

**AN ECOLOGICAL APPROACH TO EXAMINING POSITIVE YOUTH  
DEVELOPMENT IN COMPETITIVE YOUTH SPORT**

by

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## **Abstract**

Research in the field of developmental psychology has highlighted the importance of structured activities in providing positive experiences and outcomes for youth. In particular, youth participation in organized sport has been linked to the development of physical, motor, and psychosocial skills. Although these outcomes have been discussed in the sport psychology literature, it is not clear how positive youth development may be facilitated through sport. An ecological approach was used to examine developmental processes, personal characteristics, contextual factors, and time elements that may be linked to youth sport participation and positive development.

Study 1 used a quantitative methodology to examine the relationship between developmental asset possession and youth sport outcomes such as burnout and enjoyment. Of the eight asset categories examined, four emerged as significant predictors of burnout and/or enjoyment. Specifically, positive identity, support, and empowerment were linked to burnout and positive identity, empowerment, and social competencies were linked to enjoyment.

Study 2 also utilized a quantitative methodology in order to investigate differences between a group of youth sport “specializers” and a group of youth sport “samplers”. Outcomes including burnout, enjoyment, and developmental assets were compared as well as experiences in sport. The groups did not differ in developmental asset possession or in sources of enjoyment. However, “samplers” reported more experiences integrating sport, family, and community whereas “specializers” were more likely to have more experiences with diverse peer groups. The “specializers” also reported higher levels of burnout (i.e., exhaustion) relating to their sport participation.

Study 3 examined the development of positive youth within a sport specialization context. Through the use of interviews with elite youth sport coaches and practice observations, four characteristics (i.e., appropriate training structure, opportunities for personal and social development, opportunities for physical and motor skill development, and the presence of supportive interactions) were developed outlining how elite sport settings can enable the development of positive youth.

This line of research highlighted the key role of the sport experience in promoting positive youth development. If youth sport programs are delivered with an emphasis on skill development in conjunction with the growth of key assets and an appropriate contextual experience, young people have the potential to emerge as healthy, secure, and positive citizens who feel valued and invested within their homes and communities.

## **Co-Authorship**

Dr. Jean Côté and Dr. Janice Deakin are co-authors of the three manuscripts presented in this thesis (Chapters 2-4).

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## Table of Contents

<b>Abstract.....</b>	<b>ii</b>
<b>Co-Authorship.....</b>	<b>iv</b>
<b>Acknowledgements .....</b>	<b>v</b>
<b>Table of Contents .....</b>	<b>vii</b>
<b>List of Tables .....</b>	<b>xii</b>
<b>Chapter 1: General Introduction .....</b>	<b>1</b>
Ecological Framework .....	1
Linking the Ecological Framework to Youth Sport.....	2
Linking the Ecological Framework and Positive Youth Development in Youth Sport .....	3
Study 1: Person and Context.....	6
Study 2: Process .....	6
Study 3: Context .....	7
<b>Chapter 2: An Evaluation of Personal and Contextual Factors in Competitive Youth Sport.....</b>	<b>8</b>
Abstract.....	8
Methodology.....	14
Participants.....	14
Measures .....	14
Developmental Assets Profile.....	14
Athlete Burnout Questionnaire .....	15
Sources of Enjoyment in Youth Sport Questionnaire.....	16
Procedure .....	16

Design and Analyses.....	16
Results.....	17
Homogeneity of Variance.....	17
Reliabilities.....	17
Descriptives.....	18
Correlation Analyses.....	18
Regression Analyses.....	19
Discussion.....	20
Conclusion.....	25
References.....	27
<b>Chapter 3: “Specializers” versus “Samplers” in Youth Sport: Comparing Experiences and Outcomes .....</b>	<b>37</b>
Abstract.....	37
Methodology.....	44
Participants.....	44
Measures.....	45
Youth Experiences Survey.....	45
Developmental Assets Profile.....	45
Athlete Burnout Questionnaire.....	46
Sources of Enjoyment in Youth Sport Questionnaire.....	46
Experimental Procedure.....	46
Analyses.....	47
Results.....	47
Reliability Estimates.....	47

Demographic Information.....	48
Youth Experiences Survey 2.0.....	48
Developmental Assets Profile.....	49
Burnout .....	50
Enjoyment .....	50
Discussion.....	50
Conclusion .....	54
References.....	56
<b>Chapter 4: Promoting Positive Youth Development in Elite Sport Contexts .....</b>	<b>65</b>
Abstract.....	65
Methodology.....	69
Participants.....	69
Data Collection .....	70
Interview Analysis .....	71
Observation Analysis .....	72
Comprehensive Analysis .....	72
Results.....	73
Categories and Applications from Interview and Observations .....	73
Physical safety .....	73
Psychological safety.....	74
Appropriate Structure.....	74
Supportive Relationships .....	75
Opportunities to Belong.....	75
Positive Social Norms.....	76

Support of Efficacy and Mattering.....	76
Opportunities for skill building.....	76
Integration of Family, School, and Community .....	77
Factoring of Interview and Observation Results.....	78
Appropriate Training Environment.....	78
Opportunities for Personal and Social Development.....	79
Opportunities for Physical and Motor Skill Development.....	79
Presence of Supportive Interactions.....	80
Discussion .....	81
Appropriate Training Environment.....	81
Opportunities for Personal and Social Development.....	83
Opportunities for Physical and Motor Skill Development.....	84
Presence of Supportive Interactions.....	84
Conclusion .....	87
References.....	89
<b>Chapter 5: General Discussion, Summary, and Conclusions .....</b>	<b>98</b>
Proximal Processes .....	98
Personal Development .....	100
Contextual Factors .....	101
Time .....	102
Future Directions .....	103
Implications.....	104
<b>References .....</b>	<b>107</b>
<b>Appendix A .....</b>	<b>119</b>

<b>Appendix B .....</b>	<b>121</b>
<b>Appendix C .....</b>	<b>123</b>
<b>Appendix D .....</b>	<b>125</b>
<b>Appendix E .....</b>	<b>127</b>
<b>Appendix F .....</b>	<b>130</b>
<b>Appendix G.....</b>	<b>132</b>
<b>Appendix H.....</b>	<b>134</b>
<b>Appendix I .....</b>	<b>138</b>

## List of Tables

### Chapter 2

Table 1	Internal Consistency Reliabilities for the DAP, ABQ, and SEYSQ Subscales.....	32
Table 2	Means and Standard Deviations of DAP Subscales, ABQ Subscales, and SEYSQ Subscales.....	33
Table 3	Correlations Between ABQ Subscales, SEYSQ Subscales, and DAP Subscales.....	34
Table 4	Summary of Regression Analyses for DAP Subscales Predicting Burnout Subscales and Enjoyment Subscales.....	35

### Chapter 3

Table 1	Reliability Estimates for the YES 2.0, DAP, ABQ, and SEYSQ Subscales.....	61
Table 2	Discriminant Function Analysis of Significant Subscales.....	63

### Chapter 4

Table 1	Categories and Applications from Interviews and Observations.....	91
Table 2	Relationships Between the Eight Setting Features and Elite Sport Context Characteristics.....	94

## Chapter 1: General Introduction

Participation in organized sport is the most popular activity for youth in Canada (Statistics Canada, 2001) and is viewed as a vehicle to promote the development of positive youth (Fraser-Thomas, Côté, & Deakin, 2005). Three main outcomes have been suggested to result from youth sport participation namely improved physical health, the growth of motor skills, and the development of psychosocial skills (Côté & Fraser-Thomas, 2007). Involvement in competitive youth sport has been linked to many positive outcomes (i.e., skill development, positive peer groups, enjoyment) however, it has also been tied to the growth of negative outcomes including decreased moral reasoning and burnout (Fraser-Thomas et al., 2005). As competitive youth sport becomes increasingly professionalized (Gould & Carson, 2004), it is crucial to look at this particular sport context in order to examine its relationship to positive developmental outcomes for youth and uncover how competitive sport can ensure effective delivery of positive programs for youth. In order to examine all aspects of youth development in sport, an ecological approach has been suggested as a framework to study processes through sport, the person within a sport context, as well as the context itself.

### *Ecological Framework*

Ecological theory refers to the notion that human development and human behavior are the materialization of person-context interactions (Bronfenbrenner, 1995). From this perspective, the study of an individual separate from his/her environment will not give a clear picture of human development. Bronfenbrenner's (1977) original research conceptualized four nested systems (or levels) within an ecological network. The four levels consist of: 1) microsystem (i.e., participants, a physical domain, a location, and/or a program of activities), 2) mesosystem (i.e., interrelationships between two or

more microsystems involving the developing person), 3) exosystem (i.e., situations affecting the setting containing the person in question), and 4) macrosystem (i.e., cultural and social forces that impact human development). As this line of research continued to grow, Bronfenbrenner (1999) consolidated the ideas within the nested systems in order to form two specific propositions. Proposition 1 postulates that human development, particularly in its early phases, occurs through processes of complex, reciprocal interactions between an active human organism and persons, objects, and symbols in its immediate environment. These interactions, or ‘proximal processes’, must occur on a regular basis and over a long period of time. Examples of patterns of these proximal processes include group or solitary play, reading, learning new skills, and athletic activities. Proposition 2 expands upon the nature of the proximal processes. This proposition states that the form, power, content, and direction of the proximal processes affecting development vary systematically as a joint function of: 1) the characteristics of the developing person, 2) the environment in which the processes are happening, 3) the developmental outcomes under consideration, and 4) the changes occurring over the time period in which the processes are taking place. In summary, human development is conceptualized as a chain of developmental outcomes that occur in response to specific child attributes combined with environmental requirements, characteristics, and opportunities over a period of time. This person-process-context-time (PPCT) model (Bronfenbrenner, 1999) has been used as a framework to establish links to previous research conducted in sport psychology and, in particular, youth sport settings.

#### *Linking the Ecological Framework to Youth Sport*

García Bengoechea and Johnson (2001) utilized the PPCT model to explain interactions and outcomes within youth sport. The proximal processes describe

interpersonal interactions that occur in a youth sport setting, particularly those between the athlete and the coach (e.g., Smoll & Smith, 2002) and emphasis is also placed on the reciprocal nature of this relationship (García Bengoechea, 2002). Proximal processes may also be explained through the concept of deliberate practice (i.e., effortful, highly structured practice activities; Ericsson, Krampe, & Tesch-Römer, 1993) as these processes also include interactions with objects within a youth's sport environment. The next phase of the framework, developmentally relevant personal characteristics, focused on the growth of personal attributes within youth sport. These attributes include self-perceptions and motivation (García Bengoechea and Johnson, 2001) but also focus on the accrual of developmental assets and the influence of the social environment on youth development (García Bengoechea, 2002). Thirdly, the context plays an important role in the growth of youth in sport. Coaches hold an important status in the sporting environment but other extended contextual factors, namely parents and peers as well as the effect of other social networks and community influences, affect the developing person as well (García Bengoechea and Johnson, 2001). Finally, time is a critical factor in the model as processes and interactions must occur on a regular basis for results to be effective (García Bengoechea & Johnson, 2001). The authors expressed the need for research designs to account for personal and contextual changes that may occur over a period of time.

#### *Linking the Ecological Framework and Positive Youth Development in Youth Sport*

In an effort to extend the previous links proposed by García Bengoechea and Johnson (2001), Côté, Strachan, and Fraser-Thomas (2007) also used the PPCT model as a framework to explore the development of children and youth in sport settings, however, previous research from developmental psychology was employed as well to gain a further

understanding of these links. The Developmental Model of Sport Participation (DMSP; Côté, Baker, & Abernethy, 2007; Côté & Fraser-Thomas, 2007), which outlines a child's progression through sport and the various pathways he/she may follow throughout development, was suggested as an appropriate model to pursue in order to examine processes in a sport setting. Two proximal processes were hypothesized to be the most effective in promoting positive youth development; these include: 1) a progression from deliberate play (unstructured but purposeful play activities; Côté, 1999) to deliberate practice from childhood through to adolescence and 2) the opportunity for children to sample a variety of sport throughout development. In regards to personal growth, the developmental assets (Benson, 1997) were suggested as an appropriate avenue to explore. Developmental assets are defined as the qualities and connections needed for healthy growth (Scales, Benson, Roehlkepartain, Sesma Jr., & van Dulmen, 2006). Possession of these 40 assets, termed the "building blocks" for human development, has been linked to healthy and positive personal development (Benson, Leffert, Scales, & Blyth, 1998). Within a sport context, there is potential for the assets to provide indicators of personal growth if sport programs are delivered appropriately. The delivery of positive sport programs rests squarely on the shoulders of those who lead, namely coaches, parents, and other adults in the setting. These contextual factors relate to the environment surrounding the developing person (Bronfenbrenner, 1999) and these factors have been studied within the developmental literature. In a review of various contexts involving youth, the National Research Council Institute of Medicine (2002) developed eight setting features that should be offered within any youth program to assist in positive development. The link of these setting features to youth sport programs holds considerable promise in evaluating the manner in which programs aid overall youth development. Finally, the authors

emphasized the importance of developing these personal assets and contexts over time so as to promote healthy, long term developmental outcomes of the individual. In conjunction with ecological theory, the field of positive youth development has worked to draw attention to the importance of positive developmental outcomes in young people.

Positive youth development has advanced the idea that youth are resources to be cultivated; the growth of young people involves not simply reducing problem behaviors but promoting healthy development (Benson, Scales, Hamilton, & Sesma, Jr., 2006). Further, the core constructs of positive youth development have an ecological element focusing on contexts involving the youth, personal characteristics possessed by the individual, and developmental outcomes (Lerner, 2003). Benson et al. (2006) underscored the need for personal development (i.e., asset building) to be intentional in order for positive development to be realized in youth. Promoting the growth of positive developmental outcomes within a sport setting has been a challenge for coaches and researches alike over the past number of years. Petitpas, Cornelius, Van Raalte, and Jones (2005) suggests that a youth sport program focused on positive youth development uses “sport as a vehicle to provide experiences that promote self-discovery and teach participants life skills in an intentional and systematic manner” (p. 66). The proposed framework from Petitpas and colleagues (2005) highlighted characteristics of positive youth sport programs as those that provide an appropriate environment, involve caring adults, groups, or communities, provide opportunities for the acquisition of personal assets, and offer systematic program evaluation methods. Further research is needed to test the provision of positive youth development within sport programs and how effective programs may be developed. The line of research presented in the following three studies aimed to pursue empirical research linking the PPCT model and competitive youth sport

so as to gain more insight into the development of positive sport programs and the potential effects on youth sport outcomes and positive development.

#### Study 1: Person and Context

Study 1 investigates relationships between developmental asset possession and youth sport outcomes (i.e., burnout and enjoyment). The Developmental Assets Profile (DAP; Search Institute, 2004) is used as a tool to explore general personal and contextual factors and their link to sport participation and outcomes. Of the eight asset categories, results will identify which developmental asset categories are found to be important to promote within youth sport settings. This study highlights the potential importance of sport in the lives of young people and the link that possession of certain developmental assets can have in helping to reduce burnout and increase enjoyment. Since Study 1 focuses on the development of personal characteristics and the influence of context in a variety of youth sport settings, proximal processes are the next phase of the ecological paradigm to be examined in Study 2.

#### Study 2: Process

As suggested by Côté, Strachan, and Fraser-Thomas (2007), the DMSP may be an ideal framework for studying processes within youth sport. Youth participants from the elite performance through sampling trajectory (“samplers”) and from the elite performance through early specialization trajectory (“specializers”) completed four questionnaires pertaining to their experiences and outcomes of sport participation. This study attempts to uncover similarities and difference that may exist between the two trajectories. Unique experiences within each of these trajectories may lead to an understanding of these processes and the positive or negative outcomes that may result. If

differences are not found to be substantial, it may be possible for positive development to occur within a specialization context if the setting is delivered in a proper manner.

### Study 3: Context

As participation in elite youth sport settings is on the rise (Gould & Carson, 2004), this particular context becomes crucial to examine in order for sport programs to develop talented athletes as well as well-developed young people. The eight setting features compiled by NRCIM (2002) are used as a framework for studying positive developmental contextual factors within model specialization program settings. A qualitative triangulation method (i.e., interviews and observations) with elite youth sport coaches are used in the procedure for the study. Through the analysis, Study 3 aims to propose specific setting characteristics that can be used to promote positive youth development in a sport specialization setting.

As some talented young people are motivated to pursue sport at an elite level, sampling a variety of sporting opportunities may not always be a feasible option for these highly competitive youth, especially for sports with a younger age for peak performance. Therefore, it is important for coaches, parents, and sport policy makers to understand the great benefit of sport and its potential to assist in the positive development of youth. Also, delivering sport programs that can provide youth with opportunities to develop a high level of physical skill as well as personal and social skills is the next step in ensuring success both inside and outside of the competitive arena. Findings from this dissertation will help to establish these links and outline what can be done in competitive youth sport to promote healthy and positive citizens.

## **Chapter 2: An Evaluation of Personal and Contextual Factors in Competitive Youth Sport**

### **Abstract**

As millions of youth are involved in sport, the sport context is important to consider in advancing the growth experiences of young people (Côté et al., 2007; Fraser-Thomas et al., 2005). Furthermore, research in developmental psychology has highlighted the value of structured programs, including sport, in helping to promote positive youth development (Fredricks & Eccles, 2006). Youth sport involvement has been linked to higher levels of enjoyment (Scanlan et al., 1989) however negative outcomes, such as burnout, have also been reported (Gould et al., 1996). In the present study, the Developmental Assets Profile (Search Institute, 2004) was used to explore personal (internal assets) and contextual (external assets) outcomes associated with youth sport. Results suggest that four particular assets (positive identity, empowerment, support, and social competencies) are important to focus on in youth sport programs to decrease burnout symptoms and enhance enjoyment. The results are discussed in terms of their integration with Bronfenbrenner's ecological theory (1999) and recommendations are suggested for sport programmers to consider in order to develop these assets within youth sport.

Research in the area of positive youth development has found that participation in structured activities, such as sport, can help to promote positive development (Fredricks & Eccles, 2006). This research has expressed the importance of studying the development of youth in a variety of contexts through the adoption of an ecological perspective. The use of an ecological framework as a springboard to studying youth in sport is an idea that has gained some momentum in recent years (García Bengoechea & Johnson, 2001). The process-person-context-time (PPCT) model, conceptualized by Bronfenbrenner (1999), was postulated as an appropriate framework to use in order to examine youth sport as a developmental process (García Bengoechea & Johnson, 2001). The PPCT model states that the form, power, content, and direction of the processes affecting development vary systematically as a joint function of: 1) the characteristics of the developing person, 2) the environment in which the processes are happening, 3) the developmental outcomes under consideration, and 4) the changes occurring over the time period in which the processes are taking place. In conceptually linking sport participation and personal characteristics (i.e., expectations, leadership ability, and motivation), García Bengoechea and Johnson (2001) highlighted the importance of youths' interactions with the environment and others; stressed the impact of contextual influences within youth sport (i.e., coaches, peers); and considered the element of time within the process and its connection to developmental characteristics and context. More recently, Côté, Strachan, and Fraser-Thomas (2007) utilized the PPCT model as a framework through which to consider links between the youth sport literature and the work amassed in the field of developmental psychology. Using sport as a focal process for development, previous research within positive youth development (i.e., developmental assets framework; Benson, 1997) was used to explore personal growth in a sport context.

The 40 developmental assets, outlined by Benson (1997), are commonly termed the “building blocks” for human development. These assets, defined as connections and qualities needed to enable healthy growth, promote thriving, foster resilience, and diminish risk behaviors in youth by increasing prospects for developing skills, opportunities, and building important relationships (Scales, Benson, Roehlkepartain, Sesma Jr., & van Dulmen, 2006). The development of these assets in youth requires a broad vision of communities and youth interacting within them in positive and effective manners. The assets fall into two categories: internal assets and external assets. The internal assets reflect an individual’s values and beliefs and include: 1) commitment to learning, 2) positive values, 3) social competencies, and 4) positive identity. Scales and colleagues (2006) comment that the internal assets help a young person become “effectively self-regulating” (p. 693) and through sport, it is hypothesized that youth may be encouraged to explore skills, values, and interests that will help develop personal identities (Petitpas, Cornelius, Van Raalte, & Jones, 2005). Alternatively, the external assets are comprised of four components that include aspects of the person’s physical and psychosocial environment: 1) support, 2) empowerment, 3) boundaries and expectations, and 4) constructive use of time. These components support the contextual factors that build a youth’s experience in sport, namely the influence of peers, coaches, parents, and the community-at-large (Petitpas et al., 2005). Research examining developmental asset possession in youth found that the more developmental assets an adolescent possessed, the greater his or her likelihood of developing in a positive and healthy manner (Benson, Leffert, Scales, & Blyth, 1998; Leffert, Benson, Scales, Sharma, Drake, & Blyth, 1998; Scales & Leffert, 1999). This research found that possession of developmental assets is also associated with: 1) protection (i.e., lower likelihood of participation in high-risk

behaviors, namely alcohol or drug use), 2) enhancement (i.e., individuals with many developmental assets will thrive thereby contributing more to community and demonstrating concern for others), and 3) resiliency (i.e., showing courage and confidence in tough situations). Fraser-Thomas, Côté, and Deakin (2005) suggested that although one activity cannot promote all the assets, it is possible that participation in sport can lead to the acquisition of a number of the developmental assets.

The links established by Petitpas and colleagues (2005) between the assets and youth sport programs have brought to light the potential for sport to provide opportunities for personal growth in youth. In terms of individual development, it has been suggested that the possession of a high number of developmental assets along the effective delivery of programs will help young people develop desired outcomes (i.e., confidence, competence). The internal assets, therefore, relate very closely to the development of the person as those particular assets work to promote values, social skills, and perceptions. Conversely, contextual factors include not only the physical environment but also those who form strong bonds and relationships with the developing person (Bronfenbrenner, 1989). Within a sport context, the actual physical setting combined with the role of significant others, namely coaches (Côté, Salmela, Trudel, Baria, & Russell, 1995), peers (Allen, 2003), and parents (Wolfenden & Holt, 2005) are critical components of the individual's environment. Therefore, linking the external assets to contextual aspects is important in developing an understanding of developmental outcomes of youth sport participation. Fraser-Thomas and colleagues (2005) suggested that, if sport program design is not appropriate for participants (i.e., participants are not involved in the proper processes through sport, assets are not being developed, and contextual factors are not suitable), dropout from sport may occur. However, if sport programs are implemented

properly (i.e., ensuring proper progression through sport, participants have opportunities to develop assets, contextual factors are positive), positive development is possible. In conjunction with program implementation, the relationship between program participation and outcomes is important to consider (Petitpas et al., 2005). Research in the field of youth sport has examined many different outcomes of sport participation including burnout and enjoyment.

Burnout is a well-researched negative consequence that has been associated with sport participation. It is defined as a psychological condition which includes 3 components: exhaustion, reduced personal accomplishments and depersonalization (Maslach & Jackson, 1984). The research emanated from the workplace environment has been extended to sport (Coakley, 1992; Gould, Tuffey, Udry, & Loehr, 1996; Gould, Udry, Tuffey, & Loehr, 1996; Schmidt and Stein, 1991) and findings have highlighted sociological, psychological, and training factors that may lead to burnout in youth and adult athletes. More notably, a series of studies attempted to develop a quantitative measure of burnout in sport (Raedeke, 1997; Raedeke & Smith, 2001). These studies, conducted with youth and young adult athletes from a variety of sports, revealed three dimensions of burnout that are found in the sporting arena: 1) emotional and physical exhaustion, 2) reduced sense of accomplishment, and 3) sport devaluation. Raedeke and Smith (2004) extended the research in this area by examining the relationship of coping resources to burnout in young athletes. The authors studied a group of young swimmers (i.e., ages 14 to 19) who were heavily involved in training. The assessment of the relationships between burnout, perceived stress, general coping behaviors, and social support, revealed a mediating effect that is present between coping behaviors and burnout; the relationship suggests that positive coping behaviors (i.e., internal assets)

and/or the presence of a strong social network (i.e., external assets) may alleviate stress and therefore, reduce burnout symptoms. Conversely, athletes with low social support and weak coping behaviors (i.e., lack of personal skills such as time management) were more likely to experience high levels of burnout in response to increased stress. Although strong coping behaviors are a solid foundation in dealing with stress, the authors did note that interventions solely focused on developing the individual are not ideal; “preventing burnout calls for changing the social organization of sport to create a better fit between the athlete and the competitive environment” (Raedeke & Smith, 2004, p. 539).

The concept of enjoyment has been studied with youth sport participants when examining participation and motivation. Scanlan, Stein, and Ravizza (1989) reported that elite figure skaters who enjoyed their participation in skating reported a higher degree of effort than those who enjoyed the sport to a lesser extent. The authors also found that former skaters reported enjoyment from the development of relationships (with peers and coaches) as well as opportunities to broaden their lives. Scanlan, Carpenter, Lobel, and Simons (1993) reported that a significant predictor of sport enjoyment was the degree of perceived effort and the mastery of skills, regardless of skill level. Positive team interactions and support from peers and coaches were also found to be factors related to increased enjoyment. Therefore, increased enjoyment in youth sport may be linked to the development of both the internal and external assets; personal development as well as the impact of contextual factors (i.e., coaches and peers) enables young athletes to take pleasure in their sport experiences. Despite the fact that enjoyment is often a difficult construct to measure (Côté, Ericsson, & Law, 2005), it is a positive indicator of the sport experience and is crucial to understanding youth participation in sport (Wiersma, 2001).

Although the outcomes of burnout and enjoyment have been supported in many empirical studies, the link between the developmental assets and sport outcomes has been theorized (Côté et al., 2007; Fraser-Thomas et al., 2005; Petitpas et al., 2005) but not yet tested. These links need to be empirically tested which leads to the purpose of this present study. The purpose is to determine which developmental assets may predict occurrences of burnout or enjoyment in youth sport. It is hypothesized that particular personal and contextual assets will emerge as significant predictors of occurrences of burnout and/or enjoyment within a sport context.

## Methodology

### *Participants*

One hundred and twenty three youth participated in this study; participants included both males ( $N = 31$ ) and females ( $N = 92$ ) between the ages of 12 to 16 years ( $M = 13.9$ ,  $SD = 1.5$ ). Participants were purposefully selected based on their involvement in sport programs for a minimum of three years. They reported starting involvement in their main sport at approximately age six ( $M = 6.4$ ,  $SD = 2.6$ ). These participants were involved in a variety of individual or team sports at various competitive levels (i.e., entry level to elite programs) in central Canada. On average, the sample reported participating in sport for approximately 15 hours per week ( $M = 15.7$ ,  $SD = 6.3$ ).

### *Measures*

*Developmental Assets Profile (DAP; Search Institute, 2004)*. This general measure of personal development includes 58-items and has been found to be appropriate for children and youth aged 11 to 18 (Search Institute, 2004). This questionnaire is an individual measure of developmental assets and gives quantitative scores for each of the

eight categories. The categories each contain four external assets and four internal assets. The external assets include Support (7 items), Empowerment (6 items), Boundaries and Expectations (9 items), and Constructive Use of Time (4 items). Items representative of these assets include “I seek advice from my parents” (Support), “I feel valued and appreciated by others” (Empowerment), “I have friends who set good examples for me” (Boundaries and Expectations), and “I am involved in a sport, club, or other group” (Constructive Use of Time). The internal assets are Commitment to Learning (7 items), Positive Values (11 items), Social Competencies (8 items), and Positive Identity (6 items) and examples of these assets include “I am actively engaged in learning new things” (Commitment to Learning), “I stand up for what I believe in” (Positive Values), “I build friendships with other people” (Social Competencies), and “I feel in control of my life and future” (Positive Identity). Statements in the DAP are rated from “not at all” or “rarely” to “extremely” or “almost always”. Previous research with 1,295 youth has found the DAP to be valid with good reliability estimates (i.e., 0.59 to 0.87 for categories) (Search Institute, 2004).

*Athlete Burnout Questionnaire (ABQ; Raedeke & Smith, 2001).* The ABQ is a 15-item questionnaire based on a five point Likert scale (i.e., from 1 = almost never to 5 = almost always). The scale measures three subscales: 1) Emotional/Physical Exhaustion (5 items), 2) Reduced Sense of Accomplishment (5 items), and 3) Sport Devaluation (5 items). The questionnaire allows the researcher the ability to tailor the questionnaire to a specific sport, as the questionnaire includes blanks to add sport-specific terms and references. Cronbach alpha coefficients for the subscales of the ABQ have been found to range from 0.84 to 0.92 (Raedeke & Smith, 2001, 2004).

*Sources of Enjoyment in Youth Sport Questionnaire (SEYSQ; Wiersma, 2001).*

The SEYSQ was developed to measure sport enjoyment in youth. The 28-item measure is based on a five point Likert scale (1 = not at all to 5 = very much). The questionnaire includes six factors which, based on previous research with youth, denote the areas of sport participation that are enjoyable for youth: 1) Self-Referenced Competency (4 items), 2) Other Referenced Competency and Recognition (6 items), 3) Effort Expenditure (5 items), 4) Competitive Excitement (4 items), 5) Affiliation With Peers (5 items), and 6) Positive Parental Involvement (4 items). The confirmatory factor analysis was conducted with 896 youth sport athletes and reliability estimates (i.e., Cronbach alpha) for the SEYSQ range from 0.65 to 0.85 (Wiersma, 2001).

*Procedure*

Participation in this study was voluntary. Parental consent was obtained from each participant before data was collected. Participants were recruited through contacting coaches or program administrators from a variety of programs and through on-site recruitment opportunities at sport camps and, in some cases, competitions. Demographic information (i.e., current age, age at which the participant began the sport, number of hours in sport-specific practice) was collected from each athlete through a questionnaire. The demographic questionnaire was completed with the help of a parent or guardian. As some questions were retrospective in nature, it has been found that collaboration with a parent will increase the reliability of the information provided (Law, Côté, & Ericsson, 2007). Following the completion of the demographic information, the participants completed each questionnaire (DAP, ABQ, and SEYSQ). The questionnaires took approximately 20-30 minutes to complete.

*Design and Analyses*

Correlations were performed on the subscales of the DAP, ABQ, and SEYSQ. The subscales of the DAP were then entered into backward regression analyses with each of the subscales of the ABQ and SEYSQ. The regression analyses were used to determine which DAP subscales predicted burnout and enjoyment and due to the exploratory nature of this study, the backward deletion method was selected.  $R^2$  values were used to describe the contribution that the independent variables (i.e., DAP subscales) have on the dependent variable (i.e., ABQ and SEYSQ subscales). Beta values were examined to investigate directional relationships.

## Results

### *Homogeneity of Variance*

Due to a lack of homogeneity of variance in three of the SEYSQ subscales, Other Referenced Competency and Recognition (Levene's Test –  $F(1, 117) = 4.12, p < 0.05$ ), Effort Expenditure (Levene's Test –  $F(1, 115) = 8.90, p < 0.05$ ), and Positive Parental Involvement (Levene's Test –  $F(1, 120) = 6.19, p < 0.05$ ), were not used in subsequent analyses.

### *Reliabilities*

Reliability estimates (i.e., Cronbach alpha values) are displayed in Table 1. Based on previous research conducted with youth (Biddle & Brooke, 1992), values of 0.60 and higher were considered to be adequate. By this definition, one subscale from the DAP was removed from further analysis. The subscale removed, "Constructive use of time" ( $\alpha = 0.34$ ), included 4 questions; these questions read "I am involved in a religious group or activity" (DAP item 31), "I am involved in a sport, club, or other group" (DAP item 34), "I am involved in creative things such as music, theater, or art" (DAP item 40), and "I am spending quality time at home with my parent(s)" (DAP item 42). As most of the athletes

were primarily involved in sport, it may be that other questions pertaining to creative activities, religious activities, or spending time with parents were extremely variable. This particular subscale reported the lowest reliability estimates ( $\alpha = 0.59$ ) in previous research done with the DAP due to the definition and nature of this asset category; it is suggested that the internal consistency of this category is less relevant as it seeks to determine involvement in enriching activities and not the number of different activities a young person is involved in (Search Institute, 2004).

### *Descriptives*

Descriptives for the demographic information, DAP assets subscales, ABQ subscales, and SEYSQ subscales are listed in Table 2. Generally, for the DAP subscales, athlete scores ranged from approximately 22 to 25 out of a possible 30 points, indicating that athletes were in the “Good” range in terms of asset development (Search Institute, 2004). These scores are in the top half of raw scores and indicate that “(M)ost assets would be fairly strong or frequent in the adolescent’s life, but there is room for improvement” (Search Institute, 2004, p. 17). According to past research (Raedeke & Smith, 2001), mean scores from the ABQ were low to moderate. Mean scores for the SEYSQ were similar to those from previous research (Wiersma, 2001). Also, in line with Wiersma’s (2001) research, participants reported Self Referenced Competency, Competitive Excitement, and Affiliation With Peers as the most enjoyable aspects of sport participation.

### *Correlation Analyses*

Several significant correlations were found between the DAP and the ABQ subscales (Table 3). Significant negative correlations were found between the Reduced Accomplishment subscale and each of the DAP subscales. Also, the Physical and

Emotional Exhaustion subscale was significantly correlated to Support, Empowerment, Positive Values, Social Competencies, and Positive Identity. Finally, the Sport Devaluation subscale was significantly correlated to six of the seven DAP subscales included in the analysis (Support, Empowerment, Commitment to Learning, Positive Values, Social Competencies, and Positive Identity).

Examination of the correlation analyses between the subscales of the SEYSQ and the DAP subscales revealed several significant positive correlations (Table 3). Self-Referenced Competency was significantly correlated with Empowerment, Social Competencies, and Positive Identity. Further, two external asset categories (Support and Boundaries and Expectations) and one internal asset category, Social Competencies, were significantly correlated with Affiliation With Peers. Finally, Empowerment was the only DAP subscale correlated with Competitive Excitement.

#### *Regression Analyses*

*ABQ.* Results showed that one external asset, Empowerment, and one internal asset, Positive Identity, were both significant predictors of Reduced Accomplishment, accounting for 34% of the variance (see Table 4). Similar results were found for Sport Devaluation with two of the DAP subscales, Support and Positive Identity, emerging as significant predictors, accounting for 22% of the variance in the model. Finally, Positive Identity was found to be a significant predictor of Exhaustion and accounted for 15% of the variance. Beta values indicated that all of the significant predictors displayed a negative relationship (Table 4).

*SEYSQ.* For the Affiliation With Peers subscale, the internal asset of Social Competencies was found to be a significant predictor, accounting for 10% of the variance (see Table 4). Self-Referenced Competency also displayed a relationship with an internal

asset; Positive Identity was found to be a significant predictor of the aforementioned subscale accounting for 13% of the variance. Finally, the Competitive Excitement subscale demonstrated a significant relationship to Empowerment, an external asset, accounting for only 6% of the variance. Beta values, shown on Table 4, indicate positive relationships between the enjoyment subscales and the significant DAP subscales.

### Discussion

Some interesting information may be garnered through the analyses of the link between burnout, enjoyment, and the possession of assets. First, results from the present study suggest that the external assets of Empowerment and Support as well as the internal asset of Positive Identity are significant predictors of burnout. In fact, the negative relationship suggests that the more an athlete experiences the three symptoms related to burnout (reduced accomplishment, physical/emotional exhaustion, and sport devaluation), the less that athlete feels empowered and supported and the less they see their sport experiences as a vehicle to promote a positive sense of self. As feelings of empowerment include feeling valued and useful (Search Institute, 2004), it is clear that this particular asset may be important in enabling an athlete to feel as if he/she is accomplishing something of importance. Empowerment is also linked with autonomy, which is the freedom an individual has to make choices in his/her life (Vallerand, 2001). Vallerand has suggested that autonomy is a construct that has been linked to situational motivation. Therefore, an increase in empowerment may not only decrease burnout in youth sport but may also lead to an increase in motivation to continue in sport. In terms of support, previous research has found that parental support is of great importance to youth athletes. Each of the four types of support proposed by Côté and Hay (2002) may play a role at various stages throughout a child's progression in sport. Further, Holt and Dunn (2004)

found that the ability to draw on appropriate social support was one of the competencies demonstrated by young elite soccer players. Without the appropriate types of support at various stages, feelings of burnout are inevitable. Finally, the development of a positive identity (i.e., feelings of optimism and self-esteem) may be directly linked to competence, or feelings of efficiency, which is a construct that is intimately related to motivation and also related to overall self-esteem (Horn, 2004). Hence, increasing feelings of competence may lead to a decrease in the development of burnout. Harter (1999) has identified several areas of competence that are present throughout the lifespan. In the advent of adolescence, areas such as athletic competence, close friendships, scholastic competence, and global self-worth (among others) emerge as important factors which contribute to a young person's perception of self. Therefore, developing a positive identity in youth sport, through increasing competence and self-perceptions, may be crucial to lessening burnout symptoms.

Enjoyment is critical to study in order to develop an understanding of participation in youth sport (Wiersma, 2001). Although the relationships between the DAP and the SEYSQ were not as strong as the results reported with the ABQ, some significant relationships were found and are, therefore, worthy of note. Athletes in this study report experiencing the most enjoyment when improving their own skills and performances, when being with friends, and engaging in exciting competitive situations. Positive Identity emerged as a significant predictor of Self-Referenced Competency. The positive relationship suggests that the greater the sense of self in the young person, the more enjoyment the individual will experience when engaging in activities which focus on personal improvement. As competence is crucial to the development of the self (Deci & Ryan, 1985), its link to enjoyment and to a positive experience is important to consider.

Further, Social Competencies was found to be a significant predictor of Affiliation With Peers. Therefore, a young person's ability to build and accept friendships seems to lead to an increased feeling of belonging and comfort in his/her peer group in sport. Friendships developed in sport provide a place in a particular group that has been shown to be highly valued by others (Petitpas, Cornelius, Van Raalte, & Jones, 2005). Close friendships developed through sport can lead to increased persistence in the activity and greater enjoyment due, in part, to the similar beliefs and interests that exist between the athlete and the peer (Weiss & Smith, 2002). The increased persistence may lead to higher levels of motivation and also increase feelings of perceived competence in the sport (Deci & Ryan, 1985; Ryan & Deci, 2000). Finally, Empowerment was a significant predictor of Competitive Excitement. Previous research has noted that the excitement of competition is enjoyable to older youth (McCarthy & Jones, 2007; Wiersma, 2001) and, therefore, it is possible that participation in positive competitive experiences may allow young people to feel valued.

In summary, results from this study indicate that the developmental assets of Positive Identity, Empowerment, Support and Social Competencies are very important to consider when designing sport programs for youth. Petitpas and colleagues (2005) discussed the importance of focusing on growth and development in youth in order to enhance experiences in a sport context. Therefore, the promotion of assets explicitly in sport programs may enable the development of positive youth. All the assets are important to consider in order to develop positive youth, however it may be that narrowing the focus to the four abovementioned assets will enable sport programs to decrease burnout and increase enjoyment for the young participants.

In terms of personal development, the internal assets focus on the development of personal life skills and the generalizability of skills to other areas of life (Petitpas et al., 2005). This study highlighted two internal assets (Positive Identity and Social Competencies) as platforms for personal development within a sport context; both assets provide opportunities for young people to discover themselves and build skills that they will use throughout their lives. As participation in sport gives an opportunity for youth to gain positive social experiences and identity (Eccles & Barber, 1999), these particular assets help to extend previous research in the developmental literature. More specifically, the internal asset of Positive Identity demonstrated a relationship with each of the burnout subscales and with an enjoyment subscale. In the DAP, this asset is linked to feelings of control and positive self-esteem, to the ability to overcome challenges, to the display positive emotional regulation, and to having a sense of purpose and positive feelings about the future (Search Institute, 2004). From the results, the development of Positive Identity, through fostering empowerment, self-esteem, and general optimism, is important to promote within sport programs. As individuals are both products and producers of their environment (Bronfenbrenner, 1995), growth of the internal assets help to facilitate personal development within these two roles by enabling young athletes to develop these assets within sport and use these qualities as participants. Care must be taken, however, so as not to align a young person too closely to their identity as an athlete, as this may lead to some negative consequences (Coakley, 1992). Therefore, in order to help develop these assets, the focus should be placed on developing personal competencies in both physical and social skills. Also, young athletes should have time to enjoy their chosen sport and discover their role within it; these discoveries may help youth in their present

capacity as athletes but may also extend to roles as coaches, officials, and volunteers over time.

On the other hand, the context within sport programs should allow for the development of initiative, provide a valued role in a particular group, and allow a person to learn how to follow rules, regulate emotions, and persist (Petitpas et al., 2005). The external assets of Empowerment and Support allow for these outcomes to occur in sport. As these particular assets involve young people feeling useful in their roles and valued within their specific experience and group, these assets can contribute to the development of persistence and also belonging. Sport programs can help to empower young athletes by allowing opportunities for interaction not only through competitive games but also through play. Further, creating a supportive environment by providing encouragement and a positive atmosphere will enable young people to enjoy their experience. As human development is conceptualized as a chain of developmental outcomes that occur in response to specific child attributes combined with environmental requirements, characteristics, and opportunities over a period of time (Bronfenbrenner, 1999), it is clear that the context of sport is likely to contribute to development. The Applied Sport Programming Model (Fraser-Thomas et al., 2005) highlights the fact that individual characteristics along with contextual factors must be considered in tandem when examining youth sport in order to contribute to positive outcomes. This focus of building personal characteristics and contextual factors will enable youth to remain involved in sport programs and, ultimately, develop into competent, confident, connected, compassionate, and caring individuals.

The current study is not without limitations. The sample of 123 athletes, though appropriate for research in this area, was comprised primarily of female athletes. As

female athletes have been found to display more prosocial behavior and possess a greater number of developmental assets than males, it is possible to conclude that the scores on the DAP may have been slightly higher than what would be expected. Regardless, the relationship between the assets and sport outcomes is a key factor to consider. Also, although the use of the DAP with a specific group (i.e., athletes) is novel in this study, further use of the DAP is a promising avenue of research.

### Conclusion

Millions of youth participate in sport, at a variety of levels, every year. Although sport is not necessarily the “magic ingredient” to the further development of positive youth (Danish, Forneris, Hodge, & Heke, 2004), it has the potential to be an ideal venue for this development (Fraser-Thomas et al., 2005). Ecological research, in particular, allows researchers to consider not only the person but also contextual factors that may affect a child as he/she participates in sport. Since an ecological framework can assist in providing a base for systematic study of human processes and interactions (García Bengoechea, 2002), its use for the study of youth sport is promising. This study emphasized the general development of positive youth and its applicability within a sport context. Involvement in sport for youth may provide an important context in which to develop many qualities that will facilitate positive development. Many of these “lessons learned” through sport have the potential to transfer into other areas of a young person’s life. Sport programs tend to rely heavily on parents to teach all the assets that a child would need in order to cope in the program. However, the development of empowerment, a positive identity, social competencies, and a supportive environment can be explicitly incorporated into sport programs by coaches to increase enjoyment and decrease burnout. Over time, it is hoped that participation in sport programs that promote these

developmental assets will produce active and healthy citizens who have learned invaluable lessons through sport.

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Table 1 Internal Consistency Reliabilities for the DAP, ABQ, and SEYSQ Subscales

		Cronbach Alpha Value ( $\alpha$ )
DAP External Assets	Support Scale	0.69
	Empowerment Scale	0.69
	Boundaries and Expectations Scale	0.80
	Constructive Use of Time Scale	0.34*
DAP Internal Assets	Commitment to Learning Scale	0.76
	Positive Values Scale	0.79
	Social Competencies Scale	0.73
	Positive Identity Scale	0.81
Athlete Burnout Questionnaire	Reduced Accomplishment	0.76
	Exhaustion	0.89
	Sport Devaluation	0.85
Sources of Enjoyment in Youth Sport Questionnaire	Self-Referenced Competency	0.68
	Competitive Excitement	0.74
	Affiliation With Peers	0.74

\* removed from the analysis

Table 2 Means and Standard Deviations of DAP Subscales, ABQ Subscales, and SEYSQ Subscales

Variables (N= 123)	Mean	SD	Min/Max
<b>DAP</b>			
Support Score	24.97	4.09	11.43/30.00
Empowerment Score	25.19	3.93	13.33/30.00
Boundaries & Expectations Score	24.67	4.23	12.22/30.00
Commitment to Learning Score	24.04	4.71	11.43/30.00
Positive Values Score	22.15	4.04	12.73/30.00
Social Competencies Score	24.17	4.04	12.50/30.00
Positive Identity Score	22.56	5.02	8.33/30.00
<b>ABQ</b>			
Reduced Sense of Accomplishment	1.77	0.61	1.00/4.20
Physical/Emotional Exhaustion	2.34	0.88	1.00/4.40
Sport Devaluation	1.58	0.70	1.00/4.00
<b>SEYSQ</b>			
Self Referenced Competency	4.52	0.55	2.33/5.00
Competitive Excitement	4.36	0.68	1.50/5.00
Affiliation With Peers	4.35	0.64	1.80/5.00

Table 3 Correlations Between ABQ Subscales, SEYSQ Subscales, and DAP Subscales (N = 123)

Subscale	Reduced Accomplishment	Exhaustion	Sport Devaluation	Self- Referenced Competency	Competitive Excitement	Affiliation With Peers
Support	-0.37*	-0.31*	-0.41*	0.17	0.22	0.28*
Empowerment	-0.48*	-0.33*	-0.42*	0.37*	0.32*	0.25
Boundaries & Expectations	-0.28*	-0.21	-0.24	0.26	0.10	0.26*
Commitment to Learning	-0.27*	-0.19	-0.34*	0.26	0.11	0.17
Positive Identity	-0.59*	0.37*	-0.30*	0.42*	0.23	0.26
Social Competencies	-0.42*	-0.26*	-0.34*	0.32	0.22	0.32*
Positive Values	-0.32*	-0.30*	-0.43*	0.27*	0.26	0.17

\* $p < 0.01$

Table 4 Summary of Regression Analyses for DAP Subscales Predicting Burnout Subscales and Enjoyment Subscales (N = 123)

Variable	<i>p</i> value	Adj. R <sup>2</sup>	Beta
<i>Reduced</i>			
<i>Accomplishment</i>			
Positive Identity	0.000	0.339	-0.44
Empowerment	0.046	0.000	-0.20
<i>Physical/Emotional</i>			
<i>Exhaustion</i>			
Positive Identity	0.000	0.150	-0.40
<i>Sport Devaluation</i>			
Positive Identity	0.002	0.223	-0.29
Support	0.004	0.000	-0.28
<i>Self-Referenced</i>			
<i>Competency</i>			
Positive Identity	0.000	0.127	0.37
<i>Affiliation With Peers</i>			
Social Competencies	0.000	0.010	0.33
<i>Competitive</i>			
<i>Excitement</i>			
Empowerment	0.005	0.057	0.26

*p* < 0.05

### **Chapter 3: “Specializers” versus “Samplers” in Youth Sport: Comparing Experiences and Outcomes**

#### **Abstract**

Involvement in structured activities, such as sport, is crucial for the development of positive youth (Fredricks & Eccles, 2006). Sampling a variety of sport activities in youth has been suggested as the optimal process to follow in order to build positive personal attributes and optimize the sport experience (Côté et al., 2007; Wilkes et al., in press). As progression through sport involves different pathways (Côté & Fraser-Thomas, 2007), it is important to examine these pathways and the similarities or differences that may result. Seventy-four youth athletes (40 “specializers” and 34 “samplers”) were recruited for the current study and four measures were employed (the Youth Experiences Survey 2.0, the Developmental Assets Profile, the Athlete Burnout Questionnaire, and the Sources of Enjoyment in Youth Sport Questionnaire) to assess sport experiences and outcomes. Discriminant function analyses revealed no differences between groups in asset possession or sources of enjoyment however, differences were reported in sport experiences and burnout. The “samplers” reported more experiences regarding the integration of sport and family as well as linkages to the community. Although the “specializers” reported higher levels of physical/emotional exhaustion than did the “samplers”, they also reported more experiences related to diverse peer groups. The differences highlight the importance of examining specific pathways of development in sport to gain a deeper understanding of youths’ experiences in sport.

Recent research in the field of positive youth development has focused on building the potential of youth instead of emphasizing their deficiencies (Damon, 2004). Research has also brought to light the importance of youth involvement in structured programs as these programs may help in the accrual of positive characteristics and skills for young people (Fredricks & Eccles, 2006). In particular, organized sport participation has been linked to high rates of initiative experiences and more experiences related to the regulation of emotion than youth involved in other structured activities (Larson, Hansen, & Moneta, 2006). The authors found that youth in sport reported higher stress than youth involved in other structured activities such as art, music, and academic and community activities but did not find the presence of more negative experiences (i.e., negative peer dynamics or negative interactions with adults) than those involved in other activities. As time spent in an activity is an important developmental element to consider (García Bengoechea, 2002), a new line of research has considered the relationship between breadth and intensity of involvement in youth activities and the relationship of these to successful, positive development (Busseri, Rose-Krasnor, Willoughby, & Chalmers, 2006). In a longitudinal study, Busseri et al. (2006) examined the participants' involvement in a variety of activities and the relationship of this involvement to a number of positive and negative developmental outcome measures (i.e., risk behaviors, well-being, academic orientation, and interpersonal functioning). The researchers found that more activities predicted successful development over time. They also found that greater intensity of participation (i.e., amount of time spent in an activity) was related to a higher incidence of risk behavior. Therefore, if these results are extrapolated to the sport domain, it may be postulated that those who sample a variety of sports have the potential to gain more positive developmental outcomes and engage in fewer risky behaviors over time. In

contrast, recent research by Hansen and Larson (2007) found that youth who spent more time (i.e., hours per week) in an organized activity reported higher rates of developmental experience relating to initiative, identity formation, emotional regulation, and positive interpersonal and social relationships. Furthermore, no relationship between dosage (i.e., time spent in an organized activity) and the likelihood of negative experiences was reported. The authors did note that further research is needed to assess whether high dosages of involvement (i.e., more than 10 hours per week) may have detrimental effects on personal development. Within sport, the Developmental Model of Sport Participation (DMSP; Côté, 1999; Côté & Fraser-Thomas, 2007) provides a framework to study the progression of youth in sport and identifies two trajectories that youth tend to pursue in order to attain levels of expert performance.

#### *Elite Performance through Sampling*

This trajectory begins with the sampling years, characterized as a period of time in a child's development in sport (i.e., between the ages of six to twelve years) where he/she is involved in a variety of different activities which emphasize motor development and fun (Côté, 1999). Deliberate play activities, which include loosely structured activities that involve minimal adult presence and are aimed at increasing intrinsic motivation and enjoyment, are often emphasized more in this part of the trajectory (Côté, 1999; Côté, Baker, & Abernethy, 2007). The sampling years are followed by a transition stage, the specializing years (i.e., between the ages of thirteen to fifteen years), in which a child spends time developing in one or two sporting activities and in which the emphasis is placed on sport-specific skill acquisition as well as on participation and fun. Typically, the specializing years are characterized by a decrease in other extracurricular activities in order to focus on one sport and deliberate play and deliberate practice activities (i.e.,

structured practice activities usually involving a coach and designed to improve performance; Ericsson, Krampe, Tesh-Römer, 1993) occur simultaneously. Interestingly, in the specializing years, athletes report feeling more positive about their experience in sport when the emphasis is placed on deliberate practice rather than on deliberate play as they enjoyed the challenge of training (Macphail & Kirk, 2006). The final phase of this trajectory is entry into the investment years (i.e., starting from the age of approximately sixteen years; Côté et al., 2007). In the investment years, the young athlete is interested in pursuing a specific sport and becomes immersed in achieving excellence in that sport. Thus, deliberate practice activities are more prominent. The result is the attainment of expertise in the later stages of youth and into adulthood. Other outcomes, such as an increase in physical and psychosocial development, have also been linked to this trajectory (Côté & Fraser-Thomas, 2007). In particular, the experience of a sampling environment may be important in the development of certain developmental outcomes such as increased intrapersonal skills, the development of prosocial behaviors and personal identity, the ability to connect with diverse peer groups, and the accruelement of social capital (Wilkes, MacDonald, Horton, & Côté, in press). Sampling also provides an atmosphere that promotes the development of intrinsic motivation (Côté et al., 2007) and, hence, enjoyment which is the strongest factor related to sport commitment (Scanlan, Carpenter, Schmidt, Simons, & Keeler, 1993) and a positive indicator of the sport experience (Wiersma, 2001).

#### *Elite Performance through Early Specialization*

The next trajectory of the DMSP explains the progression to elite athlete status through early specialization (Côté et al., 2007). Early specialization implies that a young athlete does not participate in the sampling years and advances immediately into the

specializing years at a young age. Subsequently, the investment years would also begin at a much earlier age. This trajectory is marked by a high volume of deliberate practice and low amounts of deliberate play. In regards to skill development, conflicting results have emerged in sport to determine whether or not early specialization is a prerequisite of expert performance in sport. Baker, Côté, and Deakin (2005), in a study involving ultra-endurance triathletes, found that the expert and non-expert athletes differed in the amount of sport-specific training but the groups were not distinguishable in the early stages of development. Contrarily, Law, Côté, and Ericsson (2007) found that Olympic level rhythmic gymnasts began sport-specific training at a very young age and, hence, accumulated a significantly higher amount of hours in deliberate practice than the international level athletes. Due to the intense nature of the sport participation, however, the Olympic level athletes reported reduced levels of physical health and lower levels of enjoyment than the international level group. Therefore, although the Olympic athletes were more skilled, there were costs associated with their participation.

Another cost associated with intense training in young elite athletes is burnout (Coakley, 1992). Burnout is described as withdrawal from an activity that was previously enjoyable due to stress or dissatisfaction (Smith, 1986). Raedeke (1997) extended this definition in the sport domain by defining burnout as a psychological condition associated with feelings of emotional and/or physical exhaustion, a reduced sense of accomplishment, and sport devaluation. Previous research has identified burnout as a salient concern for young athletes who engage in intense sport participation (Gould, Udry, Tuffey, & Loehr, 1996). There may be a way of preventing burnout but it “calls for changing the social organization of sport to create a better fit between the athlete and the competitive environment” (Raedeke & Smith, 2004, p. 539). The social organization of

sport involves a variety of factors however, of utmost importance are those who have the potential to create a positive experience for young athletes and enable socialization experiences; this includes other persons in the sporting environment, namely coaches and peers.

Coaches have a substantial influence on the experiences of the young people with whom they interact (Greendorfer, 2002). Coaches offer support and guidance to athletes ultimately allowing for the formation of strong bonds (Jowett & Poczwardowski, 2007) and impacting enjoyment, motivation, and competence (Côté & Fraser-Thomas, 2007). In the elite performance through sampling trajectory, coaches play different roles as a child begins and progresses through each phase. Since deliberate play is the focus in the sampling years, coaches should encourage participation and should be supportive of all athletes (Côté & Fraser-Thomas, 2007). Further, these coaches should focus on being task-oriented with the athletes and encourage self-comparisons (Fraser-Thomas & Côté, 2006). In the specializing years and the investment years, the coach-athlete interaction changes; the coach and athlete act in a more reciprocal fashion and the coaching style is more technical and skill oriented. The focus should also remain on providing performance-contingent feedback as well as emphasizing the athletes' self-referencing as they develop their skills (Fraser-Thomas & Côté, 2006). As a coach's three main roles in youth sport are to foster psychological growth, help in the development of social skills, and develop motor skills (Côté, 2002), the progression throughout the elite performance through sampling trajectory is an effective way to enable and empower coaches to fulfill these roles. In the early specialization trajectory, coaches have to balance their three main roles with extreme care. As the intense participation in this trajectory places an emphasis on performance and outcomes, coaches need to consider the psychological and social

outcomes of the athletes involved and ensure that the integrity of their roles in youth sport development is not compromised.

Peers also play a critical role in a child's development through sport participation. The impact of peers in a sporting context is related to motivation, interest, and developing social connections (Allen, 2003). Making friends is often cited as a motive for youth sport participation (Scanlan, Stein, & Ravizza, 1989) and these relationships grow in importance as a child ages (Smith, 2007). Throughout the sampling years, involvement in sport is a vehicle through which young people meet and interact but it can also serve as a platform for peer comparisons. These peer comparisons can provide positive feedback to the athletes (i.e., recognition) but they can also lead to negative outcomes (i.e., friend conflicts). Moreover, peers have an influence on the development of values and attitudes (Stuart & Ebbeck, 1995). These interactions continue throughout the specializing and investment years. However, it is in these years where young people begin to build a sense of self and develop intrinsic motivation for participating in sport without relying solely on the presence or participation of friends (Macphail & Kirk, 2006). Peers are also important throughout the early specialization trajectory as athletes will typically train together, even in an individual sport. As sport provides an avenue for youth to interact, cooperate, and provide exciting competitive interest (Smith, 2007), the influence of peers in a specializing context may have a unique value to the participants. The two trajectories seem to provide athletes with unique experiences and may lead to differences related to sport outcomes.

#### Rationale

Within the DMSP framework, a progression from play to practice and from sampling to specialization is suggested as primary activities for the development of a

positive environment in youth sport (Côté et al., 2007). Recent trends in youth sport, however, have observed children and youth specializing in one sport more than ever. Sports with traditionally younger elite athletes, such as gymnastics and figure skating, continue to produce young elite athletes, however, sports such as basketball, baseball, and soccer have also seen increases in youth athletes specializing at an earlier age due to the lure of financial reward and recognition (Gould & Carson, 2004). It is important to examine the potential for positive youth development within the trajectories and the other positive and negative outcomes that may ensue. The purpose of this study was to investigate young athletes who are progressing through the two trajectories and to compare their sport experiences, personal development, and sport outcomes, namely enjoyment and burnout. It is hypothesized that those in the elite performance through sampling trajectory (“samplers”) will display more positive developmental experiences and outcomes, greater enjoyment, and a lower incidence of burnout than those in the elite performance through early specialization trajectory (“specializers”). The “samplers” will also report more opportunities to interact with a variety of coaches and peers, and thus will have more positive experiences.

## Methodology

### *Participants*

Seventy-four athletes between the ages of 12 and 16 years ( $M = 13.6$ ,  $SD = 1.5$ ) participated in the study. The “specializers” ( $N = 40$ ,  $M$  age = 13.8,  $SD = 1.4$ ) were recruited in Manitoba and Ontario from four different sports: swimming, artistic gymnastics, rhythmic gymnastics, and diving. These athletes report starting their main sport at 6.9 years of age ( $SD = 2.6$ ) and investing at least ten hours per week in their respective sports beginning at approximately age ten ( $M = 10.3$ ,  $SD = 1.9$ ). The athletes

also currently devote many hours each week to training ( $M = 19.2$ ,  $SD = 3.2$ ). In contrast, the “samplers” ( $N = 34$ ,  $M$  age = 13.4,  $SD = 1.6$ ) were recruited from sport camps, junior high and high schools, and other sport programs in Manitoba and Ontario. These athletes, on average, participated in approximately five sports throughout the year ( $M = 4.8$ ,  $SD = 0.9$ ), investing 14 hours per week in these sports ( $M = 14.1$ ,  $SD = 5.7$ ). All athletes also reported on other contextual training factors which will be elaborated upon in the results section.

### *Measures*

*Youth Experiences Survey (YES 2.0; Hansen & Larson, 2005)*. This survey examines a youth’s experiences in a specific activity. Based on recent research using the YES 2.0 (Hansen & Larson, 2007; Larson, Hansen, & Moneta, 2006), seven different domains were reported: identity work, initiative, emotional regulation, positive relationships, team work and social skills, adult networks and social capital, and negative experiences. This 70-item measure is rated from 1 (yes, definitely) to 4 (not at all) and all items were reverse scored so that a higher number reported greater growth in the specific domain. Research conducted with 1,822 youth employing the YES 2.0 has found it to be valid and reliable with Cronbach alpha values ranging from 0.75 to 0.94 (Hansen & Larson, 2005, 2007).

*Developmental Assets Profile (DAP; Search Institute, 2004)*. This questionnaire is an individual measure of 40 developmental assets which have been termed the “building blocks” of positive development (Benson, 1997). The DAP gives quantitative scores for each of eight categories (support, empowerment, boundaries and expectations, constructive use of time, commitment to learning, positive values, social competencies,

and positive identity). This 58-item measure has been found to be appropriate for children and youth (i.e., ages eleven to eighteen). Statements in the DAP are rated from “not at all” or “rarely” to “extremely” or “almost always”. Previous research with 1,295 youth has found the DAP to be valid with satisfactory reliability estimates (i.e., 0.59 to 0.87 for categories) (Search Institute, 2004).

*Athlete Burnout Questionnaire (ABQ; Raedeke & Smith, 2001).* The ABQ is a 15-item questionnaire based on a five point Likert scale (i.e., from 1 = almost never to 5 = almost always). The scale measures three subscales: 1) emotional/physical exhaustion, 2) reduced sense of accomplishment, and 3) sport devaluation. The questionnaire allows the researcher the ability to tailor the questionnaire to a specific sport, as the questionnaire includes blanks to add sport-specific terms and references. Cronbach alpha coefficients for the subscales of the ABQ range from 0.84 to 0.92 (Raedeke & Smith, 2001, 2004).

*Sources of Enjoyment in Youth Sport Questionnaire (SEYSQ; Wiersma, 2001).* The SEYSQ was developed to measure sport enjoyment in youth. The 28-item measure is based on a five point Likert scale (1 = not at all to 5 = very much). The questionnaire includes six factors: 1) self-referenced competency, 2) other referenced competency and recognition, 3) effort expenditure, 4) competitive excitement, 5) affiliation with peers, and 6) positive parental involvement. The confirmatory factor analysis was conducted with 896 youth sport athletes and reliability estimates (i.e., Cronbach alpha) for the SEYSQ range from 0.65 to 0.85 (Wiersma, 2001).

### *Experimental Procedure*

Participation in this study was voluntary. Athletes were recruited through contacting the coaches or program administrators of the various sport programs (“specializers”) or through sport camps or high schools (“samplers”). Parental consent

was obtained for each participant before data was collected. Demographic information was completed with the help of a parent or guardian. As some of the demographic questions were retrospective in nature, it has been found that collaboration with a parent will increase the reliability of the information provided (Law, Côté, & Ericsson, 2007). Following the completion of the demographic information, the participants independently completed each questionnaire (YES 2.0, DAP, ABQ, and SEYSQ). The questionnaires took approximately 30-40 minutes to complete.

### *Analyses*

Mann-Whitney U Tests were used to compare the demographic information collected for the two groups. The Mann-Whitney U test is a nonparametric test used to discover the difference between two groups and is the equivalent to an independent t-test (Vincent, 1999). Discriminant function analyses (DFA) were used to predict group membership from a set of variables (Tabachnick & Fidell, 2007). Four separate discriminant function analyses were performed for each of the questionnaires (Youth Experiences Survey 2.0, Developmental Assets Profile, Athlete Burnout Questionnaire, and the Sources of Enjoyment in Youth Sport Questionnaire).

## Results

### *Reliability Estimates*

Reliability estimates for the full sample and each group can be found in Table 1. The support category from the DAP was subsequently removed from further analyses as Cronbach alpha values were not able to be determined due to missing values reported for those scales. Further, the DAP subscale regarding constructive use of time (overall  $\alpha = 0.42$ ), the emotional regulation domain of the YES 2.0 (overall  $\alpha = 0.55$ ), and the

affiliation with peers subscale from the SEYSQ (“specializers”  $\alpha = 0.54$ ) were also eliminated due to low Cronbach alpha values for the subscale.

### *Demographic Information*

Due to the smaller sample size, the Mann-Whitney U test was the most suitable comparison test and the p value was set at  $< 0.01$ . Significant differences were found between the groups on two variables. The first variable, number of coaches, was significant ( $Z = -7.72, p = 0.00$ ); the “samplers” came into contact with more coaches throughout the sport season ( $M = 7.7, SD = 3.5$ ) than the specializers ( $M = 1.2, SD = 0.4$ ). The other significant variable pertained to the number of hours the athletes report participating in sport ( $Z = 5.23, p = 0.00$ ). The “specializers” spent more hours involved in their sport per week ( $M = 19.2, SD = 3.2$ ) than did the “samplers” ( $M = 14.1, SD = 5.7$ ). Although there was a significant difference found between the two groups in terms of the number of hours the athletes were involved in sport, the 14 hours per week reported by the sampler group was more than enough to consider them to be highly invested in sport as previous studies have used a value of 10 hours per week to indicate high investment (Hansen & Larson, 2007).

### *Youth Experiences Survey 2.0*

Results from the DFA found that the domains of the Youth Experiences Survey significantly discriminated between those in the “samplers” group and those in the “specializers” group, *Wilks' Lambda* ( $6$ ) =  $0.701, p < 0.009$ . The canonical correlation was 0.543 indicating that the domains collectively accounted for 29.4% of the variance. An overall total of 81.5% of the participants were classified into the correct groups; 87.1% of “specializers” were classified into the proper group and 74.0% of the “samplers” were correctly classified. An examination of the standardized discriminant

function coefficients (Table 2) showed that two of the domains, positive relationships and adult networks and social capital were the strongest predictors of group membership.

Each of the domains of the YES 2.0 has subscales that provide more detail regarding the nature of the domain. The positive relationships domain includes two subscales: 1) diverse peer relationships, and 2) prosocial norms. The adult networks and social capital domain includes three subscales: 1) integration with family, 2) linkages to community, and 3) linkages to work and college. Secondary analyses were performed on the subscales within the significant domains. The secondary DFA demonstrated that the five subscales significantly discriminated between the two groups, *Wilks' Lambda* (5) = 0.665,  $p < 0.000$ . The canonical correlation was 0.579 indicating that the 5 subscales accounted for 33.5% of the variance. Collectively, 79.4% of the participants were correctly classified as group members of the “specializers” (86.5%) and the “samplers” (69.2%). The standardized discriminant function coefficients (Table 2) show that diverse peer relationships, integration with family, and linkages to community were the strongest predictors of group membership. Examination of group means found that the “samplers” indicated higher scores on the integration with family subscales as well as the linkages to community subscale (Table 2). However, group means also revealed that “specializers” demonstrated higher scores on the subscale related to diverse peer group relationships.

#### *Developmental Assets Profile*

The DFA revealed no significant discriminatory differences between the two groups on the six reported categories of personal assets or in terms of total assets *Wilks' Lambda* (6) = 0.943,  $p < 0.773$ . It is prudent to note, however, that mean scores on all of the categories indicated that both groups were in the “Good” range in terms of asset development; scores were reported between 22.3 and 25.4. Scores in the good range

indicate that individuals are developing assets well however there is still room for improvement (Search Institute, 2004).

### *Burnout*

Results from the DFA demonstrated that the burnout dimensions significantly discriminated between the two groups, *Wilks' Lambda* (3) = 0.836,  $p < 0.008$ . The canonical correlation was 0.405 indicating that the three dimensions accounted for 16.4% of the variance. A total of 74.3% of the participants were correctly classified as group members of the “samplers” (70.1%) and the “specializers” (77.0%). Upon examination of the standardized discriminant function coefficients (Table 2), it was shown that the dimension of emotional/physical exhaustion was the strongest predictor of group membership. Group means indicated that the “specializers” scored higher on the emotional/physical exhaustion subscale than did the “samplers” (Table 2).

### *Enjoyment*

The results from the DFA indicated that none of the enjoyment subscales were able to significantly discriminate between the “samplers” and the “specializers”, *Wilks' Lambda* (5) = 0.907,  $p < 0.313$ . Upon examination of the mean scores on each subscale for all participants, values were found to be between 3.84 and 4.56 (standard deviations between 0.47 and 0.94) out of a possible 5 which was similar to scores reported by Wiersma (2001) in the confirmatory factor analysis of the SEYSQ.

## Discussion

This research examined the processes involved in youth sport development and explored the experiences of young participants within two different trajectories of development. Results confirmed that the two groups, “samplers” and “specializers”,

differed in terms of experiences related to sport and outcomes but not in terms of personal assets.

Results from the YES 2.0 found that the “samplers” have more experiences related to the integration of sport and family; they also experience more linkages to the community through sport. The involvement of family and community are key factors in the positive development of youth (Petitpas, Cornelius, Van Raalte, & Jones, 2005). This finding is consistent with recent literature (Broh, 2002; Wilkes et al., in press) that highlights the importance of sport sampling as a means of gaining social capital (connections that youth have to parents, non-familial adults, and community organizations; Wilkes et al., in press). Given the fact that they “samplers” are in contact with significantly more coaches across a season, social capital may be more easily nurtured in their experiences. Although the “samplers” appear to have more connections with family and community through sport, results from the Youth Experiences Survey (YES 2.0) found that the “specializers” reported more experiences relating to diverse peer groups than did the “samplers”. This finding is contrary to ideas presented by Wilkes and colleagues (in press) suggesting that sampling is the optimal path in which to expose children and youth to a variety of peer groups. Although sampling provides more opportunities for young people to meet new people and interact with a variety of people, the depth of relationships may not be as easily cultivated. Within youth sport, friendship qualities include the possession of similar values and belief but also include characteristics such as self-disclosure and loyalty (Weiss & Smith, 2002). These friendships often lead to increased enjoyment and persistence in the activity. In this case, it seems as though the “specializers” are involved with a small but diverse group of peers and the intimate nature of their involvement in sport may enhance their experiences.

In terms of burnout, results showed that “specializers” scored significantly higher on the exhaustion dimension. As the specializing group is investing more time in sport than the “samplers”, it may seem to be an obvious conclusion at face value; those who are spending more time in sport may feel tired after a time. Early research examining burnout with human service occupations, such as police officers, mental health workers, and physicians, also reported high rates of exhaustion (Maslach & Jackson, 1981); those reporting high exhaustion levels wanted to spend more time alone, were angry, and were more likely to consume alcohol to deal with the stress involved with their jobs. Several researchers have extended research on the burnout phenomenon into the sport domain (Gould et al., 1996; Gould, Tuffey, Udry, & Loehr, 1997; Raedeke, 1997) and have found that exhaustion is a component of burnout and may lead to dropout (i.e., withdrawal from sport participation). Recent research has suggested that burnout may occur along a continuum; exhaustion, the start of the burnout process, is followed by a reduced sense of accomplishment and finally by sport devaluation (Cresswell & Eklund, 2007). Efforts must be made to halt this progression so that young athletes can have a chance at excelling in their sports and prolonging their participation. Simply reducing the number of hours of participation, however, may not be the answer. In an examination of 980 athletes from a variety of sports, Gustafsson, Kenttä, Hassmén, and Lundqvist (2007) found that there was no correlation between training loads and reported burnout scores. This finding underscores the importance of considering factors other than training loads when attempting to explain burnout in sport.

No significant differences were found between the sampling and specializing groups and their possession of developmental assets. As the DAP provides a general indication of asset possession, it appears that all the athletes in this study are developing

at an expected pace and are developing positive assets. On average, all athletes were found to be in the “good” range of development, suggesting that they are doing well in personal development (Search Institute, 2004). As involvement in organized youth activities is critical to positive development (Scales, Benson, Leffert, & Blyth, 2000), involvement in sport seems to be a good choice for those involved whether they be “specializers” or “samplers”. In a longitudinal study involving 370 youth, Scales, Benson, Roehlkepartain, Sesma Jr., and van Dulmen (2006) examined developmental assets and their relationship to the school context. Over a three year period, it was found that students who increased their asset level had significantly higher grade point averages. The authors suggest that the study demonstrated a promising result in that examining the possession of broadly-based developmental assets may help others to realize this link between assets and academics. The same could be argued for examining general assets in a sport context; it is important to consider the link between developmental asset possession and sport participation. Involvement in sport and other structured programs have been found to lead to the possession of a greater amount of assets which, in turn, may allow adolescents to thrive in areas such as academic success, greater physical health, and leadership ability (Scales et al., 2000). Establishing this link in sport has the potential to be a promising avenue of research.

As no differences were found between the groups in terms of their sources of enjoyment, the focus needs to remain on making the sport experience enjoyable for all athletes, regardless of the process they take through sport. Enjoyment in sport is a key determinant of sport commitment (Carpenter & Scanlan, 1998; Scanlan, Carpenter, Schmidt, et al., 1993; Weiss, Kimmel, & Smith, 2001) and is also an important motive for youth, regardless of competitive level, to continue in sport (Scanlan et al., 1989; Scanlan,

Carpenter, Schmidt, et al., 1993). Multiple sources of enjoyment have been identified in youth sport (Scanlan, Carpenter, Lobel, & Simons, 1993; Wiersma, 2001) and it is contingent upon youth sport programmers and coaches to offer opportunities for the development of skills as well as positive interactions with coaches and peers, and chances to exert effort and display competence. Recent research has also highlighted developmental changes in sources of enjoyment (McCarthy & Jones, 2007). In focus groups with athletes between the ages of eight to twelve, the authors found that the younger participants reported enjoyment through movement sensations in sport while older children reported recognition of competence, excitement, challenge, and encouragement as sources of enjoyment. These developmental factors need to be considered when developing sport programs for young participants.

Although the sample size in this study was small, results highlight the importance of examining experiences and outcomes in specific trajectories. Further, the YES 2.0 and the DAP are novel measures within youth sport research and warrant further examination. Another limitation to this study is the use of individual sports only to examine early “specializers”. More research is needed to examine “specializers” in both individual and team sports so as to obtain a more well-rounded idea of the specialization experience.

### Conclusion

Sport participation provides a unique opportunity for youth to encounter a variety of experiences and is a vehicle to promote positive development. The trajectories taken through sport provide a distinctive experience for youth and it is important for these trajectories to be considered. This study highlights the experience and outcome differences that may take place but also demonstrates the similarities that may result from sport participation, whether it be as a “specializer” or as a “sampler”. Further longitudinal

studies need to be administered in order to obtain a clearer picture of these outcomes and experiences at various ages and stages of development. Also, as an ecological approach would dictate, contextual factors are an important consideration to take into account in youth sport (García Bengoechea, 2002). Gaining a deeper understanding of the context within these trajectories is critical to obtaining information on how to ensure the best sport experience for youth. In particular, it would seem from the current study that the development of positive, healthy youth within a specialization framework is possible. More research is needed to examine the specialization trajectory and the contextual factors that must be present in order to deliver elite youth programs in a positive fashion.

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Table 1 Reliability Estimates for the YES 2.0, DAP, ABQ, and SEYSQ subscales

		Cronbach Alpha Value ( $\alpha$ )		
		Overall	“Samplers”	“Specializers”
YES 2.0	Identity Work	0.63	0.63	0.62
	Initiative	0.78	0.76	0.81
	*Emotional Regulation	0.55	0.55	0.56
	Positive Relationships	0.79	0.83	0.71
	Teamwork and Social Skills	0.86	0.88	0.83
	Adult Networks and Social Capital	0.74	0.67	0.77
	Negative Experiences	0.84	0.84	0.84
	DAP External Assets	*Support Scale	0.76	n/a
	Empowerment Scale	0.71	0.84	0.69
	Boundaries and Expectations Scale	0.85	0.84	0.84
	*Constructive Use of Time Scale	0.42	0.29	0.53
DAP Internal Assets	Commitment to Learning Scale	0.72	0.72	0.81
	Positive Values Scale	0.82	0.82	0.83
	Social Competencies Scale	0.74	0.77	0.67
	Positive Identity Scale	0.86	0.89	0.82
Athlete Burnout Questionnaire	Reduced Accomplishment	0.69	0.69	0.69
	Emotional/Physical Exhaustion	0.90	0.84	0.90
	Sport Devaluation	0.86	0.72	0.87
Sources of Enjoyment in Youth Sport Questionnaire	Self-Referenced Competency	0.73	0.68	0.71
	Other Referenced Competency and Recognition	0.79	0.79	0.80
	Effort Expenditure	0.74	0.72	0.74

Competitive Excitement	0.66	0.64	0.66
*Affiliation With Peers	0.68	0.76	0.54
Positive Parental Involvement	0.81	0.68	0.84

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\* subscale removed from subsequent analyses

Table 2 Discriminant Function Analysis of YES 2.0 and ABQ Subscales

Subscales	“Samplers” (N = 34) Mean (SD)	“Specializers” (N = 40) Mean (SD)	Standardized Discriminant Function Coefficient
<i>Preliminary</i>			
<i>Analysis – YES 2.0</i>			
Identity Experiences	3.09 (0.51)	3.16 (0.49)	-0.29
Initiative Experiences	3.28 (0.38)	3.26 (0.40)	-0.46
Positive Relationships	2.97 (0.68)	3.02 (0.46)	-1.00*
Teamwork and Social Skills	3.40 (0.59)	3.34 (0.49)	0.49
Adult Networks and Social Capital	2.91 (0.63)	2.50 (0.69)	1.34*
Negative Experiences	1.39 (0.38)	1.53 (0.40)	-0.30
<i>Secondary</i>			
<i>Analysis – YES 2.0</i>			
Diverse Peer Relationships	3.23 (0.81)	3.50 (0.50)	0.79*
Prosocial Norms	2.69 (0.66)	2.54 (0.62)	0.20
Integration With Family	3.25 (0.88)	2.53 (0.87)	-0.61*
Linkages to Community	3.22 (0.76)	2.58 (0.87)	-0.70*
Linkages to Work and College	2.49 (0.96)	2.36 (0.84)	-0.02
<i>Athlete Burnout Questionnaire (ABQ)</i>			
Reduced Accomplishment	1.65 (0.59)	1.82 (0.54)	-0.23
Emotional/Physical Exhaustion	2.03 (0.71)	2.70 (0.93)	0.76*
Sport Devaluation	1.35 (0.49)	1.83 (0.57)	0.53

\* $p < 0.05$

## **Chapter 4: Promoting Positive Youth Development in Elite Sport Contexts**

### **Abstract**

Recent research from the National Research Council Institute of Medicine (2002) has amalgamated previous findings in the area of developmental psychology and suggested eight setting features that should be present in youth programs to enable positive youth development. These setting features have yet to be examined within a sport context. Within a sport context, coaches are key factors in program delivery and in the physical, psychological, and social development of youth (Côté & Fraser-Thomas, 2007). In particular, coaches of elite youth sport participants have the responsibility of developing talented young people and, hence, play an important role in their lives and in personal development (Smoll & Smith, 2002). The purpose of this study was to examine the setting features within a model elite youth sport context. A qualitative triangulation approach including interviews and observations was used in the data collection and in the analysis of the practices and techniques of five elite youth sport coaches. Four characteristics regarding the delivery of positive elite sport programs are suggested and recommendations for elite youth sport coaches are outlined.

Previous research in the fields of developmental psychology and sport psychology has highlighted the importance of examining context in youth activities (Petitpas, Cornelius, Van Raalte, & Jones, 2005; Raedeke & Smith, 2004). Context includes not only an individual's physical environment but also consists of the social environment and relationships with the developing person (Bronfenbrenner, 1999). Within the positive youth development literature, the National Research Council Institute of Medicine (NRCIM, 2002), following a thorough examination of previous literature, identified eight contextual setting features that should be present in community programs in order to facilitate youth development. These setting features include the following: 1) physical and psychological safety, 2) appropriate structure, 3) supportive relationships, 4) opportunity to belong, 5) positive social norms, 6) support of efficacy and mattering, 7) opportunity for skill building, and 8) integration of family, school, and community. Involvement in structured programs which promote the growth of one or more of these features has been found to produce positive developmental outcomes in youth (i.e., increased self-efficacy, stronger interpersonal skills, development of quality adult and peer relationships) and decrease problem behaviors including alcohol and drug use and aggressive actions (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002). These setting features have not yet been examined within a youth sport context but they hold considerable promise as a framework for studying youth sport (Fraser-Thomas, Côté, & Deakin, 2005).

Recently, theoretical links were suggested between the settings features and previous research conducted within youth sport. Côté, Strachan, and Fraser-Thomas (2007) reviewed each of the setting features and established links between the setting features and youth sport research. First, in terms of physical and psychological safety, the authors suggested that although physical safety is important, safe peer interactions must

also be considered as these interactions have an impact on a child's perceived competence and self-worth (Horn, 2004; Vazou, Ntoumanis, & Duda, 2006). Appropriately structured sport programs (i.e., clear rules and expectations, set practice plans, and proper supervision) enable young people to operate within boundaries and to respect rules, ultimately leading to secure and positive youth. Next, supportive relationships in youth sport include the environment created by the coach. Since coaches affect motivation, enjoyment, and self-efficacy (Black & Weiss, 1992; Jowett & Poczwadowski, 2007) and are important in the development of physical, psychological, and social skills for the youth they encounter (Côté & Fraser-Thomas, 2007), they are key fixtures in sport program delivery and play a crucial role in the delivery and shape of sport programs. Opportunities to belong in youth sport encompass the presence of meaningful inclusions and, since belonging is important to maintain persistence in an activity (Allen, 2003), coaches do play a part in encouraging these interactions. The next feature, positive social norms, highlights the ability of sport programs to develop values and morals in young people, including fair play, respect, cooperation, and sportspersonship (Côté, 2002). Support of efficacy and mattering is the ability for sport programs and coaches to empower athletes and allow for autonomous action which have been found to be key aspects in developing intrinsic motivation (Mallett, 2005). The feature relating to opportunities for skill building can have many different connotations in a sport context; skill building may relate to the development of physical and motor skills as well as psychosocial learning experiences (Côté & Fraser-Thomas). Finally, the integration of family, school, and community within youth sport provides an opportunity for sport programs to develop experiences that can be transferred to other contexts in which young

people live. This ‘developmental redundancy’ has been found to increase the likelihood of thriving in youth (Benson, Scales, Hamilton, & Sesma, Jr., 2006).

In addition to the links made between the setting features and youth sport by Côté, Strachan, and Fraser-Thomas (2007), Perkins and Noam (2007), with assistance from professionals in the field of youth development, developed a framework for sports-based youth development programs. The features of this approach were also based on the eight setting features outlined by the NRCIM (2002) and were integrated for the development of positive youth sport programs. Five additional setting features were developed which have particular importance and merit within sport contexts. These additional setting features include opportunities to foster cultural competence, active learning, opportunities for recognition, strength-based focus, and the provision of ecological and holistic programs. The overall theme of these setting features, according to the authors, involves focusing on the development of the whole child and allowing him/her to discover his/her role not only as a sport participant, but as a person and civic contributor. This developmental approach focuses on the possible outcomes related to the youth sport experience. A deeper examination of the intensity of sport participation for youth brings to light the various experiences that youth may encounter through sport.

Whether sport participation leads to recreational or competitive involvement, the concepts of sampling and play act as key components of the youth sport experience (Côté & Fraser-Thomas, 2007). Côté, Baker, and Abernethy (2007) demonstrate support for the importance of sampling (i.e., involvement in a variety of sport throughout childhood and early adolescence) and deliberate play (unstructured but purposeful sport activities) in the development of elite level athletes. Recent theoretical postulations have also suggested that youth involved in sampling may develop more positive outcomes (i.e., accrual of

social capital, more experiences with diverse peers groups) than those involved in deliberate practice activities (i.e., structured sport involvement often involving the presence of a coach) during childhood (Wilkes, MacDonald, Horton, & Côté, in press). However, recent empirical research has found that youth investing a great deal of time in a structured activity report more positive developmental outcomes (i.e., initiative and identity experiences, positive relationships, emotional regulation) than those involved in a variety of different activities (Hansen & Larson, 2007). Also, involvement in highly structured leisure programs has been linked to lower levels of antisocial behaviour in youth (Mahoney & Stattin, 2000). Therefore, if these findings are extended to a sport context, it would appear that it is maybe possible for youth investing a great deal of time in sport to accrue positive developmental outcomes. An examination of this specific sport context may offer some insight into how these developmental outcomes might be fostered within a model specialization environment. The purpose of the present study is to examine an elite sport context using the NCRIM (2002) setting features as a framework in order to ascertain how positive youth development may occur in an elite sport setting.

## Methodology

### *Participants*

The participants were five elite-level youth coaches (three males and two females) from central and eastern Canada who train elite athletes between the ages of 10-16 years. Since coaches have a strong influence on the development of elite athletes (Gould, Dieffenbach, & Moffett, 2002), this group was purposefully sampled to report on the context of their settings. Two of the participants were swimming coaches, 2 were artistic gymnastics coaches, and 1 coached diving. Athletes from their respective programs participated in an earlier phase of a larger study. These athletes ( $M$  age = 13.8,  $SD$  = 1.4)

currently devote many hours each week to training ( $M = 19.2$ ,  $SD = 3.2$ ). These sport specialization programs were chosen initially due to scores compiled from the athletes on the Developmental Assets Profile (Search Institute, 2004). In this measure which indicates the development of connections and qualities that may lead to healthy personal growth, these athletes collectively scored within the good range (i.e., scores of 21-25 out of a possible 30 in each category). After meeting and speaking with coaches, it was discovered that some of these coaches have received provincial awards for coaching and one coach in particular was trained in child/adolescent personal development. The coaches reported coaching at an elite level from one and a half to 20 years. Two of the coaches were briefly involved in coaching other sports besides the sport they are currently coaching while the others have coached solely in one sport. Finally, three coaches were involved in coaching both males and females and two coaches coach females only. All were full-time employees in their respective programs. Participants were contacted by phone or email to arrange a time for the interview and observations to be conducted. Consent was obtained and individual interviews and observations were conducted at the practice venue.

### *Data Collection*

This study included the use of interviews and observation, using a triangulation of qualitative data sources (Patton, 2002). First, in-depth open-ended interviews were used (Patton, 2002). The first part of the interview included demographic questions (i.e., number of years coaching, number of years coaching at an elite level, other sport coaching experience, information regarding the athletes whom they currently coach). The semi-structured questions were prepared with the help of two experts in the field and were based on the eight setting features outlined by the NRCIM (2002); this process resulted in

the development of 11 questions relating to the setting features. A pilot interview was conducted with two elite-level coaches who were not involved in the study. This interview approach allowed for the wording and sequence of questions to be specified in advance and aided in creating a systematic and comprehensive method to data collection and to the interview structure (Patton, 2002). A conversational strategy was also adopted in order to allow the interviewer some latitude in terms of probing and aids in the natural flow of the conversation (Patton, 2002). As the interviewer had a good rapport with the participants (developed over the period of one year), the participants and interviewer alike felt comfortable enough to enable an unconstrained exchange of dialogue. The interviews lasted for approximately 20-40 minutes; the time depended on the amount of time a coach had to contribute and to the length of the responses given.

A qualitative observation method was also used in this study. In total, seven observations were conducted during the scheduled practice times of the sports involved; three observations took place during swimming training sessions, two during diving practice, and two in gymnastics. Each observation lasted three to four hours. Direct observation allowed the researcher to develop a deeper understanding of context, permitted for discovery-oriented inquiry, and provided an opportunity to observe events that occur in a particular field which the participants may usually take for granted (Patton, 2002). Further, observation offered a chance for the researcher to see interactions and actions that may not be discussed in an interview setting, broadened understanding and biases, and helped to gain knowledge (Patton, 2002). An etic (i.e., spectator) approach was adopted so as to not disrupt the usual setting (Patton, 2002).

### *Interview Analysis*

Each interview was recorded and transcribed verbatim by the primary researcher. Once transcribed, interviews were sent to the coach-participants in order to check the accuracy of the transcription. Coaches were also invited to add to or clarify the document; none requested changes. A total of 45 single-spaced pages of transcript were coded and analyzed. Deductive analysis was used for the interviews (based on the setting features) to identify the categories and inductive analysis was used to explain the application of the setting features to the sport context (Strauss & Corbin, 1990). By coding each sentence, the major ideas were developed and a further detailed analysis of the meaning units enabled the emergence or strengthening of the applications (Strauss & Corbin, 1990).

#### *Observation Analysis*

Each observation was audio recorded and transcribed verbatim from the primary researcher. A total of 30 single-spaced pages of field notes were coded. These pages were deductively analyzed independent of the interviews in relation to the eight setting features (Strauss & Corbin, 1990). Following this independent analysis, the observations were factored into the categories and applications emerging from the interviews. If the observation segment did not fit with any of the applications described through the interviews, the meaning unit was represented as a further application of that setting feature (Tesch, 1990).

#### *Comprehensive Analysis*

After the interviews and observations were deductively and inductively analyzed, the next step involved studying the interactions between the categories of the setting features developed by the NRCIM (2002) and Côté, Strachan et al. (2007) and applications derived from the analysis independent of the setting features. The categories and applications were de-contextualized (Tesch, 1990) by first examining the applications

in relation to each other and then to the category. Similar applications and categories were merged and new interpretations were uncovered. Then, using a sport perspective, the data was re-contextualized (Tesch, 1990); this process involved exploring connections between the categories and applying new meaning to the data. These new relationships lead to the development of four elite youth sport program characteristics needed to facilitate positive youth development in sport.

The final step in this analysis was to use a factor cluster technique; this type of factoring involves the grouping of overlapping concepts in order to display commonalities that may exist between themes (Miles & Huberman, 1994). The eight setting features were re-introduced into the analysis and compared to the four elite sport program characteristics in order to assist in exploring commonalities that may be evident.

## Results

### *Categories and Applications from Interview and Observations*

Results from the interviews and observations are presented in order of the NRCIM's (2002) eight setting features (Table 1). The first column includes each of the eight setting features. The second column displays categories of the setting features in a sport context; 31 categories are presented. The third column represents the application of the category and setting feature in a youth sport context and 114 applications are included. The categories and applications outlined are results found through the interviews (I), observations (O), or both (I/O).

*Physical safety.* Through the interviews, it was determined that physical safety is evident through the proper maintenance and set up of equipment, ensuring personal safety of all participants (i.e., proper progressions, minimizing risk of injury), and providing

proper supervision. The observation corroborated these results and also noted the importance of appropriate facilities in promoting physical safety.

*Psychological safety.* Results from the interviews highlighted safe peer-peer interactions, the presence of positive coach-coach interactions, and having reprimands for negative behaviors within the program as contributors to ensuring psychological safety. The application of psychological safety in an elite sport context was demonstrated by the creation of a sense of family and camaraderie among athletes, displays of encouragement and cheering during training, helpfulness, coaches displaying fellowship between each other, and coaches resolving conflicts between athletes through interventions or probation/suspension protocols. Observations were in agreement with the presence of camaraderie and an encouraging atmosphere: “In terms of the interactions between each other, you can tell that they all get along quite well considering the amount of time that they spend together. They are all very supportive of each other. You can tell that by the way they cheer on the other teammates as they are racing and they make sure that they can hear that they are cheering for them. You know, by telling them “Go, go!” or just encouraging them as they are going along.” Furthermore, displays of caring were added as an application after a review of the observations. Two coaches did note however that negative interactions may occur in sport settings, namely the presence of jealousy and in-fighting between some members of the group.

*Appropriate Structure.* The interviews and observations revealed that an appropriate structure was delivered through the coaches implementing a clear training and program structure, outlining clear training and behavioral expectations, and providing opportunities for play within the program. Examples of applications within an elite sport context include the execution of yearly, monthly, and daily training plans, developing an

expected training routine, and integrating play within the training program. These actions were observed and, in addition, observations also demonstrated that free play was independently carried out by some of the athletes: “There are a couple girls left who just keep trying some different dives. So, it’s neat to see that they...they really don’t want to go. You know – they are just playing and having fun. They’re having time to just jump off the board and do whatever they want to do at the end of practice. You know, it doesn’t have to be perfect; it can be something fun.”

*Supportive Relationships.* Interviews brought to light the various manifestations of supportive relationships within an elite sport context. All coaches highlighted the importance of sport and non-sport related interactions in training and the coach’s role in enhancing athlete development and experience and offering encouragement. Examples of applications of this setting feature, which were also evident through the observations, involved the coach’s provision of feedback, engaging in casual conversations, the coach’s role in motivating athletes (i.e., encouragement), the development of a supportive training environment, and providing guidance to the young athletes. Observations of supportive relationships also revealed that athletes demonstrated positive reactions to their coach during training sessions.

*Opportunities to Belong.* Two categories emerged from the interviews relating to the fourth setting feature, opportunities to belong. Due to the inherent nature of the athletes’ sports involvement in this study, all coaches noted that athletes were included in each practice. Further, the grouping of athletes during training was also suggested by the coaches during the interviews to promote belonging: “But, I mean, the other is – it’s really important to feel like they belong or they’re going to want to go somewhere else. So, I’m always just trying to pair them up.” Applications such as the establishment of

training partners and the development of methods during training to increase participation (i.e., drills performed in groups) were also observed.

*Positive Social Norms.* Positive values were displayed by the results of the interviews. Coaches suggested that athletes demonstrate the development of pride as they go through their training and this development was also observed. Also, the development of a sense of respect and pride through participation in the program was reported. Although the latter were not observed, the presence of sportspersonship was displayed by watching the training sessions: "...he was giving them an opportunity to celebrate their best times – the best times of the group and also personal bests that happened. There were a few and everybody cheered and clapped for them, for each of them individually."

*Support of Efficacy and Mattering.* Results from the interviews noted many categories and applications describing support of efficacy and mattering. Leadership (i.e., practice/warm up leaders), autonomous action (i.e., athletes taking control of their training), the development of responsibility and trust (i.e., positive modeling within the program), opportunities for decision-making (i.e., coach open to modification and suggestions in training), self-referenced improvements (i.e., recording individual results), and opportunities for recognition (i.e., individual acknowledgement in practice) were evident through the observations as well.

*Opportunities for skill building.* Within these elite sport contexts, all coaches emphasized the opportunities athletes have to develop many different physical, personal, and social skills. The growth of physical skills (i.e., strength, flexibility, coordination, and fitness) emerged from the interviews and this was supported by the observations. One coach did note, however, that the intense development of skills in one specific context may lead to a lack of transferability of these skills to other sports. The development of

personal skills (i.e., confidence, mental toughness, overcoming fear/adversity) and social skills (i.e., teamwork, co-ed interactions) were suggested through the interviews and observed as well. However, one coach did note that a lack of social skill development may be possible. Finally, opportunities for learning various skills such as time management, tolerance, and life lessons were reported through the interviews and further learning opportunities (i.e., learning new skills, personal accountability) were witnessed.

*Integration of Family, School, and Community.* Through the interviews, all coaches remarked that parental involvement (i.e., volunteerism) and support (i.e., interest taken in child's sport participation) are vital to the continuous delivery of their programs. These applications were observed. While the coaches talked about having clear expectations of parents (i.e., financial commitments, defined roles within program) the observations provided no evidence of these expectations. Also, one coach did suggest that negative parental involvement is also present in elite sport programs; this was not apparent through observation. In regards to the integration of school into the program, some coaches underscored the importance of schools demonstrating understanding relating to a youth's sport involvement and communication being established between the program and the school: "I know that some other school programs, for example, they are allowed to take a gym credit. So, at the end of each semester, the teacher sends a report card and then I have to go through and, sort of, grade them as to different skills as they pertain to swimming...And then I return that report card to the teacher." Further, all coaches stressed that academics are a priority and some were supportive of the athletes' involvement in special school-related projects. Other coaches noted, however, that some schools do not make allowances for their athletes and there is no established protocol between the program and schools in terms of the child's elite sport involvement. Lastly,

community support was mentioned as an important part of the elite sport program. All coaches stated that community exposure is evident (i.e., community fundraisers, visibility) and is a vital part of the maintenance of their programs.

#### *Factoring of Interview and Observation Results*

From the analysis of the interviews and observations, the categories and applications were de-contextualized and re-contextualized (Tesch, 1990) independent of the setting features. From the re-contextualization, four elite sport program characteristics emerged: 1) appropriate training environment, 2) opportunities for personal and social development, 3) opportunities for physical and motor skill development, and 4) the presence of supportive interactions. These sport program characteristics were consequently factored with the setting features and results are displayed in Table 2.

*Appropriate Training Environment.* An appropriate training environment is represented in four of the eight NRCIM (2002) setting features. Physical safety is linked with an appropriate training environment as it involved the provision of safe equipment and facilities and proper supervision. In addition, psychological safety, which includes safe peer-peer interactions, positive coach-coach interactions, and reprimands given for negative behaviors, is included in the delivery of a suitable practice setting. Although coaches articulated the possibility of the presence of jealousy and in-fighting that may occur between these athletes, the general proclivities of these athletes were tied to positive actions such as encouragement and building a sense of camaraderie. Next, the delivery of an appropriate program and practice structure was cited by the coaches as an important element to consider within elite sport. One coach made it clear that his “role is to provide that structure and that content consistently.” Interestingly, coaches provided opportunities for play within their program either as a reward or as part of the

periodization element of the training. These incidences of play were observed as well as free play being undertaken by athletes themselves at the conclusion of their training sessions. An appropriate training environment in elite youth sport was also found to include a great deal of technical and outcome feedback from coaches to athletes; these types of interactions fell under the setting feature pertaining to supportive relationships. Finally, if the coach fulfills his/her responsibilities regarding training, athletes have an opportunity to belong.

*Opportunities for Personal and Social Development.* The coaches reported a variety of factors that contribute to personal and social growth in the young athletes. This characteristic was present in four of the eight setting features and, in particular, psychological safety was isolated from physical safety as one of the pertinent setting features as it accounts for unique variables. Safe peer-peer interactions allow for the development of positive qualities such as caring and helpfulness. Other positive social norms including developing a sense of pride and showing respect and sportpersonship were offered by the coaches as important personal characteristics. In the setting feature related to support of efficacy and mattering, the advancement of personal and social skills (i.e., autonomous actions, decision-making, teamwork) were included as were opportunities for athletes to learn other skills (i.e., strong work ethic, time management) through their elite sport participation. One coach summarized the scope of these lessons and skills saying, “(L)ife is a big competition and this prepares them in so many ways.”

*Opportunities for Physical and Motor Skill Development.* This particular characteristic is emphasized in three of the eight setting features namely physical safety, appropriate structure, and opportunities for skill building. Ensuring personal safety through the instruction of proper progressions as well as teaching basic skill requirements

and minimizing the risk of injury to all participants is essential. This focus on personal safety allows participants to feel confident in their skills, thereby permitting proper skill development. Also, providing an appropriately structured physical training regimen physically prepares the athletes for training and competition. Also, elite sport provides the opportunity to develop physical skills such as strength, coordination, flexibility, and fitness. One coach commented, "...they're so physically prepared and so strong and agile and coordinated. Their gross motor skills have got to be off the charts as compared to average children."

*Presence of Supportive Interactions.* Six of the eight setting features were linked with the presence of supportive interactions in an elite sport context. As described earlier, safe peer-peer interactions are important as are relationships among the coaches. All coaches made reference to supportive behaviors demonstrated between themselves and the young athletes they coach. Non-sport-related interactions such as casual conversations between coaches and athletes and the positive reactions athletes reveal towards their coaches build supportive relationships. Further, all coaches re-iterated the responsibility they have in providing a positive environment and in guiding the personal growth of the athletes. As one coach noted, "...we just have this environment where we are creating people. They're not just gymnasts – they are going to be people long after they're turning cartwheels." The coach's responsibility in this context is also extended to promoting belonging within the group and enabling the development of responsibility, leadership, understanding, teamwork, and trust. Finally, the integration of family, school, and community into elite sport settings brought to light the critical nature of parent involvement in volunteerism and fundraising to the delivery of the program. Support from

schools aids in facilitating supportive interactions and community integration is also an important consideration within these elite programs.

Although the four characteristics represent certain setting features, it should be noted that they are all inter-related; each provides a unique contribution to the setting features and it is clear that all four characteristics must be present within elite sport in order to delivery a well-balanced program focused on positive development.

### Discussion

The NRCIM (2002) setting features were developed in order to provide a framework for the development of positive youth programs. The purpose of the current study was to examine NRCIM's (2002) setting features within an elite youth sport context to obtain some insight into how these features can be applied to a sport setting. The results of this study suggested that the eight setting features are present within model elite youth sport programs. The results highlighted multiple examples of how these setting features are applied by coaches. The discussion will focus on the establishment of four main program characteristics inherent to positive developmental settings in elite youth sport. These four program characteristics must all be present in order to provide developmentally-appropriate training environments for youth.

#### *Appropriate Training Environment*

From the interviews and observations, it is clear that an appropriate training environment is needed in order to deliver positive programs to young elite athletes. To develop the skills required at a young age, a proper training structure is of utmost importance. Proper training entails the athletes engaging in deliberate practice activities, opportunities to engage in competitions and travel, and clear expectations regarding training demands (Côté, Young, North, & Duffy 2007). These actions were all reported

by coaches in this study. Along with deliberate practice, Côté, Young, et al. (2007) also suggest that high performance programs should include opportunities for deliberate play as a vehicle to promote enjoyment in sport. The present study corroborated this finding within an elite sport context; play was included by coaches within each program as a reward for training or as a tapering mechanism relating to training. The elite athletes also engaged in free play in some instances and it is clear that these actions do promote interest and enjoyment. While the implementation of suitable training plans is required within an elite youth sport setting, safety is also crucial to consider in the delivery of these programs. As the presence and maintenance of a safe physical environment is important for increasing physical activity for children and youth (Farley, Meriwether, Baker, Watkins, Johnson, & Webber, 2007), it may be that similar findings can be extended into a sport setting as safe facilities and equipment may allow young sport participants to have a positive experience. Also, by teaching proper progressions, basic skills, minimizing the risks for athletes, and providing proper supervision, young athletes can be assured that their physical safety has been considered. Psychological safety is also an important consideration within youth sport programs. An organizational definition of psychological safety states that it is “a shared belief held by members of a team that the team is safe for interpersonal risk taking” (Edmondson, 1999, p. 350). In this elite sport context, the creation of a sense of family and the presence of encouragement, caring, and helpfulness lends to the establishment of a safe team environment that can enable youth to take risks. However, as jealousy and in-fighting are mentioned as negative interactions, these actions can hinder the safe feeling of the program. Coaches need to be aware of the growth of negative interactions and encourage positive peer-peer interactions within the sport program. Furthermore, having reprimands for negative behaviors that may occur

promotes the occurrence of a safe environment. These safe interactions also come from the behaviors of coaches in the form of technical feedback and correction. Technical correction and feedback has been found to be more valuable to young athletes than general encouragement (Smoll & Smith, 2002). To facilitate the delivery of this kind of feedback within an elite sport context, coaches need to be extremely knowledgeable in regards to their respective sports.

### *Opportunities for Personal and Social Development*

Participation in sport provides many opportunities for the development of personal and social skills. Côté and Fraser-Thomas (2007) state that sport participation allows youth the chance to learn life skills including leadership, discipline, self-control, and cooperation. An evaluation of elite sport settings in the current study highlights several more personal skills hypothesized to be developed within this context such as responsibility, decision-making, autonomous action, tolerance, time management, and trust. In addition, overcoming fear, developing mental toughness, possessing a strong work ethic, and developing good concentration skills were cited by coaches as skills fostered in this setting. In quantitative and qualitative assessments conducted with ten Olympic champions, Gould, Dieffenbach, and Moffett (2002) revealed the existence of many of the same personal qualities and stressed the important role that coaches and family played in their development through elite sport. Just as personal skills are developed within elite settings, so too are social skills. The present study highlighted the growth of teamwork and opportunities for co-ed interactions. The social environment of sport has an impact on motivation and interest for youth; this environment may lead to greater perceptions of belonging which can lead to increased confidence in developing physical skills in sport (Allen, 2003). The same impact may also be observed in an elite

sport context. As physical skills are developed, the confidence gained by these young athletes may allow for an increased sense of belonging, leading to greater motivation and interest in their chosen sport.

#### *Opportunities for Physical and Motor Skill Development*

Gaining competence in physical and motor skills is another important outcome of youth sport participation (Côté & Fraser-Thomas, 2007). Coaches have a critical role in teaching basic skills and proper progressions in order to enable success for young elite athletes. Interviews and observations also revealed that coaches have a responsibility to physically prepare their athletes for training and competition. Further, the development of physical skills such as strength, flexibility, and coordination lead athletes to gain competence and may lead to the pursuit of life-long fitness. In middle to late childhood, athletic competence emerges as a key area of competence for children (Harter, 1999). As sport participation enables the development of athletic competence, participation in elite sport programs may enhance these feelings. Also, as body image concerns are particularly salient for females (Gill, 2000), elite sport may help to enhance self-perceptions of fitness and, as demonstrated through the current study, may allow young athletes to feel confident about their bodies and the importance of being fit for life.

#### *Presence of Supportive Interactions*

In adolescence, Harter (1999) has demonstrated that athletic competence along with the development of close friendships (among others) are important domains in which youth develop perceptions of self. The presence of supportive interactions within an elite sport context becomes an important element for consideration throughout development and was clearly apparent in the responses to interviews and through observations. The athlete-coach relationship is inter-related and dynamic (Jowett & Poczwardowski, 2007)

and, therefore, there is the potential for growth to occur on both sides. Smoll and Smith (2002) contend that the critical standing coaches occupy is not only present in a sport setting but also carries over to other areas of a young person's life. The authors also state that, due to the increasing number of single parent households, coaches can be put in the position of being a parental figure. Therefore, because of the time spent by the young elite athletes in a sport setting, it can be argued that the coaches act as second parents and are crucial agents in their development. As suggested earlier, sport-related training interactions (i.e., feedback) are critical to physical skill development but of equal importance are non sport-related training interactions between athletes and coaches (i.e., casual communication, positive comments regarding character development, and athletes' positive reaction to the coach) to develop communication and personal skills. Coaches also engaged in offering encouragement to their athletes by motivating them and displaying a caring and supportive attitude towards them in training. Finally, in some form, each coach commented on the great responsibility they have in the young people's personal development and experience within the program. From acknowledging the responsibility they have in developing positive youth and providing guidance to tasks such as keeping training records and creating a positive environment, the coaches leading these elite programs made it clear that it is their duty to provide the best experience they can for all of the athletes involved. These coaching behaviors in an elite sport environment facilitate feelings of empowerment, safety, and belonging in the program.

Athletes are influenced not only by coaches but also by various other individuals (i.e., parents), schools, and community organizations (Gould et al., 2002). As parents provide different types of support in youth sport (Côté, 1999), they have a few key roles, particularly in an elite sport setting. Results from the present study stress the importance

of positive parental support and the coach's encouragement of these behaviors. Also, volunteerism and fundraising efforts on the part of parents is an important aspect of elite programs and expectations from coaches regarding involvement (i.e., defined roles) and parental responsibilities regarding the program (i.e., financial commitments) should be well presented. As parental involvement is critical to the operation of a sport program, an athlete's involvement in school cannot be ignored as a key aspect to integrate into training. As participation in elite sport has the potential to attract scholarships for young people and aid in the cost of post-secondary education (Gould & Carson, 2004), it is right that coaches in the present study reported an emphasis on school as a priority. More communication between elite sport programs and schools is needed in order to assist young people navigate success in both contexts. Brettschneider (1999), in a study examining 700 elite youth athletes, found that the elite athletes scored higher on indicators of academic success, general self-perceptions, and peer and parent relationships as compared to a control group of youth. Results also underscored the importance of an increased academic self-concept in enabling young elite athletes to cope with stress. Therefore, establishing a protocol with schools regarding sport participation and emphasizing the benefits of elite participation to school boards may encourage the development of understanding between these contexts and may help young athletes to achieve even more.

A final piece in the presence of supportive interactions is the merging of elite sport program and the community-at-large. All coaches in the present study described examples of community exposure and integration in their program; the interactions occurred in varying degrees, from province-wide initiatives developed through the programs to smaller scale community involvement. Benson et al. (2006) depict the

presence of community as “a viable focus for understanding and promoting dynamics crucial for maximizing context/person relationships” (p. 926) and suggest that it is a vital focus of growth in the area of positive youth development. Integration of the community, regardless of the scope, is a promising avenue to pursue in endorsing the growth of positive youth within an elite sport context.

The current study focused on “model” elite youth sport programs within the scope of three sports. Although coaches in this study were worthy to study, the inclusion of more sport programs (i.e., individual and team sports) would have added strength to the results. The addition of the athletes’ perception of program delivery is also an important extension to consider and subsequent comparisons between athletes and coaches and their observations of the setting features within sport programs is warranted.

### Conclusion

With millions of youth participating in sport programs yearly, it is clear that these programs have a critical role in promoting the development of positive youth (Perkins & Noam, 2007). The potential of these programs can be realized if they are intentionally delivered with a focus of developing not only athletes, but healthy citizens. Within elite youth sport contexts, the promotion of an appropriate training environment, the provision of opportunities for physical and motor skill development in conjunction with personal and social development, and the presence of supportive interactions can enable effective delivery of these programs in a positive manner. Much like the eight setting features (NRCIM, 2002), it is hypothesized that each of these four characteristics must be present and maximized for positive development to occur in sport. This environment is possible and coaches, parents, schools, and communities need to be aware of the impact and responsibility they have in promoting a positive environment through sport. Ultimately,

this awareness will lead to not only the development of talented athletes, but also to the emergence of strong, independent, and responsible young people.

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Table 1 Categories and Applications from Interviews and Observations

<b>Setting Features</b>	<b>Categories of Setting Features in Sport</b> (I – interviews; O – observations)	<b>Application to Youth Sport</b> (I – interviews; O – observations)	
Physical and Psychological Safety	Equipment/Facilities (I/O)	Maintaining equipment (I/O)	
		Ensuring safe set-up of equipment (I/O)	
		Safe and clear venue (O)	
	Personal Safety (I/O)	Teaching basic skill requirements (I)	
		Increasing an awareness/understanding of risks (I/O)	
		Minimizing the risk of injury (I/O)	
		Coach teaching proper skill progressions (I/O)	
	Supervision (I/O)	Trained adults in venue (I/O)	
		Monitoring training (I/O)	
	Peer-Peer Interactions (I/O)	Creating a sense of family/camaraderie (I/O)	
		Encouragement/Cheering (I/O)	
		Caring (O)	
		Helpful (I)	
		Jealousy (I)	
	Coach-Coach Interactions (I/O)	In-fighting (I)	
		Fellowship of coaches (I/O)	
Reprimands for Negative Behavior (I)	Mutual ideology (I)		
	Suspension/Probation (I)		
Appropriate Structure	Clear Training Structure and Outline (I/O)	Coach involvement in resolving conflicts (I)	
		Implementing yearly, monthly, and/or daily plans (I/O)	
		Appropriate practice order (I/O)	
		Coach ability to adapt training (I/O)	
	Clear Training and Behavioral Expectations (I/O)	Physical preparation for training and competition (I/O)	
		Skill improvement (I)	
		Expected training routine followed by athletes (I/O)	
	Opportunities for Play (I/O)	High expectation of athletes (I)	
		Play time given as a reward (I)	
		Play time built into training (I/O)	
	Supportive Relationships	Encouragement (I/O)	Free play undertaken independently by athletes (O)
			Provision of motivation (I/O)
Coach Responsibility for Development and Experience (I/O)		Caring/supportive attitude towards athletes during training (I/O)	
		Preparedness for training sessions (I)	
		Keeping training records (I)	
		Providing guidance to athletes (I/O)	
		Creating a positive environment (I)	
Knowledge of individual needs (I)			

		Responsibility for athletic development and personal growth (I)
		Development of technical knowledge (I)
		Allowing for creativity in skill development (I)
	Sport Related Training Interactions (I/O)	Technical and/or outcome feedback (I/O)
	Non-sport Training Related Interactions (I/O)	Engaging in casual communication (I/O)
		Giving positive comments re character development (I/O)
Development of bonds over time (I/O)		
Athletes react positively to coach (O)		
Opportunities to Belong	Nature of Sport Participation (I/O)	Allowance for 100% participation (I/O)
		Developing methods to increase participation/belonging (I/O)
		Opportunities for athletes to travel (I)
	Groupings (I/O)	Establishing training partners (I/O)
		Age/skill related groupings (O)
Positive Social Norms	Demonstration of Positive Values (I/O)	Athlete development of pride (I/O)
		Expectation of respect (I)
		Athlete development of sense of respect (I/O)
		Instilling pride in athletes (I)
		Sportspersonship (O)
Support of Efficacy and Mattering	Leadership Development (I/O)	Appointment of team captains (I)
		Opportunities for mentoring within program (I)
		Warm-up/practice leaders (O)
	Autonomous Action (I/O)	Coach enabling athlete independence (I/O)
		Athletes taking control of training (I/O)
		Athletes setting up activities in training (I/O)
	Development of Responsibility and Trust (I/O)	Coach enabling the development of responsibility (I/O)
		Athlete role in positive representation of program to others (I)
		Coach comfortable with athletes (I)
		Reciprocity in coach-athlete training relationship (I/O)
		Athlete awareness of modeling within program (I/O)
		Athlete awareness of health limits (O)
	Opportunities for Decision-Making (I/O)	Coach open to modifications in training (I/O)
		Coach accepting of athlete's choice in training (O)
	Self-Referenced Improvement (I/O)	Coach giving individual targets (I/O)
		Coach recording individual results (I/O)
	Opportunities for Recognition in Training (I/O)	Individual acknowledgement in practice (I/O)
		Displaying individual accomplishment (I/O)
		Formal awards within program (O)

Opportunities for Skill Building	Physical Skill Development (I/O)	Strength (I/O)
		Flexibility (I/O)
		Coordination (I/O)
		Fitness (I/O)
		<i>Lack of transferability (O)</i>
	Personal and Social Skill Development (I/O)	Mental Toughness (I)
		Overcoming Fear/Adversity (I/O)
		Confidence (I)
		Goal Setting (I)
		Focus/Concentration (O)
		Work Ethic (I/O)
		Co-ed interactions (I)
		Teamwork (I)
	<i>Lack of social skill development (I)</i>	
	Opportunities for Learning (I/O)	Positive Body Image (I)
Time management/Organization (I)		
Commitment/Dedication (I)		
Life lessons (I)		
Understanding/Tolerance (I)		
Character development (I)		
New sport skill development (O)		
Personal accountability (O)		
Integration of Family, School, and Community	Parental Support and Involvement (I/O)	Parent takes an interest in sport participation (I/O)
		Coach encouraging positive parental support (I)
		Volunteerism (I)
		Fundraising (I)
		<i>Negative parental involvement (I)</i>
		<i>Lack of parental support (I)</i>
	Expectation of Parents (I)	Parent understanding of defined roles of involvement (I)
		Financial commitments (I)
		Parent helpful with athlete preparation for training (I)
	Understanding from School Regarding Sport Involvement (I)	School makes allowances for athletes from program (I)
		<i>No allowances for athletes (I)</i>
		<i>Negative attitude towards sport participation (I)</i>
	Communication between Program and School (I)	Sport participation for physical education credit (I)
		Letters sent to school explaining sport involvement (I)
		<i>No established protocol with school (I)</i>
	Program Support Regarding Academics and School Involvement (I/O)	School is the priority (I)
		Program making allowance for athlete to participate in special school events (I/O)
	Community Support (I)	Community Fundraisers (I)
		Community Exposure (I)

Table 2 Relationships Between the Eight Setting Features and Elite Youth Sport Context Characteristics

	Appropriate Training Environment	Opportunities for Personal and Social Development	Opportunities for Physical and Motor Skill Development	Presence of Supportive Interactions
1a - Physical Safety	*		*	
1b - Psychological Safety	*	*		*
2 – Appropriate Structure	*		*	
3 – Supportive Relationships	*			*
4 – Opportunities to Belong	*			*
5 – Positive Social Norms		*		
6 – Support of Efficacy and Mattering		*		*
7 – Opportunities for Skill Building		*	*	*
8 – Integration of Family, School, and Community				*

## **Chapter 5: General Discussion, Summary, and Conclusions**

The use of an ecological approach to studying youth sport participation is an important framework to consider as it encompasses the examination of proximal processes, developmental personal characteristics and outcomes, contextual factors, and the element of time (García Bengoechea, 2002; García Bengoechea & Johnson, 2001; Côté, Strachan, & Fraser-Thomas, 2007). In using this framework, links between the research in sport psychology and developmental psychology were extended and elaborated upon in Studies 1, 2, and 3. Study 1 explored the relationship between developmental asset possession and sport outcomes such as burnout and enjoyment, Study 2 focused on similarities and differences between two specific trajectories taken through youth sport participation, and Study 3 examined setting features present within model elite youth sport contexts. Each study in this dissertation offered a unique perspective on youth sport and positive youth development as well as extended links to ecological theory.

### *Proximal Processes*

In Study 1, the relationship between developmental asset possession, burnout, and enjoyment were examined through surveys with competitive youth sport participants. Investigating the relationship of these general asset characteristics within youth sport was an important step in empirically creating links between the assets and youth sport outcomes. Findings demonstrated a link to the development of four specific assets within sport: 1) positive identity, 2) support, 3) empowerment, and 4) social competencies. In particular, positive identity, support, and empowerment were closely linked to burnout outcomes and positive identity, social competencies, and empowerment were associated with enjoyment. The second study specifically examined two trajectories youth sport

participants may follow in sport. Differences and similarities were discovered between a group of “specializers” and a group of “samplers.” The two groups differed in their sport experiences; the “samplers” reported more experiences relating to the integration of sport and family as well as links to the community through sport while the “specializers” reported more experiences with diverse peers groups. “Specializers”, however, demonstrated higher burnout scores in regards to physical/emotional exhaustion. Also, in the qualitative study (Study 3), interpersonal proximal processes surfaced within one of the elite sport program characteristics to support healthy development (i.e., presence of supporting interactions). The interactions between a coach and athlete were found to be extremely important within elite youth sport contexts as coaches provide technical instruction and feedback but also are supportive of all athletes and provide psychologically safe interactions and environments.

The aforementioned studies highlighted three main points. First, of the eight asset categories, involvement in sport was found to have the potential to contribute to the development of half of these asset categories which are the “building blocks” of human development (Benson, 1997). Structured activities, such as sport, are important developmental proximal processes for young people (Fredricks & Eccles, 2006) and results suggest that sport participation as a process may contribute uniquely to the development of certain assets required for positive development. Secondly, Study 2 highlighted the importance of considering experiences within different processes. Larson, Hansen, and Moneta (2006) found differences in youth experiences across a variety of contexts (sports, performance and fine arts, faith-based activities, academic clubs and organizations, and service activities). Study 2 extended these results by focusing solely on experiences within different sport trajectories. Results suggested that experiences between

sport trajectories may be distinct. Further, the DMSP (Côté, Baker, & Abernethy, 2007; Côté & Fraser-Thomas, 2007) may be an ideal framework to consider when examining processes through sport (Macphail & Kirk, 2006) and may help to identify specific experiences and outcomes that are salient within various developmental trajectories and sport contexts. Lastly, as coaching behaviors are a key factor to providing enduring interactions within a sport environment (García Bengoechea & Johnson, 2001), Study 3 was acutely beneficial to establishing the presence of these processes within elite youth sport programs.

### *Personal Development*

Findings from the qualitative study (Study 3) also stressed the ability of elite youth sport programs to create opportunities for personal and social development. Results highlighted the development of positive peer-peer interactions, positive social norms, support of efficacy and mattering, and the growth of personal and social skills such as responsibility and teamwork within elite youth sport. Personal development was also shown in this dissertation through the possession of developmental assets. Study 2 found that the growth of developmental assets among the “samplers” and “specializers” did not differ; it appeared that the two groups were developing assets regardless of the trajectory followed in sport. The specific personal assets of positive identity and social competencies, found to be linked to sport contexts (Study 1), may assist with not only personal developmental characteristics but may also help decrease burnout symptoms and increase enjoyment.

The developmental assets framework has been suggested as an indicator of positive growth for youth (Benson, 1997) and may be appropriate to use within youth sport settings (Côté, Strachan, & Fraser-Thomas, 2007; Petitpas, Cornelius, Van Raalte,

& Jones, 2005). Petipas and colleagues (2005) have also suggested that development of the internal assets in youth sport is important in developing personal identity leading to an increased sense of hope and optimism. The present research extends these findings by reiterating the role of sport in promoting the internal assets as well as the additional roles that may be possible in reducing negative sport outcomes and enhancing positive outcomes. Sport participation also has the potential to augment personal and social skills (Study 3). The development of these important life skills will not only help youth within a sport setting but may also transfer to other domains in their lives (Danish, Forneris, Hodge, & Heke, 2004). By using and developing life skills in a sport setting, young people may have more confidence to use these skills outside of a sport setting and this transferability will allow them to be successful people in their homes and communities (Petitpas et al., 2005).

### *Contextual Factors*

As an ecological approach would dictate, personal development must occur within the proper context. Study 1 highlighted two contextual assets that are important within a sport context. Support was linked closely to the development of burnout symptoms while empowerment was associated with enjoyment. Results suggested that these assets can contribute to persistence in sport and enable the development of a supportive environment. The occurrence of a supportive environment is also demonstrated by results from Study 3. The setting features outlined by the NRCIM (2002) provide a framework for understanding the delivery of positive elite sport programs. Following the analysis of interviews and observations, four main characteristics were suggested in order to promote positive youth development within elite youth sport programs. These characteristics include: 1) an appropriate training environment, 2) opportunities for personal and social

development, 3) opportunities for physical and motor skill development, and 4) the presence of supportive interactions. Due to the interactive nature of these characteristics, each one would need to be present within the setting for positive development to occur.

The influence of context is apparent not only in the actual physical environment but also in the bonds the developing person forms with others (Bronfenbrenner, 1999). The physical environment and structure of a youth program are critical to the facilitation of positive development and learning (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2002). Study 3 expands upon this idea in an elite sport context; the provision of an appropriate training environment aids in the acquisition of physical and motor skills and allows for positive interactions to occur. The other two characteristics, opportunities for personal and social development and the presence of supportive interactions, emphasize the important role adults play within elite sport contexts. Petitpas et al. (2005) suggest that in order for positive youth development to happen in sport, young people need the support of adults who are able to challenge them and who have high expectations of them. Further, non-familial adults play a key role in reducing risk behaviors and promoting thriving in youth through establishing supportive, empowering, and boundary-setting environments (Scales, Benson, & Mannes, 2006). Integrating families and communities in sport programs may help to reinforce correct behaviors ultimately leading to positive youth who feel supported and empowered.

### *Time*

In order to properly ascertain if these positive behaviors are occurring as youth develop, an element of time is important to consider. The trajectories of the DMSP provide a progression through time and participants in Study 2, whether they were “specializers” or “samplers”, had been invested in sport for a substantial period of time.

Also, in Study 3, the coaches of the “specializers” mentioned on several occasions that the young elite athletes spent a great deal of time participating in their respective sports and this fact was corroborated in the amount of time the “specializers” reported spending in practice (i.e., approximately 19 hours per week).

Human development can only be properly understood if it is studied over a period of time (García Bengoechea & Johnson, 2001). Côté, Strachan, and Fraser-Thomas (2007) also suggest that administrators, parents, and coaches need to focus on the long-term developmental outcomes of young athletes. The proposed elite sport program characteristics (Study 3) allow elite coaches and sport programmers to consider the development of their athletes, both physical and personal. Further longitudinal studies need to be conducted in order to properly address the element of time throughout development in sport. However, the characteristics outlined in Study 3 have the potential to form the content of an evaluation tool for sport programmers to use on a regular basis to assess their programs. Over time, it is hoped that sport program administrators and coaches will be cognizant of offering youth sport contexts suitable for positive development.

#### *Future Directions*

The studies in this dissertation provide a unique contribution to the literature regarding positive youth development in sport however further research is required to extend these findings. As the elite sport characteristics were compiled from information obtained by coaches, more qualitative research is needed to gain an understanding of the setting features that are important to elite youth sport participants. Their understanding has the potential to complete an ecological look at elite sport contexts. In addition, extending results from youth sport specialization contexts to non-sport specialization

settings (i.e., music) may help to provide more information about the specific contributions of sport to the development of positive youth. Also, examining younger athletes (i.e., ages 8-11) and their experiences in the sport process, regardless of the trajectory, may offer a developmental approach to examining experiences in youth sport. Finally, specific methodologies (i.e., hierarchical linear modeling) could be used to discuss the interactions between the individual and contextual factors present within youth sport.

### *Implications*

This dissertation highlights several theoretical implications for developmental research conducted within youth sport. Findings support the presence of developmental assets within youth sport settings and the possible emergence of particular assets specific to development in sport. The DAP may be a key measurement tool to employ in order to evaluate asset possession and its link to the sport context. Further, the Developmental Model of Sport Participation (DMSP) emerged as a critical model to follow to examine a child's progression through sport. However, more work needs to be conducted in order to examine the probable outcomes of the model. For example, the model currently denotes lower levels of enjoyment as one of the outcomes associated with participation through the third trajectory (i.e., early specialization). Research within this dissertation provides some evidence that this may not be the case as high investment in sport may be enjoyable for talented athletes. More research is needed using the DMSP as a framework to assess probable outcomes more fully. Finally, the eight setting features may have strong implications within youth sport contexts. These setting features display a great deal of potential in examining positive youth development in sport. Further research is needed to

closely examine these features and possibly develop a sport program evaluation tool to help youth sport programs deliver effective programs.

Findings from this dissertation also have clear implications for all youth sport settings but, in particular, for elite youth sport contexts. With Canada's increased focus on performance success at an international level (Own the Podium, 2006), elite sport programs are in the spotlight. If a high level of performance is going to be the focus, it is important to review elite sport programs, especially those delivered to youth, to ensure that all aspects of young people are being developed. The four characteristics for positive elite sport program delivery suggested in this dissertation are an important first step in examining these high-performance contexts and the potential these programs have regarding positive youth development.

As suggested by Petitpas and colleagues (2005), community interactions are important in extending development opportunities beyond the sport context. Regardless of the sport trajectory, the development of community relationships within sport programs can serve to reinforce behaviors learned in sport and also empower youth to use these learned skills and impart knowledge to other youth they encounter. The integration of the sport and school context is also important in encouraging young people to be consistent in terms of their development. The skills acquired in a sport setting should flourish in different settings and therefore, school settings are an ideal outlet for youth to realize the transferability of these skills (Danish et al., 2004).

This dissertation emphasizes the potential sport programs have in promoting positive youth development. Focusing on asset building within programs, in particular positive identity, will allow sport programs to market themselves as venues for not only physical, motor, and psychosocial development (Fraser-Thomas et al., 2005) but also for

positive personal development. As Canadian families believe that sport is the optimal vehicle to promote positive values for youth (Canadian Centre for Ethics in Sport, 2002), sport programs need to be more deliberate in their efforts to promote positive youth development. Coaches, parents, and volunteers within youth sport programs should be made aware of the importance of their roles and specific actions that should be promoted to produce positive results in young people. A deliberate delivery of youth sport programs focused on the development of positive youth will enhance the experiences of youth in sport and give them the skills necessary to become healthy and active citizens.

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## **Appendix A**

### **Letter of Information – “Samplers”**



**Research Study**  
**Positive Youth Development Through Sport**  
**Letter of Information for Parents and Athletes**

A study examining the development of positive youth through sport is being conducted at Queen's University. The principal researchers are Leisha Strachan, Jean Côté and Janice Deakin from the School of Kinesiology and Health Studies at Queen's University. The purpose of the research project is to measure the positive and negative effects of sport participation in children and youth and to evaluate the positive qualities that a child may possess through either participating in a variety of sports or specializing in one sport or activity.

*Requirements of the Participant*

**Participants need to be between the ages of 12 to 16 years and involved in at least 3 different sports throughout the year.** The participant will be requested to complete 4 questionnaires – the Developmental Assets Profile, the Athlete Burnout Questionnaire, the Sources of Enjoyment in Youth Sport Questionnaire, and the Youth Experiences Survey. The four questionnaires should take approximately 30-40 minutes to complete.

*Risks*

There are no known physical, psychological, economic, or social risks associated with participation in this study. Participants may withdraw from the study or refuse to answer any questions that they find objectionable. Refusal to participate or withdrawal from this study at any time will in no way affect participants' treatment on their team or within their sport organization.

*Confidentiality/Anonymity*

The data obtained will be stored in a secure location that will be accessible to only the principle researchers and their research assistants. The results of the study may be published in academic journals and presented at conferences in which case the identities of those who participated in the study will be protected.

*Remuneration*

All participants in this study will be provided with a summary of the study's results upon request.

Thank you for your time!

Sincerely,

Leisha Strachan  
Principal Researcher  
Doctoral Student, Queen's University

Dr. Jean Côté  
Principal Researcher  
Director, School of Kinesiology and  
Health Studies, Queen's University

## **Appendix B**

### **Letter of Information – “Specializers”**

## Letter of Information for Parents and Athletes



A study entitled “The development of positive youth within a specialization framework” is being conducted at Queen’s University. The principal researchers are Leisha Strachan, Jean Côté and Janice Deakin from the School of Kinesiology and Health Studies at Queen's University. The purpose of the research project is to measure the positive and negative effects of elite sport participation in children and to evaluate the positive qualities that a child may possess through specializing in a sport or activity.

### *Requirements of the Participant*

The participant will be requested to complete 3-4 questionnaires – the Developmental Assets Profile, the Athlete Burnout Questionnaire, the Sources of Enjoyment in Youth Sport Questionnaire, and the Youth Experiences Survey. The four questionnaires should take approximately 25-30 minutes to complete.

### *Risks*

There are no known physical, psychological, economic, or social risks associated with participation in this study. Participants may withdraw from the study or refuse to answer any questions that they find objectionable. Refusal to participate or withdrawal from this study at any time will in no way affect participants’ treatment on their team or within their sport organization.

### *Confidentiality/Anonymity*

The data obtained will be stored in a secure location that will be accessible to only the principle researchers and their research assistants. The results of the study may be published in academic journals and presented at conferences in which case the identities of those who participated in the study will be protected.

### *Remuneration*

All participants in this study will be provided with a summary of the study’s results upon request.

Thank you for your time!

Sincerely,

Leisha Strachan  
Principal Researcher  
Doctoral Student, Queen’s University

Dr. Jean Côté  
Principal Researcher  
Director, School of Kinesiology and  
Health Studies, Queen’s University

## **Appendix C**

### **Consent Form – Parents and Athletes**

## INFORMED CONSENT

### Positive Youth Development Through Sport

I, \_\_\_\_\_, have read the accompanying letter of information and understand the proposed study.

I understand the procedures and expectations of the study and my questions have been answered to my satisfaction. I am aware that my participation in this project is to gain insight into my involvement in elite sport and its relationship to positive development. I am aware that I may contact the researchers (Leisha Strachan, Dr. Jean Côté, or Dr. Janice Deakin) or the General Research Ethics Board of Queen's University if I have questions, concerns or complaints. I reserve the right to not answer any questions that I do not feel comfortable with or withdraw from the study entirely at any time. I understand that my participation in this study is completely voluntary. Also, I am aware that any information that I provide in this study will be stored in a secure location and remain confidential. I am aware that any printed data will be coded for anonymity.

Participant's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Parent/Guardian Signature: \_\_\_\_\_

Date: \_\_\_\_\_

If you have any further questions, comments, or complaints regarding this study, please contact the researchers or the General Research Ethics Board at the address below.

Leisha Strachan,  
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Joan Stevenson,  
PhD - *Chair,*  
*General Ethics*  
*Research Board*  
Queen's  
University  
Kingston, ON  
Phone: (613)  
533-6288

## **Appendix D**

### **Demographic Information Form**

**Demographic Information**

Athlete's name: \_\_\_\_\_

Circle One: Male Female

Athlete's current age: \_\_\_\_\_



**Sport Information:**

- 1) At what age did your child begin participating in sport? \_\_\_\_\_
- 2) How many hours per week does your child currently invest in sport? \_\_\_\_\_
- 4) How many coaches/instructors does your child currently have in one year of sport participation? \_\_\_\_\_
- 5) Are coaches always present when your child is practicing? Yes\_\_\_\_ No\_\_\_\_  
If no, how much time does your child spend training without a coach present?  
\_\_\_\_\_ hours per week
- 6) How many other athletes does your child usually train with? \_\_\_\_\_
- 7) How many sports is your child involved with in 1 calendar year? \_\_\_\_\_  
Please list them:
  - Sport: \_\_\_\_\_  
Number of years involved: \_\_\_\_\_  
Age at which your child began the sport: \_\_\_\_\_
  - Sport: \_\_\_\_\_  
Number of years involved: \_\_\_\_\_  
Age at which your child began the sport: \_\_\_\_\_
  - Sport: \_\_\_\_\_  
Number of years involved: \_\_\_\_\_  
Age at which your child began the sport: \_\_\_\_\_
  - Sport: \_\_\_\_\_  
Number of years involved: \_\_\_\_\_  
Age at which your child began the sport: \_\_\_\_\_
  - Sport: \_\_\_\_\_  
Number of years involved: \_\_\_\_\_  
Age at which your child began the sport: \_\_\_\_\_

## **Appendix E**

### **Developmental Assets Profile (DAP)**

## Developmental Assets Profile

Directions: Below is a list of positive things that you might have in yourself, your family, friends, neighbourhood, school, and community. For each item that describes you **now or within the past 3 months**, check if the item is true:

*Not At All or Rarely    Somewhat or Sometimes    Very or Often    Extremely or Almost Always*

If you do not want to answer an item, leave it blank. But please try to answer all items as best you can.

<b>I...</b>	Not at All or Rarely	Somewhat or Sometimes	Very or Often	Extremely or Almost Always
1. Stand up for what I believe in.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Feel in control of my life and future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Feel good about myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Avoid things that are dangerous or unhealthy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Enjoy reading or being read to.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Build friendships with other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Care about school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Do my homework.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Stay away from tobacco, alcohol, and other drugs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Enjoy learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Express my feelings in proper ways.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Feel good about my future.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Seek advice from my parents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Deal with frustration in positive ways.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Overcome challenges in positive ways.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Think it is important to help other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Feel safe and secure at home.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Plan ahead and make good choices.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Resist bad influences.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Resolve conflicts without anyone getting hurt.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Feel valued and appreciated by others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Take responsibility for what I do.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Tell the truth even when it is not easy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Accept people who are different from me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Feel safe at school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>I AM...</b>	Not at All or Rarely	Somewhat or Sometimes	Very or Often	Extremely or Almost Always
26. Actively engaged in learning new things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Developing a sense of purpose in my life.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Encouraged to try things that might be good for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Included in family tasks and decisions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Helping to make my community a better place.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Involved in a religious group or activity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. Developing good health habits.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<b>I AM...</b>	Not at All or Rarely	Somewhat or Sometimes	Very or Often	Extremely or Almost Always
33. Encouraged to help others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. Involved in a sport, club, or other group.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. Trying to help solve social problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. Given useful roles and responsibilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. Developing respect for other people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. Eager to do well in school and other activities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. Sensitive to the needs and feelings of others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. Involved in creative things such as music, theatre, or art.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. Serving others in my community.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. Spending quality time at home with my parent(s).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>I HAVE...</b>	Not at All or Rarely	Somewhat or Sometimes	Very or Often	Extremely or Almost Always
43. Friends who set good examples for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. A school that gives students clear rules.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. Adults who are good role models for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. A safe neighbourhood.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. Parent(s) who try to help me succeed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. Good neighbours who care about me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. A school that cares about kids and encourages them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. Teachers who urge me to develop and achieve.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
51. Support from adults other than my parents.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. A family that provides me with clear rules.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
53. Parent(s) who urge me to do well in school.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
54. A family that gives me love and support.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
55. Neighbours who help watch out for me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
56. Parent(s) who are good at talking to me about things.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57. A school that enforces rules fairly.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58. A family that knows where I am and what I am doing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Thank you for completing this form!**

## **Appendix F**

### **Athlete Burnout Questionnaire (ABQ)**

**Athlete Burnout Questionnaire  
(Raedeke & Smith, 2001)**

Directions: Burnout is defined as a psychological syndrome of emotional/physical exhaustion, reduced sense of accomplishment, and sport devaluation. Please answer the following 15 questions based on your feelings as an athlete. Please try to answer all questions. There are no right or wrong answers, so please respond honestly.

Please indicate your answer to the bolded statement by circling the number that follows each item (1= almost never; 2= rarely; 3= sometimes; 4= frequently; 5= almost always).

	Almost Never	Rarely	Sometimes	Frequently	Almost Always
1. I'm accomplishing many worthwhile things in sport.	1	2	3	4	5
2. I feel so tired from my sport training that I have trouble finding energy to do other things.	1	2	3	4	5
3. The effort I spend in sport would be better spent doing other things.	1	2	3	4	5
4. I feel overly tired from my sport participation.	1	2	3	4	5
5. I am not achieving much in sport.	1	2	3	4	5
6. I don't care as much about my sport performance as I used to.	1	2	3	4	5
7. I am not performing up to my ability in sport.	1	2	3	4	5
8. I feel "wiped out" from sport participation.	1	2	3	4	5
9. I'm not into sport like I used to be.	1	2	3	4	5
10. I feel physically worn out from sport.	1	2	3	4	5
11. I feel less concerned about being successful in sport than I used to.	1	2	3	4	5
12. I am exhausted by the mental and physical demands of sport.	1	2	3	4	5
13. It seems that no matter what I do, I don't perform as well as I should.	1	2	3	4	5
14. I feel successful at sport.	1	2	3	4	5
15. I have negative feelings towards sport.	1	2	3	4	5

## **Appendix G**

### **Sources of Enjoyment in Youth Sport Questionnaire (SEYSQ)**

**Sources of Enjoyment in Youth Sport Questionnaire  
(SEYSQ; Wiersma, 2001)**

Directions: An athlete may enjoy several things about sports. Enjoyment can be thought of as experiences or events that lead to positive feelings of pleasure, liking, and fun. Please think about your entire experience in sport: the competitions, practices, times away from your sport environment, and your experiences with other people involved in your sport participation. Think about not only your present experience, but your experience in sports overall, then answer the following questions. There are no right or wrong answers, so please respond honestly. Please indicate your answer to the statement by circling the number that follows each item (1= not at all; 2= a little; 3= not sure; 4= yes; 5= very much).

*During the times when I most enjoy sport, I usually experience that enjoyment from...*

	Not at all	A little	Not sure	Yes	Very Much
1. Playing up to my potential.	1	2	3	4	5
2. Working hard in practice.	1	2	3	4	5
3. Improvement of my performance based on my ability to outperform others.	1	2	3	4	5
4. Being with the friends on my team.	1	2	3	4	5
5. Doing skills other kids my age cannot do.	1	2	3	4	5
6. The feeling of team spirit and togetherness I feel from being on a team.	1	2	3	4	5
7. Getting support and encouragement from my teammates.	1	2	3	4	5
8. Participating in a close game, meet, or competition.	1	2	3	4	5
9. Participating in and finishing a difficult practice.	1	2	3	4	5
10. Making new friends in my sport.	1	2	3	4	5
11. Doing things with my teammates away from practice or competition.	1	2	3	4	5
12. Being known by others for being an athlete.	1	2	3	4	5
13. Playing hard during competition.	1	2	3	4	5
14. Improvement of performance based on how I've done in the past.	1	2	3	4	5
15. Hearing the crowd cheer during a close game, match, race, or competition.	1	2	3	4	5
16. Showing that I am better than others who play my sport.	1	2	3	4	5
17. Getting encouragement from my parent(s).	1	2	3	4	5
18. Being better in my sport than other athletes my age or in my league.	1	2	3	4	5
19. Being recognized by others because I participate in sport.	1	2	3	4	5
20. Feeling exhausted after a practice or competition.	1	2	3	4	5
21. Playing well compared to how I've played in the past.	1	2	3	4	5
22. The thrill of competition.	1	2	3	4	5
23. Getting support from my parents for playing my sport.	1	2	3	4	5
24. The excitement of competition.	1	2	3	4	5
25. Having my parent(s) watch me compete.	1	2	3	4	5
26. Giving a lot of effort in practice or competition.	1	2	3	4	5
27. Achieving personal goals I set for myself based on my own performances.	1	2	3	4	5
28. Having my parents pleased with my performance no matter what.	1	2	3	4	5

## **Appendix H**

### **Youth Experiences Survey (YES) 2.0**

## The Youth Experiences Survey (YES) 2.0

**Instructions:** Based on your current or recent involvement, please rate whether or not you have had the following experiences in the activity.

Your Experiences In.....			
Sport Activity:			
Yes, Definitely	Quite a Bit	A Little	Not At All

### IDENTITY EXPERIENCES

<b>Identity Exploration</b>					
1. Tried doing new things	1	2	3	4	
2. Tried a new way of acting around people	1	2	3	4	
3. I do things here I don't get to do anywhere else	1	2	3	4	

<b>Identity Reflection</b>					
4. Started thinking more about my future because of this activity	1	2	3	4	
5. This activity got me thinking about who I am	1	2	3	4	
6. This activity has been a positive turning point in my life	1	2	3	4	

### INITIATIVE EXPERIENCES

<b>Goal Setting</b>					
7. I set goals for myself in this activity	1	2	3	4	
8. Learned to find ways to achieve my goals	1	2	3	4	
9. Learned to consider possible obstacles when making plans	1	2	3	4	

<b>Effort</b>					
10. I put all my energy into this activity	1	2	3	4	
11. Learned to push myself	1	2	3	4	
12. Learned to focus my attention	1	2	3	4	

<b>Problem Solving</b>					
13. Observed how others solved problems and learned from them	1	2	3	4	
14. Learned about developing plans for solving a problem	1	2	3	4	
15. Used my imagination to solve a problem	1	2	3	4	

<b>Time Management</b>					
16. Learned about organizing time and not procrastinating (not putting things off)	1	2	3	4	
17. Learned about setting priorities	1	2	3	4	
18. Practiced self discipline	1	2	3	4	

<b>BASIC SKILL</b>	Yes, Definitely	Quite a Bit	A Little	Not At All
<b>Emotional Regulation</b>				
19. Learned about controlling my temper	1	2	3	4
20. Became better at dealing with fear and anxiety	1	2	3	4
21. Became better at handling stress	1	2	3	4
22. Learned that my emotions affect how I perform	1	2	3	4
<i>COGNITIVE SKILLS</i>				
<b>In this activity I have improved:</b>				
23. Academic skills (reading, writing, math, etc.)	1	2	3	4
24. Skills for finding information	1	2	3	4
25. Computer/internet skills	1	2	3	4
26. Artistic/creative skills	1	2	3	4
27. Communication skills	1	2	3	4
<b>Physical Skills</b>				
28. Athletic or physical skills	1	2	3	4
<b>INTERPERSONAL RELATIONSHIPS</b>				
<b>Diverse Peer Relationships</b>				
29. Made friends with someone of the opposite gender	1	2	3	4
30. Learned I had a lot in common with people from different backgrounds	1	2	3	4
31. Got to know someone from a different ethnic group	1	2	3	4
32. Made friends with someone from a different social class (someone richer or poorer)	1	2	3	4
<b>Prosocial Norms</b>				
33. Learned about helping others	1	2	3	4
34. I was able to change my school or community for the better	1	2	3	4
35. Learned to stand up for something I believed was morally right	1	2	3	4
36. We discussed morals and values	1	2	3	4
<b>TEAM WORK AND SOCIAL SKILLS</b>				
<b>Group Process Skills</b>				
37. Learned that working together requires some compromising	1	2	3	4
38. Became better at sharing responsibility	1	2	3	4
39. Learned to be patient with other group members	1	2	3	4
40. Learned how my emotions and attitude affect others in the group	1	2	3	4
41. Learned that it is not necessary to like people in order to work with them	1	2	3	4
<b>Feedback</b>				
42. I became better at giving feedback	1	2	3	4
43. I became better at taking feedback	1	2	3	4
<b>Leadership and Responsibility</b>				
44. Learned about the challenges of being a leader	1	2	3	4
45. Others in this activity counted on me	1	2	3	4
46. Had an opportunity to be in charge of a group of peers	1	2	3	4

<b>ADULT NETWORKS AND SOCIAL CAPITAL</b>		Yes, Definitely	Quite a Bit	A Little	Not At All
<b>Integration with Family</b>					
47. This activity improved my relationship with my parents/guardians		1	2	3	4
48. I had good conversations with my parents/guardians because of this activity		1	2	3	4
<b>Linkages to Community</b>					
49. Got to know people in the community		1	2	3	4
50. Came to feel more supported by the community		1	2	3	4
<b>Linkages to Work and College</b>					
51. This activity opened up job or career opportunities for me		1	2	3	4
52. This activity helped prepare me for college		1	2	3	4
53. This activity increased my desire to stay in school		1	2	3	4
<b>NEGATIVE EXPERIENCES</b>					
<b>Stress</b>					
54. Demands were so great that I didn't get homework done (skip this item if your Target Activity is a class)		1	2	3	4
55. This activity interfered with doing things with family		1	2	3	4
56. This activity has stressed me out		1	2	3	4
<b>Negative Peer Influences</b>					
57. Felt pressured by peers to do something I didn't want to do		1	2	3	4
58. I did something in this activity that was morally wrong		1	2	3	4
59. I was ridiculed by peers for something I did in this activity		1	2	3	4
60. Youth in this activity got me into drinking alcohol or using drugs		1	2	3	4
<b>Social Exclusion</b>					
61. Felt like I didn't belong in this activity		1	2	3	4
62. I felt left out		1	2	3	4
63. There were cliques in this activity		1	2	3	4
<b>Negative Group Dynamics</b>					
64. I get stuck doing more than my fair share		1	2	3	4
65. Other youth in this activity made inappropriate sexual comments, jokes, or gestures		1	2	3	4
66. Was discriminated against because of my gender, race, ethnicity, disability, or sexual orientation		1	2	3	4
<i>Note: The following set of items (67-70) will not be asked if there is no adult or young adult, coach, director, teacher, or leader.</i>					
<b>Inappropriate Adult Behavior</b>					
67. Adult leaders in this activity are controlling and manipulative		1	2	3	4
68. Adult leaders intimidate me		1	2	3	4
69. Adult leaders make personal comments that I find upsetting		1	2	3	4
70. Adult leaders encouraged me to do something I believed morally wrong		1	2	3	4

**Appendix I**  
**Qualitative Interview Guide**

### Study #3

Interview Guide – Coach

Based on NRCIM Setting Features (setting features are in bold)

#### Background Information

1. What is your background in regards to coaching?
  - Number of years coaching current sport
  - Number of years coaching at an elite level
  - Other sport coaching experience (sport, number of years)
  - Demographic of athletes currently coaching (number, age, gender, etc.)
2. Can you describe the physical environment in which you conduct practices and the safety considerations you need to take into account in that environment? (**Physical Safety**)
3. Describe your role in a typical practice with your athletes. (what does it look like?) (**Appropriate Structure**)
4. What roles do athletes have in a training session? (**Support for Efficacy and Mattering**)
5. What do you do during practice to encourage participation for all athletes? (**Opportunities to Belong**)
6. What kind of relationship do you have with your athletes during training sessions? Provide some examples. (**Supportive Relationships**)
7. Please describe the types of skills that you feel are developed in your athletes. How do you explicitly plan for the development of these skills? How do you measure if in fact these skills are developed? (**Opportunities for Skill Building**)
8. What personal and social qualities do you feel are developed through your program? What specific behaviours would lead you to your assessment? (**Positive Social Norms**)
9. Can you describe the interactions that take place between your athletes? (positive and/or negative examples). Are there reprimands for those who do not behave properly? (**Psychological Safety**)
10. Describe the role of parents in your program. (**Integration of Family**)
11. How is school involvement integrated in the training of your athletes? (any established protocols related to communication with the school and teachers; rules regarding athletes missing school and homework; grades) (**Integration of School**)
12. Does the program encourage your athletes to be part of the community-at-large? If so, how? (intentional activities) (**Integration of Community**)

#### General Comments

That covers about everything I wanted to ask. Do you have anything that you would like to add?