

PROCESSES CONTRIBUTING TO OPTIMAL PREPARATION AND  
PERFORMANCE OF WINTER OLYMPIC ATHLETES: THE ATHLETES' STORY

by

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## ABSTRACT

The purpose of this investigation was to explore the processes that contribute to optimal preparation and optimal performance of an athlete competing at the Winter Olympic Games. Using narrative methodology, 4 individual sport athletes (2 male, 2 female) who competed at the 2006 Winter Olympic Games in the sports of skeleton, snowboarding, and long track speed skating (one on the all-round team and another on the sprint team) were interviewed using an in-depth, open-ended, semi-structured approach (Rubin & Rubin, 1995). The semi-structured research interview lasted approximately 2-2.5 hours in length, and participants were contacted a second time via email once the data had been analyzed to verify accurate representation of their experience. The qualitative data was analyzed using Lieblich, Tuval-Maschiach, and Zilber (1998) categorical-content narrative analysis approach, which is similar to what is commonly known as content analysis. Narrative accounts, or the athletes' Olympic stories, were also developed through this process. From the narrative analysis, seven themes emerged concerning processes contributing to optimal preparation, and six themes emerged regarding processes contributing to optimal performance. The findings reveal that for optimal preparation of an Olympian, there needs to be development and implementation of a strategic, holistic plan that incorporates processes for balance and recovery, support and mentoring, automating skill and establishing familiarity, and for reflection and monitoring to ensure training potentials are being maximized and that valuable lessons are being extracted. Furthermore, processes contributing to optimal performance at the Olympics require highly functioning self-regulation practices; a level of self-knowledge and self-acceptance that allows detachment from the outcome and freedom to perform authentically; confidence and belief in ability to achieve excellence; perspective, and acceptance and adaptation to current experiences and conditions; focus and engagement in the present moment; and the execution of performance strategies that lead to a high level of

performance excellence. Implications for athletes, coaches, and practitioners are discussed, and suggestions for future research are provided.

## TABLE OF CONTENTS

ABSTRACT .....	ii
TABLE OF CONTENTS.....	iv
LIST OF TABLES .....	vii
ACKNOWLEDGEMENTS.....	viii
CHAPTER I.....	1
Introduction.....	1
Purpose of Study .....	6
CHAPTER II	
Literature Review.....	7
Overview.....	7
Positive Psychology .....	7
Resilience and Thriving .....	8
Engagement, Flow, and Resonance.....	11
Optimism and Hope.....	13
Creativity.....	15
Wellness, Balance, and Elite Performers.....	16
Performance Psychology .....	18
Olympic Games.....	21
History of the Olympic Games.....	22
The Modern Olympic Games.....	24
Elite Athletic Performance .....	28
High-Performance Athletes.....	29
Talent Development .....	31
Preparation .....	38
Characteristics of Elite Sport Performers .....	40
Identity Development and Elite Performers .....	45
The Current Study .....	47
CHAPTER III	
Methodology.....	50
Theoretical Assumptions .....	51
The Epistemological and Ontological Bases of Narrative Inquiry.....	51
The Role of Language in Narrative Inquiry.....	54
The Constitution of Self in Narrative Inquiry .....	55
Rationale .....	56
Participants.....	58
Data Collection .....	60
Role of Researcher .....	61
Research Subjectivity .....	61
Karen's Story .....	62



Developing the Dream.....	62
Becoming an Olympian .....	63
Being an Olympian.....	66
Managing Researcher Bias .....	67
Narrative Analysis.....	68
Holistic Content .....	69
Categorical Content Analysis .....	69
Legitimation.....	70
Reflexivity.....	71
Visibility of Work.....	72
Member Checks and Peer Review.....	73
Results of Legitimation Process.....	74

#### CHAPTER IV

Results .....	77
Narrative Accounts.....	77
Kate.....	77
Developing the Dream .....	78
Becoming an Olympian .....	79
Being an Olympian .....	83
Meaning of the Olympics.....	87
Ben.....	87
Developing the Dream .....	87
Becoming an Olympian .....	88
Being an Olympian .....	93
Meaning of the Olympics.....	95
Zack .....	95
Developing the Dream .....	96
Becoming an Olympian .....	96
Being an Olympian .....	103
Meaning of the Olympic Games.....	106
Zoe.....	106
Developing the Dream .....	107
Becoming an Olympian .....	108
Being an Olympian .....	113
Meaning of the Olympics.....	116
Content Analysis .....	116
Becoming an Olympian .....	116
Olympic Preparation.....	117
Individual Process.....	117
Strategic, Holistic Planning, and Implementation .....	119
Balance, Recovery, and Energy Management.....	121
Support and Mentoring .....	122
Reflection, Monitoring, and Adaptation .....	124
Distraction Plans and Perspective.....	126
Developing Feel, Automating Skill, and Establishing Familiarity.....	127
Olympic Performance .....	129
Self-Regulation.....	129

Identity, Self-Acceptance, and Authenticity .....	131
Confidence and Belief.....	132
Perspective, Acceptance, and Adaptation .....	134
Focus, Engagement, and Instinctual Feel.....	135
Performance Planning.....	137
Meaning of the Olympics.....	138
 CHAPTER V	
Discussion.....	139
Comparison of Findings for Optimal Preparation to Relevant Literature.....	139
Talent Development and Preparation Models.....	140
Preparation Factors.....	150
Comparison of Findings for Optimal Performance to Relevant Literature.....	153
Self-Regulation.....	154
Identity, Self-Acceptance, and Authenticity .....	156
Confidence and Belief .....	159
Perspective, Acceptance, and Adaptation.....	160
Focus, Engagement, and Instinctual Feel .....	162
Performance Planning and Execution.....	163
Summary of Key Findings.....	165
Strengths and Limitations .....	170
Sampling .....	171
Data Collection and Researcher Bias .....	172
Implications for Theory and Future Research .....	173
Implication for Practice .....	176
Concluding Remarks .....	182
 BIBLIOGRAPHY .....	 184
 APPENDIX A: Letter of Invitation to Participation—Athletes .....	 192
APPENDIX B: Research Poster .....	193
APPENDIX C: Consent Form—Athlete.....	194
APPENDIX D: Questions and Probes Used for Interviews .....	197
APPENDIX E: Ethics Approval Form.....	1979

## LIST OF TABLES

Table 1. Demographic Information for Participants .....	59
Table 2. Themes that Emerged for Processes Contributing to Optimal Preparation .....	118
Table 3. Themes that Emerged for Processes Contributing to Optimal Performance .....	130

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## CHAPTER I

### Introduction

A common dream for many young Canadian athletes is to one day represent his or her country at the Olympic Games. When I was a child, I had the aspiration of becoming an Olympian. This dream goal was the fuel that initiated my long journey towards attempting to participate in the Olympic Games. With my youthful innocence, I was very naive to the magnitude of this event, in addition to the factors and steps required to qualify for the Olympics. Reflecting back, I now realize that there are many essential components that need to be incorporated into this journey in order for an athlete to realize his or her goal. It is not an easy road. There are numerous positives, but there are equal amounts of disappointments and sacrifices that also need to be made. I put many years of hard work, dedication, and commitment into reaching my dream goal, yet failed to ever qualify for the Olympic Games. That unattained goal still creates an empty space in my being. Why does an Olympic berth mean so much? What is the meaning of the Olympics to an athlete? What is needed to optimally prepare and perform at the Olympics? It is not a cure for cancer or an answer to world hunger, yet the Olympics hold a great deal of importance to many people in the world. Perhaps this is the reason that the end result is given so much value. However, it is important to remember that the journey towards the Olympics contains just as many riches as the Gold Medal itself. Much can be learned from reflecting on the journey. Lessons drawn from this experience can provide valuable insights to those engaged in this process (i.e., athletes, coaches, and support staff). These lessons can also be transferred to the general population as the Olympics serves as the ultimate metaphor of achievement. Any human process where one requires dedication, commitment, and sacrifice while facing a multitude of challenges can borrow strategies, hope and inspiration from the

Olympians. The narrative approach used in the current investigation will help draw out some of these lessons and illuminate the processes that contribute to optimal preparation and performance from the Olympians themselves.

As the most universal expression of sport, the Olympic Games are the largest, regularly scheduled, international sport event in the world (Miller, 1992; Senn, 1999). Many athletes strive to be granted the rare opportunity to represent their country at this prestigious event. As the Olympics have grown in size and prestige, so have they become a venue to exercise power, politics, and social order. Common concerns for the present-day Olympics are centred on issues such as media rights, sponsorship, capital gain, hosting privileges, and organizational challenges (i.e., security, venue construction, etc.). With such a mix of politics and scandal, I question where this leaves the athlete. Getting lost in the chronicle of Olympic milestones and mishaps is the narrative of the Olympic experience from the athlete's perspective. Limited studies investigating the Olympic phenomenon give voice to the athlete. Since athletes are supposed to represent the pillar upon which these Games rest, it is important to understand what meaning the Olympic Games have to an athlete. Using narrative forms of inquiry will allow the story of the athlete to be told.

The aim of positive psychology is to encourage the field of psychology to acknowledge that focusing on the positive qualities in people is just as important as resolving negative personality problems. Seligman and Csikszentmihalyi (2000) suggested that psychologists have come to understand how people survive and endure under conditions of adversity, yet very little is known about how normal people flourish under more benign conditions. Faller and College (2001) suggested that psychology needs to take building the best things in life as seriously as it has taken healing the worst, thus they believed it is imperative to understand the positive aspects



of life. Studying the population of elite performers can assist in this aim. There are many parallels between the field of sport psychology and positive psychology, and both domains would benefit from collaboration. The theories and processes that enhance athletic performance and help athletes overcome adversity can also provide insight to the field of counselling psychology. The Olympics can provide a model and solutions for how to achieve excellence in less than optimal conditions.

The push for positive psychology started when Martin Seligman was president of the APA in 1998 (Seligman, & Csikszentmihalyi, 2000); hence it is still a relatively new domain. In October 2003, Seligman gave the keynote address at a world renowned sport psychology conference sponsored by the Association for Advancement of Sport Psychology, which I attended. The response from my colleagues was that focusing on strengths was not really a new concept, and that the philosophy associated with positive psychology has been pervasive within the field of sport psychology since its inception. However, positive psychology has had an impact on the performance enhancement field through its promotion of constructs, such as hope (Snyder, Rand, & Sigmon, 2002), optimism (Carver & Scheier, 2002), and creativity (Simonton, 2002). Gould (2002) maintained that, although considerable research has been conducted in sport psychology, knowledge is not complete as a number of concepts found in general psychology have not been examined. Based on this contention, Gould and his colleagues examined several previously unexplored variables that may be related to athletic success, such as hope and optimism. The results revealed that Olympic champions were optimistic in their orientation and characterized by high levels of dispositional hope (Gould, Dieffenback, & Moffet, 2002). Durand-Bush and Salmela (2002) also discovered that creativity was associated with superior athletic performance, which is another construct that has yet to be investigated in the field of

sport psychology. Both of these groups of researchers advocated for further exploration into the impact that these constructs have upon elite performance.

The conceptualization of talent development has also evolved over the years. In a previous era, more attention was given to the *talent account* which refers to “the view that exceptional accomplishments depend on a special biological potential that can be identified in some young children, but not others” (Howe, Davidson, & Sloboda, 1998, p. 399). However, researchers now argue that exceptional performance extends more from a combination of factors, such as high-quality practice, environmental conditions, and innate talents (Durand-Bush & Salmela, 2001; Singer & Janelle, 1999). The development of expertise is a function of both innate abilities and environmental conditions. The degree to which each of these factors contributes to talent development should not be the main issue, but more importantly the focus should be placed on how these two factors interact. In exploring the processes contributing to optimal preparation and performance of Olympic athletes, some insights can be gained on how the process aligns with current talent development models and the interaction of these two factors.

At the level of elite sport, the margin separating top performers from bottom performers is very small. The majority of athletes and coaches acknowledge that 40% to 90% of success in sport is due to mental factors, with more importance being placed on this factor the higher the skill level gets (Williams & Krane, 2001). Although many factors contribute to the success of a high-performance athlete, the general profile of an elite performer is associated with the following psychological characteristic: high self-confidence, commitment and determination, self-regulation of arousal, quality training and daily goal setting, high focus and concentration, ability to cope effectively with distractions and control anxiety, and resiliency (Gould et al.,

2002; Williams & Krane). A battery of assessments have been administered to elite athletes in an attempt to identify the psychological characteristics or attributes of an expert performer, yet as Gould et al. stated,

It is unlikely that instruments are available to measure all the attributes of champions, so interviewing champions, as well as significant others and coaches who know them very well, will allow us to identify potentially new variables of importance to their psychological make-up. (p. 175)

Williams and Krane have also identified the subjective experience of an athlete as a source that can be used to explore characteristics associated with superior athletic performance. Thus, it is of value to interview athletes regarding their experience in high-performance sport in order to further our knowledge of processes that contribute to elite performance.

In reviewing the literature pertaining to the processes of preparing for and performing at the Olympics a few gaps have emerged. For one, the field of sport psychology needs to broaden its focus to include constructs from other psychological disciplines that may contribute to superior performance. Second, more emphasis needs to be placed on understanding how to balance performance excellence and personal excellence. Third, limited research has scrutinized the process of preparation in sport. Fourth, the culture of sport's emphasis on winning and outcome has led to the pursuit of capturing the essence of superior athletic performance by extracting essential qualities, factors, and characteristics from the athlete as if they were machines. This same emphasis has led to struggles of power and corruption related to the Olympic Games. The identity of the athlete is being lost in all of this, thus voice needs to be given back to these elite performers. Lastly, there is much known about the world of elite performance, but more can be learned by exploring the subjective experience of the athletes in relation to their journey to the Olympic Games.

### **Purpose of Study**

The purpose of this study is to explore processes contributing to optimal preparation and performance of Olympic athletes. More specifically, the research question that was used to guide this study was: What processes contribute to optimal preparation and optimal performance of an athlete competing at the Winter Olympic Games? To explore this question, narrative inquiry was used. Narratives of Olympic athletes who competed at the 2006 Olympic Winter Games have been gathered to illuminate the processes that contribute to optimal preparation and performance at the Olympic Games. Their stories reveal the personal and socio-cultural tales that underpin this journey.

## **CHAPTER II**

### **Literature Review**

#### **Overview**

The purpose of this chapter is to review the current theory and research relevant to this study. First, pertinent literature from the field of positive psychology is reviewed to provide a theoretical basis of constructs associated with individuals who thrive and flourish in life, such as a high-performance athlete. Second, a summary of the history of the Olympic Games will be provided. Third, theory and key characteristics associated with performance psychology and high performance athletes will be examined. Lastly, the rationale of the study and the research questions that guided this study will be presented

#### **Positive Psychology**

Seligman and Csikszentmihalyi (2000) stated, "A science of positive subjective experience, positive individual traits, and positive institutions promises to improve quality of life and prevent the pathologies that arise when life is barren and meaningless" (p. 5). These authors emphasized that social and behavioural sciences can play a large role in articulating a vision of the good life by investigating the actions that lead to well-being, to positive individuals, and to thriving communities. However, very few researchers and practitioners have directed their attention to this area, which leaves psychologists with little knowledge about the positive aspects of life. Seligman and Csikszentmihalyi suggested that psychologists have come to understand how people survive and endure under conditions of adversity, yet very little is known about how normal people flourish under more benign conditions. Faller and College (2001) suggested that psychology needs to take building the best things in life as seriously as it has taken healing the

worst; thus, they believed it is imperative to understand the positive aspects of life. These authors wanted to remind the field that psychology is not just the study of pathology, weakness, and damage; but rather, it is also the study of strength and virtue.

The field of positive psychology emphasizes valuing subjective experiences related to well-being, contentment, satisfaction (past), happiness and flow/engagement (present), and hope and optimism (future). Seligman and Csikszentmihalyi (2000) discussed the aim of positive psychology to be the catalyst for change in the focus of psychology, from a preoccupation with repairing the worst things in life to also building on the positive qualities. This research project is congruent with this aim, as I explored the experience of individuals who have been known to thrive in the sport domain with hopes of obtaining insights into factors associated with achieving a high level of performance excellence. Key constructs from the field of positive psychology relevant to the high-performance process are reviewed in the following section. In addition, principles from the new and burgeoning field of performance psychology (Hayes & Brown, 2004) are summarized to provide a further conceptual frame in which to view this research.

### **Resilience and Thriving**

Psychological resilience and thriving is believed to occur in response to an adverse event (Carver, 1998; Ickovics & Park, 1998). Carver outlined four potential consequences of individuals who have experienced a physical or psychological deterioration as a result of an adverse event. One possibility is that the individual will continue to deteriorate to a detrimental level and eventually succumb. A second possibility is that the individual survives, but will experience some impairment. The third possibility is that the individual returns to the pre-adverse level of functioning; while the fourth possibility is that the individual does not only

return to a normal level, but actually surpasses it. Carver conceptualized the third and fourth possibilities as resilience and thriving respectively.

Resilience is understood as the human capacity to overcome, persevere, adapt, and grow when faced with inevitable life adversities (Grotberg, 2003). Basically, it is a return to a normal stage of functioning after experiencing some form of crisis or challenge. According to Grotberg, everyone has the capacity to become resilient. In war-torn countries, in dysfunctional family units, in the workplace, and in the athletic domain among others, there is evidence of individuals showing great levels of resilience to extremely challenging events. There are also individuals in these same contexts who do not cope as well and, as a result, exhibit a lower level of functioning. This differentiated response to adverse events does not mean that there is a different resilience aptitude, but rather supports the notion that certain factors need to be in place to promote resilience. Grotberg summarized the many factors that promote resilience into the following three categories: (a) external supports that promote resilience (e.g., unconditional support from significant other, mentor); (b) inner strengths that develop and sustain those dealing with adversity (e.g., confidence, optimism, hope); and (c) interpersonal and problem solving skills that deal with the actual adversity (e.g., expression of thoughts and feelings, generation of new skills). These factors are developed along with the normal stages of development and may need to be further promoted if normal stages of growth and development are delayed due to extenuating circumstances.

Thriving has been defined as:

The effective mobilization of individuals and social resources in response to risk or threat, leading to positive mental or physical outcomes and/or positive social outcomes. We suggest that thriving represents something more than a return to equilibrium (i.e. homeostasis) following a challenge. (Ickovics & Park, 1998, p. 237)

Thriving is generally understood as going beyond the status quo and developing enhanced capacity and resources beyond previously established levels following challenging and traumatic events (Carver, 1998; Inckovics & Park, 1998). Depending on the context of the adverse situation, the concept of thriving has taken on different labels, such as positive change following trauma and adversity, post-traumatic growth, stress-related growth, and positive adaptation (Joseph, Linley, & Harris, 2005). All of these terms are related to positive change as a result of a traumatic, life-altering event, such as death of a loved one, a personal threat to safety or near death experience, and witnessing or experiencing some form of violence. Can thriving only occur after a severely traumatic event? Blankenship (1998) challenged the notion that adversity is directly linked to a catastrophic event and indicated that "because individuals are differentially situated in the social hierarchy, they are likely to experience different kinds of challenges" (p. 398). Blankenship was suggesting that what might be catastrophic and life-altering in one context may not be as traumatic in another; thus, the definition of an adverse event needs to be contextually founded. For example, not qualifying for the Olympic Games may seem trivial to the lay-person, while it may be extremely devastating to the athlete who committed six years of his or her life to pursue the dream of becoming an Olympian.

In conducting a literature search in psychology and sport databases, using "thriving" and "sport" as keywords, 14 references were cited. In reviewing these abstracts, it became apparent that the term thriving was being used as an adjective to describe an athlete who was excelling beyond the norm. However, the literature outlining the process of thriving for the athletic population was not present. This could be due to the fact that thriving is understood in different terms. During the training process, athletes are exposed to challenging and physically taxing circumstances, so that new capacities develop that surpass the original level of functioning. This



is known as the principle of overload, which involves a systematic load progression intended to develop technical, physiological, and psychological capabilities (Bompa, 1999). The principle of overload is based on the notion that performance will increase if athletes work at their maximum capacities against workloads that are greater than normally encountered (Bompa). Athletes not only adapt to the strain of training, but also to the pressures, risks, and adversity that they face in the sporting world. These adverse events include overcoming injury, witnessing the death of a fellow competitor in higher-risk sports, failing to qualify for a team or the Olympic Games, not to mention the unfortunate events that occur in everyday life. Just as Carver's (1998) model suggested, some athletes are able to thrive in these circumstances, while other's performance deteriorates until they finally decide to exit sport. Resilience and thriving appear to be constructs related to the high-performance process in sport; yet, a gap in the literature exists, as there is a lack of research addressing these constructs within the athletic population.

### **Engagement, Flow, and Resonance**

Engagement is believed to occur when individuals express themselves authentically through their chosen activity (Csikszentmihalyi, 1997). It involves being completely immersed in what one is doing. Engagement has been found to lead to enhanced performance and to the creation of sustainable energy in the pursuit of goals (Csikszentmihalyi, 1990; Nakamura & Csikszentmihalyi, 2002; Newburg, Kimiecik, Durand-Bush, & Doell, 2002). In the performance literature, engagement is understood in relation to the concepts of flow and resonance.

Flow has been described as a state in which there is a loss of self-consciousness and feelings of control, a perceptual transformation of time, and total absorption in activity. Flow involves "a state in which people are so involved in an activity that nothing else seems to matter; the experience itself is so enjoyable that people will do it even at great cost, for the sheer sake of

doing it” (Csikszentmihalyi, 1990, p. 4). Flow research and theory was derived from the need to understand the phenomenon of intrinsically motivated, or autotelic activity, which is an activity that is rewarding in and of itself (Nakamura & Csikszentmihalyi, 2002).

During the 1980s and 1990s, the concept of flow was embraced by researchers studying optimal experiences—a time when a person felt in control of their actions and masters over their own fate, that is leisure, play, sport, art, intrinsic motivation (Csikszentmihalyi, 1990; Nakamura & Csikszentmihalyi, 2002). It was suggested that a flow experience occurred when there was an optimal balance between anxiety and boredom, which was achieved when skill met complexity. It involves situations in which attention can be freely invested to achieve a person’s goals, since there is no disorder to straighten out or threat to defend against. Flow has also been said to be a contributor to positive affect, and that the more often people are in flow the happier or more enjoyable their experience will be (Diener, Sandvik, & Pavot, 1990). When an athlete experiences peak performance, he or she appears to be in a flow state (Williams & Krane, 2001).

Resonance emerged from the work of Newburg (1993), who explored how people find meaning in their performances and lives and why they chose to take risks to perform at a high level. Newburg et al. (2002) posited expert performers seek resonance, which is defined as a “seamless fit between how they want to feel (internal) each day, and the environment (external) in which they live” (p. 252). In this sense of the word, resonance is about moving towards a harmonious experience between the feeling an individual wants to have and his or her environment. Newburg et al. developed the resonance performance model (RPM) to represent the cyclic process that guides the performance. He suggested that the process of becoming an expert performer includes: (a) a dream, which involves identifying how the individual wants to feel in their daily pursuits; (b) engaging in extensive preparation, which involves activities that

enable them to live their dream; (c) overcoming obstacles, which include external and internal distractions that disrupt the resonance experience; and (d) revisiting the dream, which involves a reflective period that occurs after an obstacle has occurred (Newburg et al., 2002).

Resonance and flow are parallel, in that they both are said to provide enjoyment and lead to positive effect in all types of domains. Yet, they differ in the fact that flow pertains to a positive subjective snapshot of experience, whereas resonance refers more to a broader, positive subjective experience. That is, flow appears to occur more sporadically or spontaneously, whereas resonance is a way of living on a daily basis (Newburg et al., 2002). Both flow and resonance have been identified as a factor contributing to excellence in sport (Jackson & Csikszentmihalyi, 1999; Newburg et al.), thus these constructs may be of interest in the results of this study.

### **Optimism and Hope**

According to Carver and Scheier (2002), optimism involves the expectation that something good is going to happen in the future. The emphasis on expectations links optimism to the expectancy-value model of motivation. Expectancy-value theory assumes that behaviour is organized around the pursuit of goals, which are states or actions that people view as desirable or undesirable (Carver & Scheier). The first conceptual piece of the model claims that individuals try to fit their behaviours within a frame of what would be desirable, and the more important the goal the greater its *value*, which is the first conceptual piece of the expectancy-value model. The second element, *expectancy*, is “a sense of confidence or doubt about the attainability of the goal value” (p. 231). Expectancies that are generalized and pertain mostly to a person’s entire life-space are what are meant by the terms optimism and pessimism. When optimists face a challenge, they are more likely to take a stance of confidence and persistence, even if progress is difficult or slow.

Hope, a closely related construct to optimism's theoretical family, "reflects the belief that one can find pathways to desired goals and become motivated to use those pathways (Snyder et al., 2002, p. 257). These authors also suggested that hope serves to drive the emotions and well-being of people. Hope theory, as outlined by Snyder et al., is comprised of three key aspects. The first assumption is that *goals* are the target of mental action sequences and provide the cognitive component that anchors the hope theory. The second aspect, *pathway thinking*, represents one's perceived capabilities at generating workable routes to desired goals. The third aspect, *agency thinking*, is the motivational component in the hope theory and reflects the perceived capacity to use one's pathway to reach a desired goal. Snyder et al. emphasized the hopeful thinking needs interaction of all three of these components.

A variety of investigators have examined psychological variables affecting performance of Olympic athletes (Gould, Eklund, & Jackson, 1992a; Greenleaf, Gould, & Dieffenback, 2001; Orlick & Partington, 1988; Williams & Krane, 2001). Considerable research has been conducted on psychological characteristics contributing to the success of elite athletes, yet Gould et al. (2002) suggested that a number of factors, such as hope and optimism, have not yet been examined. In an attempt to address this gap, Gould et al. administered a battery of psychological inventories to Olympic champions for the purpose of identifying their psychological characteristics. Among the 12 psychological characteristics revealed, the results indicated that optimism and hope were traits that characterized these athletes (p. 177). Thus, it is likely that remnants of optimism and hope will surface when an athlete is describing the processes contributing to optimal preparation and performance.

## Creativity

Creativity is an extremely valued human resource that is highly encouraged by most modern societies (Simonton, 2002). As with other constructs, the nature-nurture debate holds true for the origin of creativity. In general, it has been suggested that creativity stems from an intricate interaction of genetic and environmental factors (Ericsson, 1999; Eysenck, 1995; Simonton). There has been virtually universal agreement that the definition of creativity must satisfy the following two conditions: (a) creativity must be *original*. Creative ideas are novel, surprising, innovative, and unexpected; and (b) creativity must be *adaptive*. This means that the idea must be functional and useful. Putting lead in the running shoes of a sprinter is a novel idea, yet not very conducive to elite performance. Thus, the definition of creativity must include both components, that is “adaptive originality” (Simonton, p. 191). Csikszentmihalyi (1994) has added a contextual piece to the definition, as he viewed creativity as “an attribute of ideas or products that are original or statistically infrequent, and therefore unpredictable in a given culture” (p. 299). He further contended that creative ideas and products are held valuable and legitimated by the culture in which they are generated.

Although researchers have decided on a universal definition, there is a lack of consensus on how to assess individual differences on this trait (Simonton, 2002). This could be due to the fact that creativity can manifest itself in three distinct ways. As reviewed by Simonton, creativity may be viewed as a mental process that generates adaptive and original ideas; it can be seen as a type of person who portrays creativity; or it can be considered in terms of the concrete products produced by the person or the products. It seems apparent that these components would be inter-correlated. That is, creative products result from creative people who are engaged in a creative process. Ericsson (1999) commented that a community of researchers view creativity as an attribute of the finished public product. He further stated:

According to the dominant view, the final evaluation of a finished product's value is not made by the creator but by observers and distinguished members of the corresponding community and culture. This definition separates the creator's process of generation and development of the new products from the subsequent evaluation of the finished product and its creativity. (p. 330)

Thus, the magnitude of creativity can be understood in somewhat subjective terms.

Creativity has been found to play a role in the acquisition of expert performance.

Ericsson (1999) argued that regardless of the path to expert performance, once performers have mastered essential knowledge and skills required to excel in their domain; they "initiate the independent pursuit of original contribution to the domain.... the highest level of performance is virtually always associated with the creation of new methods and products" (p. 331). After interviewing 10 athletes who had each won two Olympic or World Champion gold medals, Durand-Bush and Salmela (2002) found similar results. Their findings revealed that creativity and innovation were perceived to be important to the development and maintenance of athletic performance, particularly at the elite level. Further, Durand-Bush and Salmela recommended that future research should be conducted to examine the role of creativity and innovation in the development and maintenance of expert performance.

### **Wellness, Balance, and Elite Performers**

Scholars in the field of sport psychology have questioned whether superior athletic excellence, given the exceptional demands placed on elite athletes, occurs at the expense of an athlete's well-being (Miller & Kerr, 2002; Orlick, 1998). In the early 1990s, there was a growing awareness of the cost associated with achieving performance excellence, such as the challenge to age-appropriate physical, intellectual, social, and emotional development (Miller & Kerr). More specifically, Miller and Kerr reviewed research that indicated "many high level athletes compromise their identity development in order to pursue performance excellence" (p. 144),

which will be reviewed more thoroughly later in this chapter. In a historical glance through the sport psychology literature, Miller and Kerr recognized that the field has evolved from a sole interest in performance excellence to a more recent trend of acknowledging the importance of personal excellence in the attainment of elite performance. Performance excellence refers to observable, measurable, athletic outcomes, while personal excellence refers to “the achievement of developmentally appropriate tasks across the length of one’s life and the acquisition of personal qualities that contribute to optimal health and well-being” (p. 141).

Miller and Kerr (2002) made their position clear by stating that, if elite sport was provided in a developmentally appropriate manner, then it would be possible to attain both personal and performance excellence. Orlick (1998) also supported this position, as he highlighted the positive impact that taking care of personal excellence can have on achieving athletic success and, hence, advocated the need for greater balance in elite performers between sport and personal excellence. To facilitate the application of these views, Miller and Kerr proposed an athlete-centred sport model. The basic tenet of this model is that

sport should contribute to the overall development of the athlete: physically, psychologically, and socially. In an athlete-centered sport system, the values, programs, policies, resource allocation, and priorities of sport organizations reflect an emphasis on the athletes’ developmental needs in a holistic sense. (p. 146)

Advocates of this model believe that optimal performance can be attained only through the development of personal excellence.

More recently, a few studies have explored the connection between performance excellence and personal excellence. As Amirault and Orlick (1998) found, there is minimal research examining the lives of high-performance athletes as a whole; thus, they set out to explore perceptions of balance in elite athletes’ lives. The results indicated that athletes defined balance in two ways: (a) having a vision or a goal and going after it because the goal gave

meaning to their lives; and (b) respecting different parts of their life (i.e., having multiple areas of their life in order). Moreover, the findings revealed that these athletes believed that when their life was more well-rounded, they had better results in their respective sports. Brown (2001) conducted a study exploring the process through which athletes live and perform. Although research has suggested that demands and pressures of elite sport can lead to a lack of well-being for athletes, Brown interviewed eleven athletes who seemed to transcend these challenges and maintain a high level of wellness, while pursuing athletic excellence. His grounded theory inquiry into *the art of living well in elite sport* led to the development of a model of perspective that included three main categories: defining the self, living authentically, and experiencing fully. As stated by Brown, the insights of eleven elite athlete “lend powerful testimony to the notion that an elite athletes can excel in the sport environment while maintaining a healthy view of self, staying true to self and key others, and finding meaning and fulfillment in the journey” (p. iii). These findings provide great insights for the field of sport psychology, as they highlight the importance of developing balance and perspective in elite athletes.

### **Performance Psychology**

Over the past few decades, practitioners, performers, and the general population have become more interested in how principles of psychology can be applied to enhance performance in a variety of domains. Hayes and Brown (2004) pointed out that this interest has been directed towards the elite athlete population; but, in recent years, enhancing performance has broadened to include the business domain, high-risk professions, and performing artists. The commonality among these performers is that they must meet certain standards of performance, they are judged based on outcomes, there are consequences to poor performances, and they are expected to bring talent and skills into actions at a particular time (Hayes & Brown). This new and burgeoning



branch of psychology is generally referred to as performance psychology (p. 20). Performance psychologists are interested in understanding behaviours associated with striving for excellence, with the primary aim of understanding the psychological processes allowing people to perform at high levels (Matthews, Davies, Westerman, & Stammers, 2000). Performance psychology draws from many different theories of psychology, and the research has a more central focus on applications than any other discipline of psychology. The services rendered in this broad specialty are referred to as performance consultation or coaching and have often been approached from different perspectives, using different models and frameworks, and are delivered by practitioners from a variety of disciplines (Hayes & Brown, p. 11). As stated by Hayes and Brown, the task of the performance consultant is "to assist in the development of more effective performance within the particular domain" (p. 224).

In searching the literature through academic, psychology, business, and sport research databases, only 33 references were listed using the key term of performance psychology. Among these, only three sources addressed the discipline of performance psychology. This could be explained by the infancy of this still evolving field and might be due to the fact that it draws on theories from a variety of disciplines. Hayes and Brown (2004) stated that the umbrella for performance psychology draws its knowledge base, legitimacy, and clientele from three distinct traditions: applied sport psychology, consultation and coaching, and psychotherapy (p. 6).

Applied sport psychology is the study and practice devoted to helping performers achieve an optimal level of athletic performance. As stated by Hayes and Brown (2004), "The applied research and practice of sport psychology provides psychologist and other mental health practitioners interested in performance consultation a wealth of directly applicable knowledge and skills, yet it is unknown to many psychologists" (p. 7). Applied sport psychology focuses on

identifying and understanding psychological theories and interventions that can be applied to sport and exercise to enhance the performance and personal growth of athletes (Williams, 1993). Sport psychologists study motivation, personality, aggression in sport, health psychology, leadership, group dynamics, thought and emotional processing, and many other areas that are relevant to sport and physical activity.

The practices of consultation and coaching have an emphasis on systems and draw on models developed in social psychology, family and systems psychology, community psychology, and industrial-organizational psychology. As stated by Hayes and Brown (2004), "Consultation and coaching share a recognition that individuals do not operate in isolation and that there is a powerful interaction between the person and his or her environment" (p. 10). Hayes and Brown further suggested that a systemic approach contributes to performance psychology in two ways: (a) it supplies a theoretical perspective offering models and frameworks, and (b) it sheds light on how external and interactive issues can affect optimal performance. In general, consultation and coaching are designed to draw on an individual's strengths and resources and outline pathways leading to further growth and realizing personal potential.

Contemporary psychotherapy is generally concerned with an individual's desire to improve existing functioning by either solving problems or by enhancing current capacities. Hayes and Brown (2004) suggested that certain theories and perspectives, such as cognitive-behavioural therapy, solution-focused methods, and positive psychology provide a good fit with performance consultation. The programs focusing more on growth than on illness, such as counselling psychology, have been specifically noted as being intellectually and methodologically aligned with performance enhancement (p. 15).

In summary, Seligman and Csikszentmihalyi (2000) have called for psychologists to broaden their scope from just studying psychological disorders and to put more effort towards positive psychology, by investigating the actions that lead to well-being, to positive individuals, and to thriving communities. Studying the population of elite performers can help fit this aim. There are many parallels between the field of sport psychology and positive psychology, and both domains would benefit from collaboration between these two fields. For years, sport psychology has produced research on thriving in a particular domain, that is, what it takes to be a great athlete and how to achieve a high standard of performance. However, as Gould (2002) maintained, although considerable research has been conducted in sport psychology, the knowledge is not complete, as a number of concepts found in general psychology have not been examined. While exploring the processes that contribute to optimal preparation and performance of Olympic athletes, it is possible that some of these constructs will emerge and be further understood in relation to athletic performance.

### **Olympic Games**

As the most universal expression of sport, the Olympic Games are the largest, regularly-scheduled, international event in the world (Miller, 1992; Senn, 1999). More than one hundred thousand spectators have acquired a highly-sought-after seat in the stadium, the arena, and other sites of competition. Another two billion people stay connected to this world event via television and the internet (Guttmann, 2002). Many athletes strive to be granted the rare opportunity to represent his or her country at this prestigious event. Olympic champions have even testified that winning an Olympic medal holds greater value to them than other highly-regarded athletic achievements, such as setting world records at less symbolically weighted competitions. The purpose of the Olympic movement is to "further the development of sport and to use sport to

promote both personal and cultural change” (Girginov & Parry, 2005, p. ix). Within this section, an overview of the Olympic Games will be provided. More specifically, the history of the Olympics will be outlined, and the conceptualization of the modern Olympic Games will be explicated.

### **History of the Olympic Games**

The heart of the modern Olympics came from the Ancient Greeks. Although not all the information and ideas about the Greeks and their athletic festival is known for certain, the earliest record of the Ancient Olympic Games show that they were first held in 776 BC (Toohey & Veal, 2000). At the Games’ conception, Greek society was pre-eminent in the Ancient world. At that time there was not a Greek nation per se, rather a collection of city states, called *polis*, which, at various times, were either engaged in war or uniting with each other against common enemies. Among the characteristics that united and signified the Greeks was the celebration of sporting festivals, with the Olympic Games being the most prestigious. These games were intended to be exemplars of athleticism, sportsmanship, peace, religion, and equality. However, as “the Olympic Games grew in status they became important as a site to demonstrate power and prestige” (p. 12).

The Ancient Olympic Games were celebrated once every four years and held in Olympia in honour of the Greek god Zeus (Toohey & Veal, 2000). Originally, the games were only open to free-born Greek males, who were free of crime conviction. These athletes also had to avow that they had trained for at least ten months prior to coming to Olympia and then for one month prior to the games being under the scrutiny of the judges. At their zenith, the games lasted for five days and included rituals such as swearing-in ceremonies, prayers and sacrifices, feasts and celebration; and events such as boys wrestling, boxing, running events, chariot and horse races,

and the pentathlon. The demise of the ancient games came in AD 393 when a Christian Roman Emperor, Theodosius I, abolished them because of their link to Zeus and their association with pagan rituals and practices (Toohey & Veal). The ancient games have been acknowledged as one of the strongest unifying forces in the ancient Greek world, yet like their modern counterpart, they have also been subject to political intervention and scandal.

The Games of the ancient era were the source of inspiration for the modern revival of the Olympics in the late nineteenth century. The founder of the modern Olympics, Baron Pierre de Coubertin (as cited in Guttmann, 2002), drew on the ideas, philosophies, and actions of others to successfully revive Olympic Games, which have been sustained for over a century. Haunted by the memories of his country's defeat of the Franco-Prussian War of 1870-1871, which he attributed to the physical inferiority of the average French youth, Coubertin believed that sport was the perfect vehicle to improve his country's physical strength. After visiting other countries and meeting with significant individuals in Greece, Germany, North America, and Great Britain who shared his enthusiasm for sport, Coubertin decided "to revive the most famous athletic festival of antiquity—the Olympic Games" (as cited in Guttmann, p. 10).

In the pre-Olympic years, Coubertin organized a number of sport associations, the most significant being the Union des Sociétés Françaises de Sports Athlétiques (USFSA). During a grand celebration of the association's fifth anniversary in 1892, Coubertin announced to a group of French and foreign dignitaries that it was necessary to internationalize sport and organize once again the Olympic Games (Coubertin, 1979). According to Corral (1994), this suggestion was greeted with enthusiasm, but also with a lack of comprehension. It was not until two years later that the idea was unanimously accepted and the organization of the first modern Olympiad began.

### The Modern Olympic Games

The inception of the modern Olympic era began in Athens, Greece in 1896. A mere 245 competitors competing in 9 sports appeared from across 14 countries. Over a century later, the Olympic Games are still thriving as the largest international sporting event in the world. As stated by Toohey and Veal (2000), "each event has cost enormous sums of money to stage, funded from taxpayers, sponsors and television companies and their advertisers. Sporting records have invariably been broken and national and international heroes created. It is the world's biggest peace-time event" (p. 1). Contrasted with the smaller scale event in 1896, the Summer Olympic Games hosted by Australia in 2000 saw 10,000 athletes competing in 28 sports representing 198 countries (Toohey & Veal). The term Olympiad designates a period of four successive years (International Olympic Committee [IOC], 2003), which is the amount of time that separates each summer and winter Olympics. As of 1994, the world has been exposed to an Olympic Games every two years, yet there is still a four-year interval for summer and winter sport athletes.

The Olympic ideal was based on two central ideas that have been handed down and reinterpreted from classical times: *agathos* and *kalos*. *Kalos K'agathos* represents the guiding ideal of the ancient Athenian education of being a person as both (a) good (*agathos*—referring to moral development); and (b) beautiful (*kalos*—referring to physical beauty) (Girginov & Parry, 2005, p. 10). The Olympic idea has been viewed as an invitation to all athletes to surpass their own physical and psychological limits for the sake of continuous development in physical, ethical, and psychological realms of being human striving towards perfection (Nissiotis, 1983).

As with many other significant cultural events, the Olympic Games are signified by symbols, mottos, and rituals. The Olympic symbol is the well-recognized five Olympic rings in blue, yellow, black, green, and red, which represent "the union of five continents and the meeting

of athletes from throughout the world at the Olympic Games” (IOC, 1995, p. 3). The Olympic motto, *Citius, Altius, Fortius*, Latin for *Faster, Higher, Stronger* was created in 1886 by Pierre Didon, a friend of Coubertin. The motto is intended to “express the message which the IOC addresses to all who belong to the Olympic Movement, inviting them to excel in accordance with the Olympic spirit” (IOC, 2003, p. 19). Lastly, the Olympic rituals include events such as Olympic torch relay, Olympic flame ceremonies, opening and closing ceremonies, and awards ceremonies. Although these rituals have the intentions of spreading Olympic spirit, they can sometimes expend a lot of emotional energy from the athlete, thus having negative implications for performance.

The Olympic movement, led by the International Olympic Committee (IOC) stems from modern Olympism. The Olympic charter defines Olympism as:

a philosophy of life, exalting and combining in a balanced whole the qualities of body, will and mind. Blending sport with culture and education, Olympism seeks to create a way of life based on the joy found in effort, the educational value of good example and respect for universal fundamental ethical principles. (IOC, 2003, p. 9)

The goal of Olympism is to use sport as a vehicle to promote the harmonious development of humans, so to encourage the establishment of a peaceful society concerned with the preservation of human dignity. Furthermore, the objective of the Olympic Movement is “to contribute to building a peaceful and better world by educating youth through sport practiced without discrimination of any kind and in the Olympic spirit, which requires mutual understanding with spirit of friendship, solidarity, and fair play” (IOC, 2003, p. 9). As an athlete who has competed in multi-sport events (e.g., 1998 Commonwealth Games in Malaysia and 1995/1999 Pan-American Games in Argentina and Canada respectively) and as a sport psychology consultant who accompanied the Canadian Contingent to the 2002 Winter Olympics Games in Salt Lake City, I support the notion that sport has the ability to accomplish these goals.

Witnessed at these games were many different cultures and countries integrating with ease, showing the utmost respect and openness for one another. Pervasive to these events is a common understanding of the hard work and dedication that has been put forth to the pursuit of excellence. This understanding helps to create a common bond among the athletes, which minimizes the attention given to individual differences. This is not to say that there are not rivalries, rather athletes are viewed as competitors. Although I acknowledge that this perspective comes from the position of a privileged, white, competitor from a first-world country, I believe sport can have a large impact on the development of a respectful society. My concern for the preservation of the positive impact of sport lies at the administrative and political level, which consumes extensive time and energy within the Olympic movement.

The supreme authority of the Olympic movement is the International Olympic Committee. Founded in 1894 at the International Athletic Congress called by Baron de Coubertin, the role of the IOC is to lead the promotion of Olympism in accordance with the Olympic Charter (IOC, 2003; Toohey & Veal, 2000). The IOC is at the heart of the basic structure of the network of international Olympic organizations, which also include International Sport Federations and National Olympic Committee. The IOC is a self-perpetuating body of about 115 members who hold absolute power over the Games phenomenon. The International Sport Federations represent up to 200 national governing bodies of individual sport, while the National Olympic Committee represents about 200 Olympic sport organizations (IOC, 2003; Toohey & Veal, 2000). Much could be said about the IOC influence on the Olympic movement; yet, this is not of particular relevance to this study. Reference to the IOC has simply been made to educate the reader on the structure surrounding the Olympic movement.



As the Olympics have grown in size and prestige, so have they become a venue to exercise power, politics, and social order. Common concerns for the present-day Olympics are centred on issues like media rights, sponsorship, capital gain, hosting privileges, and organizational challenges (i.e., security, venue construction, etc.). Within the Olympic story, the perspective of the athlete can sometimes get lost among the politics and scandal that accompanies the Olympic Games. In searching through the 11 volumes of *Olympika*, the *International Journal of Olympic Studies*, not one article gave voice to athletes. On the contrary, the published articles addressed themes related to political agendas, scandal, corruption, and disputes, sport and business, impact of the media, terrorism and security issues, history and ideology of the Olympics, and the evolution of the Olympics, to name a few. The proceedings from the International Symposium on Olympic Research, another source dedicated solely to Olympic investigations, was also absent in the research addressing any aspects of the Olympics from an athlete's perspective. As has been demonstrated within this section, the Olympics are about much more than the athletic competition. We must not forget that, without the athletes, there would be no Olympics.

In summary, Olympism retains a long historical background that has shaped many of the values and rituals used today. The objectives of the Olympic movement are to promote the development of ethical human behaviour and encourage the establishment of a peaceful society. At a more micro level, the Games represent individual triumphs and tribulations, persisting in the face of obstacles, and striving to surpass previously established standards. The Olympics can serve as a source of hope and optimism, relaying the message that, with hard work and dedication, dreams can come true. Unfortunately, the Olympics also provide exemplars of devious and scandalous behaviour. They overtly reveal underlying themes of power, politics,

deception, and capitol gain. It appears these positive and negative gains occur on two levels. For the most part, the positive messages are transmitted vicariously through the actions of the athletes, while most of the negative connotations stem from administration, political powers, media, and corporate culture. It is important that voice be given back to the athlete. What do they have to say about the Olympic movement? As they are the infrastructure supporting the Games, is it not important to obtain their perspective? One of the intentions of this investigation was to do just this. Eliciting the narratives of the processes contributing to optimal preparation and performance from Olympic athletes provided an opportunity for their voices to be heard.

### **Elite Athletic Performance**

A commonly-used metaphor for achieving athletic potential is the image of an iceberg. In the open waters near Alaska and other colder regions, one can find large ice structures protruding from the water. What the human eye does not realize is that it can only see 20% of the iceberg, and that the other 80% lies below the water level. Similarly, humans usually only utilize 20% of their full capacity, leaving a large portion of their potential unused. It has been suggested that elite performers have the ability to tap into unused resources, thus realizing more of their full human potential (Botterill, Patrick, & Sawatzky, 1996). What is it about elite performers, such as Olympians, that provides them with this ability? Within this section, I will review the constructs related to elite performance. A description of high-performance athletes will be provided, models related to talent development and preparation will be reviewed, the key characteristics of elite performers will be outlined, and research surrounding identity development and the elite performer will be surveyed.

### **High-Performance Athletes**

Sport Canada has defined High Performance athletes as "those who are involved in the highest levels of their sport through intensive training, advanced skill levels, technical development and competition" (Ekos Research Associates, 1992). A somewhat broader definition was used by Sundgot-Borgen (1994), who defined an elite athlete as one who had qualified for the national team at the Junior or Senior levels or was a member of the recruiting squad for those teams. In addition to the high-performance status, an Olympic athlete is distinguished by her or his participation in an Olympic Games. In the current investigation, the above definition was used, and the term elite athlete was used synonymously with high-performance athlete.

There are a variety of demands experienced by a high-performance athlete. In order to stay competitive at the international level, substantial time and effort needs to be devoted to training. To demonstrate the commitments athletes make to their sport, Ekos Research Associates (1992) examined the time and energy demands of high-performance sports. Two important commitments that athletes reported were relocation to high-performance training centres and time spent away from home to train or compete. Both of these produce emotional and financial costs. The amount of time spent by an elite athlete in intensive training was estimated at 34 hours a week for 33 weeks of the year. In order to enhance well-being and cover basic living and sport related costs, athletes had the challenge of integrating this training with income-generating activities, education, and maintaining personal relationships.

The demands placed on athletes come from financial, emotional, physical, and mental realms. In regards to financial demands, since participation costs in amateur sport are high and the athletes do not have time to work, there is likely going to be financial strain. On an emotional level, a large portion of high-performance athletes report that personal relationships had been

negatively impacted by their sport careers (Ekos Research Associates, 1992). As such, moving away from established social support to a centralized training facility can have an emotional impact on athletes. From a physical standpoint, athletes are engaged in intense training for long periods of time, thus their bodies experience physical demands. Lastly, high-performance sport can demand a lot from the athlete mentally, as they need to handle pressure and distractions so they can focus on the task at hand.

One aspect of training that is still in need of widespread recognition is the cumulative nature of stress. At times when athletes are faced with an abundance of non-training demands (e.g., environmental, occupational, educational, or social), training volumes and intensity may need to be modified (Rowbottom, Keast, & Morton, 1998). In the athletic realm, both training and non-training demands can contribute to a total stress level, which may result in negative consequences of training (Kenttä & Hassmén, 1998). For example, these negative consequences could be elicited by the physiological demands that accompany intense training or by low-intensity training coupled with intense non-training demands. Thus, it is important to monitor the cumulative level of stress and understand that training loads may need to be adjusted while the athlete is experiencing high-levels of non-training demands (Kenttä & Hassmén).

Although there is intense responsibility involved in becoming a high-performance athlete, privilege also exists. Competing in elite sport offers unique experiences (i.e., traveling the world, meeting dignitaries and other profound individuals, an opportunity to test your personal capacity, etc.) that are not commonly attained in many areas of life. All elite athletes have an ultimate goal that they are trying to reach, but more importantly they are involved in a journey from which they can grow and develop. Due to society's focus on winning and outcomes, the value of the journey is sometimes not given the recognition that it deserves. Within this study, the journey, or

the athlete's process of preparing and performing at the Olympic Games, was the focus of investigation.

### **Talent Development**

The concept of talent development has evolved over the years. In a previous era, more attention was given to the talent account, which refers to "the view that exceptional accomplishments depend on a special biological potential that can be identified in some young children, but not others" (Howe, Davidson, & Sloboda, 1998, p. 399). However, researchers now argue that exceptional performance extends more from a combination of factors such as high-quality practice, environmental conditions, and innate talents (Durand-Bush & Salmela, 2001; Singer & Janelle, 1999). Within this section I will define the construct of talent, briefly review contemporary models on the development of talent as related to the sport domain, and discuss elements associated with performance preparation.

As suggested by Durand-Bush and Salmela (2001), there have been many attempts over the past century to define the term talent, as the meaning of the term changes according to the perspective of the user. For example, different viewpoints conceptualize talent in terms of innate abilities, while others consider deliberate practice and environmental factors as key components. Howe et al. (1998) believed that certain pitfalls need to be avoided when defining the term talent. Using a restrictive definition could limit the amount of conceivable evidence found to demonstrate talent, while criteria too vague will trivialize the findings surrounding the construct. Thus, to ensure that their definition coincided with other researchers and practitioners, Howe et al. opted to respect most of the principles recognized by the scientific community and assigned the following five properties to talent:

- (1) It originates in genetically transmitted structures and hence is at least partly innate.
- (2) Its full effects may not be evident at an early stage, but there will be some advance

indications, allowing trained people to identify the presence of talent before exceptional levels of mature performance have been demonstrated.

(3) These early indications of talent provide a basis for predicting who is likely to excel.

(4) Only a minority is talented, for if all children were, there would be no way to predict or explain differential success.

(5) Talents are relatively domain-specific. (pp. 399–400)

Howe et al. (1998) stated that the purpose of outlining the five properties was to provide researchers and the lay population with a working definition. These authors also made their personal position on talent clear, which took the perspective that performers become highly successful as a result of environmental factors such as large amounts of regular practice. In response to the article by Howe et al., some scholars accepted their environmentally-driven viewpoint (Charness, 1998; Ericsson, 1998; Irvine, 1998; Weisberg, 1998), while others challenged the exclusion of innate talent as a precursor to elite performance, thus suggesting Howe and colleagues' stance was too limited (Baltes, 1998; Csikszentmihalyi, 1998; Rowe, 1998; Zohar, 1998). As there are so many variables contributing to the success of an elite athlete, I believe the definition of talent should incorporate a multitude of factors such as the five properties outlined by Howe et al. A review of some contemporary models on talent development will help shed light on more of the holistic, non-traditional approaches to the study of talent in sport.

In regards to more contemporary models of talent development, Bloom's (1985) pioneering research investigated the process underlying talent development in children, by conducting a four-year longitudinal study on the career evolution of 120 talented athletes, musicians, artists, and scientists. Popular conceptions at that time viewed talent as being related to innate aptitudes or special characteristics. Contrary to this, Bloom clearly positioned himself on the nature-nurture debate by suggesting that a child may possess a special gift; but unless this talent is attended to by a process of encouragement, nurturance, education, and training, the

individual will not reach a high level of expertise in their particular field. Bloom also recognized the important role that having quality instruction and support from parents, teachers, or coaches played in the acquisition of talent, which he acknowledged in his three distinct stages of talent development: (a) early years and stage of initiation, (b) middle years and stage of development, and (c) late years and stage of perfection.

Bloom's (1985) first stage of talent development, referred to as *early years and stage of initiation*, is characterized by children being engaged in fun, playful activities. It is a time when the child is excited about their participation and they rely heavily on their parents/ teachers/ coaches for direction and support. It is also a period where parents/ teachers/ coaches start to recognize specific children standing out for being special in some way. According to Bloom, at this stage parents play an important role in their child's development as they are often responsible for engaging their child's interest in the same activity.

Bloom's (1985) second stage, *middle years and stage of development*, represents a period where the participants became hooked on a particular activity, and accordingly, became more dedicated and serious about succeeding. At this stage, practice time is significantly increased, teachers and coaches are more technically skilled, and parents have to provide a higher level of moral and financial support to sustain their children's involvement in their chosen activity.

In the final stage of Bloom's (1985) model, *late years and stage of perfection*, the participants are totally obsessed with their chosen activity, which has come to dominate their lives. The focus is on developing a very high skill level, which the participants are completely committed to, and the responsibility for training and competition now rest with the performers. It was at this stage that these individuals become experts. Bloom developed a beneficial framework for examining talent development, as it was holistic in nature and based on longitudinal data. He

also provided reference to the support structure and personal responsibility that needs to be in place for expert development. Ericsson, Krampe, and Tesch- Römers (1993) built on Bloom's model and concepts and developed another theory of talent which will be reviewed next.

Adopting an extreme environmental position, Ericsson et al. (1993) proposed a theory of talent development based primarily on what they referred to as *deliberate practice*. The term deliberate practice is applied when the following elements are present in training activities: (a) a well-defined task with an appropriate difficulty level for the particular individual, (b) informative feedback, and (c) opportunity for repetition and corrections of errors (p. 369). These training activities were also distinguished from recreation and spontaneous play, competition, and work. In addition, due to the effortful nature of the activities, it was postulated that, in general, they are not inherently motivating or enjoyable (Ericsson et al.). Durand-Bush and Salmela (2001) contested this fact, especially in regards to the sport domain, and provided evidence "where athletes have reported that some deliberate practice activities are both highly relevant and enjoyable" (p. 279).

Ericsson et al. (1993) generated evidence showing that peak performance was acquired after a 10-year period of intense preparation. The 10-year claim was first proposed by Simon and Chase (1973) who found about 10 years of preparation was a necessity to acquire international level chess skill, and they felt this would be the same for other domains. Subsequently, Bloom (1985) found support for the 10-year rule in a variety of domains. Ericsson et al. (1993) stated, "According to this rule, not even the most 'talented' individuals can attain international performance in less than about 10 years of preparation, whereas the vast majority of international level performer's have spent considerably longer" (p. 10). Singer and Janelle (1999) raised concern for the abundance of attention given to the amount of deliberate practice, as they felt it



was at the expense of attending to the content and quality of practice sessions. Singer and Janelle posited that the focus should not be on how long and how hard to practice, but rather on *how* and *what* to practice.

Ericsson's (1996) stages in the development of an elite performer paralleled that of Bloom's (1985), except for the addition of a fourth stage. At the beginning of Ericsson's fourth stage, performers would have already mastered the instructions provided by teachers or coaches, as they start to search for their own innovated contributions. By the end of this stage, elite performers are able to produce some outstanding creative achievements (Ericsson), thus emphasizing the contribution of the performer in acquiring expertise. This reference to the expert performer's personal responsibility in their growth and development is in line with Glaser's (1996) phase of development of expertise.

Glaser (1996) proposed a principle underlying the attainment of expertise, which he labelled as a *change in agency*, which is "a change in the agency for learning as expertise develops and performance improves" (p. 305). He described this learning progression in three interactive phases:

(a) *external support*, involving early environmental structuring influenced by parental dedication and interests and the support of teachers and coaches; (b) *transition*, characterized by decreasing scaffolding of environmental supports and increasing of apprenticeship arrangements that offer guided practice and foster self-monitoring, the learning of self-regulatory skills, and the identification and discrimination of standards and criteria for high levels of performance; and (c) *self-regulation*, a later phase of competence in which much of the design of the learning environment is under the control of the learner as a developing expert. (p. 305)

Although Glaser's (1996) work was conducted mostly in relation to the classroom, his model highlights the level of responsibility and self-direction that need to be asserted by the performer during the different phases of talent development. Once again, the emphasis is not on

innate talent per se, but rather on the effort put into developing expertise in a given area and the structure in place to support this development.

Côté (1999) studied talent development as it pertains specifically to athletes. This scholar investigated patterns in the dynamics of families of talented athletes throughout the athlete's development in sport. Four different families in which at least one child was intensely involved in sport participated in the study. A total of 15 individual in-depth interviews were conducted with athletes, parents, and siblings (4 athletes, 4 mothers, 3 fathers, and 4 siblings). The interviews explored how they dealt with motivational, effort, and resource constraints that Ericsson et al. (1993) thought to accompany the acquisition of expert performance. As a result of his study, Côté proposed three distinct *stages of sport participation*, which were labelled the sampling years (6-13), the specializing years (13-15), and the investment years (age 15 and over). At each level, the athlete had the potential to move to another level, drop out of sport, or enter the recreational years. The main emphasis in the sampling years was to have the child experience fun and excitement through sport. During this stage parents were responsible for initially getting their children interested in sport, and at some point they recognized a gift in the child-athlete. Characteristic of the specializing years was an increased focus of attention on sport-specific skill development. While fun and excitement remained key elements of the sporting experience, athletes decreased their involvement in various extra-curricular activities and focused on one or two specific sporting activities. In the last stage, the investment years, the athlete was committed to achieving an elite level of performance in a single activity. Important elements identified in this phase were the strategic, competitive, and skill development characteristics of sport activity.

In their study on the development of expert performers, Durand-Bush and Salmela (2002) expanded on Côté's (1999) model. These researchers examined factors that contribute to the development and maintenance of expert athletic performances. Durand-Bush and Salmela conducted in-depth interviews with 10 athletes (6 women and 4 men from 10 different sports) who had won at least two gold medals at separate Olympics, World Championships, or both. The results revealed that athletes followed patterns of sport participation similar to those of Côté. However, Durand-Bush and Salmela proposed another stage, "Maintenance Years" (p. 158), which represented the period following when an athlete achieved the highest level in their sport, i.e., gold medal at Olympics or World Championships (p. 158). Additional stress was created in the maintenance years, as there was usually more pressure from outside sources to perform as they were the best in their sport. Within each stage outlined by both Côté and Durand-Bush and Salmela, reference was made to the role that contextual factors (i.e., parent, coaches), personal characteristics, and training and competition factors played in the development of expert athletic performance, which will be further developed later in this section.

All of the models reviewed above emphasise the nurture portion of the nature-nurture debate. This is not to exclude the role of innate abilities in the talent development, but rather to attend to more of the contemporary models. I strongly believe that the development of expertise is a function of both innate abilities and environmental conditions. Durand-Bush and Salmela (2001) posited that talent is not an all-or-none phenomenon, but a dynamic manifestation that seems to be determined by both innate and environmental factors. The importance of each factor in the attainment of expertise is also going to be sport dependent. Some sports will rely more heavily on physical characteristics (e.g., height and basketball), while others may be more conditioned on environmental factors (e.g., wealth and equestrian/golf). The degree to which

each of these factors contributes to talent development should not be of interest, but more importantly the focus should be placed on how these two factors interact. As stated by Singer and Janelle (1999), “We must return to the idea that nature and nurture do interact to determine performance. It is important to delve further into understanding to what degree they are interwoven” (p. 146). In exploring processes contributing to optimal preparation and performance of Olympic athletes, it will be interesting to assess if any of these models resonate with the athlete’s experience.

### **Preparation**

Talent development models describe how athletes develop into elite performers. It is also important to consider the essential elements needed to prepare optimally for performance. It is interesting to note that, in conducting a literature search, limited research scrutinized the process of preparation. Hayes and Brown (2004) outlined models of talent development, but also presented essential elements of preparing for peak performance. These elements emerged from their research, which was conducted to better understand the still-evolving field of performance psychology as it is applied across disciplines. The participants included a selection of performers from the three broad groups of performing arts, business, and occupations having high risk to human life (e.g., emergency room doctors). Hayes and Brown indicated that their participants noted four essential elements in preparing for peak performance: knowledge, active intentional learning, practice, and purposeful development of mental skills (p. 92).

Knowledge has been acknowledged by many scholars as being central to preparation (Ericsson et al., 1993; Jackson & Csikszentmihalyi, 1999). Knowledge is not just about acquiring information, but knowing the most effective strategies and methods for performing a given task. From the interviews, Hayes and Brown (2004) identified three broad categories of knowledge:

- (a) knowledge of the product—clarity of goal and attributes needed to achieve the goal;
- (b) knowledge of the audience—knowing what performance the audience expects; and
- (c) knowledge of oneself—knowing strength and weakness and emotions associated with ideal performance states (p. 93).

Hayes and Brown's (2004) second element, *active intentional learning*, is a process in which a performer engages in a highly-structured activity, with the goal of improving performance. Many of the performers indicated that technical preparation was important to developing skill, bolstering confidence, managing performance anxiety, and automating responses. Their third element, *practicing the delivery*, involves rehearsing the product in conditions that replicate the actual performance context. For example, an elite ski racer would simulate the performance environment by running through all activities involved in pre-race routine, wear the same clothing in which she would race, and have same start procedures as present in an actual race. Their fourth element, *purposeful development of mental skills*, entails interweaving mental skills into performance preparation. According to Hayes and Brown, to achieve adequate preparation for optimal performance, all four of these elements should be addressed.

Mental skills are tools and strategies used to manage arousal levels, enhance concentration, and cope with distractions or interferences to performance. Mental skills that are typically associated with elite athletes include: goal-setting, imagery, managing physical activation or tension, thought management techniques, well-developed performance plans, well-developed coping strategies (contingency planning), and pre-performance mental readying plans (Williams & Krane, 2001). To be effective these mental skills need to be practiced and integrated before key performance events.

### **Characteristics of Elite Sport Performers**

At the level of elite sport, the margin separating top level performers is minimal. At the 2002 Winter Olympic Games, the time difference separating the Gold Medal winner from tenth place in the 500 m speed skating competition was within half a second of each other. With advancements in knowledge and technology being more universal, competitors from different parts of the world are starting on more equal ground. Since the variation in training regimes employed by athletes at similar world-class levels is minimal, what is it that differentiates the champions from the rest of the pack? The majority of athletes and coaches acknowledge that 40% to 90% of success can be attributed to mental factors, with more emphasis being placed on this factor at the higher the skill levels (Williams & Krane, 2001). Within this section, I will outline the psychological characteristics that have been identified as being associated with superior athletic performance.

Williams and Krane (2001) pinpointed five excellent sources that help to identify the psychological characteristics associated with successful athletic performance. One source came from the subjective experience of an athlete who had been asked to recall their perceptions during peak moments of performance during their sporting career. A second source was generated from comparative studies that explored the psychological characteristics of successful and less successful athletes. A third was drawn from comparing individual athlete's emotional states associated with their better and worse performances, thus identifying individual zones of optimal functioning (Hanin, 1997). Williams and Krane's fourth source attends to mental preparation strategies and psychological skills utilized by successful elite athletes. The last source comes from scholars who have asked top athletes, scouts, coaches, and sport psychologist what they believe to be successful in sport.

The seminal work of Orlick and Partington (1988) outlined psychological factors that contribute to the success of Olympic athletes. This large-scale investigation involved interviews with 75 athletes, in addition to surveying another 160 athletes who participated in the 1984 Sarajevo or Los Angeles Olympics, in an attempt to assess the level of mental readiness and mental control experienced by Canadian athletes. The results indicated that mental readiness was an important factor that influenced an athlete's performance. Critical elements of success, as reported by the top athletes (Olympic and World Champions) were: (a) total commitment to pursuing excellence; (b) quality training that included daily goal-setting and imagery training; and (c) quality mental preparation for competitions, which included a refined pre-competition and competition focus plan, ongoing post-competition procedures, and a strategies for dealing with distractions. Similarly, Gould and colleagues (Gould et al., 1992a; 1992b) examined psychological variables affecting the performance of the U.S. Olympic wrestling team. These studies revealed that positive expectancies, total concentration, high confidence, a task-relevant focus, heightened arousal and intensity, and heightened effort and commitment were associated to the top performances of these athletes.

On the flip-side, Orlick and Partington (1988) identified *performance blocks* from the athletes interviewed who did not perform to their potential at the Olympic Games. The three major blocks that interfered with performance included: (a) changing patterns that worked (e.g., increasing training load prior to Olympics); (b) being selected late to the Olympic team (e.g., team sports making final selection three weeks before games); and (c) getting blown away by distractions (i.e., the hype of the ceremonies/events at the Olympics took their toll). Gould et al. (1992a, 1992b) also addressed this aspect and found that feelings of listlessness, over- or under-arousal, lack of concentration, irrelevant or negative thoughts, worries about losing, non-

adherence to normal preparation routines, and negative physical feelings (e.g., fatigue, poor warm-up) were associated with all-time worst performances. Although these studies were instrumental in identifying factors important to superior athletic performance at the Olympic Games, they did focus on the entire preparation process of the athlete.

Psychological characteristics during peak experience in sport have also been identified. Ravizza (1977) was one of the first sport psychologists to investigate the subjective experience of athletes during their *greatest moments* in sport. Ravizza reported that 80% of his sample (20 male and female athletes) reported the following attributes: loss of fear (no fear of failure); not thinking of performance outcomes; total immersion in the activity; narrow focus of attention; effortless performance (not forcing it); feeling of being in complete control; time/space disorientation (usually slowed down); universe perceived to be integrated and unified; and unique, temporary involuntary experience. Garfield and Bennett (1984) interviewed hundreds of athletes and identified eight characteristics that athletes described as being associated with moments when they were performing extraordinary well. These characteristics include: mentally relaxed, physically relaxed, confident/optimistic, focused on the present, highly energized, extraordinary awareness, in control, and in the cocoon, which is being detached from potential distractions. The one thing I noticed being absent from these studies was a holistic portrayal of the athlete. These characteristics were dissected from these participants as factors versus processes. I was left wondering about the process that lead to the development of these attributes and how this impacted the athlete as a whole. As elite sport involves many years and countless hours of training in order to prepare for the big game, it would be helpful to get more insights on the process leading to peak performance and the impact it has on the well-being of the athlete.



Some scholars (Durand-Bush & Salmela, 2002; Gould et al., 2002) have directed their attention towards the process of developing expert athletic performance, which will be reviewed next.

As previously cited, Durand-Bush and Salmela (2002) examined factors that contribute to the development and maintenance of expert athletic performance. In addition to revealing that Olympic and World champions progress through four stages of development throughout their career, several factors surfaced that were deemed important for the development and maintenance of expert athletic performance. For one, the context in which the athletes were immersed generally had positive influences on them. Contextual factors included things like the support of family members, friends, coaches, and other athletes; support staff (i.e., strength trainers, sport psychologists, nutritionists, physiotherapists, and massage therapist); and school/education. A second factor included specific personal characteristics exhibited by these athletes. This included features such as self-confidence and motivation, as these athletes were confident in their ability to succeed and were motivated to train at high levels. Other factors perceived to be important were creativity and innovation, which are constructs that fall in the realm of positive psychology. A third component included factors related to training, such as perfecting the technical, tactical, mental, and physical aspects of sport, which were influenced by quality, quantity, intensity, and recovery. The last component found to contribute to the development and maintenance of expert athletic performance was competition factors, which included meticulous planning, evaluating progress, dealing with pressure expectation and adversity, and focusing on the process versus outcome of events.

In an investigation designed to examine psychological characteristics and their development, Gould et al. (2002) studied ten U.S. Olympic champions (winner of 32 Olympic medals), in addition to one of their coaches, and a parent, guardian, or significant others. Data

was gathered from in-depth interviews, and a battery of psychological tests administered to help determine components of the athlete's mental skills and attributes thought to be critical to elite performance. Unique compared to other studies was the measurement of hope, optimism, and multidimensional perfectionism. Gould et al. stated:

Although considerable research has been conducted on the psychological characteristics of more versus less successful elite athletes, this does not imply that our knowledge is complete in this regard. A number of factors found to be important predictors of a variety of behaviors in the general psychology literature have not been examined, such as optimism (Seligman, 1990), perfectionism (Antony & Swinson, 1998), and hope (Snyder, 2000). (p. 174)

This conclusion suggests that there may be value in looking outside the sport psychology literature to see what impact other constructs (such as those emphasized in the field of positive psychology) have on cultivating successful athletic performance.

Gould et al.'s (2002) investigation revealed that Olympic champions were characterized by: the ability to cope with and control anxiety, confidence, mental toughness/resiliency, sport intelligence, the ability to focus and block out distractions, competitiveness, a hard-work ethic, the ability to set and achieve goals, coachability, high levels of dispositional hope, optimism, and adaptive perfectionism. The results also indicated that a number of individuals and institutions impacted the athletes' psychological development, including the community, family, the individual himself or herself (i.e., genetic factors, maturity, and individual experiences and self-realizations), non-sport personnel, sport environment personnel, and the sport process (i.e., competition, the nature of sport, sport program/sport organization, training, and sport adversity). This study proved to be enlightening to the domain of sport psychology in a few ways. For one, it challenged researchers to look outside the sport psychology literature and investigate principles from other psychological domains (e.g., hope, optimism, etc.) and their impact on performance.

This investigation also shed some light on components that influence the development of elite performers. As is evident from the results, expert development involves a multitude of factors.

### Identity Development and Elite Performers

James Marcia (1966) developed a model of identity formation that has been used as a framework for identity development studies conducted with the athletic population (Brewer, Van Raalte, & Linder, 1993; Murphy, Petitpas, & Brewer, 1996; Petitpas, 1978). Marcia (1966) used Erikson's theory of ego identity development as a foundation, and as outlined by Bilsker (1992), based his model on three assumptions derived from Erikson's theory:

First, formation of ego identity involves the establishment of firm commitments in basic identity areas. Second, the tasks of forming identity demands a period of exploration, questioning and decision-making (the "identity crisis"). Third, Western society fosters a period of "psychosocial moratorium" during which the adolescent may experiment with roles and beliefs so as to establish a coherent personal identity. (p. 179)

Based on these assumptions, Marcia (1966) developed four *identity statuses*, each of which represent a certain phase of identity formation. The criteria used to gage identity status is based on two criteria: crisis and commitment. Crisis refers to "the adolescent's period of engagement in choosing among meaningful alternatives; commitment refers to the degree of personal investment the individual exhibits" (Marcia, 1966, p. 551). *Identity achievement* is the most developmentally advanced of the statuses and occurs when an individual has explored a variety of alternatives and has now made a well-defined commitment. *Moratorium* is the second most developmentally advanced status and occurs when a person is *in* the exploration phase (or crisis period) with commitments rather vague. This status is distinguished from other statuses, as the there is an appearance of an active struggle to make commitments. *Foreclosure* is representative of a person who has undergone very little or no exploration and is still firmly committed to childhood-based values. The trademark of *identity diffusion*, the least

developmentally advanced of statuses, is a lack of commitment. This individual, whether they have engaged in any exploration or not, is uncommitted to any particular direction in their lives, nor has much concern about it (Marcia, 1966).

It has been suggested that the physical and psychological demands of elite sport may isolate athletes from mainstream activities, thus restricting their opportunities for exploratory behaviour (Brewer et al., 1993; Murphy et al., 1996). That is, individuals who have a strong commitment to the athlete role are less likely to explore other options (e.g., career, education, lifestyle) due to a clear commitment to sport, which promotes identity foreclosure (Brewer et al.). In a study conducted by Murphy et al. to examine the relationship between identity foreclosure, athletic identity, and career maturity, the results indicated that varsity athletes had significantly higher identity foreclosure scores than non-varsity athletes. These authors further contended that failure to explore different life areas can lead to difficulties when athletes disengage from their sport roles.

As Miller and Kerr (2002) posited, the best way of progressing through identity foreclosure is role experimentation, yet this is often hindered, as athletes have strong athletic identities that exclude exploration of other available roles. For individuals with strong athletic identities, Brewer et al. (1993) outlined potential risks to be: difficulties in transitioning out of sport, a higher propensity for depression in the aftermath of injury or retirement, and a lack of exploration of other life roles. Although the demands of elite sport sometimes conflict with exploring different options in life, support personnel around the athlete (i.e., parent, coach, sport psychologist, etc.) should encourage a holistic development of all parts of the athlete, not just the athlete role. A few studies have explored the extent that identity foreclosure occurs with athletes,

yet not much attention has been given to investigating the relationship between identity, meaning/purpose, and elite athletic performance.

In summary, although there are individual characteristics, the general profile of an elite performer is associated with the following psychological characteristic: high self-confidence, commitment and determination, self-regulation of arousal, quality training and daily goal setting, high focus and concentration, ability to cope effectively with distractions and control anxiety, and resiliency (Gould et al., 2002; Orlick & Partington, 1988; Ravizza, 1977). Although several factors that play a significant role in the development of expert performance have been identified, "none have lead to the universal characterization of expert performance" (Durand-Bush & Salmela, 2002, p. 154). Is this task even possible? Has the field of sport psychology been looking in the right areas? As suggested by Gould et al. (2002), constructs from other psychological domains need to be investigated. Exploring processes that contribute to optimal preparation and performance of Olympic athletes will potentially contribute to this objective.

### **The Current Study**

There are many elements that need to be considered in preparation for and performing at the Olympic Games. The literature review in this chapter started with an overview of constructs in positive psychology that are most relevant to elite performance. Although positive psychology and sport psychology are similar fields, not many studies have been completed that connect them together. Some scholars (Durand-Bush & Salmela, 2002; Gould et al., 2002) have identified that constructs such as hope, optimism, and creativity play a role in elite performance, yet further investigation of these constructs and their relation to sport is needed. Obtaining the athletes' narrative account will allow for new constructs to emerge.

The Olympic Games are the most universal expression of sport in the world. In reviewing the research conducted in this area, I found minimal presentation of the athlete's voice and limited description of the process involved in getting to this monumental event. Providing athletes with the opportunity to share their story on the processes contributing to optimal preparation and performance at the Olympic Games will help inform stakeholders in sport about elements that need to be incorporated into the process from the perspective of one who has actually engaged in this experience, the athlete. Likewise, the research conducted on elite performers can be enhanced by reviewing the process in sport. Many characteristics leading to elite performance have been identified, yet the list has not been exhausted. This exploratory study could expand the performance enhancement field by identifying new areas that lead to greater personal and performance excellence.

The current investigation will explore processes that contribute to optimal preparation and performance of Olympic athletes. Hochsteler (2003) made reference to North Americans' focus on the product (end result) of competition, and suggested that the process, or the journey of sport experience, is an essential and often overlooked element in competition and sport. He stated, "If we have enjoyed or found meaning in the process, we are more likely to feel at piece with the outcome, regardless of the result" (p. 233). Other benefits of focusing on the process of sport, as acknowledged by Hochsteler, are that a focus on process gives credence to a variety of sport experiences and testimony to the richness of sport, it acknowledges the journey rather than just the results, and helps athletes find meaning in what they do, which I believe will lead to a greater sense of well-being. I also think coming to understand the journey of other athletes in the same situation will help normalize individuals' experiences. Just as the title of these athletes identifies, elite athletes are among a select few in our population. Learning from the process of

other athletes can not only provide a sense of connection, but also provide lessons to be used from others in the elite realm of sport. Having an athlete share their experience of preparing for and competing at the Olympics will help shed some light on what is involved in the process.

Therefore, the purpose of this study is to explore the preparation and performance practices utilized by Olympic athletes. More specifically, the research question that was used to guide this investigation was: What processes contribute to optimal preparation and performance of athletes competing at the Winter Olympic Games? The method used to conduct this study was narrative forms of inquiry, which will be presented in the following chapter.

## CHAPTER III

### Methodology

The methodological procedures for this investigation will be derived from qualitative research practices. Qualitative research involves an interpretive, multiple-method approach to the study of people and social systems, based on building a complex, holistic picture, formed with words, and conducted in a natural setting (Creswell, 1994). It involves the collection of material through a variety of forms (i.e., case studies, observation, interviews, personal experiences, and life histories, to name a few) that describe sometimes routine and problematic moments and meanings in people's everyday lives (Denzin & Lincoln, 2000; Patton, 2002). Within qualitative methodology, there exists a diverse range of research approaches that are distinguished by various philosophical and theoretical perspectives. Each approach seeks to gain an in-depth view of the subject matter at hand, but is driven by different methods and assumptions that make the world visible in different ways (Denzin & Lincoln). For this proposed investigation, narrative forms of inquiry will be used to explore the processes that contribute to optimal preparation and performance as an Olympic athlete.

With the narrative turn in psychology and the social sciences (Bruner, 1986, 1990; Josselson & Lieblich, 1993; Lieblich, Tuval-Mashiach, & Zilber, 1998; McLeod, 1997; Polkinghorne, 1988; Riessman, 1993; Sarbin, 1986) came the realization of the impact that storytelling has on the way people structure their experience. As a result, there has been more appreciation for individuals as "active social beings and focused attention on the way personal and cultural realities are constructed through narrative and storytelling" (Sparks & Partington, 2003, p. 293). A story not only provides a window through which to view the inner world of the storyteller's construction of self, other, and world, but also provides great insight into the



identity, motives, and emotions of the individual telling the story (Cortazzi, 1993; McLeod, 1997).

Narrative inquiry has been defined as “any study that uses or analyzes narrative material” (Lieblich et al., 1998, p. 2). A narrative depicts a story of events and individual experiences, which is often told in chronological fashion in order to understand, convey, and create meaning of experience. Personal narratives have been referred to as talk organized around significant experiences, in which the narrator recapitulates what happened in a past time or *world*, typically to make a point for the present conversation (Riessman, 1993). In narrative inquiry, the text is the unit of analysis, and the context within which the story is created is very important. Thus, the research narrative gives the researcher access to individual identity construction and its systems of meaning and the individual’s construction of their own culture and understanding of their social world (Arvay, 2003). Before delving into the specific narrative procedures that will be adopted for this investigation, the theoretical assumptions associated with this particular method will be outlined. The relevance that these assumptions have to my investigation will be made explicit at the end of each section.

## **Theoretical Assumptions**

### **The Epistemological and Ontological Bases of Narrative Inquiry**

Narrative inquiry is positioned within a social constructionist paradigm. Burr (1995) outlined four key assumptions that form the epistemological basis associated with social constructionism. The first involves a stance against positivism and empiricism, which assumes that the nature of the world can be revealed by direct observations and that there is an absolute truth about the social world that can be known. Rather, the *backcloth* with which social constructionism has taken shape is postmodernism, which rejects the idea that there can be an

ultimate truth or that the world can be understood by one over-arching system of knowledge. Instead, it emphasizes “the co-existence of a multiplicity and variety of situation-dependent ways of life (sometimes referred to as pluralism)” (Burr, 1995, p. 3). The second assumption suggests that our understanding of world, and the categories and concepts we use, is historically and culturally specific. That is, the way we have come to understand is a product of a particular culture and time in history. The third assumption denotes that knowledge is constructed and sustained by social processes. Thus, what is regarded as truth is not a product of objective observations, but rather social processes and interactions between people in the course of social life. The last assumption of social constructionism argues that knowledge and action go together; hence, our descriptions or constructions of the world sustain some pattern of social action. For example, if a fitness trainer was assigned to work with two athletes and given the knowledge that one athlete was labelled as an Olympian and another labelled as a recreational athlete, the trainer would probably take a different approach with each person.

Another epistemological assumption in narrative inquiry is that knowledge is not simply transferred, but rather formed in interaction with the social world. This occurs through dialogic relationships, which are relationships in which we learn through dialogues with ourselves or others. Gergen (1999) posited that, through dialogic relations, we confront the text through an array of pre-judgments or prejudices that will inform the questions we have asked, along with what we will accept as possible answers. It is a relationship in which one's own meaning is in a conversation with the meaning of the text. This does not necessarily result in a correct or accurate reading, but rather a new creation that brings forth new knowledge. Thus, learning takes place through the dialogues that we have with others and ourselves.

Ontological premises within narrative inquiry posit that there is no single absolute truth in human reality, nor is there one correct way to read or interpret texts. In this sense, the narrative approach supports relativism, pluralism, and subjectivity (Lieblich et al., 1998). Relativism presumes that there is no ultimate truth, rather numerous mental constructions of events, socially and experientially based (Burr, 1995; Guba & Lincoln, 1994). Pluralism suggests that multiple realities exist, while subjectivity infers there is no single objective truth, only personal subjective constructions of an external reality. This is not to deny that there is an objective physical or material world, but, rather, that the world can only be viewed through the subjective lens of the knower.

Narrative inquiry also assumes that our personal reality is the product of language and the stories that we tell. "Stories are the primary schema by which humans render life meaningful. Our stories reveal our purposes and intentions as human beings" (Arvey, 2003, p. 208). As stated by Polkinghorne (1988), "Language is the factor that enables us to express the unique order of existence that is the human realm, because it serves as the medium through which we express the world as meaningful" (p. 23). Gergen (1999) also pointed out that what we take to be true about the world and ourselves is socially constructed within relationships. Thus, it will also be assumed that truth is co-constructed through language practices in the social realm and social practices.

The main implication that these epistemological and ontological assumptions had on this current investigation is that I will not attempt to search for an ultimate truth regarding the elements contributing to optimal preparation and performance of Olympic athletes, but rather a more in-depth understanding of the process that is involved from the perspective of the athlete. I will assume that the sport culture, in addition to the athlete's personal experiences, will have an influence on the story that is being told and the language used to convey the athlete's personal

reality. Although there may be commonalities in the story of an athlete's journey of the Olympic Games, each story should be unique, as it will have been influenced by different cultural and individual factors. Thus, it was important for me to have an understanding of the sport culture and to clarify the meaning of the language being used by each participant.

### **The Role of Language in Narrative Inquiry**

In narrative inquiry, the role of language in constructions of our identities, our worlds, and our research participants is key (Arvay, 2003). Narrative meaning can be understood from the position that language is a display, rather than a pure reflection or distortion of meaning. Language provides a mechanism to efficiently store in memory, or think and communicate to others, what one has perceived as words. Ideally, this would provide a direct referent to the actual image or idea in a person's mind (Polkinghorne, 1988). However, in narrative inquiry it is assumed that words are not describing direct features of the world, but rather mental constructions of these features. Here language is seen as constitutive and constructive, rather than reflective and representative (Polkinghorne). That is, language is not transparent; "there is no one-to-one correspondence between our words and what they actually mean" (Arvay, 2003, p. 2007). Rather, there is an interpretive process embedded in dialogue and language practices. As stated by Lieblich et al. (1998),

We do not advocate total relativism that treats all narratives as texts of fiction. On the other hand, we do not take narratives at face value, as complete and accurate representations of reality. We believe that stories are usually constructed around a core of facts of life events, yet allow a wide periphery for the freedom of individuality and creativity in selection, addition to, emphasis on, and interpretations of these remembered facts. (p. 8)

In this sense, stories may be viewed as lessons or teaching tales that provide a recollection of an experience. As stories involve a re-telling, and thus reshaping, they are not stable, but rather in a constant state of flux. In narrative inquiry, the researcher needs to be aware

of the role they play in constructing and interpreting accounts of the participant. Thus, collaboration and reflexivity were key to the research process, which will be elaborated on later in this chapter.

As pointed out by Maybin (2001), the way in which language is viewed can have profound implications for how one understands spoken and written text. The assumptions pertaining to language, as noted in this section, will have direct relevance to this study. Firstly, it was understood that the participants are retelling a part of their life story as they have come to understand it. I assumed that the retelling process may reshape the individual's account from its original form. I was also aware of the role I play in constructing the verbal account of the participant's experience. Secondly, I assumed that the language used to describe a certain account had social and cultural influences. Having been a high-performance athlete, in addition to conducting a thorough literature review, has helped me to be more apprised of the sport culture. However, I still needed to probe into the meaning behind the language that was used, and I was aware of my own assumptions that have been constructed from my personal experience. Therefore, I also analyzed the context within which the participants constructed the research account and my participation in this construction.

### **The Constitution of Self in Narrative Inquiry**

Self identity can be viewed as the sum of feelings, beliefs, and impressions that people have about themselves (Alcock, Carment, & Sadava, 2001). The question of self-identity, or "who am I," seeks to understand the basic substance that shapes a person's individuality (Polkinghorne, 1988). Lieblich et al. (1998) cited many prominent authors in psychology who have advocated that personal narratives form people's identities. According to this approach,

Stories imitate life and present an inner reality to the outside world: at the same time, however, they shape and construct the narrator's personality and reality. The story is

one's identity, a story created, told, revised, and retold throughout life. We know or discover ourselves, and reveal ourselves to others, by the stories we tell. (Lieblich et al., p. 7)

Thus, the descriptive account of the research narrative is not only providing the story of a particular experience, but also lends insight into the personal identity of the research participant. In order to hear and understand the full story, it is important not to lose sight of the person who is telling it.

Within the constructivist paradigm, humans are viewed as proactive agents who co-create their personal reality from which they respond (Mahoney, 1991). In this sense, the development of self-identity is not fixed, rather it is a process that occurs over time. Through specific methods of narrative inquiry, Phillips and Hardy (2002) described identity not as a stable, essential characteristic, but rather, a fragmented, fluid, and ambiguous construct that is influenced by relational, cultural, and contextual factors. Within this investigation, it was assumed that identity development is an on-going process that takes place in the context of human relationships, and that individuals come to know themselves through the stories they tell.

### **Rationale**

There are several reasons that I chose to adopt narrative forms of inquiry to explore the processes that contribute to optimal preparation and performance of Olympic athletes. As stated by Riessman (1993), "The primary way individuals make sense of experience is by casting it in narrative form" (p. 4). Arvay (2003) echoed this by suggesting that narrative is the primary way people make sense of their experience; thus narrative as a form of inquiry provides the researcher with both a research method and text. Given these perspectives, narrative inquiry was an appropriate method to access an athlete's experience of preparing for, and performing at, the Olympic Games. Hochsteler (2003) contended that the process, or the journey, is often an

overlooked element in sport and suggested that a method to promote process in sport is through narrative. Sparks and Partington (2003) maintained that narrative practice can provide different insights into concepts important to optimal sport performance, thus it should be utilized more in research practices. Researchers and practitioners have also challenged the notion that there is one single recipe for athletic success; they have also highlighted the importance of continued exploration of constructs contributing to athletic excellence. A battery of assessments have been administered to elite athletes in an attempt to identify the psychological characteristics or attributes of an expert performer; yet, as Gould et al. (2002) stated,

It is unlikely that instruments are available to measure all the attributes of champions, so interviewing champions, as well as significant others and coaches who know them very well, will allow us to identify potentially new variables of importance to their psychological make-up. (p. 175)

Narrative forms of inquiry allowed for optimal processes to be explored and new constructs related to athletic excellence to be discovered.

Clandinin and Connelly (2000) stated, "Narrative inquiries are always strongly autobiographical. Our research interests come out of our own narratives of experience and shape our own narrative plotlines" (p. 121). This statement resonates with my experience, as I have been a high-performance athlete, and for over a decade, I was involved in the process of attempting to qualify for the Olympic Games. Thus, I too have a narrative about this experience and am searching for meaning associated with this journey. Narrative forms of inquiry helped facilitate the exploration of the meaning associated with this journey, in addition to providing space for many different stories to be told.

Clandinin and Connelly (2000) also mentioned that narrative inquiry provides an opportunity to hear stories that have been largely silent. Over the years, scholars have investigated athletes' traits, states, and characteristics, in an attempt to dissect the *key* factors

leading to athletic success. Often the athlete is regarded as an object, and the dissection leaves the athlete looking like an empty shell. As a result, the participant's identity, voice, and experience are lost. Durand-Bush and Salmela (2002) recommended that researchers continue to examine the perceptions of World and Olympic champions, and stated, "Their knowledge and understanding of the expertise phenomenon can be used to guide the development of future models or theories of sport expertise" (p. 169). Narrative inquiry opened the possibility of creating a research text that illuminates the lived experience of a participant, thus allowing for more of this individual to be known to the readers. This not only helped provide a more in-depth view of the topic under study, but also provided knowledge about the person who shared the narrative about their own personal experience.

### **Participants**

As stated by Lieblich et al. (1998), "In spite of the fact that narrative studies are conducted with smaller groups of individual than the sample size employed in traditional research, the quantity of data gathered in life stories is large" (p. 9), which was the case in the current investigation. The participants for this study are comprised of four individual sport athletes who competed at the 2006 Winter Olympic Games in the sports of skeleton, long-track speed skating (all-round team), long-track speed skating (sprint team), and snowboarding. Two of the athletes are female and two are male.

All but one athlete has won an Olympic medal throughout their Olympic career. Specific to the 2006 Winter Olympics two athletes won medals, one placed fourth, and one placed in the top 10. See Table 1 for summary of demographic information.



Table 1. Demographic Information for Participants

Participant	Kate	Ben	Zack	Zoe
Gender	Female	Male	Male	Female
Age	29	39	29	27
Race	Caucasian	Caucasian	Caucasian	Caucasian
Sport	Speed skating	Skeleton	Speed skating	Snowboarding
Years competing at international level	9	6	10	10
Number of Olympics participated in	2	2	3	2
Highest rank at Olympics—any year	2	1	2	4
Highest Rank at 2006 Olympic Games	2	1	9	4
Number of Olympic medals won	2	1	1	0

Purposeful sampling procedures (Maxwell, 1996) were used for this investigation. This is a strategy in which “particular settings, persons, or events are selected deliberately in order to provide important information that can’t be gotten as well from other choices” (p. 70). The selection criteria included the following: (a) all participants competed at the 2006 Winter Olympic Games, (b) all participants compete in an individual sport, (c) at least three different sport disciplines will be represented, and (d) at least two participants will be of the opposite gender. The recruitment procedures involved sending a letter of invitation (see Appendix A) to appropriate individuals at Canadian Sport Centres in Calgary and Vancouver to inform them about the study. Once support was obtained from the sport centres, athlete service managers sent out a poster (see Appendix B) to athletes who had competed at the 2006 Winter Olympics, and athletes who were interested in participating contacted me directly. I also used word-of-mouth

strategies, which involved getting personal sport contacts or recruited participants to pass information to other potential participants who met the criteria for selection. These individuals contacted me, stating that they were interested in participating in the study. Before being admitted to the study, the athletes read and signed the letter of informed consent (see Appendix C). All athletes provided their written consent, indicating that their names or identifying information could be used in this document or future public presentation of material. It should also be noted that this investigation received ethics approval from the Behavioural Research Ethics Board at the University of British Columbia before any participants were recruited.

### **Data Collection**

Data collection procedures in qualitative research generally fall into four different categories: observations, interviews, documents, and visual images (Creswell, 1994). In order to capture the personal narrative from each participant, semi-structured interviews were used (see Appendix D). In a semi-structured interview, the researcher introduces the topic, then at times guides the discussion by prompting the participant with open-ended questions about focused topic areas (Rubin & Rubin, 1995). This process was used for each interview. The questions for the semi-structured interview were partially based on the questions used in Hayes and Brown's (2004) study and were constructed in a way that would help facilitate the collection of data that could be used to answer the research question. Prior to the start of this investigation, the interview questions were further refined in a pilot interview that was conducted with an ex-Olympian.

Participants were asked to participate in semi-structured interviews, which lasted approximately 2–2.5 hours in length. Once the data were analyzed, participants were contacted a second time via email, in which they were sent their personal narrative accounts that emerged

from analysis of the results. The participants were asked to verify that the information gathered reflected their experience, and at this time, they could add to or correct information in their story as they deemed appropriate. The follow-up email was also used to probe into areas in which I required further information or clarification. The email correspondence took place after the data from the first interview had been transcribed and analyzed. All interviews were digitally recorded, and copies of the interviews were stored in a locked filing cabinet maintained by myself and on a password protected computer. All interviews were transcribed by a third party, who produced an interview script. To verify accuracy, I read through each interview transcript while listening to the original tape recording several times.

### **Role of Researcher**

Riessman (1993) stated, "Investigators do not have direct access to another's experience. We deal with ambiguous representations of it—talk, text, interaction, and interpretation" (p. 8). Riessman suggested it is not possible to be neutral and objective when entering another's experience; rather, the researcher plays a role in representing the experience of the participant. Within this section, I will highlight the role I played in representing another's experience. I will start with research subjectivity and will provide insight on the interpretive stance that may be used within this document, by being explicit with my own experience and interest in this research topic.

### **Research Subjectivity**

In order to explicate my own frame of reference and subjectivity in this investigation, I am including my own narrative of my journey towards an Olympic berth, with the intention of helping the reader understand my location in this research. To maintain consistency with the

results, I will organize my story in the same format as the participants' narrative accounts presented in chapter four of this document.

### **Karen's Story**

Karen is a 35-year-old, retired field hockey player. She is a PhD candidate and is currently self-employed as a consultant, providing psychological services to sport organizations, corporations, and individuals who are interested in achieving a higher level of personal and performance excellence. Karen has been consulting in the field of sport psychology for the past eight years and has worked with various development and national team athletes throughout the years. Karen was involved with Canada's National field hockey teams for approximately ten years. She played in 105 international matches and competed in the Pan-American Games (Bronze medal in Argentina–1995, and Canada–1999), 1988 Commonwealth Games, and in two Olympic Qualifying tournaments, not to mention countless other tournaments and training tours. Although Karen traveled the world and was privy to an abundance of unique experiences, she did not achieve her ultimate goal of qualifying for the Olympics Games. Karen enjoyed playing a team sport, but questions if this limited her capacity to reach the Olympics, as it is rare that Canadian team sport fare well internationally due to the vast size of the country and the difficulty of getting teams together when they have to cover great distances. Upon retiring from field hockey in 2001, Karen finally attended an Olympic Games in her role as sport psychology consultant, providing mental training services to athletes at the 2002 Winter Olympics in Salt Lake City, Utah.

### **Developing the Dream**

Karen first developed her dream of becoming an Olympian through watching the Olympics on television with her family. At the 1976 Summer Olympics, Nadia Comaneci made

world history by being the first gymnast to receive a perfect score at an Olympic Games. Thirty years later as an adult, Karen vaguely remembers watching this performance, but more so recalls being intrigued by the excitement surrounding this monumental feat. Then, eight years later at the 1984 Olympic Games, Mary Lou Retton accomplished a similar task in gymnastics by capturing five Olympic medals. As Karen was older, she can more vividly recall watching this athlete at the Olympics. It was at this time she developed the dream of becoming an Olympian. She had not decided on the sport yet, but knew that she wanted to represent her country at the Olympic Games.

### **Becoming an Olympian**

Karen's journey towards achieving an Olympic berth started when she first started to play competitive sports in her youth. Through her junior years, she played many different sports, but it was not until university that she concentrated on the sport of field hockey. After her third year of committing to this sport, she made the Canadian Junior National team, where she competed in the 1992 Junior World Cup qualifier in Venezuela and the 1993 Jr. World Cup in Spain. She distinctly remembers the sense of pride she felt putting on her team jersey for the first time, with Canada written across the back in bold letters. It was at this moment that she realized she did in fact have the potential to become an Olympian.

These early years were filled with arduous training exercises and competitions that provided the trials and tribulations needed to teach Karen critical lessons on how to become an elite athlete. Karen recalls her experience with her knee injuries as a significant event that taught her valuable lessons on how to truly become a high-performance athlete. In the early years, Karen had not completely committed to the sport of field hockey and was training and competing in the sport of freestyle skiing. One week before the National tournament for indoor field

hockey—she was on the Canadian Jr. National team squad at this time, she tore the anterior cruciate ligament (ACL) in her knee at a competition for freestyle skiing. Complete recovery from this injury would require invasive surgery and a six to eight month recovery time period, a time that would surpass her opportunity to compete in the Jr. World Cup qualifying tournament. Devastated, Karen went to her knee surgeon for advice and recommendations. Karen's surgeon explained that the normal process would be to get the ACL reconstructive surgery, but also acknowledged that these were not normal circumstances. He rationalized that, as a high-performance athlete, she could presumably work hard to strengthen the muscles around the knee and wear a knee brace for additional support, thus delaying the surgery until after the qualifying tournament, which up to this point was the most important athletic event of her life. Karen chose this option; through the process of rehabbing and strengthening her knee, she learned what it really meant to be a committed, dedicated, and disciplined athlete.

Karen successfully competed in the Jr. World Cup qualifying tournament as a starting defending (with a knee brace). In addition, for helping her team qualify for the Jr. World Cup, she gained valuable international competitive experience that provided lessons in arousal control, managing distractions, and performing consistently under pressure and in a variety of conditions. However, her knee troubles did not stop here. At a training camp in the USA, she was playing some test matches against the American squad in preparation for the Jr. World Cup tournament that would take place later that year. In a freak accident on dry-turf, Karen tore her ACL in her other knee. Distraught once again, Karen went to her surgeon for consultation. She was expecting him to set a surgery date with her, but instead he posed the question, "Why can't you play in the Jr. World Cup with two knee braces?" Karen pondered this, but could not find a legitimate reason for "why not?" Although her coach did not have a lot of faith in this proposed

plan, she was willing to give Karen a shot. Yet again, Karen completed her training with discipline, dedication, and intensity, and successfully competed in the Jr. World Cup as a starting defender ... this time with two knee braces! She recalls the newspaper in Terrassa, Spain, where the tournament was held, had a picture of her in the newspaper with the heading "Robo Cop Plays in the Jr. World Cup." This aversive experience provide Karen with the opportunity for huge growth, as it not only taught her how to be a high-performance athlete, but also highlighted the passion, motivation, and love she has for playing sport and an elite level.

Once on the senior national team, Karen recollected a few factors that lead to optimal preparation on her pursuit to becoming an Olympian. This included being diligent in making sure her technical and physical conditioning was above par, having systems in monitor her training, and having support structures in place to help her manage the process (i.e., parents, friends, coaches, and sport specialist, etc.). Karen also highlighted committing to centralized training in an environment that was most conducive to her development. So her team could train and compete together, as Canada is so large, the National team would centralize in Vancouver for five to six months at a time in preparation for major events (e.g., Olympic qualifier). This would mean leaving her family, friends, and normal life behind in the pursuit of excellence. Karen also sought international training in one of the best field hockey nations in the world. As Canada does not have a strong league in which to compete, prior to the Pan American Games, which is an Olympic Qualifier, To ensure she was being provided with the competition needed to reach her full potential, Karen moved to Holland (Amsterdam) in the off season, where she trained and competed in the internationally-renowned Dutch league. In this environment, she developed her technical, tactical, mental, and physical capacities, in addition to learning a lot about herself as

an athlete and as a person—lessons that proved to be invaluable to her sporting career and to her life in general.

In summarizing factors that lead to optimal preparation, Karen emphasized the need to:

- (a) have a plan in place to direct training, unconditional support and encouragement, as her parents provided;
- (b) creating an environment in which performance potentials can be maximized (e.g., sound competitive opportunities, good coaching, good support from qualified practitioners, financial stability enabling one to focus just on sport, etc.);
- (c) strategies for managing distractions (e.g., sport issues, life issues, injury, etc.);
- (d) achieving balance in lifestyle, getting recovery, drawing lessons from both positive and negative experiences; and
- (e) remembering why you started to compete in the first place—for the love and fun of playing games!

### **Being an Olympian**

Karen participated in two Olympic Qualifiers, but in both events her team did not actualize the ultimate goal of achieving an Olympic berth, a fact that still troubles her today. She was left with a very rich sport experience; yet, she has never realized her dream of competing in the Olympic Games. Karen is grateful for the unique experiences and travel opportunities that were afforded to her, in addition to the wonderful friendships she developed throughout her tenure on the Canadian National Field Hockey team. Furthermore, she is thankful for the first-hand knowledge this experience has provided her in developing and maintaining elite performance status.

Karen's experiences as an athlete led to her fascination with human potential and the power the mind has on the achievement of excellence. This journey also made her very intrigued with the promotion of health and well-being. As a result, she has attained Master's degrees in the



area of sport psychology and counselling psychology respectively. When Karen was still competing at an international level, she was working in the area of sport psychology with other national team athletes. Ironically, a year after she retired from the Canadian Field Hockey team she accompanied a Canadian team to the 2002 Winter Olympic Games in Salt Lake City in the capacity of sport psychology consultant. Although she was granted the privilege of experiencing the Olympic Games from the inside, this did not fulfill her dream of becoming an Olympian.

### **Managing Researcher Bias**

Throughout the interview process, I kept mindful of how my background preparation may influence the interview process. As I am very knowledgeable of the culture of sport and aware of terms and the context, I took care to not make assumptions and clarified when general sporting references were made. As the principle researcher, I will make interpretive decisions on the forms of representation, and what I choose to include, or not include. I realize that I must be vigilant in my interpretation, as it inevitably will influence the representation of an athlete's experience. To minimize implications of these points, I followed specific guidelines for analyzing the data, which will be reviewed later in this chapter, and I verified accurate representation by getting each participant to review their story. As stated by Lieblich et al. (1998), "No reading is free of interpretation and, in fact, that even at the stage of procuring the text, especially in the dialogical act of conducting a life-story interview, explicit and implicit processes of communicating, understanding, and explaining constantly take place" (p. 166). Throughout this process, I have tried to reflect on the role I played in representing another's experience, by way of keeping a research journal, challenging my assumptions, and including my research process in the final text.

## Narrative Analysis

A narrative inquirer spends many hours reading and rereading texts, in order to construct a summarized account of what is contained in a participant's story, and also responds to the questions of meaning and cultural significance, which ultimately shapes field text into research texts (Clandinin & Connelly, 2000). As stated by Mishler (1991), "How we arrange and rearrange the [interview] text in light of our discoveries is a process of testing, clarifying and deepening out understanding of what is happening in the discourse" (p. 277). As many different approaches can be taken to reading, interpreting, and analyzing narratives (Riessman, 1993), it is valuable to outline the method that was used for narrative analysis.

For this investigation, Lieblich et al.'s (1998) model of narrative analysis was used. This model outlines two main independent dimensions. The first dimension, "holistic versus categorical" (p. 12), refers to the unit of analysis—that is, whether I analyzed the participant's text as a whole narrative of a participant or analyzed selective sections from the text. The second dimension, "content versus form" (p. 12), refers to the "traditional dichotomy made in literary reading of texts" (p. 12). Some readings focus on the content of the account, such as what happened, to whom, and why; while others concentrate on the form:

The structure of the plot, the sequencing of events, its relation to the time axis, its complexity and coherence, the feelings evoked by the story, the style of the narrative, the choice of metaphors or words (passive versus active voices, for example), and so forth. (p. 13)

Lieblich et al. viewed these two dimensions as intersecting, resulting in the matrix of four cells: holistic-content; holistic-form; categorical-content; categorical-form (p. 13). As the decision for the type of narrative analysis used stems from the research questions embedded in an investigation, more than one cell can be used to analyze the research narrative. To investigate the processes contributing to optimal preparation and performance of Olympic athletes, Lieblich et

al.'s "holistic-content" (p. 15) and "categorical-content" (p. 16) narrative analysis approach was used.

### **Holistic-Content**

Holistic content mode of analyzing uses the complete narrative of a participant and focuses on the content presented by it (Lieblich et al., 1998). The process that was used in reading for content in a holistic manner as outlined by Lieblich et al. (1998), is as follows:

1. Interviews were transcribed by a third party. All transcriptions were read through while listening to the recorded interview to verify accuracy of transcription.
2. The transcripts were read through several times until patterns emerged.
3. Decision was made for the specific content to focus on in the story as it evolved from beginning to end.
4. After listening through the research conversations again, each interview was written up into a narrative account in sequential and temporal order.

### **Categorical Content Analysis**

The categorical-content approach to narrative analysis is similar to what is commonly known as content analysis, as categories of the topic under investigation "are defined, and separate utterances of the text are extracted, classified, and gathered into these categories/groups" (Lieblich et al., 1998, p. 13). Content analysis has many variations, but the following steps, as outlined by Lieblich et al., were used for the narrative analysis of the interviews in this study:

1. All transcriptions were read through while listening to the recorded interview.
2. Coding of main meaning units took place while listening through the original transcript.

3. The main codes were categorized under substantive headings. Definitions were provided for each of the content categories. The subtext was read as open as possible and major content categories were defined as they emerged from the readings.
4. Major themes were created by collapsing content categories together.
5. Separate sentences or meaning units were sorted and assigned to relevant categories. The meaning units were either derived from a single story or from several different participants to create common themes.
6. Conclusions were drawn from the results by analyzing the content in each category (i.e., frequency of meaning units in each category).

### **Legitimation**

One of the challenges for qualitative research has been the struggle to establish agreement over the criteria to evaluate the quality of qualitative research (Lather, 1993; Mishler, 1990; McLeod, 2001). Due to philosophical differences, the same criteria used to assess rigour in quantitative research cannot be superimposed on qualitative studies. Specific to narrative inquiry, the typical criteria used to evaluate research, such as reliability, validity, objectivity, and replicability, are difficult, if not impossible, to maintain. These techniques contradict the narrative approach, which asserts that narrative material

can be read, understood, and analyzed in extremely diverse ways, and that researching alternative narrative accounts is by no means an indication of inadequate scholarship, but a manifestation of the wealth of such material and range of sensitivities of different readers. (Lieblich et al., 1998, p. 171)

This does not preclude narrative inquiries to conduct investigations without criteria to enhance legitimation of results, rather it implies that the criteria being used to evaluate narrative research need to be consistent with the philosophical assumptions that guide the research practices. The

criteria used to evaluate the quality of this study were reflexivity, visibility of work, peer reviews, and member checking.

### **Reflexivity**

As the experience and identity of the researcher influence the findings that are produced in narrative forms of inquiry, it is essential to incorporate reflexivity into the writing. McLeod (2001) stated,

The idea of reflexivity implies a capacity for 'bending back' or 'turning back' one's awareness on oneself. No competent qualitative researcher would doubt that a capacity for self-reflection is a necessary component of effective qualitative researching, even if only at the level of thinking about how one's presence or manner might have an impact on people being interviewed. (p. 195)

McLeod (2001) also identified three key principles of how reflexivity can contribute to producing better research, which are:

1. Reflexivity implies awareness of the moral dimension of research;
2. Reflexivity invites consideration of the processes through which the text is co-constructed; and
3. Reflexivity opens up the necessity for new approaches to writing and communicating research findings.

There are a number of ways that I have tried to incorporate reflexivity into this investigation. At the beginning of this project, I started a research journal, so I could record my own personal reactions to all aspects of being engaged in this investigation. I continued to use this journal as a means to self-reflect on the process that lead to incorporating my insights into the final document. I have also been explicit about my background and experience with this topic. Maxwell (1996) suggested that, since it is difficult to eliminate differences that may exist in the values and expectations researchers bring to a study, it is valuable to be transparent about

the background and experience of the researcher. Throughout this document my experience as a high-performance athlete and sport psychology consultant has been made explicit, to help enhance the rigour of this investigation. To be clear about my experiences and to make my bias known to the reader, I included my story regarding processes contributing to optimal preparation and performance of an Olympic athlete. It was my intent to make sure the reader is aware of factors that may impact my interpretation of the narratives.

### **Visibility of Work**

Mishler (1990) suggested that the following questions should be asked of any study within any research tradition:

What are the warrants for my claims? Could other investigators make a reasonable judgment of their adequacy? Would they be able to determine how my findings and interpretations were “produced” and, on that basis, decide whether they were trustworthy enough to be relied upon for their own work? (p. 429)

Mishler proposes that affirmative answers to these questions can be attained if the research is visible within his or her work and if the narrative accounts that are constructed are confirmed by the participants.

Visibility of work provides the reader with direct access to the methods and procedures used to generate findings and interpretations. As outlined by Mishler (1990), the aspects of an investigation that should be visible to the reader include: (a) the data in the form of the texts used in the analysis, including full transcripts and tapes that can be made available to other researchers; (b) the methods used to transform the text into finding; and (c) direct linkages shown between data, findings, and interpretation. Mishler argued that, through visibility of work, other researchers “would be able to make a reasoned and informed assessment about whether or not my validity claims are well warranted” (p. 429). Within this investigation, I have taken care to make sure that my work is visible to the research audience. My supervisor read the transcripts

and the narrative accounts to assess the claims being made in this dissertation. In discussions with my supervisor, it was evident that there was a consistent assessment about the claims being made.

### **Member Checks and Peer Review**

The notion of credibility checks have been endorsed by many of the leading figures in qualitative research (McLeod, 2001). One method to accomplish this validation procedure is through member checks: "A report (written or oral) is presented by the researcher to informants or other members of the informant social group. These 'members' can then comment on the veracity of what the researcher has produced" (p. 185). Member checks provide the participant with an opportunity to have a voice in how their story is being represented. After the transcripts were analyzed, I gave the narrative accounts and themes back to the participants, so they had an opportunity to respond to what had been described and concluded (Patton, 2002). At this time, the participant were able to change and further comment, to ensure that their experience was being accurately represented. The purpose of conducting a member check with each participant was to ensure that there was coherence and accuracy in regards to the content of their story. A description of modifications made to the narratives is presented later in this chapter.

As stated by Glesne (1999),

Obtaining the reactions of respondents to your working drafts is time-consuming, but respondents may (1) verify that you have reflected their perspectives; (2) inform you of sections that, if published, could be problematic for either personal or political reasons; and (3) help you to develop new ideas and interpretations. (p. 152)

To enhance legitimization of this the results of this investigation, feedback on the findings were sought from two sources: the participant of this study and a peer reviewer. Soliciting this feedback was approached in a few different ways. The first approach was to provide each participant with a copy of their specific story and the themes that emerged from the content

analysis. The second approach involved giving the findings to a sport psychologist who has provided mental training to Olympians, to see if the findings resonated with his/her own personal experience. The criteria used for the peer review were resonance, understandability, and pragmatic usefulness. The peer reviewer was given the themes that emerged from the findings and was asked the following questions:

1. Did the findings resonate with your experience in this field?
2. Given the research question for this investigation, do you think the themes are understandable?
3. Do you think these themes have pragmatic value for other Olympic athletes, or practitioners (coach, sport psychologist, etc.) that support athletes in their Olympic quest?

These strategies, in addition to those mentioned prior, were used to enhance the legitimization of the results.

### **Results of Legitimation Process**

The member checking procedures resulted in minimal changes to the narrative accounts. Two of the four participants wanted a few words changed, in order to capture the essence of what they were trying to communicate. For example, one participant made a clarification to this statement: "Ben noted that he would not try to imagine himself driving the course perfectly, but rather visualize himself driving the course wrong because that was more realistic." The participant stated, "Wrong is maybe too strong, it wasn't wrong, it just wasn't perfect." Changes were made to reflect this clarification. In addition to the changes, one of four participants made a few additions to help further express her point. For example, with this remark, "Like, I mean, look at Cindy [Klassen, speed skater who won five Olympic medals at 2006 Games]; she is just



so good. But I don't think she does the things that I do to be good." The following addition was made: "We each have different strengths and weaknesses and it is up to us as individuals to recognize and work on those things."

The peer reviewer for this investigation was a world-renowned sport psychologist. This individual has worked with athletes for over 25 years and provided sport psychology services at eight different Olympic Games. This person has also held academic positions at various credible Canadian Universities and has taught, researched, and presented on various topics within the field of sport psychology for several decades. The peer review process produced the following commentary as per the three questions asked to ascertain legitimization of the findings:

**Preparation themes:**

1. Did the findings resonate with your experience in this field?

"YES, very much so. They also felt very 'current'!!"

2. Given the research question for this investigation, do you think the themes are understandable (did they answer the research question)?

"YES, no problem there...."

3. Do you think these themes have pragmatic value for other Olympic athletes, or practitioners (coach, sport psychologist, etc.) that support athletes in their Olympic quest?

"YES, the themes provide valuable insights & strategies for other Olympic athletes...."

Suggestion: I would consider titling the individual process category,

Individualization". This is an important theme that sport administrations are only beginning to fully appreciate. Note, this comment will be taken into consideration when presenting the results in academic journals and public presentations

Performance themes:

1. Did the findings resonate with your experience in this field?

“YES, Again very ‘current’ insights.”

2. Given the research question for this investigation, do you think the themes are understandable (did they answer the research question)?

“YES....”

3. Do you think these themes have pragmatic value for other Olympic athletes, or practitioners (coach, sport psychologist, etc.) that support athletes in their Olympic quest?

“YES, the themes and data are all valuable for other athletes, and also probably for performers in other fields. There is probably some relationships again in the six themes, but they all have merit. Perhaps IAA & PAA are quite ‘related,’ and more ‘foundational’ than the others. If more ‘foundational,’ they may be more related to the other themes??”

4. Suggestions overall: Consider discussing the possible relationships between the “preparation” and “performance” themes and data?? The quotes and data forwarded supporting each theme are impressive, and “rich” in insight and value.

## **CHAPTER IV**

### **Results**

This chapter presents the findings that emerged from the narrative analysis of the participant responses to the research interview. In 1986, Jerome Bruner introduced the concept of two modes of cognitive functioning: the logico-scientific mode, meaning produced from numbers, and the narrative mode, meaning derived from words. For this investigation, the latter mode was used to answer the research question that drove this investigation, which was: What processes contribute to optimal preparation and optimal performance of an athlete competing at the Winter Olympic Games? The research narratives have created the opportunity to explore methods that contribute to athletic excellence and have allowed for the research participants' voices to be heard. Within this section, I will first present the narrative accounts that emerged from the narrative analysis for each research interview. I will then describe the main themes that became apparent through the process of conducting a content analysis for the participant's process narrative accounts of optimal performance.<sup>1</sup>

### **Narrative Accounts**

#### **Kate**

Kate is a 29-year-old, all-round speed skater who has been competing at the international level for the past nine years. She has completed an undergraduate degree in science and is currently focusing her energy on being a full-time athlete. Kate has been in a relationship for the past five years. Kate has attempted to qualify for three Olympic Games and was successful in

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<sup>1</sup> Permission was give by all participants to state their sport and ranking acknowledging that their anonymity may be compromised.

earning an Olympic Berth to the 2002 Salt Lake City, USA, and 2006 Torino, Italy, Olympic Winter Games. As all-round speed skating is comprised of multiple distances, Kate competed in several races at each Olympics. At the 2002 Olympic Games she placed twentieth in the 1,500 m event, eighth in the 3,000 m event, and tenth in the 5,000 m event. At the 2006 Olympic Games, Kate placed fifth in the 1,000 m event, second in the 1,500 m event (silver medal), eighth in the 3,000 m event, sixth in the 5,000 m event, and won another silver medal in the team pursuit—a new event added to the 2006 Winter Games. Kate also achieved great skating success on the World Cup circuit, placing third overall at the 2006 World Speed-Skating Championships, to name just one of her many accomplishments.

### **Developing the Dream**

Kate first developed the dream of becoming an Olympian when she was eleven years old. She said this desire was inspired by a combination of factors. One significant event was discovering the Petro-Canada Olympic Torch relay and filling out ballots to take part. This was her first independent discovery of the Olympic Games. She truly believed that one of her ballots would be chosen and went running at the cottage with a hammer to prepare. She did not get chosen to run in the relay, nor did she see it pass by, but she was nonetheless inspired by the Olympic movement and, in subsequent months, discovered speed skating by watching Gaétan Boucher compete at the Olympics in Calgary in 1988. She spoke of watching Gaétan Boucher compete at those Olympic Games, a speed skater who had won three Olympic medals, and decided that she wanted to try that sport. Having been inspired by, and discovering the new sport of speed skating, Kate decided that from day one of participating in this sport, she wanted to go to the Olympics.

## Becoming an Olympian

Kate's preparation for the Olympics started the first day that she began to speed skate. There were a number of developmental stages that she needed to go through to achieve world class status. She indicated that preparation is "a continuous evolution of learning and developing," and noted that it should be viewed on a continuum from the day she started to skate, to the four-year cycle before the Olympics, to one year out from the Olympic Games. Within these macro and micro phases, Kate focused on developing certain areas, but also found it important to be open to do training that was not planned. She said, "Stuff came out of the blue that you are not planning on developing, but you learn more than anything." One example she spoke of was going to see a sleep doctor for jet-lag strategies, then she ended up taking a meditation class. She identified meditation training as being monumental to her preparation and performance at the Olympic Games. Kate commented,

He (the sleep doctor) said my brain was too active, and that's why I can't sleep; and so I should take a meditation class and really drop stuff and be okay with doing nothing, because I would be busy all the time. So I ended up taking a meditation class and that's like probably one of the biggest things that helped me last year. So, inadvertently, I learned that I needed to chill out and took the steps to do that.

In speaking further about using meditation, Kate said,

Taking this meditation class was huge ... like things that would have normally have bothered me or things that would have normally stressed me out just disappeared, and that was pretty crucial ... and even going beyond the Olympics it was something that I was thankful that I did.

Kate said a specific four-year plan was developed by her coach to ensure she was optimally trained for the 2006 Olympic; but in speaking about preparation for the 2006 Olympics, she focused specifically on the year before the Olympic Games. Kate indicated that there was a "heightened sense of focus on specific details, all the little things that we didn't pay attention to as much before." She spoke about the training being similar to prior years, but there

was a higher level of discipline, specificity, and focus to her training regime. She said, "You need discipline and commitment to the goal that you are trying to achieve. So there is no skipping practices, there's no, you know half-assing practices; it's just fully committing yourself to it." To Kate, commitment means "that you do everything you can, that you know you need to do, to be successful." The training program developed for her was very calculated, and there was always an in-depth discussion if changes needed to be made. Developing a specific plan that incorporated all aspects of her training was key. Kate spoke of the importance of sitting down with her coaches at the beginning of the year and mapping out her training plan. This involved identifying what was needed in all areas that contribute to optimal performance, such as technical, mental, physical, nutrition, and recovery (massage, physiotherapy), and so forth and then completely committing to the implementation of this plan. She spoke of the importance of having this individualized to her specific needs. Although there are some common factors, Kate stressed that preparation is an individual process, and it is important for athletes to know what they need to become prepared and to take responsibility for themselves and their performance above all else. She said,

You need to be self-aware enough to know what you need and then get that from your support network. But this is purely individual. Like, I mean, look at Cindy [Klassen, speed skater who won five Olympic medals at 2006 Games]; she is just so good. But I don't think she does the things that I do to be good. We each have different strengths and weaknesses and it is up to us as individuals to recognize and work on those things.

Within this plan, Kate explained that it was important to manage energy, get proper recovery, and get a certain level of balance away from skating. She said,

I followed my program and I eliminated a lot of external activities or extra curricular activities. I still made a point of like reading books and I had my guitar lessons and I had things other than skating, but way less than normal.

In speaking further about balance she commented, "I remember learning years ago that having balance can be year to year, or month to month, so I was like, okay this is the year.... This is the

year I am going to really focus, and next year I am going to do more stuff.” She also reiterated a comment made by the team’s head physiologist, “He said ‘you have to make sure that when you get to the Olympics you still have enough left’... Like you don’t want to be depleted emotionally cause it’s pretty stressful and intense experience the year before.” So Kate ensured that she was watching her activity level, managing her stress, and getting proper recovery.

To help manage her energy, Kate incorporated a system for reflection and monitoring. She acknowledged that, at times, there could be a breakdown in the system, so instead of doing the same thing because it is familiar, it is important to be constantly evaluating and learning. Part of this involved checking in with key people within her support network. Kate said that she would “touch base with her performance enhancement team [PET team, e.g., physiologist, sport psychologist, massage therapist, physiotherapist, etc.] on a fairly regular basis to make sure that everything was good and on track.” She stated, “It is key to have a good support network. If anything comes up you have someone to talk to about it.” Kate also noted that “it was helpful to talk to the sport psychologist about races, or whatever, you know just a kind of evolution again of discovering what are the things that you need to do to be successful.” A good support network involves having good training partners, coaches, PET team, and family/friends to collaborate and consult with. In regards to the support staff on the PET team, she said with a laugh “I think they need to be behind the scenes and be there when they’re needed.... It’s a thankless job really, athletes can be pretty high maintenance, so they [PET staff] need to have their own stuff together.”

Kate indicated that she felt prepared going into the 2006 Olympic Games. She felt good about her training and developed specific strategies for dealing with distractions at the Games. She noted that, even if she had failed at the Olympics, she still would have felt okay because she

knew that she did everything she could to prepare. She mentioned that there are some lessons learned in hindsight, as you do not always know what strategies you are going to need or situations that you might need to plan for. An example she gave was learning at the Games that she should have to come up with a plan for managing all of the support staff, as she felt over supported at times. Kate said,

I had media plans and stuff beforehand, but I think I would have maybe taken a minute to go through some of our support people and talk to them about what I want and needed exactly at the Games. It got to a point where it was a bit late at the Games to sit down with certain people. The Olympics is a Gong Show and it sometimes causes people to act different... and sometimes I was like, "I can't be around you 'cause you're not normal right now."

It is important to prepare plans for coping with a variety of situations, but it is as equally important for athletes to be prepared for not always being prepared. She said, "It's like nothing can prepare you for those things that you go through at the Olympics, you need to be open to the constant learning of lessons."

Kate spoke of the importance of being self-aware and becoming a better expert on yourself. That is, "being in touch with who you are, knowing yourself, and being open to learning about yourself and what you need to do to be better." She also highlighted the need to be comfortable with herself as a person independent of results. She said,

I think you need to be okay with who you are as a person.... Like one thing I learned in the last few years was that it doesn't mean squat what your results are, and no one really cares if you win a medal or if you don't, or if you actually went to the Olympics or didn't. Most important is who you are, and are you happy with the person you are. Like once that first race was done I was like, "Ahh it sucked," but I'm still the same person.... and actually the reason I skated badly in that race is because I wasn't myself, like I kinda freaked out because I reverted back to succumbing to external pressures, right.... So I went back to being myself and it was awesome.

Kate indicated that she needed to maintain a healthy perspective on the Olympics and not get too caught up in the outcome of what happens at the Games. That is, "They are not the be-all and end-all, the world is still the same place, and they are not going to define you as a person.... It



has to be a rewarding and fun experience.” Kate also spoke of the need to have a system in place, but to also be open to adapting to the current context. She said,

I went through a phase of skating like crap for a couple of weeks, and I was like, “Hey, wait a minute, why is this happening? This shouldn’t be happening because my system worked before”.... And so I thought, “Well, maybe I need to come up with a different system.” And so it is consciously evaluating, learning, and then adapting.

In regards to preparation strategies for the actual Olympic event, Kate stressed the importance of consistency and routine. She said, “You should not change things just because it is the Olympics. So if you warmed up a certain way for the last four years, warm up that way for the Olympics.” Kate mentioned in a matter-of-fact tone, that for her it is important to map out a specific preparation routine. This holistic plan blended mental and physical preparation together and included things such as how close to the race she would show up to the rink, when she should do her warm-up, when she should get her massage, and so forth. She noted that, for the race in which she felt she under-performed, she changed her routine a bit. Luckily, due to her reflective practices and openness, she was able to learn from her mistake and apply the lessons to her other races. Kate also spoke of having the right frame of mind, not over-reacting to things that come up, but trusting that you can handle any situation that is thrown at you. She mentioned that it is important to expect the unexpected and know how you are going to deal with the various distractions. Kate noted that her preparation strategies involved having contingency plans. For example, there are more external people around at the competition site, so although she does not normally use music, she had some on site in case she needed to shut out the world.

### **Being an Olympian**

Kate spoke of everything at the Olympics being “more heightened” than at other competitions. In order to perform well at the Games, she emphasized the importance of knowing oneself, staying true to who you are, and “bringing that person to your races.” She said, “You

have got to know who you are, know what you have to do to perform well, and know enough about who you are and how you react that you can adapt to any situation that you need.” Leading into one of her races, she said she was not being herself and tried to change the way she skated to fit the current ice conditions. This led to under-performance, but a valuable lesson about being herself and being confident in her own abilities, which she was able to apply to her remaining races.

In order to perform well, Kate needed to remove herself from the results and focus in on the process of performing. She said, “I was just loose and I was like... psyched, but I was myself, and I just removed myself from the results and I thought... ‘have a blast.’” This process involved sticking to normal routines, being relaxed yet energized, not over thinking but letting things flow automatically, maintaining the way that she normally skated: “being confident in my own abilities, and skate the way I know how to skate regardless of the ice.” She also evaluated her success, based on her performance rather than her results. She commented,

I had awesome results in the fall, and it was because I didn’t give a crap about the final result anymore. It is more about how I skate, and I skate at my best when I am just being in the present moment and just skating.

Kate further noted,

It used to be that I would wait until all the races were done, and then I would decide whether I was happy with my race or not. Like if I ended up in fifth I’d be happy, and if I was seventh I would be disappointed, whereas now I know from the second I cross the line; I know if it was a good race or not. I would know this from the feeling I had ... like technically. It’s a hard thing to quantify, for sure. So it is just purely experience and living those things ... and being aware and actively learning what works and what doesn’t.

Kate identified learning from past experience to be important. She spoke of how her 18 years of race experience, and actively learning lessons along the way, helped her perform to her potential at the 2006 Olympic Games.

To stay in the moment, Kate needed to manage her fear. She spoke of the need to embrace the competition instead of fearing it. In her 3,000 m race, she indicated that she was a bit scared of the race. She said, "In the 3K I freaked out, and I was scared of not performing ... and that is exactly what I did." Although she originally worried about "people thinking less of me" if she under performed, Kate found out that nothing major happened after her poor performance. She noted that she was able to let go of the fear and embrace competing in her upcoming races. To manage the fear she needed to be aware that this fear response was occurring and how this was impacting what she was thinking and doing. She also said you needed to maintain perspective, be "emotionally calm and happy with your place in the world," and be content with yourself regardless of performance.

Trust and acceptance is another key component to optimal performance. It is being able to let go of being attached to a certain feeling state or outcome and just accept what is. When Kate under-performed she thought, "I'm supposed to win a medal, I'm supposed to feel a certain way, this isn't happening the way that it's supposed to happen." A lesson learned for Kate was to go into each race with a blank slate, accept that you feel what you feel, and to just go with that. She said, "It's having no expectations as to what you're supposed to feel like, and just going with how you feel." Over her career, she has learned that there are no guarantees that feeling a certain way is going to lead to a certain performance. It is more about accepting what is and trusting that you have what it takes to cope with any scenario. Kate said, "It's important to be confident with your own abilities, and being okay that it's (what you feel) always different." She also spoke of having her mind pretty clear before each race and allowing things to happen automatically versus thinking about too many things, such as cue words. She said,

As far as executing goes, it's just automatic pilot ... it goes back to the whole conscious awareness of what you need to do to perform well... and being open to what happens,

when it happens and how you feel ... and the whole calm, relaxed, be myself, things comes into play.

Kate spoke of a variety of circumstances outside the competition day that lead to optimal performance. Managing the environment surrounding the competition was important. For one, speaking to the support staff who were at the Olympics and letting them know exactly what you need from them, in addition to what you don't. Secondly, managing energy and emotions for the days when you are not competing. This involves bringing books or activities in which she could engage to keep her mind occupied, identifying the people who Kate would want to be around, and cutting out activities that may drain her physically or mentally. From a larger perspective, Kate's eighteen years of skating experience contributed to the growth and learning that was needed to figure out what she needed to do to perform well. She said, "It's about purely experiencing and living those things, being aware, and actively learning what works and what doesn't." Throughout this long-term performance process, there is experimentation, failure, persistence, and growth and learning. Through media and personal communication, Kate has heard how others have admired her hard work, dedication, commitment, and persistence through many hard years of training. Kate was able to persist through all these years because she "loves to skate." She attributed her success to the fact that she "loves doing it (speed skating) and because it is so much fun." She spoke of coming to the realization that this is not something she "has" to do, but rather "gets" to do: "This is what I'm doing for four years. This is the last four years I get to do this awesome thing." She said it was important to be aware of what keeps athletes in sport, what is the motivation for it all, and why it is athletes are doing what they are doing.

## **Meaning of the Olympics**

To Kate, the Olympics represented the ultimate competition. She said, "It is the opportunity for an athlete to try and perform to the best of their abilities on the world stage. It is about integrating all the things together that you have learned to see how well you can do against the rest of the world." Kate also indicated that the Olympics is an incredible learning experience, that "you learn so much about yourself and about what you need to do to be successful in your sport. It gives you that test of where you are at, how good you can do, but it also informs you what you need to do... to be that good." Kate has committed to pursuing the Olympic dream and is currently on the quest to qualify and compete at the 2010 Winter Olympic Games.

## **Ben**

Ben is a 39-year-old retired skeleton athlete who is married without children "yet." His highest level of education is a Masters in Kinesiology, and he is currently employed as a fire fighter. Ben competed in skeleton at the international level for six years and attended two Olympic Games in this sport. Prior to skeleton, Ben competed in the sport of bobsleigh for eight years. He made the national team in bobsleigh and competed at a few world cups, but did not qualify for the Olympic Games in this sport. In skeleton, Ben competed in the 2002 and 2006 Olympic Games, where he placed tenth and first respectively.

## **Developing the Dream**

Ben first developed the dream of becoming an Olympian by watching the Montreal Olympics on television in 1976. He recalled watching specific events, such as Greg Joy battling against his competitors in high jump to win the silver medal, a Russian weightlifter have an outstanding performance, and his elementary volleyball teacher referee at the Olympics. He said,

If you ask me what it was about these games, I don't know. Maybe it was that it represents the worlds best in that venue, I don't know. Just that it was magical for me in some way, and from that moment I knew I wanted to be a part of it.

Ben's father was also a big influence, as he competed at a high level in many sports.

Right around the 1968 Olympics, Ben's father was the Canadian Judo Champion, but Judo was not in the Olympics at this time, so he never got to go. He did not witness his father as an athlete, but rather as a role-model and coach to many others. This provided him with an example and someone with whom to share his interest. Ben's father passed away a few months before the 2006 Winter Olympic Games, before Ben had officially qualified for these Olympics. At his father's memorial service, Ben had a video tape of one of his father's former athletes reading out a tribute to his dad. This made him realize how big an impact his father had on others. The stories he heard about his father competing or that his father told him about others competing helped to motivate Ben. He said,

My dad provided an example and an outlet, and someone who simply shared an interest. You know he would tell me stories about him either competing or of people that he had witnessed compete, and those become my stories of inspiration.

### **Becoming an Olympian**

Ben said his preparation for the 2006 Winter Olympic began the summer after the 2002 Olympics. He recalled the specific incident of overhearing the coach of the 2002 Gold medalist, Jim Shea, acknowledge the importance of matching the correct steel runners (blades on the sled) with the anticipated weather conditions at the Games. From this event, Ben understood that he needed to match his equipment more precisely to the current conditions versus just having two sets of runners, one for practice and one for competition. He said,

Shea had nailed it, or they had a chance to win because of their runner selection, and the conditions were perfectly matched to that. I had two sets of runners, ones that I didn't care about beating up cause they were my practice set, and ones that I took care of

because they were my race set. They were exactly the same in terms of how they were cut, and I thought I could be doing a lot better here on the technical side of it.

Ben spoke of this solution as being motivational, because after doing the math, he realized how much faster he could be. Ben said that, in the sport of skeleton, "A great performance is one third push, one-third driving, and one-third equipment." To prepare for the 2006 Olympics, Ben developed a systematic plan for how he could improve in each of these categories every year. Even something "miniscule as a one percent difference, over a sixty second race, can move you from first to not even in top twenty." This involved continuous learning and experimentation to find out what worked and what did not work.

He also commented on developing a program that was adapted to his needs for his physical training: "You know athletically it is another year of training. It's another year of learning what programs work best, and I'm 39 so that is not to be understated, that is a big aspect of it." He also said, "The two years prior to the Olympics year were practice years for being the best I could in February [Olympic Game time]." For example, he tried out a variety of runners for his sled to see what worked best with different ice conditions, and he went to a simulated wind tunnel to try out different helmets, sled designs, and sliding positions to see what was most aerodynamic and efficient. Ben said,

At the wind tunnel, I tried seven different helmets to see what would be most aerodynamic, and the one I used was the fastest for me. Also, the information I got when I was there made me re-design my sled so I could get my arms in tighter, which ended up giving me wicked Charlie horses from it. I basically wasted the first half of the season rehabbing, but I got it all figured out in time.

He indicated that most of the learning occurred in the first few years, but that learning is constant and he was always finding ways to improve. Ben used this learning to continually adapt to his current environment and ice conditions.

Ben acknowledged the importance of using visualization to help him familiarize himself with the competitive environment and help him automate his responses at the Olympic Games. He said, in sliding sports, it is important to become familiar with the environment and know each track very well. Ben said,

We have had an Olympics, a world cup, and two training weeks on that Turino track and been successful there, and I've maybe had thirty runs on it in total. On the Calgary track, I have over a thousand runs for sure. Calgary is a gliding track, which requires you to be very aerodynamic, which I am not. The only reasons I have been successful in Calgary is that I have done it a thousand times. I can hold my position and do absolutely the least amount of steering and be totally confident that it is the correct steering, and be relaxed on the sled.

To get the same sense of mastery on the Turino track, Ben visualized the run numerous times. He would not try to visualize a perfect run, but rather would visualize realistic errors and how he may react to having the best run. During a training week on the Turino track, site of the 2006 Olympics, for every run he took, Ben tried to do 100 mental runs on the Olympic track. This meant about two to three hours a day committed to visualization. Ben said, "The purpose was to trick my mind into thinking this is my home track, I've done it a thousand times, because mentally I had. I felt like I was a master of that track."

Having a supportive, yet competitive team environment, was of benefit to Ben's preparation for the Olympics. The team and coaching staff helped to ensure that Ben had everything he needed to be his best. Ben had the opportunity to train with two of the best riders in the world, so they were able to push each other and learn from each other. When Ben and his two team mates placed first, second, and fourth at the 2006 Olympics, one of the parents pondered if they would have been able to achieve these results without each other. Ben stated, "We were much better because we worked together, and competed against each other... like every training run I've done I had a World Champion to compare my every section to." Learning from champions from different sports was also of value to Ben's preparation.



Listening to past Olympic champions talk about their Olympic experience at the “Olympic Excellence Series,” a number of high-performance workshops designed to better prepare Canada’s athletes for podium success at the Olympic Games, was inspirational, helped Ben normalize some of his feelings about the Games, and allowed him to question his way of thinking. He said,

Marni [Marni McBean, past Olympic medalist rower] was a big impact on me. She was really good for me to hear. I really enjoyed her because I agreed with mostly everything she said sort of thing. You know, somebody who was a great champion, re-enforced it and validated my thoughts.

He spoke about a talk that Gaetan Bouchea, past Olympic medalist speed skater, gave about the importance of believing you can win. He said,

I put up my hand and said, “The nature of my sport it’s just too easy to screw up.” On seven different spots on that track, I can lose a second and be out of the top twenty. So I can’t relate. I was sort of feeling like, “Do I have a problem that I don’t believe I’m gonna win.” The speaker basically did a 180 and said everyone is different. So that sort of told me that I was okay.

Ben commented that he knows he has the ability to win, there are just so many variables that need to be perfect for it to occur. The Olympic Excellence Series gave him the opportunity to reflect on what was needed to prepare and optimally perform at the Olympics. It also helped him plan for interferences to optimal performance. Ben said, “We talked a lot about dealing with distractions, and anticipating what might happen ... or what we could imagine happening that may throw us off,” which he noted was helpful.

Recovery, regeneration, and having good training prior to the Olympics was a key factor that lead to optimal preparation for Ben. He said, “Mentally being fresh at the Games was a big one [factor], cause I had just spent two or three weeks at home.” With less than a month before the Olympics, Ben had cracked some ribs at a World Cup, which added to the other “million little injuries” that were preventing him from quality training. With less than a month before the

Olympic Games, Ben made the decision to not compete in a world cup race and instead go home to rest and recovery in a controlled environment. He said that at home

you've got everything you're exactly used to, and you can train exactly in the time of day when you want to, you can get as much sleep as you want to... so I had a good mental break, I was healing, and I got some really good training in.

Ben acknowledged the importance of being mentally fresh heading into the Olympics, and felt that being at home with his wife, on his track, doing great training helped to re-energize him to the level that was needed to be fast at the Olympic Games.

To prepare for his event once at the Olympic Games, Ben made sure he prepared everything ahead of time, so all he needed to do on competition day was race. In the training days prior to the race, he became more familiar with the track and decided on what runners would be best for this track and weather conditions. He said,

Ice conditions are specific to the day of the race almost. So on each of the three practice days he had before my run, I tried one run on the runners I normally use and one run on the relatively new ones.

After this assessment period, Ben concluded the best runners for this track and those conditions were his new ones. He noted that he had not raced on them before and that "it was definitely a last minute sort of thing," but that he trusted his decision. On the day before the race, he took lots of time to prepare his sled. He commented, "From the wind tunnel stuff we had packing tape, you know just to make sure everything is as aerodynamic as possible. So that took a lot of time." He also spent time the day before to take care of all the details like packing his bag to take to the competition site with key items, such as food and necessary equipment, and relax and imagine the course a few more times. On race day it helped to know all the "ducks are aligned," so all he needed to do was manage his arousal level and focus on racing.

## Being an Olympian

In order to perform optimally at the Olympics, Ben needed to execute the push, sled, and the drive. To execute the push, he needed to be prepared athletically—an optimal combination of strength and speed, which he felt good about, and then just “have a good warm-up, be loose, have the last visualization done and mental preparation complete” and go for it when it was his turn. To optimize the sled, he had to first test which runners would be best for this track. In order to adapt to the current conditions, Ben ended up choosing newer runners that he had never raced on before, so it was important for him to commit to his decision and completely trust his sled. To excel at the driving, Ben did a lot of prior visualization, because he feels a lot of driving is innate. Ben noted that he would not try to imagine himself driving the course perfectly, but rather visualize himself driving the course imperfectly, because that was more realistic. He commented,

You are never perfect at driving a course; you want to go into a corner six inches off the right wall, but it's never six, so I visualize every possible scenario and how I may react if that scenario occurred. So, if you have a left-handed corner and you go in late, you'd have to steer very hard. If you went in early you would not have to steer as hard.

Ben visualized a variety of circumstances, so that his response could be more automatic for the majority of scenarios.

For optimal performance at the Olympics, it is valuable to have optimal preparation and “to have everything aligned.” Ben realized that having a good performance is largely dependent on the preparation done in the days leading up to the race. Ben's training runs went well, which helped him mentally. He said, “If training goes well then I'm excited and anticipating a great result, then I have the emotional energy, which translates into the physical energy to do my absolute best on that push.” Being mentally fresh and excited to perform, and having the optimal arousal level, was also acknowledged as being important to optimal performance. Ben

commented on being able to use the energy of the games to get him to the optimal level of arousal needed for a successful performance. He said,

Rookies are always a bit more activated as they are really excited to race, whereas veterans, it is harder to get there. So, for a lot of people, being at the Olympics would freak them out to the extent that they can't perform optimally. Whereas for me, the excitement of the Olympics is good because it gets me to where I need to be.

Being present and focused during the race also led to superior performance. Ben felt that he performed to his potential at the 2006 Olympic Games, as was indicated by his winning of the Olympic Gold medal. He said,

My push was really good. For an athlete, I'm an old guy, and for me to do two-hundreds better than I did the year before at my age—I have to be happy with that. In terms of my driving, I had two perfect runs. Like out of nineteen corners, I can think of one corner where I wish I was a little bit better. So basically, I absolutely nailed it!

Ben found the Olympic Excellence Series helped enhance performance, as it gave perspective on what it was like to “be at the moment,” which helped to validate his thoughts, reinforce things he already knew, and provide inspiration. He said, “The Olympic Excellence Series was great. To talk about what it's like to ‘be at that moment,’ I mean it is such a stressful thing.” He also spoke of the need to embrace the Olympic experience and pressure created versus fearing or fighting it: “Don't fear it, or fight it, use it to push you.” To manage and embrace the pressure, Ben used different tactics to maintain perspective. For example, he reminded himself that he did not “have to” compete; he “gets to” compete. He said,

Sometimes when I was really nervous as a younger athlete, I tried to imagine what it would be like if the coach came up to me at the time when I was dealing with the stress and said, “Sorry, uh, we made a mistake, we didn't enter you, you can't compete.” What would that be like, you know, contrast that.

The purpose of doing this was to make him realize that as nervous as he may be, he really wanted to be in that moment as he loved to compete. In addition to perspective and belief in ability, which Ben feels should be generated from personal attributes and past experiences, Ben

felt there is another key to optimal performance. Ben said, "For myself, it is believing you can, not that you will.... My point about believing is you can trick yourself into believing something is possible, but that is not enough, you need some evidence."

### **Meaning of the Olympics**

To Ben, the Olympics represents the "elite of the elite." It is a venue where the world's best come to compete. There is something magical about the games for Ben, watching athletes who are in superior physical condition compete against the worlds best. Ben knew from the first moment he watched the Olympics on television that he wanted to be apart of it. Ben is now retired from his sport. He is working full-time as a fire fighter, but is also going through the process of getting involved with coaching skeleton at the domestic level.

### **Zack**

Zack is a 29-year-old male speed-skater whose current occupation is a student-athlete. He is taking the year off from international competition, as he wants to take a break from the routine of training. He has a high school diploma and has completed approximately 14 university courses. Zack is not married, but has been in a relationship for about three years. Zack has completed at the international level for 10 years. He has attempted to qualify for, and has participated in, three Winter Olympic Games in 500 m and 1,000 m distances. He won a silver medal at the 1998 Olympics in 500 m. At the 2002 Olympics he fell in the first heat, had the fastest time for the second heat for the 500 m race and came thirteenth in the 1 000 m. At the 2006 Olympics, Zack placed ninth and eleventh in his 500 m and 1,000 m races respectively. Zack has experienced great success at the World Cup level. He has held the World Championship title five different years, and set a record for most career World Cup victories in 2003.

## **Developing the Dream**

Zack first became interested in becoming an Olympian when he saw speed skating live at the Calgary Winter Olympics in 1988. He specifically remembers watching Gaetan Boucher compete, who at the 1984 Olympics held the Canadian record for the most medals won at a single Olympic Games. He found the Olympics very exciting and was exposed to something different than what he was used to. From his experience as a spectator, he thought it "would be neat to be there, but didn't take it seriously until about sixteen or seventeen when he made the Junior World team, and the National team." Going to the Olympics started to become a goal for Zack at the same time that he was trying to make the Junior World team. That was a moment when he really thought, "I know I can do it." Zack commented that there was no specific motive for wanting to become an Olympian, other than "I thought it would be fun ... and just because it was the Olympics; that is why I wanted to be there."

## **Becoming an Olympian**

Zack's preparation for the 2006 Olympics began at 16, when he made the commitment to move to Calgary to train at the Olympic Speed Skating Oval. During this phase, he had goals for what he wanted to attain in the future, but mainly concentrated on improving small elements of his skating that would eventually allow him to go faster. He stated,

One of the reasons I was able to improve a lot was because I could see the small, little things I was doing to get faster, instead of just looking for the big things. So when you can understand that, you can build on each little thing, which adds up to a big improvement.

With this line of thinking, Zack's preparation for the 2006 Winter Olympics was an accumulation of everything he had done to get faster since he committed to training full-time at the age of sixteen. It involved a developmental progression of building on specific skating techniques and physical capacities, so he could reach his ultimate goal of getting better each

year. He also spoke of the importance of balancing the off-ice physical training with the maintenance of technique: "So the key with gaining strength and power is always being able to maintain the technique, and as you get stronger, you will naturally get faster." In order for this to occur, Zack noted that an athlete needs to do an honest assessment of strengths and weaknesses and then devise a plan on how both these areas can be developed. He felt it is also important to continually monitor this plan and the athlete's progression, to ensure training efforts are being maximized. Zack also commented on the importance of incorporating race simulation into the preparation phase. He said,

I think it is important to get that focus set on practice races or else when you get to the big race you will feel like you're not prepared. Whereas if you prepare yourself for a practice race like it's a real race, you'll get used to that.

Zack mentioned that evaluating each race honestly, and not giving yourself excuses for poor performances, also helped to foster that continual development. He commented,

You don't learn anything by giving yourself excuses before hand. If you think of all these reasons why you are not going to race well, then of course you don't race well. After the race, they blame it on all these reasons, where the real reason they didn't race well is cause they knew they wouldn't race well before they even raced. After a race, the first thing that goes through my mind is all the things that went well and things that didn't go well during the race. I've already sort of given myself an automatic debriefing kinda thing.

This helped Zack to pull out the lessons needed for improved performance. Zack also mentioned that it is useful to practice in the conditions that you are going to race under. He said, "It's human nature to take pressure off yourself. But by doing that, you don't prepare yourself very well for the times when you are going to put pressure on yourself." Thus, it is important to go into practice races with a similar focus as in real races.

As training is multi-disciplinary, it is key to have a team of professionals supporting the athlete and providing their expertise where needed. Zack commented that in preparing for the Olympics "specific people played an important role ... people like the physiologists, massage

therapists, physiotherapists, and skate technician.” He noted that, for the professionals who are around the team all the time, such as the massage and physiotherapist, it is important that they fit well with the team, have a good understanding of the sport, and are positive and motivating: “A person you can go to when you are injured and feeling bad and get a renewed perspective and renewed motivation from.” The physiologist does not travel with the team all the time, but has the critical role of overseeing the development of the physical capacities. Zack said,

It is important to have someone (physiologist) who knows everyone and who everyone feels comfortable talking to. I think you have to feel a sense of them knowing you and your needs, and your goals, and feel like they’re looking at you the specific athlete and thinking, “How can I make this person better?” Not just, “How will this make all speed skaters better?”

He also commented that the new addition of the skate technician was valuable, as it “took that responsibility away from the athlete and from the coaches, so the coaches had more time to coach and the athletes didn’t have to strain their necks, backs, and patience.” In regards to the sport psychologist, Zack emphasized the importance of developing a strong relationship. He noted,

For me it [sport psych] has got to be someone that I feel I can really relate to, someone that I have been around a lot, I’m comfortable with, and that I want to talk to about things that are bothering me.

In general, for all the specialists who are part of the performance enhancement team (i.e., massage/physiotherapist, strength trainer, doctor, sport psychologist, skate tech, etc.), it is important that they fit well with the team; develop a strong, trusting relationship with the athlete; treat each athlete as an individual; and ensure that their services are accessible when the athlete needs them, as noted in this comment, “The most key thing is when you really need something and you realize you need it, that you can get it pretty quickly.”

Zack acknowledged that another key person within the support team is the coach. The coach is vital in planning the training program, managing team dynamics, ensuring key



professionals are in place, managing motivational energy of the athletes, providing technical feedback and new insights, and providing optimal coaching in the competition environment. Zack remarked that it is important for skaters to trust the coach: "It could be the perfect training program for you, but don't trust your coach or have faith in them then you are not going to be confident when you race and that makes a huge difference." He also felt it is valuable to switch coaches every so often to keep things fresh. A coach can be very talented at what they do, but the relationship can get stale, which can impact the influence a coach may have. Zack remarked, "I think eight years is too long to be with the same coach. I think you get to the point where you no longer learn anything new. I think the longest you should go with a coach is maybe four years."

In preparing for the Olympic Games, Zack spoke of the importance of developing an instinctual feel for skating. He commented that as an athlete developing it is important to "develop a real feel for what you're doing and learn how to memorize that feel." He noted,

That is one of the ways that I've been able to pick up where I have left off every season ... developing this instinct for how you want to feel on the ice, I guess. It has to become automatic, and when you make a mistake, correcting that mistake has to be something you don't think about.

Zack noted that having the sort of memory and "feeling the way I wanted it to feel" during the race season leading up to the Olympics helps to develop confidence—one thing Zack felt was missing in his preparation for the 2006 Winter Olympic Games. He said,

If you don't have that feeling throughout the year, you have nothing to aim for. I think one of my big problems at the Olympics was I just didn't have the confidence and the, sort of memory, cause I just could not get my equipment to feel how I wanted it to feel.

Zack explained that he made some adjustments to his equipment this year, which he thought he should have done two or three years ago. To develop this automaticity, or instinctual feel, it is important to be mindful of it during training, and reflecting on skating or debriefing the training with others when off the ice. Zack remarked,

You've got to be thinking about it (the feel) once in awhile off the ice ... and at times when hanging out with other skaters, talk about skating once in awhile so these little cues come up and help you think of the feel. Developing this is very individual, but I think that probably everyone needs to do some visualization, sort of doing a mental run-down of their training sessions that they just did. It's just a matter of finding the right way, and amount that needs to be done for each individual.

Zack clarified that this does not mean athletes should be thinking about their sport all the time, rather just dedicate some time for reflection off-ice.

Zack acknowledged the importance of off-ice recovery and "getting enough rest and giving your body and your brain a chance to relax." He also spoke of the need to maintain a certain balance between sport and life. He commented,

It is important to train, but you have to kinda keep a balance. If you just focus on speed skating then things can get a bit one-sided and your life almost becomes dependent on skating.... And so when you don't skate well, it seems like your life isn't going well. It is just something you do; it is not your whole life.

In preparing for the Olympic Games, Zack thought it was important to get proper recovery (physically, socially, and mentally), and dedicate time to do things other than skating-related activities. In regards to his training cycle, Zack commented on the need for more scheduled rest cycles leading up to the games. He mentioned, "We trained a lot and were peaked really late for the Olympics, where it would have been better to be rested a few other times during the year." He noted that the purpose of this would be to get the proper feel and memory, so as to enhance the confidence and motivation:

Sometimes when you are rested, things do come together a bit better, and so you can get that snap. And I think one of the contributors to not having that edge that I wanted after so many races, and even winning at big competitions, was I think missing a bit of that motivation and desire to really win ... and it's not all about winning, but you need that desire to achieve something.

According to Zack, balance and recovery need to be incorporated into the plan for preparing for the Olympic Games.

Innovation and novelty were also acknowledged by Zack as being significant to Olympic preparation. Zack commented,

I think a lot of times in the last couple of years I was like 'I'm going to do everything I can to race my best', but I just wasn't getting that extra energy to put into the race. I think a lot of it has to do with so much repetition. It's like if you ate your favourite food everyday, after awhile you wouldn't want to eat it anymore.

He also equated speed skating with fly fishing, one of his favourite pastimes. He said,

I like to fish, and if I go to a place and use the same hook everyday and it works, after a while, I'm gonna want to try a different fly. 'cause I know the other is going to work. It's not that you get tired of catching fish.... It's more like you get tired of using something that you know is going to work. So I think, I trained for all these years doing the same thing, like the last eight years I've had the same coach and done 80-90% of the training the same. So I didn't lose the desire to try to be my best, but I think training got kind of boring ... and I should have tried something to switch things up with my training.

He noted that this was not something he recognized until after the season. To help guard against this type of staleness happening again, he said,

It is hard to do, but you have to know exactly when you're starting to slide a certain way, and I'd say 90% of the time people don't notice that themselves until they've gone way off and it's had a negative effect on whatever they do. This is something I wish I would have noticed maybe two years ago, that I was losing a bit of my snap or the edge needed.

To help enhance the type of awareness needed, Zack thought it would be valuable to "have someone around who knows me well enough to see that happening, someone who isn't my family or girlfriend, but someone more impartial and objective." Zack also thought that, in preparing for the Olympics, athletes need to have a good support person around them to help maintain perspective. He said, "It's a natural tendency for a lot of people, the better they get to be more afraid of failure." Zack attributed this to the changing definition of failure that comes with improved performances. He commented,

When you're nineteen and you make your first World Cup, failure is like missing your race or something. But when you've won World Cup Titles like I have, like five times in the 500, and I've won a certain amount of World Cup races, then failure is like getting third sometimes, if you convince yourself. When you are young you think about 'what can I do to skate fast, and then sometimes you catch yourself thinking 'alright, what do I

have to do to win'. For some reason perspective changes without really noticing it... so I think it's important to keep track of that and that's why people need good support around them, they can catch things sometimes when you don't realize it.

Zack described this support team to include other skaters on his team who he enjoys: "I think you've got to wake-up in the morning and be excited to go hang out with these people cause you are with them everyday;" a coach who can offer a different perspective: "a coach that I see as someone that knows things that I don't;" and sport specialists (e.g. physiotherapist, massage therapists, physiologist, sport psychologist) who you trust and have confidence in, who have passion for the competition, and who really get to know each person and their needs on an individual basis: "They know when to step in and talk to people without being 'called in'."

On a more micro level, Zack commented on factors leading to optimal preparation for his races while competing at the Olympics. He spoke about the importance of being relaxed and loose, but carrying a certain tension in your body so there is a certain level of "springy-ness." Having a good warm-up was also key, because "physically you want to have the right balance so that your body feels ready to go." Zack indicated that there was not one formula for the warm-up he used, but rather he changed it up depending on what he needed for that race and his current context. He remarked,

An interesting point is that I've done completely different preparations and felt totally different in the warm-up, but when I got to the line for my race I forgot everything and I was just thinking about what I was going to do in my race to race well.

He noted that this ability to focus when needed came from the trial and error and simulation training he did during his practice races. Zack also commented on the importance of being himself during his race preparation. He said, "I'd always focus on doing whatever I can just to be myself, and learned how to be myself at practice races, and then focus when it's time to focus."

## Being an Olympian

In order to achieve a high level of performance at the Olympics, Zack said it is important to maintain a certain perspective. For one, he needs to be consistent with who he normally is when racing. He said, "I race my best when I'm myself. It's not like when I am trying to be someone specific, it's just when I'm myself, things happen." He also said that he needed to be excited to be at the Olympics and having fun, which he feels leads to increased confidence. Zack questioned if confidence comes from having fun or if having fun comes from confidence. At any rate, both are needed to perform well. Zack also felt it was important to keep perspective while accepting your current environment. He explained,

No matter how different it [the Olympics] seems, you kinda have to realize it's the same competitors. I don't mean downplay it, because it is really hard to do, but accept that there is going to be a huge amount of hype about the same kind of thing that you normally do.

He also felt it was valuable to capitalize on the energy of the environment. He said,

You are doing the same thing but there is going to be more energy around it. So part of it is finding ways to capitalize on the energy of the situation. The people that race the best are the kind of people that somehow capitalize on that energy.

Being able to adapt to the current context and find the right perspective were identified as factors leading to optimal performance.

Having confidence and belief in your ability to perform well at the Olympics was also acknowledged as an important factor. You have to know that you will race well versus just hoping that it will happen. Zack spoke about not being able to get the "proper feel" in the lead up to the Olympics, which caused him to second guess and doubt himself. He said,

I know I had the capacity to win, but I didn't know if this was the day that it was going to happen. I didn't know if I could do it on that day, so it was just hoping that I would perform well.

Zack noted that confidence was developed in the preparation phase. He commented,

I think you have to have a few races in there where things happen in the way that you want them to, just for that confidence, it just gives you that edge. You know exactly what you need to feel like and I think that's where I lost a bit of my racing edge. Even if you have the potential to be great, I think it is rare that, leading up to the Olympics, everything is a bit off, and then at the Olympics everything just falls into place.

Zack spoke about the importance of being comfortable with his equipment. He described the troubles he had with his skates in the Olympic year, which restricted him from getting the "right feel." He indicated that

it took me too long to figure out my equipment, and it still wasn't right. My equipment wasn't right so I wasn't confident. When you feel you can't skate properly, after awhile you just start to try not to think about it. Then instead of believing in yourself, you just hope that you will skate well.

To maintain confidence, it helps to work on self- management strategies. Zack said,

Even if you are confident there's a certain amount of stress involved in a performance. So, it's managing yourself and managing what type of people you want to be around you, I guess. Cause you don't want to be spending a lot of time around people that are negative or annoying... and sometimes I think it's finding ways to be confident, you know even when you are not.

Zack pointed out that performance improves when you let it come naturally versus forcing it. He said, "When you force it, it's like your body doesn't want to do it. It feels like it's just pressure to do it rather than the desire to do it." He spoke about a mind-body connection: "It's just a whole connection that isn't forced. I think the main thing is that it just has to be natural on the day of racing." He mentioned that sometimes things need to be forced when you are developing (i.e., technique, fitness) in order to get things to be natural, but racing needs to be automatic, so you are just thinking about what you need to do in the present moment. He said, "As you are getting ready to race, things are going from your brain to your body without telling your brain to do that." Zack thought that competing comes more naturally when you remember that it is not something he has to do, but rather that he wants to do. He remarked,

You can't go in thinking you have to. I think a lot of athletes feel they have to, so figuring out how to change it to wanting to without needing to tell yourself that 'I really

want this'. When you think about wanting to I think you show up and think about the things that are going to make you go fast. Enjoying the process and thinking about what I am going to be doing in this race, and anticipating that feeling. When you feel like you "need to," you kind of think, "Okay, I've got to focus on my race right now," whereas when you "want to," it just sort of happens automatically.

Having the right focus and competitive instinct also helped maximize performance. The right focus involves focusing on the process, "just thinking about what I need to do to race fast." Zack noted that at times he thinks about the outcome to help get motivated. He said, "At times, I was a bit outcome focused, that's how you get motivated. I think that is okay because if you think 'I really want to win', you start thinking what am I going to do to skate my best so I can win." Zack also talked about the competitive instinct that is needed. He said,

You have to have this instinct, like not like killer instinct, but this kinda like competitive instinct. It's like this edge.... I think it's something that happens without forcing it, it can't be contrived or calculated. It's an instinct, so you are not thinking about it; it's just something that happens.

Zack added that being mentally tough was a key asset, "most athletes are physically talented, but the ones that become really good are the ones who are also mentally strong."

Debriefing and analyzing performances throughout the competitive process also helped to maintain the right focus. Zack pointed out that an athlete needs to look at a race honestly and see what went wrong, besides hiding behind a bunch of different excuses. He said, "There is no way that all bad performances are not your fault, you know, and no wonder you keep having bad performances at the same race as you did before cause you won't take any responsibility for it." Zack also spoke about debriefing major negative events, such as when he fell at the 2002 Olympic Games in Salt Lake City, going in as the favourite. He mentioned that he looked at a bunch of video of the race, but did not really debrief it.

No one really sat down and wanted to talk about it; they're afraid to or something. I don't think that it helped me to prepare for Turino [2006 Olympics], 'cause then I had a really weird perspective I think going into Turino because of that. Like I raced the second 500 in Salt Lake City and you know I won that 500 so I thought, "Okay, I'm just as good as I

thought I was," but it was not good not having past things resolved going into Turino. Like in interviews from the media I got asked about Salt Lake so many times that it desensitized me and made me numb to it. I don't know if it is better to be numb or to have processed it in the right way. Like if you have an injury to your arm, say, if you just numbed it you could make it worse, and if you fix it, heal it properly it won't come back.

Debriefing helps an athlete to figure out what they are doing well and what needs to be changed.

Zack asserted that it is important to be open to change. He said,

Like maybe knowing what I know now it would have been better to change my equipment, my coach, my team maybe ... you know a few years out, rather than never changing anything and waiting until this year to change my skates, cause it took me too long to figure it out.

So it is valuable to continually assess where it is you are at, and where it is you need to be.

### **Meaning of the Olympic Games**

To Zack, the Olympics represent the top event that you can win in sport. He said, "It is one of the biggest challenges for athletes and one of the hardest things to win. This is not because competitors are better but because it's only every four years so you don't have as many chances." Zack also commented that it is an event that draws people back to and keeps people in sport, since it is so different than any other event. Zack plans to take this year off of competition. He wants time to take a break from the routine of training and assess what commitment he wants to make to sport.

### **Zoe**

Zoe is a 28-year-old snowboarder who has been competing at the international level for eleven years. She has been unlucky with injuries and had to take some time off to rehab during her national team career, having undergone at least eight different knee surgeries. Zoe has completed her high school diploma and is currently a full-time athlete spending most of her time training and competing in snowboarding. She is not married, but has been in a relationship for



the past five years. Zoe has attempted to qualify for three Olympics, and she has participated in the 1998 Olympic Games in Nagano, Japan, and in the 2006 Olympics in Torino, Italy. At the 1998 Olympic Games, Zoe competed in the discipline of half pipe (HP) and placed fifth at the Games. In 2006 Zoe competed in both HP and boarder-cross (SBX—a new discipline that had its Olympic debut in 2006). She placed twenty-second in HP and fourth in SBX, narrowly missing a medal after crashing and being taken from the competition site by helicopter. Zoe has achieved great success on the World Cup standing and other professional events as well. She is an X-Games (prestigious pro snowboarding event), gold and bronze medalist in SBX, and she captured the bronze medal in SBX at the 2005 World Championships, among other World Cup victories.

### **Developing the Dream**

Zoe indicated that she can not pick out a specific moment that she decided to become an Olympian, but said she remembers being young watching the Olympics and being enticed by the various Olympians. She said,

I just remember being young and watching the different Olympics. Like watching Mark Tuksbury [Canadian gold medalist- swimming, 1992] and Michael Smith in the Decathlon ... and all these different athletes that I really looked up to from all these different sports. I thought it was really neat to watch people push themselves and do thing that was maybe outside of their boundaries.

She noted that the Olympics was something that her whole family would watch together. Zoe was motivated to try and reach the Olympics, as it allowed her to push her limits. She commented,

I definitely love seeing how far you can push, or seeing what you can get your body to really do. Whether it is coordination wise or aerobically, basically putting all the different things together to make you this ... I guess you could say “lean, mean, fighting machine.”

## Becoming an Olympian

Zoe considered her preparation for the 2006 Winter Olympic Games to have begun in 2002, “the four years leading up to it.” One of the first things she needed to contemplate was competing in the snowboard cross (SBX) event again, as it was making its debut in the 2006 Olympic Games. She commented on the need to establish a balanced schedule, so she could get optimal training in both snowboarding disciplines (SBX and HP). Zoe commented,

I was trying to find a good timetable to manage training for both half-pipe and snowboard-cross. I wasn't spending more time training for one or the other, as I definitely thought that time spent training for each was going to help both events, sort of a crossover. I wanted to make sure I was doing as much as possible for both.”

Zoe also spoke of the need to have a strategic, holistic plan that has flexibility, to ensure all areas are being optimally developed. She remarked,

I think I just let it (preparation) happen. It comes back to the whole mental preparation thing.... I sort of winged it a lot of the time. I don't think that is necessarily a bad thing, like I don't think that always following an exact plan is going to work. You need to be flexible and have ways to be effective outside your planned route, but I don't think my route was defined enough. I was a little too much all over the map.

Zoe discussed various areas to which she attended when preparing for the Olympics. These included technical training; physical training; health, nutrition, and injury management (e.g., physiotherapy—Zoe was struggling with a knee injury during her preparation for the 2006 Olympics); tactical training (mapping out competition runs); and mental training. She commented that mental training is an area which she lacked and would like to improve her mental fitness in preparation for the 2010 Olympic Games. She said,

I still need to figure out what I have to do. One thing that shows how much I need to work on my mental training was last year, I think almost in every race in boarder-cross, I was in the top five. I was only first once and I don't think that was due to my technical ability, I think it was my head game.

Zoe noted that she believes mental fitness is something that develops over the years, and you keep getting better at it with more experience. She also spoke of the importance of being aware of her ideal performance state and knowing how to get to this state. She said,

It's important knowing at what point you are going to perform at your best, and knowing how to get yourself to that key point ... knowing exactly at what level you have to get yourself to, to perform at your best, whether it be training or competition. I think that makes the difference between the competitors and athletes who are really just there as spectators.

Developing strategies to cope with uncertainties, uncontrollables, and distractions was viewed by Zoe as a beneficial preparation tactic. She commented,

One of the things we spent a lot of time on was going through possibilities of what could go wrong, and then developing a plan for how we could deal with it at the Games. Like foreseeing things like transportation or jet lag, and stuff like that, making sure that all those little things weren't going to affect the performance.

One example of this planning was renting a team van, so that athletes could get to the training site, which they thought was most conducive to optimal warm-up, instead of relying on the Olympic shuttles, which helped managed the uncertainties of the shuttle being late or too full. Zoe indicated that another method for managing uncertainties was arriving at the Olympic Village early, before a lot of the other teams. This gave her the opportunity to become familiar with her living conditions (e.g., food, accommodations, culture, athlete services, etc.) and competition environment, during a less stressful time. Zoe remarked,

We showed up really early before a lot of the other teams, and made sure we were well rested and 'in the know'. We actually went up to the half-pipe before it was even finished, because we were there that early. Just to look and be there before the crowd was there, just to be around the pipe and get a feel for it, and do some free-riding on the mountain to make sure everyone's having fun. I thought it was really well done that way, to prepare everybody for all the little things that might interfere because it is the Olympics.

One of the main distractions that Zoe faced at the Olympics was managing a healthy balance of competing in both HP and SBX and deciding on how much energy should be directed towards HP, when her real shot for a medal was in SBX. She commented,

I have been asked if I think the half-pipe took away from my performance in the snowboard-cross, and my immediate answer was definitely not. It was definitely an added bonus, but at the same time I had to make sure that I was doing what was needed to perform my best in snowboard-cross. Luckily for me, one of the biggest things that helped me in snowboard-cross is how much of my technique from half-pipe helps me in that race.

Although these are just a few examples noted, having a plan for managing uncertainties and distractions was important to Zoe's preparation process.

Zoe indicated that she felt prepared heading into the 2006 Olympic Games. She said there were numerous factors that made her feel this way, but highlighted two events in particular. These events include her results at the X-Games in January for SBX, where she won the gold medal, and an HP training camp held within a month before the Olympics. Zoe mentioned that, due to potential risk of injury, there was uncertainty as to whether she should compete in the X-Games. There was a fine balance between participating in challenging competitions and maintaining optimal health, free from injury. After inspecting the somewhat dangerous course at the X-Games, Zoe was having second thoughts. She said,

After seeing the course, I questioned my decision a little bit and then finally at one point I just put in my mind, "You're here, this is what you've got to do, you've decided to come here, and you're gonna win today because that's what you're here to do. You're here to build up some confidence so you know what it feels like to win, so that when you get to Turino you know what it feels like to win." It actually worked out really well. I think it helped out a lot.

Winning the X-Games helped to build Zoe's confidence and also created awareness around "what was needed to win." In regards to preparing for HP, Zoe mentioned that it was helpful to have training camps and lots of on-snow training. She remarked,

In Half-pipe it was important to get a lot of time in the Pipe. So we did a really good training camp in Whistler right before the Olympics. We had the bottom pipe of Blackcomb all to ourselves. I think it was about ten days or two weeks of on snow training.

This repetitive training in a controlled environment was of benefit to Zoe's preparation for the half pipe event.

Zoe acknowledged having a good balance between competing and free riding as another factor contributing to optimal preparation. Free riding allows athletes to return to the essence of why they are snowboarding and provides a reminder of why they are doing what they are doing. Zoe commented,

One thing that is important is free-riding and just having that time as a snowboarder instead of an Olympic competitor. I think really important to doing well is making sure that you are still doing that other side of the sport that definitely re-fuels you for times when you are on the road just doing competitions. It just brings back that spirit of why you love your sport so much. I mean I love competing, and I love snowboarding, and sometimes they are two different things.

Zoe spoke of various levels of support that helped her to optimally prepare for the Olympics. She said there was a lot of support available; "It was just a matter of seeking it out and using it." The most notable support came from her physiotherapist and her peers. She remarked, "With my history with my body (e.g. injuries), having somebody who is always there to keep it in check, and monitor... it just helped me to be more self assured." Zoe also gained a lot of mental support from her male team mates. She said,

Riding with the boys and training with the boys helped me to get that side I needed on the snowboard-cross course. I'm a strong believer that the top female snowboard-crossers are the ones that are riding with the male snowboard-crossers. When I am riding with the guys, it's not that I am just following them down the course, its that we are all together as a team like, "Yeah I can do this on this section, and this is how much pop you need for this jump,"... having that 'you can do it' mentality really helped out.

Having financial support and security was also an advantage. She indicated,

I had some nice support financially from the CSA [Canadian Snowboard Association] funding, to my own private sponsors and prize money, so I didn't have to worry about

working coming into the Games. It's nice to be comfortable financially, rather than being all on your own and having to scrape together some money to pull it all off.

Zoe also acknowledged the support from her coaches and her wax technician; she said both were beneficial to her preparation and performance. Although resources and support is important for optimal preparation, in order to capitalize on these benefits, athletes need drive and passion for their sport. Zoe remarked,

I think competitive drive is a huge factor, sort of an underlying one. You can have all this help and you can be the best at your sport but if you don't have that competitive drive and that real desire to win, I don't see how you are going to do it. It doesn't make anybody less good at their sport; they could be the best in the world, just probably not on that given day. I think that's what is kind of neat about the Olympics, is that they want you to be the best on that exact run, on the given day.

Zoe also noted how, at times, this competitive drive is counter intuitive for some snowboarders as it goes against the roots of the sport and that particular sporting culture.

In regards to preparing for her specific events once at the Olympics, Zoe indicated that it was helpful to have a preparation plan, which basically involved identifying the things that she needed to do to get herself ready for optimal performance—and giving herself adequate time at the competition site so she can execute this plan. Getting proper rest, eating well, and having the appropriate hydration was deemed important. Zoe also mentioned the benefits of having a good warm-up that involved training smart, which means taking the appropriate number of runs so to conserve energy. She spoke of the mental warm-up that was needed to get in the optimal state to compete. She said,

I need a period of time at the top, where I can just sort of re-centre myself. I hand off my board to the wax tech to get prepped for the race, and then I can just keep warm and focus. This is when I will go through the run in my head, I don't know... every chance I get, and just keep seeing myself to the runs successfully before I actually drop into the race. I think that is a huge thing for me in snowboard-cross... I have to be able to see the run in my head before I pull out of the gates to a run at full speed.

Zoe highlighted the importance of knowing the course ahead of time. She said she was at an advantage at these Olympics, as when she was training and competing in the HP competition, the chairlift that she used to get to the competition site went right over the SBX course. So, as she stated, "I had a week of riding the chair so I had already learned the course, which was really helpful." Zoe also spoke about her efforts to get her into the state of arousal that is needed for optimal performance. She said she would use breathing techniques or, at times, snow on the back of her neck to get herself pumped up to the right level of activation. Course reports from her coach with "last minute instructions if something had changed on the course," so she could adapt to the current context, were also deemed important. Zoe explained that, on the competition day for her SBX event, fresh snow was falling, which changed the course speed dramatically from warm-up to her first time trial. Based on the feedback from her coach, she needed to adapt to her current context and change her performance plan so she could maintain her speed through the course. She said, "I was prepared that it was going to be slow, but I still had this line that I had in my mind that I was going to try ... and just try and generate speed off of every tiny little bump on the course."

### **Being an Olympian**

Zoe felt like she had one of her strongest SBX performances of the year at the Olympic Games. She felt the course was well-suited for her, and she was able to find flow in her riding. She remarked,

In snowboard-cross, it was one of those days where everything was going flawlessly. The first two time trials were great, because I was able to do the run that I wanted to do. It was one of those courses where I felt like I could work for speed the whole time and find places for speed, and it had a nice flow to it so that really worked to my advantage.

This type of course was well-suited for Zoe; she noted that her technical ability (e.g., having good timing, co-ordination, and power) helped her to execute her starts and get out of the gate

first. She also developed a strategic plan that she was able to execute on competition day. Once Zoe learned the course as described in the preparation phase, she would map out a plan that she would commit to during the race. She indicated,

I would go through the course at night by writing it out on a piece of paper. I would write out different sections and come up with key words. I would be like, "Roller, roller, quick feet, roller," or if there is a burm, it'll be high, middle, low, and I'll start the burm high, middle, low. Or if it is a jump, I'll say, "Medium-pop." Basically it's how much you need to make the jump.

This plan helped to direct Zoe's focus of attention and allowed her to fully commit to the task at hand. Once developing her strategy for the race, Zoe spoke of using visualization to help her create the mental map that she used to make her actions more automatic when on the course. She said,

It's important to visualize the course, and be able to see yourself doing a trick on the Pipe or completing an obstacle on the snowboard-cross course. I don't think that I have ever done something, without seeing it beforehand.... Of if you do, you really surprise yourself, and the chances of being able to do it again are slim to none.

Zoe indicated that the plan she had established for her SBX race worked very well in all the heats, but noted that for the finals, she crashed early in the race, so she did not make it far enough down to know if the plan was going to work. Zoe said that she did not remember much about the crash, or how it happened, as she hit her head pretty hard and received a concussion. From what she can recall, she attributed the crash to being more tense in the final heat, and that she had to resort to a new strategic plan in the final. She explained,

I came into the first corner not in the lead, which was a totally new thing for me that day. I had a plan B for that, if I wasn't going to be in the lead.... But maybe when I realized that I had to go into that other strategy of "okay, now you've got to find places to pass," maybe that tripped me up more, which caused the fall a little bit lower than that.

Zoe spoke of the importance of having her equipment in the best shape possible. This meant having a board with which you are very comfortable and having the wax complement the



current snow conditions. Zoe was thankful for the technical support she received from the wax technician. She said,

The wax technician was a huge support. I couldn't imagine going into a big event now without having a wax guy. So, for sure, J. P. was a huge, huge support.... He made sure the boards were as fast as they could be.

In addition to equipment support, Zoe highlighted the value of getting support at the Olympics from other individuals, such as her coaches, her physiotherapist, and the other support staff on the CSA team. She also acknowledged the benefits of having her family and friends there to support her at the Games. She commented,

The crowd was not a distraction for me, it actually helped me. I had so many friends that were in the stands, and they made all these signs ... and instead of scaring me, it was actually really neat to know that all these people had come out to help cheer me on. So, it was very comforting.

Zoe emphasized the importance of being loose and relaxed when competing. She said she worked on finding her optimal arousal level and spoke of needing the ability to "calm yourself down or excite yourself to get into the right level." Zoe also commented on the need to have the right mindset for competition. She said,

I think you need this different mind-frame when going into the Olympic Games. I don't know if there is a certain one, but there is something different about the Olympics. There is a mind frame that you need to succeed there, that is different from the World Cups. But then, maybe people would disagree with that and say, "Well if you make it just like the World Cups and you've succeeded in the World Cups, you just have to have the same mind-frame that you have in the World Cups."... but in my mind, there's this different mind frame that you would need to succeed at the Olympics.

Zoe discussed some attributes of this mind frame, such as having the ability to stay in the present moment. It also involves staying grounded, having fun, and really enjoying what you are doing.

She explained,

It's important to have a good head space, being in each moment of the course. Not getting ahead of yourself or behind yourself. Also having a good time, like are you actually having fun as you are riding down this course. If you're not enjoying it, then it is going to be really hard to have a good performance.

## **Meaning of the Olympics**

For Zoe, the Olympics is like “that light that shines in the sky.” Since she was five years old, she wanted to represent her countries at the Olympic Games. She said when she thought about what she wanted to be when she “grows-up,” she said she wanted to be an Olympian, as she has always looked up to Canadian Olympians. To Zoe, the Olympics represent a big event that gets the whole world focused on the same thing. She said,

The Olympics draws every part of the world together for that one period of time during the winter and summer every four years. I think it is pretty neat just to have everybody sort of rooting for the same thing, maybe it’s certain athletes or certain sports, but it definitely seems to draw in a good sense of spirit from different countries.

Zoe is continuing to pursue her quest for Olympic excellence and has committed to training in an attempt to compete and medal at the 2010 Winter Olympic Games.

## **Content Analysis**

This section presents the findings derived from a content analysis of the semi-structured interviews conducted in this investigation. The nature of the answers provided data from which coding categories, or sub themes, and general themes emerged. The themes that surfaced regarding the process contributing to optimal preparation and optimal performance—the research question that guided this investigation—will be presented in this section. Participant comments are included to illustrate the themes. In addition, factors associated with developing the dream of becoming an Olympian and the meaning the Olympics held for each athlete will be presented to provide context.

## **Becoming an Olympian**

Factors associated with developing the goal or dream of becoming an Olympic emerged though narrative analysis. Although it was not part of the direct research question, the findings

help provide context and are worthy of note. The participant responses suggest that the dream of becoming an Olympian was established at an early age by being exposed to a specific Olympic event, such as watching the Olympic Games on television. This Olympic dream was enhanced by being exposed to a specific role model who epitomized elite performance and emulated Olympic ideals, such as Olympic athletic hero's that have achieved a high level of performance excellence (e.g., Gaetan Boucher, Mark Tuksbury, etc.). The dream of becoming an Olympian evolved into a specific goal once a certain level of athletic success was experience by the athlete.

### **Olympic Preparation**

Seven preparation themes emerged regarding processes that contribute to optimal preparation of Winter Olympic athletes. These themes were established by collapsing the coding categories. The coding categories were developed by organizing the meaning units that were identified when reading and re-reading each participant's transcript and are listed in Table 2. A description of each theme is presented within this section, in addition to quotes that depict the meaning units included within each theme. The themes, coding categories, and frequency of meaning units that exist within each theme are summarized in Table 2.

### **Individual Process**

One principle that seemed to encompass all the themes was the need to take individual differences into account during the preparation process. The participant responses suggested that, in order for optimal preparation of the Olympic Games to occur, individual needs have to be addressed. The theme of individual process includes three coding categories (see Table 2). It is characterized by assessing and working with athletes in relations to their specific capabilities and needs, understanding each athlete's personal context and modifying training programs accordingly, and the capacity of the athlete to be self-aware and open to learning and adapting

programs as needed. Examples of participants response grouped in this theme include:

Table 2. Themes that Emerged for Processes Contributing to Optimal Preparation

General Theme	Coding Category	Frequency	
		Part. Rate	Total m.u.
Individual process	Support having awareness of personal context and training needs	4/4	54
	Individualized program for training	4/4	37
	Personal awareness of strengths, weaknesses, and personal training needs	4/4	51
Strategic, holistic planning, and implementation	Assessment of needs and planning on continuum to address developmental phases	4/4	23
	Holistic plan	4/4	68
	Specific and detailed planning	4/4	44
	Implementation and attitude needed for executing plan	4/4	40
Balance, recovery, and energy management	Maintaining a level of balance	4/4	21
	Optimal recovery and regeneration	4/4	36
	Sustaining and managing energy	4/4	56
Support and mentoring	Training support from coaches and sport specialists	4/4	72
	Support and encouragement from team-mates and friends/family	4/4	44
	Being mentored by past Olympians	3/4	22
Reflection, monitoring, and adaptation	Create time for reflection and learning lessons	4/4	89
	Methods for monitoring technical, physical and mental aspects of training	4/4	46
	Adapting and correcting training regime to meet current context.	4/4	40
Distraction plans and perspective	Plans for managing distraction and emotions	4/4	34
	Maintaining a healthy perspective	4/4	24
Developing feel, automating skill, and establishing familiarity	Developing feel and automating skill	3/4	62
	Establishing Familiarity	4/4	26
Total # Meaning Units:			889

*Note.* Part. Rate = number of participants who contributed meaning units for theme;  
Freq. # = number of meaning unit coded in each category

Kate: "For optimal preparation, I think you need to be in touch with who you are, know yourself, and be open to learning about yourself. Like actively learning and being open to those changes you need to make in your preparation...just being aware and proactive about it."

Zoe: "So I would say (for optimal preparation) self-awareness about knowing your strengths and knowing what you need."

Kate: "You need to be self-aware enough to know what you need and then get that from your support network. But this is purely individual. Like I mean look at Cindy (Klassen, speed skater who won five Olympic medals at 2006 Games), she is just so good. But I don't think she does the things that I do to be good. We each have different strengths and weaknesses and it is up to us as individuals to recognize and work on those things."

Zack: "I think you have to feel that they (support staff) know you and your needs and goals... and get the sense that they're looking at you, this specific athlete and thinking 'how can I make this person better', not just 'this will make all speed skaters better', you know?"

Taking an individualized approach to Olympic preparation ensures that all the athlete's needs were being met.

### **Strategic, Holistic Planning, and Implementation**

The nature of the participants' answers indicated that, for optimal Olympic preparation, a strategic plan that incorporated all components required for athletic excellence needs to be developed (e.g., technical training, physical training, mental training, gaining competitive experience, equipment, nutrition, and hydration). The athletes needed to have faith and trust in this plan, and it needed to be implemented at a level that provided the athlete with superior training and development in preparation for the Olympic Games. This theme is comprised of four coding categories (see Table 2) and is depicted by:

1. Assessing the athlete's current capacities and developmental needs and devising a plan to meet these developmental targets or deficient areas. The time span of this plan depends on the level of the athlete and the competition that they have targeted as their main training goals. Most participants commented that their planning generally took

place over a four-year period. Some participants also made reference to the fact that their Olympic preparation began when they first started in their sport, and that they followed a developmental progression plan.

2. Devising a plan that is holistic in nature so to maximize training effect in all aspects critical to superior athletic performance. These areas include: technique and sport specific skill, physical capacities (e.g., strength, speed, and endurance), mental fitness (e.g., ability to stay focused, determined, and confident under a variety of circumstances), gaining competitive experience (i.e., developing a competitive schedule that maximizes learning and development while providing competitive experience) nutrition and hydration, and equipment (i.e., experimenting with equipment that is going to work best for the current competitive condition). This plan also needs to incorporate flexibility, so it can adapt to the athlete's current context (e.g., health issues, life challenges, etc.).
3. Having a plan that is specific and detailed to capitalize on training potentials and minimize room for error.
4. Implementing this plan through intensive training and having the necessary attitude needed to execute this plan. This attitude entails commitment for executing all aspects of the plan at the level and intensity required, having the discipline to cut out activities that are not conducive to optimal training, having the desire and internal motivation needed to sustain the plan, and maintaining a healthy perspective that reminds athletes about what is really important.

Participants' comments that are reflective of this theme include:

Kate: "For preparation there is a four-year cycle for sure. But from day one, I learned all these things that have helped.... You know from Salt Lake (2002 Olympics) from before

Salt Lake to the four years since Salt Lake, learning all that stuff has prepared me. But then, from like a technical and physical point of view, I guess maybe four years ago (when my preparation started). But you know, it's a continuous evolution of learning and developing"

Zack: "It is important to assess everything and find the right amount of time to focus on your weaknesses, your strengths, your average areas, you know? Some people are naturally good at things, you can't neglect the strengths that they already have or else you could be leaving them with nothing maybe. So you've got to do it all... and in the right amounts. I think that's why it's a developmental process, it doesn't take one seasons to figure all that out."

Kate: "Preparing for the Olympics (versus other training years) there was this sort of heightened sense of focus ... with details, all the little things that I maybe didn't pay attention to before. Like in the beginning of the year, I sat down with my coaches and went through all the different aspects of being an athlete ... and listed out all the things I needed to improve on, and the things I needed to pay attention to."

Zack: "My preparation for the Olympics began when I made the commitment to move to Calgary to train, after high school."

Ben: "A great performance is one-third push, one-third driving, and one-third equipment. So I developed a plan to improve in each of these areas."

Zoe: "[For optimal preparation,] I think competitive drive is a huge factor ... that sort of underlying one. You can have all this other help to be your best at your sport, but if you don't have that competitive drive and that real desire to win, I don't see how you are going to do it."

Developing a strategic plan, which addresses all areas needed for elite athletic performance, ensures that no stones are being left un-turned during the stage of Olympic preparation.

### **Balance, Recovery, and Energy Management**

This theme is based on the participant responses that imply balance and recovery is needed to sustain the workload and emotional energy needed to optimally prepare for the Olympic Games. This theme consists of three coding categories (see Table 2) and is characterized by the following: (a) maintaining a certain level of balance and engaging in activities separate from your sport, so to remain mentally fresh and energized for training; (b) incorporating recovery type activities (e.g., ice baths, massage, stretching, social activities) into

the training program to facilitate regeneration and healing; and (c) managing physical and emotional energy levels, by adding innovative, novel, and fun exercises to the training regime and cutting out excessive extra curricular activities. Examples of meaning units included in this category consisted of:

Zack: "You have to train and do all these things that I said, but you have to kinda keep a balance. If you just focus on speed skating then things can get a bit one-sided and your life almost becomes dependent on skating.... And so when you don't skate well, it seems like your life isn't going well. It is just something you do; it is not your whole life. So that is why it's important to get the recovery time and take care of yourself properly so you do have some time and the energy to do things other than just skating related things."

Ben: "I think (for off-site training) you have to get enough rest. You have to take time to just do things where you are giving your body and your brain and chance to relax."

Kate: "(To get recovery), there was a lot of stretching and I made a point of having a massage once a week and I had a physiotherapy appointment once a week regardless of whether or not I needed something, it was like a maintenance/prevention."

Zoe: "Making sure that my knees, obviously were my number one concern, making sure I was healthy and strong to allow my knees to hold up."

Zack: "I think the most important thing is to do that training, and make sure you take the time to recover and feel good, so that when you're on the ice you can always focus on your technique."

Kate: "Preparation started on this date, and I just did the program.... and I eliminated a lot of external activities or extra curricular activities. I remember our physiologist saying at this one seminar, he said 'you have to make sure that when you get to the Olympics you still have enough left'... Like you don't want to be depleted emotionally cause it's pretty stressful, and sort of intense experience the year before (the Olympics). I guess I just eliminated a lot of other stresses in my life. Not that stress is a negative thing, but just having less of a schedule. Like I would nap in the afternoon instead of doing stuff, you know?"

Achieving optimal balance and recovery re-fueled the athletes, and helped sustain the energy needed for the intense, rigorous training that occurs in preparation for the Olympic Games.

### **Support and Mentoring**

This general theme reflects the meaning units that express the value of having a team of support, such as coaches, PET team (i.e., physiologist, sport psychologists, physiotherapists,



doctor, nutritionist, etc.), team mates, mentors, and friends/family who provide training advise, motivation and encouragement, and emotional support throughout the preparation process. Three coding categories are represented within this theme (see Table 2), and are portrayed by the following:

1. Receiving training support, such as physiological, recovery, and health support (e.g., assessing fitness levels, message and physiotherapy, medical advise, etc.), and mental/emotional support from coaches and team of performance specialists;
2. Being motivated and pushed by team mates and getting unconditional encouragement from friends and family; and
3. Learning lessons and having the Olympic experience normalized by hearing the stories from past Olympians.

Participant responses reflective of this theme consisted of:

Kate: "So again, leaning on that support network for whatever.... It's like they're there and you don't want to know they're there, until you need them, and they are just totally normal and cool about stuff and not like 'what's the matter' type of thing."

Zack: "It's important to have a good support team around you, they can catch things sometimes when you don't realize it. They can remind you ... not like 'hey what are you doing', but remind you like, 'Are you having fun today or what?'"

Ben: "... bottom line is, how much better are we because we worked together and competed against each other. Like every training run I've done domestically, and obviously internationally too, I've had a World Champion to compare my every section to."

Zack: "For some reason perspective changes without really noticing it ... so I think it's important to keep track of that and that's why people need good support around them, they can catch things sometimes when you don't realize it."

Ben: "The most key thing (to having support) is when you really need something and you realize you need it, that you can get it pretty quickly."

Kate: "It helped to get information from specialists in their area ... it just makes it easier, and it makes it easier for the coach to, you know, get the input from these other people,

and then they can translate that into sports specific activity to try and get that training effect.”

Zoe: “Riding with the boys and training with the boys helped me to get that side I needed on the snowboard-cross course. I’m a strong believer that the top female snowboard-crossers are the ones that are riding with the male snowboard-crossers. When I am riding with the guys, it’s not that I am just following them down the course, it’s that we are all together as a team like, ‘Yeah you can do this on this section, and this is how much pop you need for this jump’... having that ‘you can do it’ mentality really helped out.”

Zack: “For some reason perspective changes without really noticing it ... so I think it’s important to keep track of that and that’s why people need good support around them, they can catch things sometimes when you don’t realize it.”

Ben: “I think that the Olympic Excellence Series and hearing the other athletes.... I think that was a huge factor [to optimal preparation]. I would want exposure to stories like Marni’s or Chandra’s or whatever ... why the hell not you [win a medal], you have just as good a chance.”

Gaining support in a variety of areas helped to ensure that each area important to athletic performance is being maximized. Emotional support and encouragement from friends, family, and mentors helps sustain motivation and provides that voice of “Yes you can,” when it is needed most.

### **Reflection, Monitoring, and Adaptation**

Participant responses reflected that, for optimal Olympic preparation, athletes need to (a) reflect on current training and competitive practices and draw lessons from these experiences; (b) monitor their technical, physical, mental, and emotional levels, and test best performance practices through experimentation; and (c) make corrections or adaptations to training when deemed appropriate. Three coding categories for this theme emerged from the participant responses (see Table 2), and are depicted by:

1. Taking pause for reflection and be open to critically assessing current training practices and environment (i.e., before, after, and during training), motivational

energy, and competitive performances, and constantly learning and drawing lessons from training and competitive experiences;

2. Having methods to monitoring key components of training and competition (e.g., technique, physiology, mental and emotional energy, performance of equipment, competitive tactics and performance, etc.), such as meeting with key members of support network, using monitoring and evaluation tools, experimenting with different technique and equipment, and being open to feedback from a variety of sources (e.g., team mates, friends/family, training motivation, results, etc.); and
3. Making calculated changes to training and performance plans when needed, and adapting to current training and performance needs as determined through reflective and monitoring practices (e.g., taking time off for rest when indicated, changing coach if learning potentials are maximized).

Comments representative of this theme included:

Zack: "You have to know exactly when you are starting to slide a certain way.... And I'd say 90 percent of the time, people don't notice that themselves until they've gone way off and it has had a negative effect on whatever they do."

Ben: "I would say that most of the learning occurred in those first two years, but learning is constant. Like even about less than a year ago, we went to a wind tunnel and tested a million different things."

Zoe: "The main thing is to be open to learning those lessons. Like some people will fail and just go back and keep doing the same thing they're doing."

Ben: "If you want to increase your success, you should double your failure ... you know, this is twentieth in the World, this is first in the World. You have to take some risks to make any kind of possible gains"

Kate: "I would touch base with those people (support structure) on a fairly regular basis to make sure that everything was good and that we were kind of on the right track."

Ben: "I tried five, seven different helmets (while testing equipment in the wind tunnel) and the one I used was fastest for me. The information I got when I was there made me re-design my sled so that I didn't have a brace here so I could get my arms in tighter."

Kate: "I went through a phase of competing like crap for a couple of weeks.... I was like, 'Hey wait a minute, why is this happening, this shouldn't be happening because my system had worked until now.' and so I'm like, 'Well maybe I need to come up with a different system.' So I went through a couple of years figuring that out."

Zack: "Sometime coaches never want to let go because they think, 'I've been training this person for awhile and they were good and I can do more.' But maybe they've already reached you sort of limit of your collaboration (and you need a change).... It's going to re-stimulate the athlete, and new athletes re-stimulate the coach too."

Zack: "Maybe things that I know now (i.e., about how to enhance performance), it would have been better to change my equipment, my coach, my team maybe ... you know after a few years out, rather than never changing the coach and waiting until this year to change my equipment, cause it too me too long to figure it out."

Taking time to reflect on current training practices allowed the lessons and learning needed for optimal development to emerge.

### **Distraction Plans and Perspective**

This general theme consisted of meaning units that identified the importance of developing plans for managing distractions and emotions at the Olympic Games, managing interferences to optimal preparation, and maintaining a healthy perspective (e.g., defining success on an individual level, aware of the reasons you love to compete). Three coding categories emerged within this theme (see Table 2), and are characterized by:

1. Having plans developed for coping with distractions, Olympic hype (the excess emotional energy surrounding the Olympic event) or emotions experienced at the Olympic Games that could interfere with optimal performance. These plans helped to increase feelings of confidence, control, and decrease feelings of uncertainty;
2. Managing distractions or interferences that could get in the way of optimal preparation; and
3. Maintaining a healthy perspective, which involves focusing on the process versus outcomes, defining success based on individual achievement markers, having realistic

expectations regarding results during training phases, remembering that sport is just one aspect of one's identity, and awareness of the reasons why the athletes started competing in the first place.

Meaning units that typify this theme included:

Zoe: "One of the things we spent a lot of time on was going through possibilities of what could go wrong, and then developing a plan for how we could deal with it at the Games. Like foreseeing things like transportation or jet lag, and stuff like that, making sure that all those little things weren't going to affect the performance."

Ben: "The 'Olympic Excellence Series' thing was really good because we talked a lot about dealing with distractions, and anticipating what might happen. We were asked to write down some things that we could imagine happening that would throw us off."

Kate: "It is important to keep perspective on the Olympics themselves. It's not the be-all and end-all, like the world is still the same place, and they are amazing, exciting, fun, and have an impact around the world, but its not going to define you as a person."

Zack: "Some people don't race well and they think, 'I gotta change something.' Well that's not the time to change something. I think it's important to have a good perspective of when it's okay to get good results and when it's okay 'not' to get good results."

Maintaining perspective throughout the preparation period and developing distraction plans early help facilitate optimal preparation, as they enable a sense of control, thus managing levels of anxiety.

### **Developing Feel, Automating Skill, and Establishing Familiarity**

This last general theme reflects participant responses that highlighted the importance of developing a feel for optimal technique, using strategies to automate sport-specific skill and performance plans, and taking measures to establish familiarity with your training and competitive environment, so to enhance sense of routine and manage stress. This theme contains two coding categories, characterized by:

1. Developing an instinctual feel for sport performance, experiencing what it feels like to have optimal competitive focus, to be successful, and having sport-specific skill

become more automatic, which occurs through simulation training, being mindful and connecting to the body during training, and by mentally rehearsing technique and performance plans repeatedly; and

2. Establishing a sense of familiarity with the Olympic competitive environment by visiting the competition site prior to the start of the Olympic Games, getting to the Olympic Games early and exploring competitive venue and Olympic village, and by mentally rehearsing the competition site repeatedly. It also involves having a familiar, controlled environment to complete final preparation for the Olympic Games, in order to minimize stress levels and uncontrollable factors.

Participant responses reflective of this theme included:

Zack: "That's one of the main things (for optimal preparation) that you have to do when trying to develop as an athlete is to really develop a real feel for what you are doing and learn how to memorize it."

Zack: "The movements of speed skating needs to become something that you don't think about. It has become automatic, and when you make a mistake, correcting that mistake has to be something you don't think about, it has to become automatic."

Ben: "The only reason I have been successful in Calgary is that I have done it a thousand times, I can hold my position and do absolutely the least amount of steering, and be totally confident.... I have maybe had thirty runs on it [Olympic competition site] total. Calgary over a thousand for sure. In our training before Christmas last year I tried to do a hundred mental runs [on the Olympic track] for every run I did [in Calgary]."

Zack: "I think it's important to get that focus set for practice races or else when you get to the big race you feel like you're not prepared. Whereas if you prepare yourself for a practice race like it's a real race, you'll get use to that. I don't really see the point of racing [practice or not] and not taking it seriously."

Zoe: "We showed up really early [to Olympic Village] before a lot of the other teams, and made sure we were well rested and 'in the know'. We actually went up to the half-pipe before it was even finished because we were there that early. Just to look and be there before the crowd was there, just to be around the pipe and get a feel for it, and do some free-riding on the mountain to make sure everyone's having fun."

Ben: "[A month before the Olympics,] I came home, I healed, I got some really good training done ... because when you're on the top of a mountain at the start of a course,

it's not like being at Lindsay Park [home training facility] with your spikes on, in the perfect condition.... It's your weight room and you know the bar. You've got everything you're exactly used to, and you can do it exactly in the time of day when you want to, you get as much sleep as you want to ... and so on."

Developing an instinctual feel and familiarity in the preparation phase allows for competition to be more natural, thus producing the mental state needed for optimal performance.

### **Olympic Performance**

Six performance themes emerged regarding processes that contributed to optimal preparation of these Winter Olympic athletes. As with the process for preparation, these themes were established by collapsing the coding categories that became apparent when organizing the meaning units. The title and description of each theme is presented in this section, along with responses that represent the meaning units that exist within each theme. A summary of themes, coding categories, and frequency of meaning units that exist within each, are presented in Table 3.

### **Self-Regulation**

The participant responses indicated that for optimal performance at the Olympic Games the participants needed the ability to self-regulate their mental, emotional, and physiological levels. This theme is comprised of four coding categories (see Table 3), and is depicted by the capacity to self-regulate and manage:

1. The level of activation and arousal, which involves being loose, relaxed, yet energized;
2. Emotions produced from the expectations and pressure associated with the Olympic Games, and hype and energy that is connected to the Olympic Games;
3. Distractions and interferences to optimal performance (e.g., media, living conditions, doubt, etc.); and

4. The mind frame needed to compete at the Olympic Games (e.g., being hopeful, mentally fit, and determined).

Table 3. Themes that Emerged for Processes Contributing to Optimal Performance

General Theme	Coding Category	Frequency	
		Part. Rate %	Total m.u.
Self-regulation	Regulating level of activation and arousal	4/4	36
	Managing emotions, pressure, and Olympic energy	4/4	31
	Managing distractions and performance interferences	4/4	9
	Optimal mental state	4/4	39
Identity, self-acceptance, and authenticity	Personal identity	4/4	15
	Separation from results	3/4	19
	Authenticity	3/4	23
Confidence and belief	Confidence in your abilities	4/4	41
	Evidence of success and current capacity	3/4	33
	Confidence and belief from supporters	4/4	16
Perspective, acceptance, and adaptation	Maintaining healthy perspective	3/4	29
	Acceptance of current state and environment	4/4	54
	Adapt to current competitive conditions and performance needs	4/4	31
Focus, engagement, and instinctual feel	Process focused and staying present	4/4	25
	Engaged and enjoyment	4/4	13
	Instinctual and automatic feel	3/4	25
Performance planning and execution	Tactical plan and technical strategies	4/4	55
	Optimally functioning equipment	3/4	14
	Competitive drive, instinct, motivation	4/4	27
<b>Total # Meaning Units:</b>			<b>535</b>

*Note.* Part. Rate = Number of participants that contributed meaning units to theme;  
Total m.u. = total number of meaning unit coded in each category

Meaning units categorized within this theme included:

Zoe: "(Important to optimal performance is) being able to calm yourself down or excite yourself at the right moment.... getting into that right level that you know would work."



Kate: "(For optimal performance) I need to be relaxed, but at the same time excited and kind of energized. It is kind of a balance between the two."

Ben: "If the training goes well, then I'm excited and anticipating a great result, and then I have the emotional energy, which translates into the physical energy to do my absolute best on that push."

Zack: "... in a training team they'll be all the physically talented Speed Skaters in Canada, but the only ones who will become really good are the ones who are also mentally strong."

Zoe: "It's important to have a good head space, being in each moment of the course. Not getting ahead of yourself or behind yourself."

Zack: "I don't know why, but I think it is a natural tendency for a lot of people, the better they get to be more afraid of failure. So it is important to manage this."

Zack: "It's mental, it makes a bigger difference than physical. And I'm definitely stronger and more powerful than I was six years ago, but I don't race faster all the time, and I think that is mental."

The ability to regulate arousal, emotions, and distractions is invaluable to optimal performance.

### **Identity, Self-Acceptance, and Authenticity**

The nature of the participant responses revealed that for optimal performance it was central to have a solid sense of self, to have the ability to separate individual identity from athletic performance, and to be congruent with who you are as a person when performing. This theme was comprised of three coding categories (see Table 3) and contains the following characteristics:

1. Having a clear view of one's personal identity, which involves knowing oneself as a person and as a performer;
2. Having a high level of self-acceptance regardless of performance, which requires the ability to separate sense of self from the performance or the results (e.g., not allowing good or bad results change how you feel about yourself as a person); and

3. Being authentic when performing, which entails being yourself and being congruent with who you are when not in the competitive environment.

Meaning units that are reflective of this theme included:

Kate: "I was myself, and I just removed myself from the results and I was like ... 'have a blast.'"

Ben: "She [Marni McBean] said she always used to look at Gold Medalists as these amazing heroes, and her vision of what it took to win a Gold medal plummeted when she won one herself. You know, she knows herself she's just a regular person.... And we try and transform into this other 'Olympic being' what we think we are supposed to be.... And you just need to be who you are."

Zack: "I need to make sure that no matter what pair I am in and who I'm skating with, I need to be myself skating."

Kate: "I think you need to be okay with who you are as a person.... It doesn't mean squat, what your results are and no-one really cares if you win a medal, if you don't, if you actually went to the Olympics, if you didn't, it's who are you, and are you happy with the person you are. Like once that first race was done, I was like, 'Ahh it sucked,' but I am still the same person ... and actually the reason I skated badly in the race is because I wasn't myself."

Zack: "I race my best when I'm myself. It's not like when I'm trying to be someone specific. It's just when I'm myself, and things happen."

Kate: "Key (to optimal performance) was removing myself from the outcome. I learned over the last couple of years, which is what helped. I mean I had awesome results in the fall and it was because I didn't give a crap about the final anymore."

Having a clear self-concept and high level of self-acceptance allows the athlete to remove their self-worth from the result, thus being completely free to immerse themselves into the performance.

### **Confidence and Belief**

This theme emerged from participant responses that acknowledged the relationship between having complete belief in ability, in varying conditions, and achieving a high level of performance excellence. This theme is comprised of two coding categories (see Table 3) and was typified by:

1. Having confidence and complete belief in your ability to perform given any circumstance, which involves having belief in your preparation and knowing you can perform versus just hoping you can perform; and
2. Having experienced success in training or competition, so to provide evidence of current capacities.

The following quotes are indicative of participant responses included in this theme:

Kate: "(key to optimal performance) being confident that you've done everything you need to do ... and being confident in your own abilities. Like don't just change it because everyone's saying, 'Oh the ice is this way, and you have to skate like this,' those factors won't matter."

Ben: "I hear people talk about believing, and that you have to believe you can do it. Well I think that is not enough. That is too simplistic.... For myself, it is believing you can, not that you will.... My point about believing is you can trick yourself into believing something is possible, but that is not enough, you need some evidence."

Kate: "I just always believed I was going to do it."

Zack: "I've always gained most of my confidence from racing ... even if I hadn't raced all year, but I had really great training I would be confident, but you don't get that some confidence that you get from racing."

Zack: "It's one things go bad, but when you feel you just can't skate properly, after awhile you just try to stop thinking about it. And then instead of believing in yourself you just hope that you can [perform].... So the day of the race I went there and I was like 'I know I can race fast and I just hope I can today', you know... so basically I don't know if I can do it today, so it was just 'hope that it happens', you know [which was not optimal]. When you know you can, you're not thinking about what you're going to do, without any doubt in your mind."

Zoe: "You're just thinking about what you have to do, without any doubt in your mind."

Ben: "I think you have to have a few races in there where things happen in the way that you want them to, just for that confidence, it gives you that edge."

Zoe: "I knew it was the Olympics, I was excited about it, I knew lots of my friends were there ... there were actually a ton of Canadians there encouraging me."

Confidence is not a skill that can be acquired, rather it is a feeling that is developed from many sources. Have complete belief in your ability to perform has proven to be critical to performance.

## Perspective, Acceptance, and Adaptation

To achieve optimal performance, the participant responses reflected the need to maintain a realistic outlook on competition (i.e., not a cure for cancer, just a sport), to accept natural emotional responses and current environmental conditions (e.g., Olympic hype, weather, delays), and to make changes needed to adapt and perform optimally in current contexts. This theme emerged by combining three coding categories (see Table 3) and were described as:

1. Maintaining a healthy perspective, which involves being able to see the big picture (e.g., still need to compete the same way, just a different competitive environment), knowing why you are competing, and being mindful of what you value in the world (e.g., family, friends, health);
2. Accepting and capitalizing on the conditions of your current environment such as the unique energy produced by the Olympic event, the range of emotions experienced, and varying competitive conditions and performance needs; and
3. Adapting and making the necessary changes needed to perform given the current context.

Participant responses representative of this theme included:

Kate: "When I didn't perform as well, mentally I think it was because I lost some of my perspective, cause I'd been skating really well and put too much pressure on myself do something."

Ben: "You are surrounded by all this excitement, and this is it ... and that should elevate you. Why is it that for some people it works, and for others it doesn't work that way. For some people it's too much."

Kate: "In the 3K, I was like "Oh my God, I'm supposed to win a medal, I'm supposed to feel a certain way; this isn't happening the way it's suppose to happen. Like I freaked out, and I was just scared of not performing, and that's exactly what I did."

Kate: "Sometimes I'm super nervous and that's okay, and being okay, that it's always different ... and being aware that no matter what, it's always different. Ice conditions,

crowd, whatever, everything's different. As much as each race is exactly the same.... It's completely different at the same time."

Ben: "Sometimes when I was really nervous as a younger athlete I tried to imagine what it would be like if the coach came up to me at the time when I was dealing with the stress and said, 'Sorry uh we made a mistake, we didn't enter you, you can't compete.' What would that be like, you know, contrast that. The purpose of doing this was to make me realize that as nervous as I may be, I really wanted to be in that moment as I loved to compete."

Zack: "It's really important to have the right perspective, like no matter how different it (the Olympics) seems, you kinda have to realize it's the same competitors. I don't mean downplay it, because it is really hard to do, but accept that there is going to be a huge amount of hype about the same kind of thing that you normally do."

Ben: "Are you a person who cracks under pressure, or are you a person who performs their best under pressure. Maybe it should not be thought of as pressure. Maybe it's 'hey, you are now participating in what you've dreamt of.' You know, this is amazing, this isn't terrifying."

Ben: "At the Olympics, we had three practice days before the competition. So each of those three practice days I tried one run on the runners I normally use, and one run on the relatively new ones. So I ended up going with the new one [runner], because if the ice temperature warmed-up, got softer, the new one wouldn't sink in as much if there was a change.... I had never raced on that one before, so it was definitely a last minute sort of thing."

Zoe: "I came into the first corner not in the lead, which was totally new thing for me that day. I resorted to plan B ... but maybe that tripped me up, which caused the fall."

Maintaining a perspective allows one to accept their current environment and make the adaptations needed to achieve an optimal level of performance.

### **Focus, Engagement, and Instinctual Feel**

This general theme emerged from participant responses that linked optimal performance with the need to focus on the process and the present moment when competing, the necessity of having fun and staying connected to the performance, and having an instinctual feel for key factors. This theme is comprised of three coding categories (see Table 3) and is depicted by the following:

1. Focusing on the process of performing instead of outcome factors (e.g., results);

2. Staying in the “now” and keeping a mindset focused on the present performance (e.g. focus on what you are doing and letting go of past errors); and
3. Being completely immersed in the performance, having fun and experiencing feelings of enjoyment; and having a real instinctual feel for the performance and feeling like the performance is effortless, natural, and occurring automatically.

Meaning units included within this theme consisted of:

Kate: “I think that if you have that good perspective, then you’ll be excited to be there and have fun. And if you are excited to be there and having fun, you’ll probably be confident.”

Ben: “A lot of the driving is innate, I believe. We talked about how much visualization I did. But I would visualize driving the course wrong, cause you are never perfect at it.”

Zack: “I think you show up and you’re thinking about the things that are going to make you go fast and enjoying the process. Thinking about, ‘This is what I’m going to be doing in the race’... you know, anticipating that feeling, rather than when you feel you ‘need to’ you kind of say, ‘okay I’ve got to focus on my race right now,’ thinking about what I need to do. Whereas when you want to, it just sort of happens automatically.”

Zack: “I think the main thing was just having that memory of the feel, and so whenever I was racing at a big event, I always had that good memory to fall on, and I’d get that extra energy from that adrenalin stuff for the big race ... but I’d still try and get that same feel.”

Kate: “As far as executing goes, it’s just automatic pilot.”

Zoe: “Having a clear vision of the run ahead of you, but not looking to far ahead, like looking at each next obstacle as you go down.... Being in each moment of the course. Not getting ahead of yourself or behind yourself.”

Zack: “It’s just a whole connection that isn’t forced. Everything I think has to be natural. I think that’s maybe the thing ... or the main thing; it just has to be natural and this is on the day of racing.”

Focusing on the process, being engaged in the performance, and having fun will maximize performance potentials.

## Performance Planning

This theme is comprised of meaning units that describe elements of planning needed to execute optimal performance. This theme has three coding categories (see Table 3) and can be described as:

1. Having a calculated plan for competition that was developed in the preparation phase and maintaining this plan regardless if it is the Olympic Games or a World Cup, mentally rehearsing this plan so to create a mental map to enhance commit to the performance, enlisting support services needed at competition site (i.e., coaching, encouragement, technical support, etc.), and executing key technical, mental, physical and nutritional tasks required for optimal performance;
2. Having functioning equipment that is appropriately prepared for current competitive conditions; and
3. Having the competitive drive, motivation, and passion that produces the extra energy needed to achieve a high level of performance excellence.

Participant responses reflective of meaning units included in this theme are:

Zoe: "I would go through the course at night by writing it out on a piece of paper. I would write out different sections and come up with key words. I would be like, 'Roller, roller, quick feet, roller,' or if there is a burm it'll be high, middle, low, and I'll start the burm high, middle, low. Or if it is a jump I'll say 'medium-pop', basically it's how much you need to make the jump."

Zack: "I think sometimes when you force it, maybe it's because your body doesn't want to do it, cause it feels like its just pressure to do it, rather than desire to do it ... and when it's forces you don't have the extra energy that's needed to get that desired result."

Zoe: "Having your equipment done to the best that it can be. Having the equipment that's best for you."

Kate: "It's about a strong love of this sport and passion.... I love doing it, and it's so fun, and that is what ultimately has been the reason for the success."

Zack: "You have to have that instinct to, like not killer instinct, but kinda like this competitive instinct. You know, like this edge ... and I don't think it can be contrived or calculated.... It's an instinct. So you are not thinking about it, it's just something that happens."

Zack: "For the last two seasons leading up to the Olympics, I think I was missing a bit of that motivation and desire to really win. And not that it's all about winning, but you have to have it, I think you need that desire to achieve something."

Having optimal performance plans, the appropriate equipment, and a natural competitive instinct was deemed important by the participants.

### **Meaning of the Olympics**

All participants were asked to comment on the personal significance or meaning that the Olympic Games had for them. The participant responses indicated that the Olympic Games represent the ultimate test or competition in sport. It is where the world's best, or the elite of the elite, come to compete. It provides an opportunity for elite athletes to showcase their superior physical conditioning and athletic talents. It was noted that the Olympics is one of the hardest events to win in sport, due to the scarcity of the event (i.e., occurs once every four years). It is also an event that draws the world together to focus on celebrating the hard work, passion, and dedication that is put towards pursuing the Olympic dream.

In summary, seven preparation themes and six performance themes emerged regarding the processes that contribute to optimal preparation and performance of Winter Olympic athletes. In the discussion chapter presented next these themes will be related to relevant scholarly literature and key findings will be highlighted.



## **CHAPTER V**

### **Discussion**

The purpose of this investigation was to generate insights regarding optimal preparation and performance of Olympic athletes. Semi-structured interviews were conducted with athletes who competed at the 2006 Winter Olympic Games, in order to gather data on the research question for the current study, specifically: "What processes contribute to optimal preparation and optimal performance of an athlete competing at the Winter Olympic Games?" The findings that emerged from the narrative analysis of the research interviews were presented in detail in chapter four of this document. This chapter reviews the results in relation to the current literature, highlights the key findings, and considers the implications for use in practical settings. In addition, the limitations of this study will be presented and suggestions for future research will be provided.

#### **Comparison of Findings for Optimal Preparation to Relevant Literature**

In short, the processes that contributed to optimal preparation of an athlete competing at the Winter Olympic Games that emerged from the current investigation included:

1. Individual process—having an individualized program;
2. Strategic holistic planning and implementation—developing a strategic, holistic plan for preparation, and having strategies in place to maximize the execution of this plan;
3. Balance, recovery, and energy management—maintaining a level of sport–life balance and having a system for optimizing recovery and regeneration;
4. Support and mentoring—having support structures and mentoring in place for sport-specific assistance, encouragement, and emotional support;

5. Reflection, monitoring and adaptation—reflecting on training and competitive situations and drawing lessons for each experience, incorporating methods for monitoring , and adapting and correcting the current training regime to meet the current context;
6. Distraction plans and perspective—developing plans for managing distractions during preparation for, and at, the Olympic Games, and maintaining a healthy perspective; and
7. Developing feel, automating skill, and establishing familiarity—developing feel for high level sport performance, automating sport specific skills, and establishing familiarity with the Olympic environment and relevant performance contexts (e.g., winning, performing under pressure).

In this section, I will relate these findings back to relevant scholarly literature. As most of the findings are impeded in talent development and preparation models, I will start by reviewing these models and link the findings back to literature that is most relevant. For themes that have been missed or categories that need further discussion, I will highlight the most relevant literature pertaining to key preparation factors and will discuss how this literature relates to the current findings.

### **Talent Development and Preparation Models**

To obtain information concerning processes contributing to optimal preparation of an Olympic athlete, the participants were prompted to discuss their preparation for the 2006 Winter Olympic Games in an open-ended fashion (see research questions in Appendix D). All participants indicated that preparation is a developmental process, so their journey really began when they first started training and competing in their respective sports. However, when

speaking more specifically about the preparation process, all participants chose to comment on the four-year plan for preparation, while mainly focusing on the pre-Olympic preparation conducted a year prior to the Olympic Games. The literature is somewhat scarce regarding how to specifically prepare an athlete for the Olympics when viewing preparation in regards to the one to four year pre-Olympic time frame. Currently in existence are models for talent development (Bloom, 1998; Côté, 1999; Durand-Bush & Salmela, 2002; Glaser, 1996; Howe et al., 1998) and a review of essential elements required for preparing for peak performers (Hayes & Brown, 2004).

Howe et al. (1998) investigated the notion (termed the *talent account*), which posited that “to reach high levels of ability a person must possess an innate potential called talent” (p. 406). These authors gathered evidence to refute this belief and suggested that elite performance results from large amounts of regular practice and intensive training. Ericsson et al. (1993) also supported this position with their theory of talent development based on what they termed *deliberate practice*, which occurs when training activities include being challenged by a well-defined task, receiving informative feedback, an opportunity for repetition, and correction of errors. Ericsson et al. produced empirical evidence, which demonstrated that peak performance was acquired after a ten-year period of intense preparation. These conclusions are consistent with the findings of the current investigation. For optimal preparation, the participants identified the importance of developing a strategic, holistic preparation plan, which involved training many long, intense hours with the intent of maximizing technical, physical, and mental capacities. The current investigation’s findings also identified the need for the training regime to be detailed in design and very exact in implementation. Another theme that emerged, which contained the highest percentage of meaning units, was creating opportunities for monitoring and reflection

and drawing lessons from training and competitive experiences, so that necessary changes can be made to enhance training and performance practices. These preparation practices are parallel to Ericsson et al.'s criteria for deliberate practice. Although the participants did not highlight the length of time they have been competing in their respective sports, it is interesting to note that all participants in this investigation have been training and competing in international sport for at least nine to ten years. It should be mentioned that although some of the findings from Howe et al. and Ericsson et al. are congruent with the results of the current investigation, their studies surveyed many areas of performance, such as the arts, academics, and sport; they did not specifically examine pre-Olympic preparation.

Other models of talent development support the findings of the current investigation. Bloom's (1985) pioneer research investigated the process contributing to talent development, by conducting a four-year longitudinal study tracking progress of talented performers from a variety of disciplines (e.g., sport, arts, sciences). Bloom's researcher identified three stages of talent development: (a) early years and stage of initiation, (b) middle years and stage of development, and (c) late years and stage of perfection. The participants of the current investigation are in Bloom's third stage, which is depicted by the development of skill at an elite level, and the responsibility for training rests with the performers. Bloom's study identified how talent can be developed within each stage, but did not address pre-Olympic preparation in particular, nor did it have a focus on athletic performance, as with the current investigation.

More recently, Côté (1999) and Durand-Bush and Salmela (2002) studied talent development as it pertains specifically to athletes. Côté identified three stages of sport participation: the sampling years, the specializing years, and the investment years. Durand-Bush and Salmela expanded on this model by adding a fourth stage, the maintenance years, which

represents the period following when an athlete achieves the highest level in their sport (e.g., World championship or Olympic gold medal ). Once again, the third stage, which involves athletes' commitment to achieving an elite level of performance in a single activity, and fourth stage were the phases of development most relevant to the current study. Both models suggest that talent development exists on a continuum, thus, to achieve elite performance, athletes must go through specific developmental phases. This supports the finding that emerged in the current study, which indicated that, for optimal preparation to occur, an assessment of current training requirements should be conducted, and a strategic plan needs to be developed in accordance with the current developmental phase of the athlete. These points fall under the main general theme of "Strategic, Holistic Planning, and Implementation." Categories within this theme have also indicated that planning needs to be specific and detailed, and that an attitude of commitment, discipline, motivation and desire is needed to optimally implement the plan. Durand-Bush and Salmela (2002) found that a personal characteristic manifested by the elite athletic population was self-confidence and motivation. They stated, "These athletes were confident about their abilities to succeed and were motivated to train in order to become the best" (p. 166). These conclusions are in-line with the findings of the current study.

Scholars investigating talent development recognized the important role that having quality instruction and support from key individuals (e.g., parents, coach, significant others) played in the acquisition of expert performance status (Bloom, 1985; Côté, 1999; Durand-Bush & Salmela, 2002). These researchers emphasized that the type of support needed will vary depending on the stage of talent development. In regards to the stage of talent development that is most relevant to the current investigation, responsibility for training and competition now rest with the performers (Bloom). Although the level of support differed from that needed in the

earlier stages, support was still deemed significant at the elite performance level, which is consistent with the current findings.

Durand-Bush and Salmela (2002) also highlighted the need for support and found that the context in which athletes are immersed has implications for expertise development. These scholars identified several sources of support that were deemed critical at the elite level, which included: (a) parental support; (b) coaching support from individuals who exhibited trustworthiness and knowledge and who were well-respected and trusted by the athletes; and (c) specialized support from support staff members (e.g., strength and condition, exercise physiologist, sport psychologists, nutritionists, physiotherapists, and massage therapists) who provided assistance and information in areas in which the coach was not competent. These findings partially align with the general theme of "Support and Mentoring," which highlight the value of having a team of support (i.e., parents/family, coach, PET team, team mates, etc.) to provide training advise, motivation and emotional support throughout the preparation process. The one piece that did not emerge in the study by Durand-Bush and Salmela (2002) was the importance of being educated about the Olympic experience and learning lessons from past Olympians who acted as mentors. In surveying the literature, there was limited research specific to athletic performance that investigated the relationship between mentoring and Olympic preparation and performance processes. There is antidotal evidence that advocates mentoring as an effective preparation tool. There are also a variety of programs in existence that link Olympic hopefuls with past successful Olympians. A few of these programs include:

1. Team Visa—a sponsorship program that supports young Olympic and Paralympic hopefuls through a mentoring program enlisting former Olympic and Paralympic Champions as mentors to pass on their wisdom;

2. Olympic mentoring network—a Canadian Olympic Committee (COC) program connecting Olympians with other Olympians and Olympic hopefuls.

As mentoring is deemed an important factor to optimal Olympic preparation, more research should be conducted on factors that impact their appropriate application.

In regards to coaching support, one point worthy of note is the importance of having a coach who an athlete feels they can learn from, who provides motivation and inspiration, and one whom they trust and hold in high regard. Gould, Guinan, Greenleaf, Medbery, and Peterson (1999) investigated factors affecting Olympic performance and found that members of successful teams had coaches who inspired confidence and trust and who coped well under pressure. On the other hand, athletes who were part of less successful teams had coaches who were unsuccessful in establishing trust and sound communication practices and who were not consistent with their behaviour under pressure. These findings are uniform with a participant from the current study. He attributed part of his under preparation and performance to coaching staleness factors (e.g., no longer inspires or able to transfer new knowledge). Reflecting back on his experience with the coach through the research interview, the participant indicated that he should have changed coaches earlier in the preparation phase, and he suggested that an athlete should not be with a coach for more than four to five years (i.e., one Olympic cycle). There is not much in the coaching literature on how long a coach should stay with an athlete, but in relating this to the corporate context, leaders of companies (e.g., Chief Executive Officers) only stay in the chief leadership position for three to four years (B. MacNeill, personal Communication, June 4, 2007). Brian MacNeill, a former CEO for one of Canada's distinguished Oil and Gas companies and Order of Canada recipient, given for distinguished business practices and volunteerism, explained that each company has a board of directors, who monitor the operations of a company

and who have the clear mandate of creating value for the shareholder. To ensure that this occurs, the board of directors monitors the leadership within the company, and they evaluate the need for change based on key success factors such as: share prices, company growth, ability to inspire and motivate, and so forth. The athletic population can learn from these corporate practices.

Generally, each sport organization has a board of directors who help monitor the functioning of the organization, but perhaps the decision-making power should be given to the team of individuals who are most intimate with the current functioning of the training and performance practices, that is the coach, athlete, and performance enhancement team.

Hayes and Brown's (2004) research related to preparing performers is in accordance with the themes of "Reflection, Monitoring, and Adaptation" and "Strategic, Holistic Planning and Implementation" that emerged within the current investigation. Hayes and Brown wanted to broaden the notion of performance beyond athletics, so they conducted research with a selection of performers from the field of performing arts, business, and occupations having high risk to human life (e.g., trauma doctors). In regards to natural talent, consistent with the view of the scholars presented above, Hayes and Brown stated, "Innate talent is of limited value unless it is coupled with extensive preparation" (p. 91). Amongst their research, they presented essential elements related to preparing for peak performance, which included knowledge, active intentional learning, practice, and purposeful development of mental skills. The element of knowledge speaks to the importance of knowing the most effective strategy and method for performing a given task. Knowledge also involves having knowledge of oneself and being aware of strengths and weakness and factors associated with an ideal performance state. Important to completing these tasks is reflecting on current training and performance practices, incorporating methods for monitoring, so appropriate adaptations to training can be made, and developing and



executing a plan of action that will maximize training potentials. All of these components support the current findings.

Two themes that emerged within this current study, entitled “Strategic Holistic Planning and Implementation” and “Developing Feel, Automating Skill, and Establishing Familiarity,” were supported by the literature presented by Hayes and Brown (2004) and Ericsson et al. (1993). Hayes and Brown’s second and third preparation factors of active intentional learning and practice, involve engaging in highly-structured activity for technical, mental, and physical development; they include learning and memorizing factors that are essential to peak performance. This factor is consistent with Ericsson et al.’s theme of deliberate practice. Hayes and Brown indicated that a number of performers acknowledged technical preparation as a key element in bolstering confidence, managing performance anxiety, and automating responses. They stated,

Sufficient rehearsal has a constant and interactive relationship with the prevention or management of performance anxiety. Even Faith (singer) who describes herself as not experiencing stage fright, says: “The only time I have been nervous is if I feel a piece is under-rehearsed.” (p. 99)

The preparation element of practice entails rehearsing the conditions that replicate the actual performance context. Both these factors are consistent with the following themes that emerged within this current study: (a) strategic holistic planning and implementation; and (b) developing feel, automating skill, and establishing familiarity. The participant responses in the current study highlighted the need to go through intensive training to adequately develop all factors leading to performance excellence (e.g., developing technical, physical and mental capacities; incorporating simulation training, etc.).

The athletes also spoke about measures that they took to develop feel, automate skill, and establish familiarity. Although these findings are similar to that of Hayes and Brown (2004), they

are differentiated in a few ways. For one, they do not highlight the value of becoming more familiar and comfortable with their performance environment and living situation, such as at the Olympics (e.g., familiarity with layout of Olympic village and Olympic training venue), which was proven to be important to performance in the current study. Nor did Hayes and Brown talk about the need for developing an instinctual feel for optimal performance. However, this notion was supported by Newburg's (1993) seminal work on the resonance performance model (RPM), which suggested that performers are motivated by the feeling they want to experience in a given environment. Newburg, Kimiecik, Durand-Bush, and Doell's (2002) model contended that the process of becoming an expert performer involves: (a) identifying the dream—identifying how you want to feel in your athletic pursuits; (b) engaging in extensive preparation; (c) overcoming obstacles—distractions that disrupt resonance experience; and (d) revisiting the dream, which involves a reflective period after an obstacle has occurred. This model was developed using the testimonials of a variety of performers, including Olympians; however, the ability of athletes to execute resonance under Olympic conditions could be investigated further.

Mental skill development and acquiring a high level of mental fitness was inherent to processes contributing to optimal preparation, as identified by the current investigation. This finding relates to the last essential element for optimal preparation, as presented by Hayes and Brown (2004). This element was entitled, purposeful development of mental skills, and entailed interweaving mental skills into performance preparation. Mental skills that were shown to be consistently interwoven into performance preparation included: (a) goal setting, (b) activation management, (c) imagery, (d) thought management, (e) attention management, (f) pre-performance mental preparation plans, (g) well-developed performance focus plans, and (h) refocusing or contingency plans. As identified by the information gathered within the current

investigation, mental skill development and acquiring a high level of mental fitness underscored processes contributing to optimal preparation. Some participants singled out lack of mental skills preparation as a key factor leading to under performance at the Olympic Games, and they acknowledged the importance of establishing a high level of mental fitness in the preparation phase. All participants emphasized the value of establishing contingency plans to potential distractions they may face at the Olympic Games within the preparation phase. Participant comments related to this notion led to the development of the general theme "Distraction Plans and Perspective." Another theme in this current study that is related to the development of mental skills is individual process. Participants mentioned the need to have a strong relationship with the practitioner supplying sport psychology services, and for this individual to have a clear understanding of the athlete's individual needs, which has implications for practice and will be discussed further in this document.

The models reviewed in this section provide useful information on how to develop athletes and how to prepare them for peak performance. However, these researchers did not scrutinize the Olympic preparation process specifically, as was done in the current investigation. In conducting a literature search on Olympic preparation, very few researchers explored the Olympic preparation process on a micro level (i.e., one to four years before the Games). Rather, the sources found were generally conference proceedings commenting on observations of pre-Olympic preparations or sport-specific publications (e.g., American Swimming) writing up an interview with various Olympians on how they prepared for the Olympic Games. Thus, the current findings help to fill a gap in the literature. The Olympic Games are a very unique sporting event and, thus, should be differentiated from other competitions, such as World Cups and World Championships. As indicated by the participants, the Olympic Games represent the

ultimate challenge and accomplishment in sport, as there is only one Olympic champion named every four years for each sport discipline. The athletes who compete are the elite of the elite, and have the opportunity to perform to the best of their abilities on the world stage. Therefore, the models that inform the procedures used for Olympic preparation and performance should be based on research specifically investigating the Olympic process.

### **Preparation Factors**

Several factors that play a significant role in the preparation for, and development of, expert performance have been identified in the models presented by Bloom (1985), Côté (1999), Durand-Bush and Salmela (2002), as well as among other scholars (Ericsson et al., 1993; Gould et al., 1992a; Gould et al., 2002). These factors are in accordance with the current findings and include: training, coaching and other forms of support (e.g., parental), enjoyment, recovery, psychological skills, and attributes. The importance of detailed intensive training that develops a variety of performance factors has already been mentioned, but what has been overlooked is the importance of incorporating an individualized approach to preparing athletes for the Olympic Games. In regards to the development of expert athletic performance, Durand-Bush and Salmela (2002) stated, "It is interesting that some of these factors varied between athletes, but many were consistent across the investment and maintenance years" (p. 165)—the stages most relevant to the current study.

In the current investigation, the processes identified for optimal preparation were consistent across the participants; however, the findings also highlight the need to take individual differences into account when preparing athletes for the Olympic Games. In surveying the field of expertise research, Durand-Bush and Salmela (2002) stated that no models have "led to the universal characterization of expert performance" (p.154). Is this task even possible? Yes, there

are consistencies among factors; however, the athlete doing the preparing and performing needs to be regarded as an individual. It can be problematic to characterize preparation and performance in relation to static factors, as such characterizations convey that performance excellence can be achieved if athletes possess these characteristics. The point is not to refute that these characteristics are important, but rather to make it known that preparation and performance is a process that involves the interweaving of all these factors to produce the intended objective—peak performance excellence.

Other processes contributing to optimal preparation that emerged within the current investigation were that of balance, recovery, and energy management (see Table 3). Participant responses suggested that balance, recovery, and strategies to manage energy are needed to sustain the workload and emotional energy required to optimally prepare for the Olympic Games. The importance of achieving optimal recovery during the Olympic preparation phase was supported by Kellman and Gunther (2000), who investigated the changes in stress and recovery during preparation for the 1996 Olympic Games. These researchers indicated that recovery is an essential, yet often overlooked, element of training; they highlighted the importance of balancing training stress and recovery for optimal performance development. What was not included in Kellman and Gunther's review was the need to maintain balance outside of sport, and the necessity of incorporating strategies to sustain energy through the Olympic preparation period.

Scholars in the field of sport psychology have questioned whether balance can really be achieved during the pursuit of elite athletic performance. Amirault and Orlick (1998) explored the connection between maintaining balance and achieving athletic performance. Their findings revealed that athletes believed that when their life was more well-rounded, they had better results

in their respective sports. Miller and Kerr (2002) reviewed research regarding the balance between performance excellence and personal excellence (i.e., achievement of developmentally appropriate tasks); they clearly acknowledged the importance of personal excellence in the attainment of elite performance. Orlick (1998) had also supported this stance, as he highlighted the impact that achieving balance can have on achieving athletic success.

A category that emerged from the findings of the current investigation, which has not yet been reviewed, is the process of reflecting on training and competitive practices and drawing lessons. This coding category contained the highest number of meaning units, which are the smallest unit of analysis (Lincoln & Guba, 1985), and was deemed to be a critical component by all participants. This coding category, "Creating time for reflection and learning lessons," highlighted the importance of creating opportunities to reflect on current training and performance practices/conditions, and drawing important lessons from positive and negative experiences. Psychological resilience and thriving is believed to occur in response to an adverse event (Carver, 1998; Ickovics & Park, 1998). Craver identified four potential responses to adverse events: (a) an individual will deteriorate to a detrimental level; (b) an individual survives, but experiences impairment to functioning; (c) an individual returns to the pre-adverse level of functioning; and (d) an individual not only returns, but actually surpasses it. The fourth response has been conceptualized as thriving and is inherent to achieving an elite level of performance. The purpose of the high-performance training process is to increase an athlete's working capacity, skill effectiveness, and psychological qualities that enhance performance in competitions. As athletes train, they adapt or adjust to the training loads. This effect results from a principle known as overloading, which is based on the concept that performance will increase if athletes work at their maximum capacity against workloads that are greater than what is

normally encountered (Bompa, 1999). Overloading essentially mimics the concept of thriving, that is, putting athletes under adverse conditions with the intention of producing opportunity for growth.

The principle of overload comes from the exercise physiology literature and is not based on psychological principles, but rather physiological ones. In reading motivational stories written by Olympic medalists, and listening to post-Olympic interviews, it is apparent that these athletes attribute part of their athletic success to learning from their failures. For example, Catriona Le May Doan, a double Olympic Gold medalist in speed skating, wrote a book about her road to Olympic glory called *Going for Gold* (Le May Doan & Mcgoogan, 2002). Within this tale, she spoke about the devastations and failures she had experienced throughout her journey, most notably being an Olympic medal contender at the 1994 Olympics in Lillehammer and falling in an event in which she had real potential to win a medal. This experience was devastating and haunted her for awhile, but she used it as an opportunity for growth and learning and acknowledged how it had helped to enhance performance in future Olympic Games, in which she won two gold medals. Though thriving seems to be an important component in expert development, this construct has not been scrutinized in relation to the athletic population, which will be one of the recommendations put forth from this investigation.

### **Comparison of Findings for Optimal Performance to Relevant Literature**

Briefly stated, the processes that contributed to optimal performance of an athlete competing at the Winter Olympic Games, as determined by the current investigation included:

1. Self-regulation—regulating levels of arousal, emotions, and pressure produced from the Olympic hype; and maintaining an optimal mental state;

2. Identity, self-acceptance, and authenticity—having a strong identity and high level of self-acceptance regardless of the results, and being authentic when performing;
3. Confidence and belief—having confidence and belief in your ability to perform and having evidence of success to support this belief;
4. Perspective, acceptance, and adaptation—maintaining a healthy perspective, accepting the current environment and emotional state, and adapting to current condition;
5. Focus, engagement, and instinctual feel—staying process focused, engaged, and having an instinctual and natural feel to the performance; and
6. Performance planning and execution—having a optimal performance plan that includes developing and mentally rehearsing tactical strategies, executing key technique, having optimally functioning equipment, and harnessing the competitive drive and desire that is needed for peak performance.

Within this section I will relate these findings back to the scholarly literature.

### **Self-Regulation**

All athletes in the current study emphasized the importance of achieving the level of arousal needed for optimal performance. Researchers have been studying the relationship between arousal level and performance for decades (Hardy, 1996; Kerr, 1997; Spence & Spence, 1966; Yerkes & Dodson, 1908), and although the conclusions vary, it has been found that top athletes each have a zone of optimal arousal in which they perform at their best (Hanin, 1997). The challenge is for each athlete to have awareness of what that arousal level is, then to use self-regulation strategies to achieve that optimal zone. Many studies investigating factors associated with optimal performance at the Olympic Games have identified regulating arousal levels to be



associated with peak performance (Gould et al., 1992a; 1999; 2002; Durand-Bush & Salmela, 2002; Orlick & Partington, 1988).

The results of the current investigation revealed the importance of managing emotions, distractions, and the extra pressure produced from the Olympic hype, in addition to maintaining an optimal performance state. As stated by Gould et al. (1999), "Following the 1996 Summer Games in Atlanta, coaches and athletes were consistent in saying that the Olympics differ from all other competitions" (p. 372). As noted prior, the Olympics only occur every four years, thus limiting the opportunities for athletes to achieve the ultimate goal in amateur sport, that is, becoming an Olympic Champion. This limited opportunity, in combination with the increased media attention, community involvement, and world renowned status, makes it a sporting event like no other. In preparing for the Olympics, athletes have to get used to managing a level of emotional energy (i.e., Olympic hype) that is unique to this particular sporting event. In reflecting on his 1998 Olympic experience Neal Marshal, a two-time Olympic speed skater, stated, "At the Olympics, you have to be prepared for not being prepared" (personal communication, October 20, 1998). As the Olympics is a distinctive event, it produces unique emotional and behavioural reactions as the body responds to an unfamiliar environment. Therefore, it is essential that athletes and coaches acquire the necessary mental skills needed to navigate the Olympic environment and regulate emotions, so to achieve optimum performance potentials. Emotions play a role in performance variability and can impact the quality of the sport experience (Pensgaard & Duda, 2003). However, there is limited research in the sport psychology literature investigating the relationship between emotions and performance. To address this gap, Pensgaard and Duda explored the interplay between emotions, coping, and performance of athletes competing at the 2000 summer Olympics. Their findings suggested that

there are inconsistencies in the relationship between positive emotional responses, negative emotional responses, and performance. Thus, the experience of negative emotions (e.g., overwhelmed from the Olympic hype) does not always have a debilitating impact on performance. As the current investigation has suggested, Olympic athletes need to find ways to embrace the energy produced by the Olympics and regulate the corresponding emotional response.

Managing distractions and having an optimal mental state were deemed important to the achievement of performance excellence. This finding is consistent with the seminal work of Orlick and Partington (1988), who concluded that mental preparation was an important factor that impacted an athlete's performance at the Olympic Games. Durand-Bush and Salmela (2002) also found that mental skills training was of benefit to achieving elite performance levels, but based on their findings also recommended that "less informal processes such as self-reflection and evaluation should also be encouraged prior to, during, and after training and competitions" (p. 167). I agree with that notion and believe that applied sport psychology practices need to look outside of mainstream approaches and start to integrate interventions that address the problem (e.g., inability to detach self from results), instead of managing the symptom (e.g., performance anxiety).

### **Identity, Self-Acceptance, and Authenticity**

The finding from the current investigation revealed that, to achieve optimal performance at the Olympic Games, it was central for the athletes to have a solid sense of self, to have a high level of self-acceptance regardless of the results (i.e., separate identity from results), and to have a high congruency sense of self when performing. Balague (1999) spoke about integrating athlete identity development into her applied sport psychology practice, as she believed, "Athletic

performance often has central meaning to elite athletes because it represents a large portion of their self-identities” (p. 90). If an athlete’s central personal meaning is based on athletic performance, then it will be difficult to separate themselves from performance outcomes, which will create more pressure to perform. Supporting the importance of self-knowledge, Hayes and Brown (2004) interviewed elite performers from a variety of domains (business, high-risk professions, and performing arts) to better understand factors important to achieving a high level of performance excellence. One factor that emerged from their research that was deemed essential to peak performance was a coherent sense of self. Hayes and Brown indicated that a performer expresses their fundamental identity in every performance and found the performers interviewed showed “confidence in their abilities and expressed a sense of purpose and direction, self-knowledge, a clear sense of identity, and for some, even a sense of destiny” (p. 83). They also noted that this self-knowledge and sense of purpose helped to bolster the performer’s self-confidence. Traditional practices of sport psychology have focused on mental skill development and have neglected to develop the athlete as a whole. Miller and Kerr (2002) advocated for the inclusion of an athlete-centred model, which is based on the philosophy that sport can be used as a medium for overall well-being and development of lifelong skills. They also asserted that holistic athlete development will have a positive impact on achieving high levels of performance excellence.

These scholars (Hayes & Brown, 2004; Miller & Kerr, 2002) spoke to self-knowledge and identity development, but did not address the concept of self-acceptance, that is, being completely comfortable with who you are regardless of the results. Nor did they make mention of the importance of being authentic when performing. Brown (2001) conducted a grounded theory inquiry into the art of living well in elite sport. Through a series of interviews, this

researcher gathered insights on the process through which these athletes lived and performed. This led to the development of a model on perspective that included three main categories: defining the self, living authentically, and experiencing fully. These findings provide powerful evidence that elite performers can succeed in sport while maintaining a healthy view of self, staying true to self and key others, and finding meaning and fulfillment in the journey. Brown did not investigate the relationship between perspective and performance specifically, but his findings did confirm that elite performers are able to maintain perspective while in the pursuit of excellence. There is possibility of a chicken-and-egg theme here; that is, although no empirical correlation was identified, it is probable that these athletes were able to achieve elite status because they were able to maintain a healthy perspective as defined by Brown. This is an area that requires further investigation.

Cal Botterill has been consulting in the field of sport psychology for over 20 years and has worked with athletes at eight or more Olympic Games. He wrote a book on perspective that reviewed Brown's 2001 work (Botterill & Patrick, 2003). Through experiences and antidotal evidence, Botterill and Patrick contended that acquiring a high level of perspective is essential for reaching performance potentials. These scholars stated,

Those best able to perform under pressure seem to have perspective and enjoy the upcoming challenge as opposed to questioning their self worth. A key component in being able to do so is *knowing who you are*. People with great perspective seem to know the depth and nature of their identity. They deeply appreciate and acknowledge their many attributes, roles and interests as a person, not just as a performer. And perhaps even more important than self-esteem, they achieve self-acceptance! (p. 11)

In surveying the literature on factors impacting Olympic performance (Durand-Bush & Salmela, 2002; Gould et al., 1992a; 1999; 2001; Gould, Greenleaf, Guinan, Dieffenback, & McCann, 2001) none of the findings made mention of the importance of identity development and self-acceptance. Although this seems like an obvious area to develop in elite performance,

there has been limited investigation to support this fact. The implications that this has for applied practice and research will be addressed later in this chapter.

### **Confidence and Belief**

Having complete belief in ability to perform to one's potential, as a component associated with optimal performance, was unanimously recognized by the athletes interviewed in this investigation. Scholars outlining characteristics of peak performers have listed confidence as a key factor in achieving a high level of performance excellence (Durand-Bush & Salmela, 2002; Gould et al., 2002; Orlick & Partington, 1988; Williams & Krane, 2001). Ravizza (1977) investigated the subjective experience of athletes when performing at their best, in order to identify characteristics associated with peak performance. Although confidence in ability was not among these factors, many precursors to developing confidence were present. For example, Ravizza reported the following attributes were associated with an athlete's experience of their greatest moment: loss of fear (no fear of failure); not thinking of performance outcomes; total immersion in the activity; narrow focus of attention; effortless performance (not forcing it); feeling of being in complete control; time/space disorientation (usually slowed down); universe perceived to be integrated and unified; and unique, temporary involuntary experience. As an experienced athlete/performer, I know all of these factors will produce feelings of confidence. In my applied sport psychology practice, one of the biggest issues presented by the athletes I work with is the need for more confidence. I believe that confidence is not a skill, but rather an emotional experience that is a bi-product of the arduous process of training and competing. As such, it is important to create opportunities to build confidence and instil complete belief in ability.

Athlete comments related to this theme revealed that feelings of confidence were reinforced by having some evidence of success, as experienced in prior training or competition. This is consistent with the seminal work on self-efficacy as presented by Bandura (1977). The results demonstrated that self-efficacy—a person's beliefs about their capabilities to produce a certain level of performance—is influenced by the following factors: performance accomplishments, vicarious experience, verbal persuasion, and physiological states. Most relevant to the current investigation, performance accomplishment has been identified as the most influential source, as it is based on personal mastery experiences. As stated by Bandura (1977), "Successes raise mastery expectations; repeated failures lower them, particularly if the mishap occurs early in the course of events. After strong efficacy expectations are developed through repeated success, the negative impact of occasional failures is likely to be reduced" (p. 195). Although the model of self-efficacy was not developed investigating elite athletic performance, it still has relevance for this population and has implications for practice. In preparing for the Olympic Games, it is important to create opportunities for athletes, and coaches, to experience key performance accomplishments.

### **Perspective, Acceptance, and Adaptation**

This emergent theme underlines the importance of maintaining perspective, accepting the Olympic environment and the emotional responses to it, and making adaptations to perform optimally in the current context, in the pursuit of achieving performance excellence. The seminal work of Brown (2001) and Botterill and Patrick (2003), as previously reviewed, confirmed this finding and advocated for further research on the relationship between perspective and optimal performance. Perspective has been acknowledged as an important theme by many applied practitioners, yet limited scholarly work exists that investigates this construct in relation to

performance or provides a framework on how perspective can be developed in elite performers. This has implications for research and practice, which will be discussed later in this document.

There has been limited research discussing acceptance of, and adaptation to, the Olympic environment. In my experience in applied sport psychology preparing Olympic athletes and working with a team at the 2002 Winter Olympic Games, perspective is an area in which the field has been deficient. Some athletes do not want to acknowledge that it is an Olympic year, because it produces too much stress. High-performance directors of National teams try and create the perfect training environment by guarding the athletes from outside distractions (e.g., media, lack of resources, snow/ice conditions). This avoidance of anxiety and keeping the athletes in a protective bubble only produce negative consequence, as the athletes will be in a complete state of feeling overwhelmed once they have reached the hectic, unpredictable world that exists at the Olympic Games. Therefore, it is important for athletes and coaches to embrace their environment, accept and feel the emotions that emerge, and adapt their thoughts and behaviours to align with their current context.

In looking outside the performance psychology literature, the study of survival by Gonzales (2003) presented some profound insights on the topic of acceptance and adaptation. This author presented the psychology of risk taking and survival through the tales of wilderness survivor stories. He has been investigating survival situations and reading accident reports for over 30 years, with the intent of understanding survival, or defeat, when presented with the most unique predicaments. From this work, he found uniformity in the characteristics among the individuals who survived. Gonzales indicated that the concepts that emerged from his work can be applied to any stressful situation (e.g., Olympic Games), not just ones in which one's life is threatened, thus these principles can be transferred to the athletic population. One suggestion that

emerged from Gonzales' work that is relevant to this theme was the need to perceive, believe, then act. The following is how this category was described:

Avoiding accidents, surviving situations, is all about being smart. Horace Barlow, a neurobiologist, says that intelligence is a matter of "guessing well." Guessing well involves a natural tendency people have: to predict. Training is an attempt to make predictions more accurate in a given environment. But as the environment changes (and it always does), what you need is versatility, the ability to perceive what's really happening and adapt to it. So the training and prediction may not always be your best friend.  
(p. 279)

These insights have relevance to coaches and athletes trying to perform to their optimum at the Olympic Games. Training is important to refining skill; however, athletes still need to develop the capacity to react and respond, as there is always going to be variability in the performance conditions.

### **Focus, Engagement, and Instinctual Feel**

This theme emerged from participant responses that linked optimal performance with the need to focus on the process and stay present when competing, the necessity of having fun and staying connected to the performance, and having an instinctual feel for their performance. Support of these findings is found in the literature pertaining to engagement, flow, and resonance. Engagement is believed to occur when individuals express themselves authentically through their chosen activity, which has been found to enhance performance and sustain the energy needed for the pursuit of excellence (Csikszentmihalyi, 1990; Nakamura & Csikszentmihalyi, 2002; Newburg et al., 2002). Flow has been described as a state in which there is a loss of self-consciousness and feelings of control, a perceptual transformation of time, and total absorption in activity (Csikszentmihalyi, 1990). Resonance is about moving towards a harmonious experience between a feeling an individual wants to have and his or her



environment. That is, performers are motivated to achieve a certain feeling produced by optimal performance (Newburg et al.).

The constructs of flow, resonance, and engagement are related to the current findings presented within this theme; however, there are some distinctions that should be made. The coding categories embedded within this theme outline the need to focus on the process and stay in the present moment, plus to have fun and experience feelings of enjoyment while immersed in the performance. The ability to achieve these tasks will most likely lead to the attainment of flow or resonance; however, it is important to be explicit and have the process that leads to these constructs outlined. The ability to focus on process and stay present can be linked to achievement of self-acceptance and being able to detach the results from one's identity. This affiliation highlights the interconnectedness of these themes and further emphasizes that performance is about a process, not just about the acquisition of various factors and characteristics.

### **Performance Planning and Execution**

This theme emerged from participant responses describing elements of planning needed to execute optimal performance, which includes: (a) having a tactical plan for performance to execute key technical factors, (b) having equipment functioning optimally, and (c) possessing the necessary competitive drive and instinct needed to achieve maximal performance. Studies investigating factors associated with peak performance at the Olympic Games found similar results. Orlick and Partington (1988) presented critical elements of success as reported by top performers, which included: (a) total commitment to pursuing excellence; (b) quality training that included daily goal-setting and imagery training; and (c) quality mental preparation for competitions, which included a refined pre-competition and competition focus plan, on-going post-competition procedures, and a strategy for dealing with distractions. Gould and colleagues

(1992a, 1992b) examined psychological variables affecting performance at the Olympics and found, among other factors, that heightened effort and commitment were associated with the top performances of these.

Gould et al. (1999) surveyed Olympians who competed in the 1996 Summer Olympics regarding lessons learned from their Olympic experience. Amongst a multitude of factors, they indicated that the athletes emphasized the importance of making a commitment to equipment early and not changing this decision. This notion was contradictory to the findings that emerged within the present investigation. The athletes in the present study made comments reflecting the need to have equipment that would function optimally in the given competitive conditions. This may involve using familiar equipment or it may involve changing equipment to meet the demands of the current conditions. For example, Ben, who won the gold medal in skeleton, noted that he changed the blades on his sled a day before his Olympic run because those blades were best-suited to the current ice conditions. He had not used these blades before in competition, but he committed to his decision and was confident that they would provide him with the best equipment for that day.

The inconsistencies in these findings, between Gould et al.'s (1999) research and this current investigation, highlight a few points. Firstly, there are different perspectives on what is needed for optimal performance, which could be very sport specific. Secondly, these findings emphasize the variability in performance conditions and point out that athletes need to be able to adapt to their current competitive context. These points have implications for pre-Olympic preparation, which will be discussed in more detail later in this chapter.

### **Summary of Key Findings**

A central finding that emerged from this investigation is that optimal preparation and optimal performance of an Olympic athlete is a process, not just the cultivation of a multitude of key performance factors and characteristics. That is, if an elite performer possesses qualities such as a high level of motivation, optimal technical skill, confidence, ability to manage distractions and focus on task relevant cues, well-developed preparation and competitive plans, and competitive experience, this does not automatically mean that they will win an Olympic medal. Generally, to reach the elite of the elite, such as with qualifying for the Olympic Games, you need to possess these qualities. However, I believe that the medal winners are separated from the participants by learning how to integrate all of these characteristics into a fluid process, which creates flow and the natural feel needed for optimal performance. These Olympic champions also have the courage to test the system and create environments that will allow them to succeed. An exemplar of this is Dale Begg-Smith, a mogul skier who was born and raised in Canada. He chose to ski for Australia, because the country had a smaller ski program that offered him more attention and flexibility than what was being provided through the Canadian freestyle program (personal communication, February 16, 2006). Basically, the Canadian system was not adapting to his holistic need to maintain his career while training as a high-performance athlete, so he chose to find an environment in which he could maximize his performance potentials in both areas. Dale Begg-Smith won the Olympic Gold medal for moguls freestyle skiing at the 2006 Winter Olympic Games; he is also a multi-million dollar entrepreneur with a thriving business in the information technology sector. This example reinforces that optimal preparation and performance arises from an integrated process that needs to be individualized. Athletes who

participated in this study commented that achieving optimal performance has a lot to do with preparation, once again supporting the notion that this is an integrated process.

Developing this idea further, constructs related to optimal performance as presented in the literature have been categorized as characteristics of peak performance, key success factors, or attributes needed to achieve elite performance. The terms characteristic, factor, and attribute suggest that achieving elite performance status is a behavioural and concrete or static event. The integration of performance literature into these categories could just be due to structural constraints of presenting findings, but scholars should highlight to their readers that it is a complex, malleable process. Hayes and Brown (2004) did just this, as indicated by the following statement: "We present this information in a linear and static fashion, even though we recognize the essentially interactive and overlapping nature of this process" (p. 81). One of the reasons that narrative methodology was chosen for this investigation was so the voice of the athlete could be heard. The narrative accounts presented for each participant demonstrated the fluidity of the preparation and performance process and allow the reader to appreciate the athlete as a holistic, dynamic performer/person who possesses attributes leading to optimal performance.

The process of optimal preparation and performance is individual was a second key finding that surfaced during this investigation. There are general principles that need to be followed, but the way in which optimal preparation and optimal performance is achieved needs to be individualized to meet the needs of each specific athlete. As Kate stated in her research interview,

You need to be self-aware enough to know what you need and then get that from your support network. But this is purely individual. Like I mean look at Cindy [Klassen, speed skater who won five Olympic medals at 2006 Games], she is just so good. But I don't think she does the things that I do to be good. We each have different strengths and weaknesses and it is up to us as individuals to recognize and work on those things.

Also worthy of emphasis is that what one athlete needs in one sport may not be the same for an athlete competing in another sport. Even the athletes who participated in this investigation had contrasting opinions on what was needed for optimal preparation and performance. For example, Zoe, the snowboarder interviewed in this study, acknowledged that a strategic, holistic plan is needed for optimal performance, but she also emphasized "that going with the flow" was important so she had the freedom to attend to issues as they came up (e.g., injuries, life issues). She noted that, for her to be at her best, she needed flexibility; whereas, Kate (speed skater) was very strict with her program design and implementation. The culture of snowboarding and that of speed-skating are very distinct; thus, what one needs to prepare and perform well in those specific contexts needs to be taken into account. Regardless of the individualization needed, it is important to highlight the need for detail and specificity. All athletes interviewed in this study had a heightened sense of focus in the pre-Olympic year. For optimal preparation and performance, planning and execution needs to become more specific, focused, and disciplined.

The need to have a strong self-identity, high level of self-acceptance, and freedom to be authentic when performing and living was a third significant finding that became apparent. To achieve a high level of performance, athletes need to be able to separate themselves from the results. In order to do this, they need to maintain perspective, they need to have a clear sense of who they are (self-identity), be comfortable and stay congruent to that person regardless of successes and failures (self-acceptance), and act in ways that allow them to express their authentic self (authenticity). Achieving these things will provide the athlete with the freedom to think outside the box and prepare and perform in ways that will allow them to achieve their performance potentials. It will also allow the athletes to become completely immersed in the

performance as an autotelic activity (rewarding in and of itself), as they are not tied to a specific outcome.

The fourth major finding relates to the importance of reflecting on training and competition and drawing out lessons and information that are vital to optimal preparation and performance. As the thriving literature has suggested (Carver, 1998), there is growth opportunity in each adverse condition and failure. In order for an athlete to achieve the highest level of their performance potential, they need to be constantly growing and developing. As emphasized with the talent development literature (Bloom, 1985; Côté, 1999), this growth and development will take place on a continuum, with athletes experiencing more pronounced changes earlier on in their development, while experiencing finite, yet very critical, areas of growth as they get to the elite level. It is important for athletes and coaches to understand this philosophy, as it will have an impact on how they design their training and interpret their results. For example, as Zack mentioned in his research interview, speed skaters need to treat test events as real races, but they also need to have perspective when analyzing their results. He noted that, at times, athletes try to provide a rationale for poor performances (e.g., I didn't get much sleep) versus looking at the real reasons for the under-performance (e.g., I am deficient in my skating technique).

In order to expand one's capacity as a performer, it is critical that they make space in their training regime for reflection and monitoring, be open to learning the lessons that are presented to them, and have the courage to make the necessary changes required. It is a normal process to avoid and even fear change, especially when an Olympic medal is on the line. This change could be something as simple as modifying skating technique, or it could be something as complex as changing coaches and training environments. Depending on the circumstance, both situations could be neglected due to anxiety or fear (e.g., fear of changing view of self as a

competent skater, anxiety about changing the familiar training environment by adding a new coach), yet both could be critical to Olympic success. It is important for coaches and sport services providers to encourage athletes to reflect and monitor their training and competitive practices and help them develop the level of self-confidence needed to learn the lessons that are being presented to them. Once again, the fact that an athlete needs to have a strong sense of self in order to enhance the reflection process reinforces that optimal preparation and performance of Olympic athletes is a process.

The last key finding that emerged within this investigation was the need for athletes to accept and adapt to their current context. Specific to the Olympic Games, athletes and coaches need to “embrace their environment, not fear it or fight it” (Ben). They need to let go of any preconceived notions of what they are supposed to feel and just accept how they are currently feeling, and go with what is. As Kate mentioned in her research interview, meditation was one of the keys to her success, as it provided her with the ability to detach from the results, accept what is, and be comfortable with just being herself when performing. In order to achieve this level of acceptance, athletes need to have a strong sense of self, they need to maintain perspective, and they need to be comfortable with experiencing an intense level of emotions. When I was competing as a high level athlete I used to have the motto of “being comfortable with being uncomfortable.” Each athlete may have their own saying, but inevitably the right perspective will allow one to accomplish the feat of accepting their current context.

The survival literature spoke to the importance of accepting one’s current predicament and adapting thoughts and behaviours to align with this circumstance (Gonzales, 2003). The need to adapt to the current competitive situation was emphasized by the participants in this study. Training helps to reinforce the actions needed for performance, but as stated by Gonzales

(2003) in his suggestions for survival, environments always change and “what you need is versatility, the ability to perceive what’s really happening and adapt to it. So the training and prediction may not always be your best friend” (p. 279). For example, Ben created a mental map of the Olympic skeleton track by mentally rehearsing the run repeatedly. The catch to this is that he visualized his run with the imperfections that may actually occur in the performance (e.g., being six inches off the perfect line, and such), which proved to be successful as he won the Olympic Gold medal. On the other hand, Zoe created a mental map of her tactical plan for the Olympic finals (note: in snowboard-cross, the athletes go through a succession of qualifying runs, in which only the top two advance to the next round. Zoe won all of her qualifying runs to advance to the four-person final). In her qualifying runs, she had always been the first athlete out of the gate; however, in the finals she was behind two other athletes at the start. She indicated in the interview that she prepared for this predicament as “Plan B,” but acknowledged that she had not reinforced her Plan b, panicked, and ended up crashing early in the race, which placed her one spot away from winning an Olympic medal.

To help athletes adapt to their current environment, they need to become as familiar with the competitive environment as possible. This could mean becoming familiar with the Olympic competition site and surrounding area, by scheduling training earlier on in the year or by creating mental maps that are more predictive of what may happen. At any rate, to ensure optimal preparation and optimal performance of an athlete completing at the Olympic Games, efforts need to be made to ensure athletes have the capacity to accept and adapt to the current context.

### **Strengths and Limitations**

The current study produced a number of findings regarding the processes contributing to optimal preparation and performance of an Olympic athlete. However, the limitations need to be



acknowledged and taken into consideration for future research. In general these strengths and limitations fall in the categories of sampling, data collection, and researcher bias. These limitations, in addition to the findings that emerged from the current investigation, generated ideas for future research. Within this section, I will review the limitation and provide suggestions for future research.

### **Sampling**

This investigation was exploratory and used a small purposive sample, thus the focus was on depth not breadth. Using purposeful sampling procedures (Maxwell, 1996), particular participants were selected deliberately in order to obtain specific information regarding optimal Olympic preparation and performance strategies. Narrative studies are conducted with a smaller sample sizes (Riessman, 1993), yet the quality and depth of information gathered is great, as was the intent for this investigation. Olympic athletes are amongst an elite population of athletic performers. As such, access to this population was difficult. My goal was to interview four to six athletes to obtain in-depth views on their Olympic preparation and performance experiences. Through a variety of recruitment procedures, I was able to secure four participants who met the criteria for this investigation. The strength of this sample size is that it allowed me to conduct in-depth interviews that elicited a richness of data from which the findings emerged. The depth of this rich data allowed for narrative accounts of the research participants to be presented, and the stories of the athletes to be told. This also provides the reader with a more in-depth view of the athletes' experience than could be ascertained by just reviewing research themes without the participants' contextual embedded narrative accounts.

The limitation of this sample size is that the findings are representative of four athletes' experiences, thus to more fully illuminate the experience of this population a broader sample

could be used. This limitation was partly addressed by incorporating member checks into the study. One individual who was deemed expert on this topic (i.e., a sport psychologist, who has attended more than seven Olympic Games) was asked to review the findings and provide his comments on: (a) how much the findings resonated with his experience, (b) whether the findings were understandable in relation to the research question, and (c) whether the findings had pragmatic value. He indicated that the findings resonate with his experience of Olympic athletes in his expert opinion.

The lack of diversity of sampling poses both strengths and limitation. The strength is that the selected participants created a very homogeneous sample, in that all these athletes were Canadian and have had the experience of placing in the top four in an Olympic Games. The limitation posed is that teaching tales from all sports, nationalities, or level of Olympic achievement were not gathered. Nor were there lessons included from athletes within the Olympic family, such as paralympians. These limitations impart consideration for future research.

### **Data Collection and Researcher Bias**

As stated by Lieblich et al. (1998), "Data is influenced by the interaction of the interviewer and the interviewee as well as other contextual factors" (p. 9). Both strengths and limitations can result from this interaction, thus researchers need to be mindful of the impacts. In order to capture the personal narrative from each participant, the data collection process used was semi-structured interviews. A strength of this procedure was that it allowed for a holistic description and detailed account of each participant's experience with preparation and performance at the Olympic Games. It also allowed for unique narratives to emerge, which produced extremely rich text.

A limitation of this approach was that the information collected was retrospective, self-reported data. As such, there could be issues of respondent bias, poor recall of events, poor articulation of events, or a combination. To account for this, all participants were given back their respective narrative accounts and were asked to read through them for accuracy. That is, they were asked if their story was representative of their experience as they have come to understand it. This created the opportunity for participants to omit or add content as they deemed appropriate.

As stated by Riessman (1993), "The construction of any work bears the mark of the person who created it" (p. v). A strength of investigating another's experience is that it allows for separation and a degree of objectivity to be added to the process. Limitations lie in a researcher's inability to be completely objective, as they are influenced by their values, experiences, and personal viewpoints. To minimize the limitations produced by researcher bias, I incorporated reflexivity into my writing (i.e., documenting my thoughts through journaling, being explicit about my background and experience with this topic). I have shown visibility of my work, and I have incorporated member checks and peer reviews.

### **Implications for Theory and Future Research**

Keeping consistent with the nature of exploratory research, many questions emerged from the current investigation. In this section, I will highlight the central gaps that emerged from the findings within this investigation. I will also provide suggestions for further research that developed from the limitations presented within this research.

One theoretical gap that was illuminated by this investigation was the need for the field of sport psychology to look through a new lens and draw on more theories specific to the psychological domain. Researchers and practitioners working in the performance domain could

benefit from drawing on theories of self-psychology, positive psychology, resilience theory, and survival psychology to name a few. Gould et al. (2002) acknowledged that considerable research has been conducted on factors leading to elite performance, but stated, "This does not imply that our knowledge is complete in this regard" (p. 173). Gould et al. called for scholars to look outside the sport psychology literature and investigate a number of factors that seem to have implication for performance. I would like to echo this sentiment and recommend that future research be conducted that takes a multidisciplinary approach by drawing on theories from various related fields. Particular to the current investigation, research drawing on the thriving literature that explores the relationship between thriving and Olympic preparation and performance would be of benefit. In addition, as identity and self-acceptance emerged as key findings, perhaps the performance literature needs to be expanded to explore in more depth the roots of psychology and draw on the theories of self-psychology. Future research investigating identity, self-acceptance, perspective, or a combination of these constructs and the relationship these constructs have to performance outcomes would add value to the field. The second phase would be to conduct applied research investigating interventions that help to develop self-concept, self-acceptance, and perspective in Olympic performers.

Research outside the mainstream athletic and psychological domain would also be worthy. Investigating the psychology of surviving literature as presented by Gonzales (2003), in relation to the Olympic performance, would also add value. There are interesting parallels between what is needed to survive unique predicaments and what is needed to optimally perform at the Olympic Games, thus performance psychology theory and practice could benefit from this already discovered knowledge. In addition, organizational behaviour theory and practice has a wealth of knowledge that could be transferred to the athletic population. This field has clearly

articulated policies and procedure processes for running organizations and hiring and firing key leadership positions. Drawing on this knowledge, future research investigating the determinants of coach retention, and how the functioning of the sport organization may impact the success of the athlete, would be valuable.

Outside of the performance domain, the findings could have relevance to the counselling psychology population, or any individual who is facing a challenge that requires dedication, commitment, and sacrifice. As the Olympics serves as an ultimate metaphor for achievement, will power, and resilience the findings should provide insights to populations facing challenge, change, and need for growth. Future research could be conducted to see how these findings resonate with a more dysfunctional population to investigate the need for new counselling approaches that may be derived from sport psychology practices.

Much of the theory used to inform applied practice within the Olympic population is drawn from research that has investigated elite performance; yet, previous research was not always derived from experiences within the Olympic context. As the Olympic Games are such a unique sporting event, theory used to prepare the athletes at these Games should be drawn specifically from Olympic experience. In the literature, there exists a gap in scrutinizing the Olympic preparation period of one to four years away from the Olympics. Findings from this investigation helped to address this gap, yet further research regarding this specific process is warranted. In addition, new factors that emerged that seem to benefit the athlete's preparation and performance at the Olympic Games should be investigated further. For example, the process of mentoring was deemed beneficial, yet limited research specific to the Olympics exists to inform this process. Also, managing the Olympic hype and embracing the Olympic environment was also deemed significant. As the Olympics provides a unique environment that is hard to

simulate, future research could be conducted with the aim of getting a better understanding of the Olympic environment, how athletes react to this environment, and strategies that could be implemented to manage this environment.

To address some of the limitations that existed within this study, one suggestion for future research would be to generate teaching tales from a larger, more diverse population of athletes. This could be completed by interviewing a larger number of Olympic athletes who vary in sport, nationality, and level of accomplishment. To ensure homogeneity of the sample, this study maintained selection criteria of individual sport athletes, thus future research could involve a similar study with team sports. This study also focused on the able-bodied Olympics, however it would also be valuable to investigate the findings in relation to paralympians. Another method would be to develop a survey that summarizes the key findings and investigate how the findings resonate with a greater number of athletes from more diverse backgrounds (e.g., nationality, sport, age, level of Olympic accomplishment).

The voice of the athlete was used to answer the research question presented in this study. Future research could be conducted to illicit perspectives regarding processes contributing to optimal preparation and optimal performance of Olympic athletes from others who have depth of knowledge in this area. This would include interviews with parents, coaches, sport psychologists, and other sport specialists who have a keen sense of the Olympic process. It would also be interesting to investigate how these findings resonate with other performance populations, such as business, the performing arts, and high-risk occupations.

### **Implications for Practice**

The findings for the current study shed light on the processes contributing to optimal preparation and optimal performance of Olympic athletes. A key finding that emerged from this

investigation revealed optimal preparation and optimal performance of an Olympic athlete is a process, not just the cultivation of a multitude of key performance factors and characteristics. The implications that this has for practice is the call for sport administrators, coaches, and specialized service providers to understand that optimal performance arises from the holistic development of athletic characteristics, and that this process must be individualized to meet the needs of each athlete. This requires that the coach help the athlete develop as a whole, which means investing energy not only into physical and technical training, but also advocating for psychological development and optimal balance, recovery, and reflection on current training practices to occur.

Treating preparation and performance as a process would involve the commitment to develop all areas that are critical to an athlete's performance (i.e., technical, tactical, physical, mental, emotional). In high-performance sport, a lot of time and attention is dedicated to developing physical attributes (i.e., endurance, strength, power, etc.) and technical abilities. It is interesting to note that, when the participants were asked about processes contributing to optimal preparation and performance, these areas were not something that was highlighted. This was not because these factors are not critical to success, but perhaps this reflects the notion that, at the elite level, having superior physical and technical conditioning is so common that it becomes tacit. Although physical and technical factors are still key to elite performance, it appears that it is the soft skills (e.g., self-acceptance, perspective, mental fitness) that separate the good from the great. Practitioners need to develop training plans committed to the development of an athlete as a whole. In being involved in high-performance sport as both an athlete and sport psychology consultant for the last 20 years, I have seen the evolution of sport psychology, and I have witnessed the shift in attention given to this area. However, with my

work in applied sport psychology for the past eight years, I have been witness to many sport organizations that have acknowledged the importance of developing the mental fitness of their athletes, but have not committed to the implementation of the services. An example of this would be having a sport psychologist at a training camp, but not creating enough time in the schedule to allow this practitioner to do their job effectively. To ensure optimal preparation and optimal performance of Olympic athletes, decision makers in sport (i.e., National sport organizations—NSOs, coaches, etc.) need to commit to the holistic development of the athlete.

Another implication of acknowledging this process would be to create opportunities for athletes to integrate these skills. This would involve creating opportunities for athletes to develop feelings of confidence, by exposing them to situations in which they are able to experience success. Alternatively, athletes and coaches can learn to become more comfortable with being uncomfortable, by being exposed to situations in which they have to use their current capacities and skills to cope with uncertain, emotional intense situations. At times to ensure optimal results, sports administrators and coaches try to create the perfect environment for athletes to compete (e.g., arranging personal shuttle services to reduce anxiety that the athlete will arrive on time). If the ultimate goal is optimal performance at the Olympic Games, then perhaps results need to be sacrificed in the preparation phase and athletes exposed to various fire drills to ensure that they are developing the competencies needed for high levels of performance excellence. Taking the individualized approach, the fire drills need to be centred around the needs of each athlete.

The findings regarding identity and self-acceptance have implications for practitioners working in the field of performance psychology. Traditional practices in sport psychology have been geared towards the development of mental skills (e.g., relaxation, goal-setting, distraction management strategies, focus plans and attentional control strategies, competition planning, and



confidence building, etc.). The main objective is to equip athletes with tools that they can use to help them cope with their cognitive, behavioural, and emotional response to pressure and performance anxiety, as produced by the competitive circumstance. As a profession, there needs to be a shift from symptom management to symptom prevention. That is, in addition to teaching an athlete how to use relaxation strategies to manage performance anxiety, practitioners should facilitate the development of the athlete's self-concept and level of self-acceptance, in order to help them to detach their self-worth from the result, thus reducing the level of anxiety that they are experiencing in the first place. This is happening on some level, but further progress is still needed.

The findings also support interventions directed towards maintaining a healthy perspective as defined by Brown (2001), by developing athlete's level of self-acceptance, and ability to stay engaged and present in the current moment. Further, interventions directed towards accepting and adapting to the current context should also be incorporated. Coaches and sport practitioners need to promote practices of emotional intelligence (e.g., ability to perceive, assess, and manage emotions), and create experiential exercises that test and develop the athlete's capacity to adapt and perform in a variety of situations (e.g., snowboarder trains in the sunshine and the storms, on hard courses and easy slopes). Practitioners should also look to non-traditional methods, such as yoga, meditation, and other eastern traditions that emphasis the importance of being engaged in the present moment and being completely comfortable with who you are regardless of your successes or imperfections. As noted prior, Kate acknowledged meditation as being central to her success, as it allowed her to let things come and go, and to just be.

The findings from this study also have implications for athletes. As indicated by the talent development research (Côté, 1999; Durand-Bush & Salmela, 2002), once an athlete has reached the elite level of performance, they need to take more responsibility for their development. As the results have suggested, athletes need to develop a strategic plan outlining how they will maximize their performance potentials. They need to exhibit hard work, precision, discipline, and commitment for what they set out to do. This may mean that, in the Olympic year, athletes cut out excess activities that cause interferences to optimal training, while at the same time maintaining an appropriate level of balance to keep them refreshed, engaged, and motivated to train. As indicated by the results, athletes also need to be diligent in monitoring and reflecting on their current training and competitive practices. They need to create stopping points, that is, instances inside or outside of training where they can monitor and reflect on their training plan and progress. To get the most out of this process, athletes also require the courage to be open and honest about their successes and have the perspective to know that it is all part of the process.

As suggested by the results, once athletes assess their needs in a methodical way, they acquire a team of professionals, or the support, required to help them cultivate their strengths, in addition to developing their weaknesses. As the findings indicate, this is an individual process; so what one athlete needs to be successful may differ from another. It is important for athletes to recognize that these needs may also fall outside the norm for what is typical for an athlete's development, as was the case with Dale Begg-Smith (B. Williams, personal communication, February 15, 2006). Athletes need to take the responsibility for getting the training and development that they require to succeed, as indicated by a calculated monitoring system and by what their intuition is telling them. Sport administrators, coaches, and sport practitioners should

be open to allowing some athletes to colour outside the lines and trust that the individualized integrated process will work. At times, this is difficult task to accomplish, as sport governing bodies (e.g., Freestyle Canada) are being held responsible for the athlete's performance outcomes by the stakeholder providing the funding (e.g., Canadian Olympic Committee). In general, these stakeholders only understand one language, results. One recommendation would be to outline key performance factors (KPF) for each athlete that provide clear indicators of success, regardless of the results. These performance goals could be developed in a collaborative meeting, where all stakeholders (e.g., athlete, coach, sport organization) are involved. This will outline the process needed for Olympic success, allow room for the athlete to grow and develop holistically (e.g., sacrifice some results for developing the skill of emotional management), and provide a monitoring tool to ensure athletes, coaches, and sport organizations are being held accountable for progress. Above all, and as supported by the results, the athletes need to have fun and enjoy this time of their lives.

Outside of the performance population, these findings could have implications for therapist and counsellors. Counsellors could use the struggles of Olympic athletes over-coming adversity and challenging situations to finally realizing their Olympic dream as a model of resilience, hope and possibility. Olympic athletes are normal human beings, who just happen to have an extraordinary gift in a certain area. They are likely to have similar problems to that of the general population, but they have found a way to thrive and grow in conditions of adversity. The processes used by athletes to prepare and perform at the Olympic Games, may be very similar for individuals who are trying to achieve a certain career, transition through difficult life period, and/or have a life that has meaning and purpose. Thus, practitioners in the field of

counselling psychology may benefit from theory and interventions used in the domain of sport psychology.

### **Concluding Remarks**

Achieving optimal preparation and performance at the Olympics Games involves an intricate interplay between factors and processes that, if executed right, will lead to the achievement of excellence. As highlighted throughout this study, optimal preparation and performance does not come with just the attainment of peak-performance characteristics, but rather by successfully integrating all of these characteristics into a dynamic process. It is also important that this dynamic, integrated process be individualized to meet each athlete's specific needs, as these needs will vary across individuals, sporting cultures, and competitive contexts (e.g. World Cup vs. Olympic Games). As the results demonstrate, optimal preparation should occur through the development and implementation of a strategic, holistic plan that incorporates processes for balance and recovery, support and mentoring, automating skill and establishing familiarity, and for reflection and monitoring, to ensure training potentials are being maximized and that valuable lessons are being extracted. Furthermore, reaching optimal performance at the Olympic Games requires (a) highly-functioning self-regulation practices, (b) a level of self-knowledge and self-acceptance that allows detachment from the outcome and freedom to perform authentically, (c) confidence and belief in their ability to achieve excellence, (d) perspective and acceptance and adaptation to current experiences and conditions, (e) focus and engagement in the present moment, and (f) the execution of performance strategies that lead to a high level of performance excellence. These findings have direct implications for athletes, coaches, sport administrators, practitioners, and researchers as outlined in this study.

When I was committed to the arduous athletic process of becoming an Olympian, a quote I used to help me maintain perspective was, “It’s important to have an end to journey towards, but it is the journey that matters in the end” (author unknown). The journey of bringing this study to completion has been extremely challenging, yet very rewarding—I am sure a process that parallels that of Olympians. It is with extreme gratitude that I thank the participants for sharing their stories and providing guidance on how to maximize my performance potential through this academic journey.

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## **APPENDIX A: Letter of Invitation to Participation—Athletes**

Dear Prospective Participant:

My name is Karen MacNeill and I am investigating the processes that contribute to optimal preparation and performance of athletes competing at the Olympic Games. This research is part of my Ph.D. work in Counselling Psychology at the University of British Columbia (UBC) and will result in a doctoral dissertation that will be housed in the UBC library and available to the public upon request. The need for this study was based on the observation that although many studies have assessed the components needed for elite athletic performance, few have examined the perceptions of the athletes engaged in this experience, or scrutinized the Olympic preparation process.

I am seeking athlete volunteers who have competed at 2006 Winter Olympic Games in an individual sport. Participants will be asked to describe their journey of attempting to qualify for the Olympics from the point they first decided they wanted to be an Olympian. They will also be asked to discuss processes that contribute to optimal preparation and performance when competing at the Olympic Games.

There will be two interviews, the first will last about 2-2.5 hours, and the second will last approximately one hour. The purpose of the first interview is to provide you with an opportunity to tell your story about your journey towards the Olympic Games, and processes that contribute to optimal preparation and performance. You will be prompted with questions to help facilitate the telling of this story. The purpose of the second interview is to have you review the way in which the information collected has been organized to ensure it properly reflects your experience. Both interviews will be audio-taped. The tapes will later be transcribed and given a code number to ensure your anonymity and confidentiality. The information obtained will be kept confidential in locked filing cabinets. Participants will not be identified by the use of names or initials.

Your involvement in this study is voluntary and you have complete control of making the decision to participate or not participate. You may also withdraw from the study at any time. There will be no remuneration to individuals who are willing to participate in this study. If you decide to participate in this study, or would like more information, please contact me at (xxx) xxx-xxxx. If I am not available you are welcome to leave me a confidential voice-mail message and I will return your call as soon as possible. I can also be contacted via e-mail at [xxxxxx@xxx.xx](mailto:xxxxxx@xxx.xx). The supervisor for this project is Dr. Marla Arvay. She can be reached at the University of British Columbia by calling (xxx) xxx-xxxx.

Thank you in advance for your time and interest, and I look forward to working together with you.

Sincerely,

Karen MacNeill  
PhD Student  
Counselling Psychology Program

## APPENDIX B: Research Poster

### WANTED: RESEARCH PARTICIPANTS

**Research Project:** Olympic Journey: Exploring the processes that contribute to optimal preparation and performance of Olympic athletes

**Purpose:** To explore processes which contribute to optimal preparation and performance of athletes competing at the Olympic Games.

**Looking for participants who are:**

- Athletes that competed in the 2006 Winter Olympic Games
- Athletes competing in individual sports
- Willing to participate in an interview lasting about 2-2.5 hours in length to discuss a) their experience of attempting to qualify for the Olympics, and b) processes that contribute to optimal preparation and performance when competing at the Olympic Games.
- Willing to participate in a second interview lasting about 30-60 min to review the results from the interview to ensure it properly reflects your experience.

If you would like to participate, or would like further information about this study, please contact Karen MacNeill at xxx-xxx-xxxx

**Note:** This research project is being conducted in order to fulfill the requirements of Karen MacNeill's Doctor of Philosophy (PhD) degree at The University of British Columbia. Principle investigator for this is Dr. Marla Buchanan, xxx-xxx-xxxx.

## **APPENDIX C: Consent Form—Athlete**

### **Olympic Journey: Exploring the processes that contribute to optimal preparation and performance of Olympic athletes**

**Student Investigator:** Karen MacNeill, M.A., M.Sc, Doctoral student  
University of British Columbia  
Department of Educational & Counselling Psychology,  
and Special Education  
(xxx) xxx xxxx

**Principle Investigator:** Dr. Marla Buchanan, Professor  
The University of British Columbia  
Department of Educational & Counselling Psychology,  
and Special Education  
(xxx) xxx xxxx

This consent form, a copy of which has been given to you, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

This study is being conducted in order to fulfill the requirements for Karen MacNeill's Doctor of Philosophy (PhD) degree in Counselling Psychology at the University of British Columbia. The results of this research will be included in a dissertation that will become a public document in the University library once it is completed. The results of this research may also be published in appropriate professional and academic journals, presented at public workshops and national/ international academic conferences, and/or used in the development of a book.

#### **Purpose**

The purpose of this investigation is to interview Olympic athletes in order to explore insights regarding the processes that contribute to optimal preparation and performance of athletes competing at the Olympic Games. The following will be explored within this investigation: (1) what is involved in an athlete's journey of attempting to qualify for the Olympic Games, and what does the Olympics mean to these athletes? (2) What elements contribute to optimal preparation for the Olympic Games? (3) What elements contribute to optimal performance of athletes competing at the Olympic Games? (4) What impact does talking about this lived experience have on the participants?



**Participants**

The participants for this portion of the study will be comprised of athletes who have engaged in the process of becoming an Olympian and who have competed at the 2006 Winter Olympic Games.

**Procedures**

The components of the study will require two interviews. The first one will be approximately 2 to 2.5 hours long. It will consist of introducing the participant to the purpose of the study and obtaining signed consent. Participants will also be asked to talk about their lived experience of attempting to qualify for the Olympics starting from the time when the athlete first realized they wanted to compete at the Olympic Games. More specifically, participants will be asked to describe their journey of attempting to get to the Olympics, the meaning the Olympics has for them, and factors that contribute to optimal preparation and performance at the Olympic Games. The final part of this interview will be to collect demographic information about the individual to aid in analyzing the data.

The second interview will last 30-60 minutes and will consist of a review of the findings compiled by the researcher. Both interviews will be tape recorded, transcribed and given a code number to ensure confidentiality. Upon completion of the study these tapes will be erased. Your total time commitment will be approximately four-five hours within a three to six month period.

**Confidentiality**

Any information identifying individuals participating in this study will be kept confidential. Only the researcher's supervisor and committee members will have access to the data. Upon signing the informed consent you will be given a code number to ensure the maintenance of confidentiality. Participants will not be identified by the use of names or initials in any reports of the completed study. All research documents will be kept in a locked filing cabinet in a locked office at the University of British Columbia. Computer data files will be password protected.

**Compensation**

There will be no monetary compensation to participants.

**Contact for Concerns about Rights of Research Subjects**

If you have any concerns about your treatment or rights as a research subject, you may contact the Research Subject information Line in the UBC office of Research Services at (xxx) xxx xxxx

### Consent

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation. If you have further questions concerning matters related to this research, please contact:

Karen MacNeill at (xxx) xxx xxxx, or Dr. Marla Buchanan @ (xxx) xxx xxxx

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

\_\_\_\_\_  
Date

\_\_\_\_\_  
Investigator and/or Delegate's Signature

\_\_\_\_\_  
Date

A copy of this consent for has been given to you to keep in your files. Thank you for your willingness to participate in this study.

## APPENDIX D: Questions and Probes Used for Interviews

### Basic Information Gathering:

Contact information: Ph: \_\_\_\_\_

Email: \_\_\_\_\_

Sport: \_\_\_\_\_

How long have you been competing at an international level?

What were your results at the 2006 Winter Olympic Games?

Describe your current level of involvement in your sport?

**Preamble:** The purpose of this research project is to interview athletes who have engaged in the process of qualifying for the Olympics to get a better understanding of their experience, and to explore factors that contribute to optimal preparation and performance at the Olympic Games. As we both know it takes considerable time and preparation to reach the Olympic Games... it involves quite the journey or process. I am interested in hearing about your experience of this journey.

### Questions:

- A. To start with, I would like to know your thoughts about the Olympic Games, and what personal meaning they have for you?
- B. When did you first develop the dream (goal) of becoming an Olympian? What are some factors that motivated you to set this goal?
- C. I am interested to know about the process of preparation for both the games and for your specific event:
  - Tell me about your preparation for the 2006 Winter Olympic Games?

### Probes:

- a. When did your preparation for the 2006 Winter Olympic Games start?
- b. What did your preparation for the 2006 Winter Olympics involve?
- c. What kind of mental, psychological, or emotional preparation is necessary to achieve optimal performance at the games?
- d. What distractions did you face and how did you cope with them?
- e. Did you feel prepared heading into the Olympic Games?
- f. Is there anything you would you have added to your preparation?
- g. Is there anything that you would have excluded from your preparation?
- h. What support did you get heading into the games- from who? How was it helpful?
- i. What factors do you think are needed for optimal preparation of an athlete completing at the Olympics?

- Tell me about what you do to prepare for your event?

**Probes:**

- j. What is key to optimal preparation for your event?
- k. What did your preparation for the 2006 Winter Olympics involve?
- l. What mental, emotional, or psychological preparation is needed?
- m. What distractions did you face, and how did you cope with them?

- D. Tell me about your performance at the 2006 Winter Olympic Games?

**Probes:**

- a. What are the key factors involved in excellence performance?
- b. What mental, psychological, and/or emotional factors influence successful performance?
- c. What did you do to develop these mental factors?
- d. What are the major stresses/ distractions to performing at the Games, and what did you do to cope with these?
- e. Is there anything you could have done differently to enhance your performance?
- f. What factors do you think are needed for optimal performance of an athlete competing at the Olympic Games?

- E. Is there anything that I have not asked you that you think would be important for me to know about your journey towards the Olympics, or about factors that contribute to optimal preparation and performance of Olympic Athletes?

- F. What has it been like for you to go through this interview process and talk about this experience? What impact has talking about this experience had on you?

**Demographic Questions**

- a) Age:
- b) Gender:
- c) Highest level of education:
- d) Current occupation:
- e) Family status- married, in relationship, single:
- f) Number of years competing at an international level:
- g) Number of attempted Olympic qualifications:
- h) Number of Olympics qualified for/participated in:
- i) People who have provided significant support during your journey towards the Olympics: