a skill, “Everybody sort of talks with each other and if somebody isn’t talking then I will start talking to them. Nobody is ever left out.” When learning a new skill one athlete spoke of how teammates encourage and provide support to one another, “If you are doing a skill and it is your first time doing it, we always cheer you on. Even people not in your group will say go for it and stuff like that.” Another athlete said “We say things like this is easy for you, you can do it perfectly, come on, and things like that.” As such, the emotional climate the young athletes described was collegial or “friendly” and that there is no “real rivalry” amongst their peer group. One participant took a picture of her friend and noted that the reason was because, “she’ll help you get through stuff, if you’re ever scared or sad or whatever.”

Athletes also mentioned that their coaches were always very encouraging. One athlete sums up much of the discourse when she says, “coaches are one of the most important people. Like if you are doing something good they’ll say oh that was great, but if you are struggling with something they will be there for you too.” Interestingly, many participants spoke of their previous experiences at other clubs and provided insight about some of the negative aspects of their time spent there. One girl talked about the coaches and how, “they were not really supportive. If I didn’t do so well in practice they would sort of get mad…you wouldn’t really feel comfortable with them…you wouldn’t feel so close to them.” Another athlete had a similar experience where, “they would yell at you if you did something wrong by accident and they wouldn’t spot that great. It wasn’t fun at all.” Even if an athlete had not themselves had a negative experience with
a coach most athletes knew of someone who had. “I know some girls don’t feel comfortable with their coach. They feel their coaches push them too hard.” However, all of the young athletes who discussed poor experiences commented on how happy they were in their current training environment. One athlete said, “Well, I wasn’t having such a great time at the other gym, and then I came here and it is really nice, they [coaches] care about me.”

*Cultivation of camaraderie.* This category was used to indicate the sport environment’s provisioning of opportunities to engage in social and recreational activities that fostered relationship building. For example, one athlete reported that, “just being together with friends makes it [sport] fun.” Coaches played an active role in facilitating the opportunities for companionship development by influencing the ways in which peer interactions took shape. That is, in some sport environments participants discussed how everyone in the club would warm-up together, “like every group that is training then, even my high performance group, we do an entire warm up together.” In yet another environment it was customary for athletes to take turns stretching each other as a way to get to know other people in their club. However, even though in many cases athletes warmed up with various people they all went on to describe their developmentally appropriate age groups. “We break into small training groups with people our own age and who can do similar skills as we can.” For many participants their training group was also the peer group that they socialized with outside of their sport. One athlete noted, “I like them [peers] because they are fun to be with. They are all really nice and we talk a lot. Sometimes we do our homework together and maybe on weekends we play together or something like that.”

*Achievement recognition.* This category represented the perception that others, either by what they did or said, acknowledged athletes’ efforts as well as challenged them to do or achieve
more. The recognition of effort in the form of a play-time reward was consistent amongst participants. One athlete said, “well sometimes if we are conditioning, at the end of gym she [coach] will let us play a game because we tried hard in conditioning.” Another athlete took a picture of a smiley face, which she said represented the fact that, “… we don’t get much free time, but sometimes we get to play games…usually once or twice a month to reward our hard work…or if we get our stuff done early.” Practice recognition made participants feel important. Many athletes took pictures of and spoke proudly of their sticker books as they described how it represented their achievements in practice. Other athletes talked about “getting to ring the bell” when they learned a new skill, which meant that everyone else would stop and watch them perform their newly acquired skill. In many of the gymnastics and figure skating clubs participants told stories of an annual special event where they got to perform for friends and parents and how, “every year there are special awards for like most improved and outstanding effort.” Competition recognition was also important among the participants. Most athletes took pictures of their trophy and medal collections, which were often displayed in their homes. Interaction with the community was also discussed in the form of competition. One athlete spoke of how she liked when people in the community attended competitions. She said, “all these people are there to watch the competition. I really depend on them for support…it makes me feel good.” This theme was further developed in another interview where a participant said, “it is fun having people watch – especially strangers, because you want to show them that we can do it. That we are good.” Participants also discussed how their peer group pushed them to get better. One participant mentioned that her teammates motivated her in the context of conditioning by, “telling me that I can go more, or that I can do more.” Other athletes commented that when a teammate finishes ahead of them in competition instead of saying “you suck” a typical comment
might be “you did so great on this event, I feel so happy for you.” Finally, the athletes also spoke of the importance of being challenged with new skills as they progressed. When talking about her favourite thing about her sport one athlete commented, “I like harder skills.” One of the figure skaters also commented on the importance of challenge in talking about learning new jumps, “Even though it’s sometimes hard I like getting to try new jumps…you don’t just want to keep doing the same thing all the time.” When discussing what she liked about her sport the baton twirler said, “It’s fun and you get to compete against other people and it’s a challenge, I like challenges. And it pushes me to work harder and get stronger.” Being pushed by coaches was not only expected but embraced by participants. This was especially the case in situations where athletes knew certain things were important for their performance but that they would not necessarily do if left on their own (e.g., conditioning).

**Opportunities for autonomy.** This category represents a perceived tendency on the part of others to involve athletes in decision-making roles, leadership tasks, and to foster in athletes a sense of ownership and responsibility for their learning. Athletes, although acknowledging that their practice activities were primarily coach driven, did get to have some input into their practices. One athlete said, “She [coach] loves it when we tell her what we want to do, or that we want to try this. Usually I get to pick the board [diving board] and then she picks the skill.” In discussing this notion of autonomy another athlete added, “Sometimes he [coach] will say well do what you want to do or work on, or he’ll say like, say on beam, he’ll say you have to do 5 back walk-overs and then you can work on whatever you want for the rest of the time.” Participants also noted that their parents used sport to emphasize personal responsibility. Athletes described how they were responsible for packing their own “gym” or “skating” bags and that “they [parents] are not always going to do it for me.” Many participants also discussed
how their experience has been instrumental in helping them decide to contribute to their community through sport. For instance, the figure skaters took the initiative to volunteer at Can Skate and as one 12 year old participant described, “it is kind of like a responsibility, to give back to the community…so it’s kind of like I am the coach and they are my skaters, just like my coach is my coach and I’m her skater. So it’s kind of like passing the knowledge on.”

Additionally, the athletes talked about how coaches impressed upon them the importance of being leaders and role models. The diver remarked that “…when I am stretching myself I’d help the little kids at the same time, they are just you know learning stuff and so it’s important to help them…I’m like a leader, like sometimes I also have to lead like warm-ups and stuff for everybody, and take control.” These important life skills transferred over into other areas of the athletes’ lives. “Well, I’ve become better at being a leader, like for school. Like some people get like nervous like doing presentations in front of class, but it’s not really scary, because you like practice in gym.” Participating in a training regime in excess of 12 hours per week meant that all athletes in this study had to make significant sacrifices and compromises. Most athletes said that they simply didn’t have the time to get involved in other activities, but were quick to point out that this was their choice. One athlete remarked, “even though practice takes up all of my time, I enjoy it like that.” Athletes were also faced with tough choices when it came to spending time with friends outside of their sport, “like last weekend I was invited to go to Wonderland, but I couldn’t go because I had gym.” All participants had similar comments with respect to missing birthday parties, trips to the mall, or going to the movies. Athletes accepted these missed opportunities as a necessary part of their sport development. One athlete provided, “I just tell myself that I need to do it to be stronger and so I can get harder skills…and that I love it. It doesn’t make me feel bad because there is always another time…I am mostly here doing what I
like to do. Sometimes I just can’t go because it is crucial to be here…” Finally, athletes said that they did not feel pressure from their parents to continue training or competing and that their parents “will always support my decisions.” Interestingly though, when talking about how supportive their parents were of their decisions, many athletes were quick to point out that this isn’t always the case for other athletes. One participant said, “I have seen parents who do get mad. I have a friend whose mom pushed her so hard she wanted to quit.”

Chapter 5: Discussion

Using the National Research Council Institute of Medicine’s (2002) eight setting features as a framework the present research project aimed to provide an understanding of athletes’ perceptions of the contextual features of highly competitive youth sport environments. From this, the goal was to better understand the elements of highly specialized youth sport environments that likely create opportunities for positive youth development. In this way these findings add to the literature as they enable us to see the youth sport environment from the athletes’ eyes, helping us bridge our current understanding of youth sport with the elements that youth perceive as important in their sport experience. The current work builds on a recent study by Strachan, Côté, and Deakin (2011), which, in providing an account of the eight setting features in elite youth sport contexts from a coach’s perspective, outlined three key elements in the delivery of elite youth sport programs: 1) the existence of an appropriate training environment, 2) the provision of opportunities for physical,
personal and social skill development, and 3) the presence of supportive interactions. The findings of the current study suggest that athletes’ perceptions of the features of their sport experience are very much consistent with the features as perceived by adults who are involved in the sport environment. That is, participants reported two over-arching components of the youth sport experience: program design and interactions. This is harmonious with previous work that has demonstrated the important role structure and social context play as constructs of youth leisure activities (Fraser-Thomas et al., 2005; Mahoney & Stattin, 2000).

It is important to note, however, that although a sport program’s inherent structure is conceptually distinct from its social environment, in practice there is a relationship between these two facets. And so, while several global themes emerged in the current study the themes often overlapped as they wove together to create a contextual scaffold of the youth sport experience. Furthermore, the primitive boundaries between each of the eight setting features were often blurred with participants leading discussion about how parent, coach, peer and community interactions collectively contributed to various aspects of their sport experience.

Athletes’ perceptions of the youth sport experience

Program design. Consistent with Côté’s (1999) early specialization trajectory the athletes in this study were in sport programs designed with the long-term objective of producing elite level performers. These programs were characterized by high volumes of deliberate practice and low amounts of deliberate play. In fact, in describing their sport environments athletes spoke of many of the features that Ericsson, Krampe, and Tesch-Römer (1993) used to define a ‘deliberate practice’ environment: a focus on increasing performance, the requirement to maintain a constant cognitive and/or physical effort, and the importance of skill development. What’s interesting, though, is that participants described these tenets of their sport environments
as enjoyable. While this is in contrast to a body of research that suggests deliberate practice activities are not inherently fun (Ericsson et al., 1993), several studies in sport (e.g. Deakin & Cobley, 2003; Starkes, 2000; Helsen, Starkes, & Hodges, 1998; Hodges & Starkes, 1996) found that deliberate practice can be enjoyable. In fact, Strachan, Côté and Deakin (2009) found no significant differences between enjoyment levels in sampling and specializing groups of athletes. Although the enjoyment related to deliberate practice was not measured directly in the present study the fact that athletes discussed their intense involvement in sport as enjoyable suggests that the effort invested in an early specialization pathway could be perceived as enjoyable. This finding is supported by the work of MacDonald, Côté, Eys, and Deakin (2011) who, in their study investigating the role of enjoyment and motivational climate on positive and negative development of young athletes, found that effort expenditure was one of the four strongest predictors of positive sport experience in a diverse sample of young athletes.

All of the athletes in this study were participating in highly organized youth sport regimes with clear expectations. Athletes had consistent training schedules, which allowed athletes the ability to develop well structured routines. Some evidence has shown that such stability and order can play an important role in youth development, affording youth the foundation upon which to engage in physical, cognitive, emotional or social growth (Eccles & Gootman, 2002). Other researchers have added that structured adult-supervised programs (including, but not limited to sport) are important contexts in which youth may learn important moral and behavioural skills (Larson, 2000). There is also applied research showing that adolescents benefit from experiencing clear rules, discipline and limits on their behaviour (Connell & Wellborn, 1991; Jackson & Davis, 2000). Mahoney and Stattin (2000) found that leisure programs lacking structure resulted in more problem behaviours among youth than did youth recreational programs.
with greater structure (e.g., regular participation schedules, presence and direction of activity leaders, emphasis on skill development, activity performance requiring sustained attention and clear feedback given on performance).

It may come as no surprise that the sport environments of the participant athletes were so structured given that athletes were dedicating close to 19 hours per week, on average, in their respective sports. Hansen and Larson (2007) found that more time spent in an activity led to increases in various developmental outcomes like self-esteem and initiative. This work did not, however, differentiate between the time spent in one specific sport versus participation for the same number of hours in a variety of sports. The findings of the current study suggest that time spent in a single activity can result in athletes acquiring important life skills, where life skills are those internal personal assets, characteristics and skills that can be facilitated in sport and are transferable for use in non-sport settings (Gould & Carson, 2008). Athletes spoke of “helping each other out,” “being a leader,” and “understanding one another.” Participants also described how their involvement in sport has led them to become more responsible and to work as a team.

Finally, participants in the current study reported that their coaches always placed on emphasis on self-improvement, learning and enjoyment. Similarly, while athletes felt like they were always challenged they were quick to point out that their training progressed based on their own skill level. Gould, Collins, Lauer and Chung (2007) noted that top youth football coaches prioritized this kind of athlete development before winning. More recent work by MacDonald, Côté, Eys, and Deakin (2011) found that the presence of such a ‘task climate’ was a strong predictor of a positive sport experience.

**Interactions.** Further explanation for participants’ positive perceptions of their sport experience stems from their comments touting the strong social support networks in each of their
respective sport environments. For example, athletes in the current study revealed various instances of perceived tangible, emotional and information support. The work of Garcia Bengoechea and Strean (2007) suggest that these comments are consistent with a conception of social support as information to the individual that others care about and value him or her. Other research has shown the positive influence of perceived support from parents (e.g., Leff & Hoyle, 1995), coaches (e.g., Jowett & Poczwardowski, 2007) and peers (e.g., Scanlan, Carpenter, Lobel, & Simons, 1993) on young athletes’ self-perceptions, affective responses, and motivation. The activities and behaviours of these social agents have also been linked to increased levels of enjoyment (Scanlan, Carpenter, Lobel & Simons, 1993).

A defining feature of the current study was the fact that athletes talked about their exposure to a variety of adult (namely coach) and peer interactions. This negates, or at the very least addresses, the concern that those who specialize have fewer opportunities to develop social relationships. For example, in figure skating while all athletes had one main coach many also spoke of working with a jumps coach, a choreography coach, and a technical coach (e.g., footwork coach). Similarly, in gymnastics athletes often had a coach for each event – beam, vault, floor...etc. In terms of peer interactions athletes discussed how the entire club would warm-up together before splitting off into smaller age-appropriate training groups. And depending on their training schedule some athletes trained with a different peer group on different nights of the week. So, while a sampling trajectory may routinely provide for a variety of different social opportunities a specialized trajectory can be structured to afford opportunities to interact with a series of adults and peer groups.

Athletes ‘perceive’ the environments as positive, but are there any costs?
The findings of the current study provide support for the contention that early specialization environments can be conducive to fostering initiative, nurturing self-esteem, and promoting a sense of social contagion. This proposition is consistent with other recent research showing no significant difference between sampling and specializing groups and their possession of developmental assets (Strachan, Côté, & Deakin 2009). However, even though all participants in this study perceived their current sport environments as overwhelmingly positive, much of the youth sport literature suggests that not all of the features uncovered in these environments are ‘best’ for optimal youth growth and development. As a result, it’s important to consider the perceptions of participants (or at least qualify them) in light of what we already know about the youth sport environment.

In a recent study Law, Côté and Ericsson (2007) compared enjoyment levels of Olympic level rhythmic gymnasts with their peers who had not attained Olympic level proficiency, but who were still competing internationally. The Olympic level athletes, who began sport-specific training at a younger age than their international counterparts, reported reduced levels of physical health and lower levels of enjoyment. And so, while the Olympic athletes were more skilled, there were some costs associated with their participation.

Although low levels of enjoyment were not reported by athletes in the current study, it’s important to remember that participants were only between the ages of 8 and 13 (M=11.3, SD =1.3) and so have not yet reached the age at which sport withdrawal becomes most prevalent (Fraser-Thomas, Côté & Deakin, 2005). The concern is that as these athletes age they will fall victim to one of the dangers of early specialization – the disappointment and decreased self-concept that may accompany the shift from child stardom to adolescent mediocrity (Hill, 1988). The reality is that only a handful of children will make it ‘big’ as there are a finite number of
spots on travelling teams, in professional leagues or at the elite level in amateur sport (e.g., Olympics). Fraser-Thomas and Côté (2009) suggest that this pyramidal approach to attaining excellence in sport can be detrimental to the children who are eventually excluded from participation (i.e., because there are fewer and fewer competitive spots as you progress up the pyramid). This begs the question, what happens in an early specialization sport system to those who don’t make it?

This question, among others, is fuelled by concerns that early specialization environments are too demanding with adults exerting too much influence over the sport structure. This, in turn, creates fewer opportunities for deliberate or free play activities (DeKnop et al., 1996). For example, in the current study athletes talked about not being able to ‘waste time’ at practice. Athletes’ scheduled practice times were quite rigid with many athletes giving a minute by minute account of their practice. While this, athletes urged, helped teach good time management skills and provided for minimal downtime, it also meant less time for free play type activities. Athletes were also quick to point out that physical activity (e.g., extra conditioning) was used as a form of punishment for breaking the rules or for a poor performance. Similarly, extra effort (or “hard-work”) was also viewed as a consequence of missing a practice as attendance at every single practice was an expectation.

The ability of athletes in the current study to cope effectively with these demands and balance both their sport involvement with other life activities was quite apparent. This ability to organize and balance one’s lifestyle is extremely important (Martindale, Collins & Daubney, 2005) as being able to organize one’s life stresses has been linked with staying injury free, staying motivated, and developing and performing well (Salmela & Moraes, 2003). Balancing was also made easier by concessions at school (e.g., half day programs or excused absences),
long term planning (e.g., consistent and predictable training schedule and early notice of competitions), and through dedicated familial support. However, not all children can cope effectively with these intense sport demands. In fact, even youth in the current study reported that having to miss out on attending social events with both friends and family was a regular occurrence. Some research has shown that having no time for friends can be a stress among young athletes (Scanlan, Stein, & Ravizza, 1991). Patrick et al. (1999) found that if youth felt their sport was in conflict with their social development outside their sport, their commitment and motivation for their sport decreased. In at least one study the authors found that early specializers were more inclined to burnout than their sampler peers (Strachan, Côté & Deakin, 2009). As such, coaches and parents should be careful when placing these physical, psychological, and time demands on young athletes’ sport participation as it is important to remember that children are not as robust as adults (Gould, Wilson, Tuffey, & Lochbaum, 1993).

Another concern is that since those who specialize spend a significant amount of time in a single training environment they may miss out on opportunities to develop other social relationships (Wiersma, 2000). Côté and colleagues have argued that the more limited opportunity for social interaction in an early specialization trajectory is potentially harmful to athlete growth and development (See for example, Côté, Lidor, & Hackfort, 2009; Wright & Côté, 2003). The worry is that early specialization provides fewer opportunities for young athletes to meet new people and interact with a variety of people. The argument is underpinned by the contention that since athletes are only exposed to one sporting environment, one bad social interaction could tarnish an athlete’s sport experience. While it may be true that athletes in specialized sport environments will have fewer opportunities to develop as many social relationships as their peers who adopt a sampling approach to sport, this study suggests that the
relationships that specializers do develop are extremely close-knit. In fact, athletes in the current study all commented on the strong bonds that they had developed with those involved in the sport environment (both coaches and peers). Furthermore, while many participants could readily recount negative aspects of their earlier experiences in sport (e.g., previous experiences at other clubs) they had not been turned off from sport. They simply moved clubs or transferred coaches. And so, the inference that specialization leads to fewer positive social relationships which, in turn, can lead to fewer positive outcomes may not be as strong as once thought.

Nonetheless, with the potential to have a negative impact on childhood growth and development why would such a sport structure continue to exist? Well, its perpetuation is likely the result of research portraying early specialization as an “effective” way to achieve performance goals and develop motor skills (Law, Côté & Ericsson, 2007; also see Ward, Hodges, Williams, & Starkes, 2004 for a review). However, Côté, Coakley and Bruner (in press) propose that this may not be the most “efficient” way of developing widespread talent in youth. Whereas a sport program that focuses on efficiency is one that enhances participation and development, limiting the psycho-social and physical costs associated with training and talent selection (e.g., dropout, burnout and injury), an effective youth sport program is one that is performance driven, placing only a secondary focus on participation and personal development. The authors espouse that early specialization is akin to an effective sport trajectory, producing some elite level performers independent of the costs associated with the exclusion of others. Conversely, the authors suggest that an efficient trajectory will result in higher long term participation patterns as efficient sport programs find ways to integrate and keep all children involved in sport.
This proposition by Côté and colleagues is supported by research that suggests performance in a given sport in childhood is a poor predictor of adult performance (Régnier, Salmela, & Russell, 1993). As such, the argument is that it is important to keep all children involved in sport until they mature, at which time talent is better identifiable. This certainly holds true on a large scale, but when one compares specific sports, like gymnastics and figure skating with baseball and hockey, this theory breaks down. In gymnastics and figure skating, where peak performance occurs before physical maturation, early skill acquisition and training are often necessary. For these sports the delivery method or model is unlikely to change. Recall Law, Côté and Ericsson’s (2007) study on Olympic level rhythmic gymnasts, where Olympic level performers were those athletes who began training at an earlier age. Such evidence supports the notion that to achieve peak performance in these sports, the selection or specialization process must, it seems by necessity, happen sooner. For sports like gymnastics and figure skating, the focus of our efforts should be on how to best create efficiencies within an effective environment.

This position is consistent with the work of Strachan, Côté and Deakin (2009) who found that it is possible to have a positive sport experience and to develop positive personal competencies through a specialization trajectory. Similarly, there appears to be no correlation between training loads and reported burnout scores (Gustafsson, Kenttä, Hassmén & Lundqvist, 2007). Gould and colleagues (Gould, Udry, Tuffrey, & Loehr, 1996a; Gould, Tuffrey, Udry. & Loehr, 1996b) conducted quantitative and qualitative studies with 30 burnout and 32 comparison high-ranking junior tennis players, and found that burnout athletes were less likely to have been involved in the design of their training program, perceived higher parental expectations and more parental criticism. In follow-up qualitative interviews, burnout athletes identified unfulfilled expectations, lack of enjoyment because of pressure, and low motivation as factors leading to
their burnout. These findings underscore the importance of considering factors other than training demands when attempting to understand positive and/or negative sport experiences. And so, while recognizing that the malleability of a specialization trajectory is limited, there are certainly steps we can take to enhance participation and development while negating some of the psycho-social and physical costs that are currently associated with early specialization. In this way, the findings of the current study prove helpful. They deconstruct the roles of various social agents in specialized youth sport environments. Table 1 provides a summary of the features athletes see as important in creating positive sport environments – the socially constructed efficiencies – and how to implement them.

Creating efficiencies in the specialized youth sport environment

The bioecological model of human development (Bronfenbrenner, 1999) provides for the fact that different social settings produce different learning environments, resulting in different experiences from one activity to the next. From a sport perspective this means that some sport environments will inevitably produce more positive outcomes than others – depending on the social construction of the environment. The social organization of sport involves a variety of factors; however, of utmost importance are those individuals who have the potential to create a positive experience for young athletes and enable socialization experiences; this includes persons in the sporting environment, namely peers, coaches and parents. Raedeke and Smith (2004) suggest that to thwart sport withdrawal we must look at changing the social organization of sport to create a better fit between the athlete and the competitive environment.
**Role of peers.** Weiss and Smith (2002) note that to develop a strong friendship the possession of similar values and beliefs as well as feelings of loyalty and a comfort level to self-disclose are important. Sport specialization would seem to provide an optimal foundation for fostering these criteria given the long hours athletes spend together. In fact, findings in the current study support the proposition that specialization can lead to the development of healthy friendships. That is, participants spoke with conviction about the strength of their relationships with their peer group. Athletes stressed the importance of their peer group in terms of informational support, emotional support, cultivating a culture of camaraderie, and celebrating one another’s achievements. Examples of this prosocial behavior were revealed through discussion of cooperation, sharing knowledge and skills, helping one another, and never leaving anyone out (Eisenberg & Fabes, 1998). Participants also mentioned that having friends in sport not only made training more fun, but made training easier because their peers understood what they were going through. In addition to providing one another with advice, direction and emotional support, athletes also played with their teammates outside of the sport context. These behaviours all work to affect motivation, interest and the development of positive social skills (Allen, 2003) as well as the development of values and attitudes (Stuart & Ebbeck, 1995). This is strong support for the conclusion that despite being involved with a small group of peers, participants can develop robust peer relationships as there is a certain level of depth to the connections they develop. And so, in some cases the intimate nature of their involvement with their peer group may work to actually enhance the sport experience.

**Role of coach(es).** It is important to note that the foundation for the development of positive peer relationships were largely coach driven. A consistent feature of the data in the current study was that coaches emphasized cohesion by not only stressing the importance of
supporting one another but by creating opportunities for this to occur (e.g. athletes warmed up together, stretched one-another, helped teach one another…etc.) Gould et al. (2007) found that highly experienced coaches reported the teaching of these relational, and other similar life skills to be an important aspect of their role as coach. Coaches in the present study not only focused their efforts on cultivating this camaraderie, but were also perceived as responsible for all program design elements. For example, participants noted that coaches emphasized personal performance as the resounding goal of their sport experience, where personal performance was underscored by the quest to become proficient at the task at hand. Athletes discussed mainly self-referenced cues (e.g., improvement, effort) as the criteria they used to evaluate their success. As such, these results reinforce the idea that fostering a predominately mastery-oriented climate is not necessarily incompatible with seeking out competitive outcomes (Duda, 2001). Rather, the problem only seems to emerge when parents and coaches lose perspective and adopt a “winning at all costs” attitude, in which fun and long-term development are sacrificed for short-term competitive outcomes. Adults must be vigilant to not place external demands (e.g., winning) on the activity. Such an attitude can be difficult to avoid in an early specialization pathway where each competition may be perceived as a stepping stone on the path to stardom.

In the current study athletes commented on the adaptability of practice activities and opportunities for autonomy. By giving athletes choice or otherwise involving them in the decision-making process (e.g., which skill to work one first, or, which skill the athlete thinks they need to work most… etc.) a sense of responsibility or ownership over their sport development is created. This allows for an athlete driven (or collaborative) acquisition of motor skills while not detracting from or impeding the ultimate goal of performance development. This

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is an important feature as all too often, especially in elite or high performance environments, coaches are said to provide too few opportunities for athletes to take responsibility for their own development leading to decreased enjoyment or even attrition. For example, Pelletier, Fortier, Vallerand and Briere (2001) found that in a study of competitive swimmers, dropout athletes perceived their coaches as more controlling and less autonomy supportive. Similarly, Gould et al.’s (1996) study of tennis players found that burnout athletes felt they had less input into their training than comparison athletes. Research in other non-sport settings indicates that adult over-control is related to fewer positive outcomes (Eccles et al., 2003) while adolescent driven activities that promote cooperative rather than competitive goals cultivate positive intergroup relationships (NRCIM, 2002). By providing opportunities for athletes to gain ownership of their development, coaches can foster a motivational climate that is effective in developing intrinsically motivated athletes (Martindale, Collins, & Daubney, 2005).

Similarly, it was important to athletes that coaches did incorporate some ‘free’ or ‘deliberate’ play type activities into their training structure (e.g., informal play activities designed to maximize enjoyment). The literature confirms the importance of these activities as they provide immediate gratification and are inherently fun (Côté, 1999; Côté & Hay, 2002). It also allows children to be creative in their movement patterns and is an opportunity to experiment with new skills free of any consequence. After all, most theories of child development (e.g., Piaget, 1962; Vygotsky, 1978) hold that play activities provide a medium for useful development.

In the present study, coaches also focused on giving informational support which provided athletes with technical information, useful advice and confirmation of their performance. Smoll et al. (1993) found that coaches who used more reinforcement and technical
instruction behaviours and fewer non-reinforcement, punishment and control behaviours were better liked, created an atmosphere that athletes perceived as more fun and created more team unity than other coaches. A review of literature by Weiss (1995) led her to conclude that the kind of feedback a young athlete receives plays an important role in influencing an individual’s perceptions of competence. Specifically, performance-contingent feedback leads to children who are higher in perceptions of physical competence and, in turn, leads to a display of functional achievement behaviours such as greater sport enjoyment and higher intrinsic motivation.

Role of parents. Parents were also important purveyors of informational support. Parents used sport as a vehicle to teach important life lessons – healthy living, sportpersonship, and responsibility. This is similar to Larson’s (2000) concept of initiative, which involves learning to set realistic goals, learning to manage time and taking responsibility for oneself. Consistent with talent development research (See for example, Gould, Dieffenbach, & Moffett, 2002) parents also played an important role in providing emotional and tangible support to their children. All parents of athletes in the current study were highly invested in their athlete’s sport experience. They drove to and from practice, attended many of the practices, and attended all competitions. Participants recognized the importance of this parental support and the sacrifices that were made in order to “be there” for them. Research shows that where youth perceive higher amounts of parent support, encouragement and involvement they report higher levels of enjoyment, intrinsic motivation and preference for challenge (Scanlan & Lewthwaite, 1986). In contrast, high amounts of parental pressure, expectations, criticism, and low amounts of support have been associated with decreased enjoyment, increased anxiety, dropout and burnout (Gould, Udry, Tuffrey & Loehr, 1996a).
Examined as a whole these social efficiencies collectively provided a nurturing environment where athletes felt cared for. They were what participants saw as the reason for their positive sport experience. Research has shown that when youth perceive an environment to be caring, it influences their ability to empathize with others, control their emotions in order to maintain and build social connections, cultivate their willingness to help others, and reduces their delinquent behaviours (Gano-Overway, Newton, Magyar, Fry, Kim, & Guivernau, 2009). Therefore, it is not so much the sport trajectory that is inherently responsible for teaching (or not teaching) athletes life-skills but the social organization that takes place within them (Holt, Tamminen, Tink, & Black, 2009).

Methodological Considerations

Although the sample size in the current study was small, results highlight the importance of examining youth experiences from the perception of the athletes themselves. A methodology novel to the youth sport literature was used in extracting information from participants and given its success warrants further study. In fact, the use of visual methods has been shown to elucidate concepts and reveal dimensions of lives not always accessible by the more ‘traditional’ interview (Keller, Fleury, Perez, Ainsworth & Vaughan, 2008). Visual methods for data collection show promise for illuminating concepts that are important for assessing and understanding the youth sport experience. Athlete produced visual images can guide not only researchers but program administrators, policy makers, coaches and parents in determining how and under what conditions youth are engaging in physical activity. The rich perspectives shared using visual methods should be a directive for investigators to re-evaluate their use and understanding of existing measures in ways that better reflect the constructs surrounding youth physical activity. Certainly in the current study the use of participant-produced photographs resulted in the
interviewees alerting the researcher to omissions or questions that he hadn’t even considered. That is, the use of participant photographs as an emergent modality in the youth sport literature has the potential to be an important addition to our current qualitative and quantitative techniques.

Upon reflection, there are some inherent limitations to the study design limiting the ability to generalize its findings. First, only athletes from individual sports were used to examine early specialization. Given that there are differences in the nature of individual and team sports it would be useful for further work to add a team sport component to this discussion. Second, this study was also limited to young female athletes. Research has shown the boys and girls often share different perceptions of their physical activity experiences (Smith, 1999), and so it would also be useful to examine the perceptions of young male athletes in the early specialization trajectory. A further limitation is the self-selecting study population. All athletes involved spoke of their positive experiences. In retrospect it is unlikely that those who are having a poor experience, but whose parents insist that they continue, are likely to be eager to participate (or allowed to). Moreover, even if an athlete was having a poor experience some censorship by their parents may have occurred (e.g., allowing the athletes to only take certain pictures, suggesting what photographs to take…etc.). If this were the case then the photographs taken, and the subsequent discussion, may not have truly reflected the athletes’ own perceptions of their sport experience. Parents and coaches may have also been concerned that giving children free-reign with a camera would be intrusive to either their family life or coaching practices. Consequently, suggesting that the children take certain photographs may have been how parents and/or coaches controlled for this intrusion.
Chapter 6: Summary and Conclusions

Sport participation provides a unique opportunity for youth to encounter a variety of experiences and can be a vehicle to promote positive development. However, there has long been a concern that sport programs requiring high levels of investment from an early age may have negative consequences with respect to a young athlete’s growth and development (Hill, 1988; Hill & Hansen, 1988). This leads to the suggestion that specialized youth sport programs may not be providing ‘optimal’ environments for fostering lifelong involvement in sport (Côté, Coakley, & Bruner, in press). However, the findings of the current study suggest that, when properly constructed, involvement in a specialization trajectory can be a good choice for youth. This may be, at least in part, the result of the resource availability in specialized environments –
strong familial commitment, knowledgeable coaches, excellent training facilities…etc. More research is needed to examine these links.

In specialized environments, where there is often a greater emphasis on performance, careful attention needs to be paid to the construction of the sport environment. It seems that it is much easier for winning to become a major focus, exploiting athletes rather than considering their physical, psychological and/or social best interests. It is important to remember that mere participation in any sport environment does not guarantee a positive outcome. In fact, sport programs need to be explicit in their design to create environments that will teach the skills they wish youth to acquire (Perkins & Noam, 2007). It is imperative that we promote the features espoused in this study because we know that under favourable conditions sport can be a vehicle through which youth acquire various pro-social behaviours (Côté & Hay, 2002). Further longitudinal work needs to be completed in this area, examining specialization environments, in order to obtain a clearer picture of the developmental outcomes and experiences at various stages and ages of development. Research to date has much too narrowly focused on the negatives associated with early specialization rather than suggesting a viable solution. It’s one thing to report on the harmful consequences of something, but it is quite another to suggest a fix. Gaining a deeper understanding of the sport specialization context is critical to obtaining information on how to ensure the best sport experience for youth. The findings of the current study provide support for the fact that it is not so much the ‘type’ of sport trajectory that youth participate in, but what is happening in those environments that is important. In fact, when we look carefully at the contextual factors of the early specialization environment we find that the development of positive, healthy youth within a specialization framework is possible. This study suggests a practical framework – a guide – that can be used by sport administrators and coaches in creating
sport environments that best embody the eight setting features as developed by the National Research Council Institute of Medicine (2002).
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Appendix A
Youth Sport Research Study

**Purpose:** To explore how various youth sport settings shape future participation and affect youth development. Specifically, the goal is to elicit young athletes’ perceptions of their sport experience to understand how youth sport environments contribute to the positive development and long term participation of children.

**Participants:** We are looking for participants who meet the following criteria…
- **Female**
- **Between the ages 9-12**
- **Participating in 10 (or more) hours per week in a particular sport year round (minimum 9 months of the year)**

For more information on the study or to learn more about participation please contact Brian Wilson at 3bmw@queensu.ca or 613-533-6000 ext.78207
Information Sheet – Exploring Youth Sport Contexts: A Look at Young Athlete’s Perceptions of their Sport Experience

The purpose of this project is to explore how various youth sport settings shape future participation and affect youth development. Specifically, the goal is to understand young athletes’ perceptions of playing sports to better understand how the youth sport environment contributes to development and long term participation of children.

Participation in this study requires the child to meet certain requirements related to sport participation. If the participant is between the ages 10-16 and invests more than 10 hours per week in a single sport year round, or plays more than four sports during the course of a calendar year then he/she may be eligible to participate. Should the child participate, the study will require youth to take pictures of their sport experience(s) – the people, objects, their emotions etc. Following a meeting with the primary researcher, participants will be given a disposable camera for one week and asked to take 24 pictures, of what they see, feel and think about their sport experience(s). After one week the primary researcher will collect the camera and develop the photographs. The pictures will only be viewed by the researcher and study participants, maintaining anonymity of people that may appear in the photographs. One-on-one interviews will then be done with each participant to discuss the pictures content. Questions about the child’s perception of the structure, opportunities, and support of their sport experience(s) may also be asked. The interview should take about 1 hour to complete. There are no known or foreseeable risks involved for children participating in this study. For their time and effort all participants will have their name entered into a draw for a digital camera and one of two $25.00 gift certificates to Sport Check.

This is part of a research project for which Brian Wilson is the primary researcher. Should you provide consent for your child’s participation all personal information and data will remain completely confidential. During data collection, analysis and dissemination of results, all photographs and interviews will be held in a secure location by the primary researcher. That is, all items will be maintained in a controlled-access location (e.g., locked file cabinet, password equipped data files) that will only be accessed by the primary researcher and his supervisors.

The study is only interested in the information provided by the entire group. While the results of this study may be presented at academic conferences and published in academic journals, anonymity and confidentiality of all participants will be maintained. As a reminder, participation is completely voluntary and should you (or your child) wish to withdraw at any time, you may do so without explanation. All data collected up to this point will be destroyed.

Should you have further questions or concerns regarding any aspect of this study, you may contact any of the individuals listed below.

Primary Researcher: Brian Wilson
School of Kinesiology and Health Studies, Queen’s University,
(613) 533-6000 ext. 78207
3bmw@queensu.ca

Supervisors:
Jean Côté, Ph.D
Director, School of Kinesiology and Health Studies
Queen’s University
(613) 533-6601
jc46@queensu.ca

Janice Deakin, PhD
Associate Vice-Principal and Dean of Graduate Studies and Research
Queens University
(613) 533-6100
Janice.Deakin@queensu.ca

General Ethics Review Board: Dr. Joan Stevenson (Chair)
Queen’s University
613 533-6288
stevensj@queensu.ca
Appendix C
PARTICIPANT CONSENT FORM
Exploring Youth Sport Contexts: A Look at Young Athlete’s Perceptions of their Sport Experience(s)

I have read the information letter and understand that this study, first, requires my child to take pictures of items that represent their sport experience. I also understand that the second part of this study involves an interview with regard to my child’s photographs.

I have been informed that my child’s confidentiality will be protected throughout the study, and that the information he/she provides will be available only to the primary researcher and his supervisors. While the results of this study may be presented at academic conferences and/or in academic journals, I am aware that any results will be presented for the group only (i.e., no individual data will ever be reported) – thereby maintaining my child’s anonymity.

I understand that my child’s participation in this research project is completely voluntary and that he/she has the right to not answer any question(s) he/she feels comfortable with. I also recognize that my child may withdraw from the study entirely at any time without explanation and any data collected to this point will be destroyed.

Finally, any questions I have about this research project and my child’s participation have been answered to my satisfaction. I understand that I am invited to contact the primary researcher, the project supervisors, and/or the General Ethics Review Board should any further questions or concerns about this research project and my child’s participation.

I consent to participate in this research project.

<table>
<thead>
<tr>
<th>Participant Name</th>
<th>Signature</th>
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<th>Parent/Guardian</th>
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<th>Date</th>
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<tr>
<td>Primary Researcher:</td>
<td>Brian Wilson, School of Kinesiology and Health Studies, Queen’s University, (613) 533-6000 ext. 78207 <a href="mailto:3bmw@queensu.ca">3bmw@queensu.ca</a></td>
<td></td>
</tr>
<tr>
<td>Supervisors:</td>
<td>Jean Côté, Ph.D Director, School of Kinesiology and Health Studies Queen’s University (613) 533-6601 <a href="mailto:je46@queensu.ca">je46@queensu.ca</a></td>
<td>Janice Deakin, PhD Associate Vice-Principal and Dean of Graduate Studies and Research Queens University (613) 533-6100 <a href="mailto:Janice.Deakin@queensu.ca">Janice.Deakin@queensu.ca</a></td>
</tr>
<tr>
<td>General Ethics Review Board:</td>
<td>Dr. Joan Stevenson (Chair) Queen’s University 613 533-6288 <a href="mailto:stevensj@queensu.ca">stevensj@queensu.ca</a></td>
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Appendix D
Directions to Participants in the Youth Sport Research Project

General Directions for Using the Camera

1. To take a picture, look through the viewfinder, press the small black button on the top of the camera on the right side.

2. Before you take the next picture, wind the big black button with the rough edges on the back of the camera until it stops. The counter on the top of the camera should have increased by one.

3. This type of camera does not take close-up photographs. Make sure the object you are photographing is at least 3 feet away.

4. If using the camera indoors, turn on the flash first. After you take the picture, turn the flash off until you take the next picture.

Specific Direction for Taking Pictures of Your Sport Experience:

Thinking about your personal sport experience(s) (good and/or bad) please take 3 pictures of how you feel about…

1. The following people involved in your sport experience(s) (take one-two pictures of each)
   - parents
   - coaches
2. Where you practice, compete, or ‘do’ your sport
3. The rules and expectations that are part of your sport experience
4. Your relationship with your teammates or other friends in sport
5. What you have learned from participating in sport
6. Things that are important for others to know about your experience in sport (i.e. what do you think I need to know to understand your experience)
7. The roles, responsibilities, or leadership tasks you have had in practice or competition
8. How your sport experience(s) affects other areas of your life like time with your family or school.

RESEARCHER WILL PICK CAMERA UP ON (DATE): _______________

*Please remember that some people do not like to have their picture taken and so it is important for you to ask their permission. You can tell them that the pictures are being used for a study about your sport experience and that the pictures are only being used for a private interview (i.e. they will not be made public).

*If you want to get an ‘action’ shot of somebody a polite way to get their permission is to ask them at the beginning of a practice or game if it would be okay for you to take their picture during the practice or game. That way you can wait until you see something that you think you would like to photograph and then take your picture.

*If someone says that they would not like to have their picture taken then you can take pictures of something else that represents how you feel about your relationship with that person. Remember pictures do not necessarily have to be of people!
Appendix E
Exploring Youth Sport

**This information may be collected with the help of a parent**

SECTION A:

Demographic Information

Athlete’s name: _______________________

Birthday: ______________

Gender: ______

Sport Information

1) At what age did you begin participating in sport? ______
2) How many sports are you currently involved in? (i.e. how many teams are you on, or how many different organized sports do you play) ______
3) On average how many hours per week do you currently ‘invest’ in sport? (i.e. how much time do you spend in organized sport) ______
4) How many sports were you involved in (played) during the last calendar year? ______

List:

Sport _______________________
Number of years involved ______________
Age at which you began sport ________

Sport _______________________
Number of years involved ______________
Age at which you began sport ________

Sport _______________________
Number of years involved ______________
Age at which you began sport ________

Sport _______________________
Number of years involved ______________
Age at which you began sport ________

Sport _______________________
Number of years involved ______________
Age at which you began sport ________
Appendix F
SECTION B:
*Opening Questions*: Given that we’ve just met for the first time could you tell me a little bit about yourself? How would you describe yourself? (identity question)

Question to be asked of all of the pictures:

1) Can you tell me about this picture?

*Example of Potential Probes:*

I’m really interested in this photograph; can you explain more about why you took this picture?
What does this photograph mean to you?
Can you tell me more about what this picture represents?
Is this typical of all your sport experience(s)?
Do you know of anybody in your sport that has had a different experience?
Some people say_________ do you experience this?

*How the athlete describes the picture’s meaning will dictate the line of questioning that follows, but the goal is gain insight into their perceptions of the following dimensions of their sport experience(s):*

A) Physical and Psychological Safety  
 B) Structure  
 C) Relationships (describe and discuss relationships)  
 D) Opportunities to Belong  
 E) Social Norms  
 F) Efficacy and Mattering  
 G) Skill Building  
 H) Integration of Family, School, Community

*Summary Questions:*

If you could change something about your sport experience, what would it be?

Suppose I was a (10-13) year old who wanted to start playing sports, and I asked you what I needed to know to be successful. What would you tell me?

Now, I’d like you to think about the future. Where do you see yourself in 1 year as it relates to your sport participation? What about 5 years? ….why do you think this?

Is there anything that I’ve missed or anything that you think is important about your sport experience that we haven’t talked about?
Appendix G
A Picture is Worth a Thousand Words

It is worth noting that although the picture taking exercise was designed to generate photographs to act as catalysts for discussion around a specific setting feature, often times one picture elicited information about more than one setting feature or a different feature than what was originally intended. Nonetheless this methodology proved invaluable. Below are a series of illustrations from the data (i.e. interview photographs) supporting the usefulness of this methodology in an interview process with children.

Illustration 1 shows a picture that was described by one athlete as a representation of her parent’s involvement in sport. She remarked, “This one was for parents too. How there is a bridge in the back and bridges are supported…cause they support us.” She continues by describing the many ways in which her parents support her financially, emotionally and tangibly by driving her to and from practice.

Illustration 1. A bridge is used to describe her parents’ roles

Another testament to how useful the pictures were in allowing for creative exploration leading to a display of impressive analytical thought, came from one 9 year old’s description of her parents’ involvement in her sport experience (Illustration 2). She took a picture of a chair and
like the athlete who took a picture of a bridge said, “…cause the chairs are like supportive. Cause this one’s [the picture] for my family. These two [referring to the legs of the chair] are for my parents, this one is for my brother and the last one is for my sister. My parents are really supportive, they’re like you can do it!” When probed further about her parents’ roles, specifically as to ‘how’ they support her, the athlete continued with, “they drive me, cause it takes like about half an hour to get there….they always come to my competitions and um after competitions they’re just like you did a great job.”

Illustration 2. An athlete’s representation of familial support

Many other athletes also used various abstract images to describe their perceptions of the roles their parents play in their sport experience. Illustration 3 is of a flower garden. An 11 year old gymnast had this to say about what this picture meant to her:

I will talk about my parents. My parents are like gardeners. I am the plant and they prune, what do they call it, they cut and prune and stuff and they give you flowering stuff and they help you grow basically. Sometimes they have to cut out the bad stuff and they tell you what to do and what not to do. They help you. They are very supportive for this sport.
Illustration 3. A flower garden is used to represent parental roles

Another remarkable picture that led to rich discussion is shown in illustration 4. In this photo the athlete captured the picture of young a tree – a sapling. She said that she took the picture,

Because it resembles that it is hard growing at the same time as diving, for the fact that it is more painful in your knee caps and all in certain parts. And you hurt more after practice and sometimes you have to relax, when you can’t relax. So I took a picture of the tree to represent growing, yourself growing….And the stairs. I shouldn’t be doing them, but I have to, to keep my legs moving, I do them and they kill my knees but it is step-by-step work-outs that I have to do…just like a tree slowly grows.”
Illustration 4. A tree is used to represent the athlete’s growing experiences in sport.

Finally, one athlete used a picture of her dog to represent what she called “freedom” and how she associated the thought of a dog running with that notion. She used this concept to discuss her struggle to balance life commitments, friends, family and her sport expectations. She described her experience,

this one [picture of the dog] is to represent freedom. As in sometimes you can be free to do things that you please, like a dog running around, but then other times it’s like a dog on a leash and you have to focus because it’s like you have time to skate and you have time to have fun with your friends and all that out of skating.
Illustration 5. A dog is used to symbolize the competing interests of freedom and control