AN INVESTIGATION OF MENTAL APPROACH: METHODS USED BY NCAA

DIVISION I BASEBALL COACHES FOR PRODUCING PEAK PERFORMANCE

by

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Abstract

In order to be an effective coach one must be able to demonstrate exceptional qualities that contribute to the success and development of a team or individual. Effective coaching techniques involve the application of principles from sport science, which entails an understanding of physiology, nutrition, and motor learning, that have proven to be essential for producing high performance athletes (Hoffman, 2002). Natural science approaches, however, make up only part of the knowledge base and skill set that effective coaches must employ. The psychology of coaching has often been referred to as the "art" of coaching (Fuoss & Troppmann, 1981) and may in fact represent the most important investment of time, planning and energy for effective coaching. In order to better understand the "art" of effective coaching, expert coaches have been studied in a number of sports, including: wrestling (Gould, Hodge, Peterson & Giannini, 1989; Gould, Hodge, Peterson, Petlichkoff, 1987), gymnastics (Côté & Salmela, 1996; Côté, Salmela, & Russell, 1995) basketball (Bloom, Crumpton, Anderson, 1999; Schinke, Bloom, & Salmela, 1996; Tharp & Gallimore, 1976), and rowing (Sedgwick, Côté, & Dowd, 1997). Expert coaching in baseball, on the other hand, has been studied much less, with only one major observation study of a single coach (Hardin & Bennett, 2002).

The present study investigated NCAA Division I Head Baseball Coaches' ideas regarding a mental approach to the game. A mental approach is much like the "winning way" described by Dorfman and Kuehl (1989), in that it serves as a set of guidelines used by a coach to produce peak performance in athletes. This was the first research to attempt to elicit the knowledge of multiple high-level baseball coaches regarding a mental approach to the sport.

Seven NCAA Division I Head Baseball Coaches from the West Coast and Pacific 10 conferences were interviewed. Using semi-structured interview methodology interview questions were derived using Côté's (1995) Coaching Model (CM) and addressed training, competitive, and organizational components of coaching outlined in the CM. Data analysis followed guidelines for interpretive analysis of qualitative data and involved identifying and summarizing key themes and patterns in the findings (Côté, Salmela, Baria, & Russell, 1993; Glaser & Strauss, 1967).

Results from the study support literature on coaching effectiveness emphasizing the subjective nature of coaching. It was found that the seven high-level coaches were knowledgeable about the concept of a mental approach and offered numerous principles and practical exercises for instituting and fostering a mental approach for their athletes. For instance, all coaches regarded mental training as essential for success in collegiate baseball. More specifically, the participants cited the importance of being able to utilize visualization, set specific goals, establish routines, play the game one pitch at a time, and have emotional control. Also the results indicate that while the coaches' ideas regarding a mental approach were similar, the ways in which they spoke about these approaches were quite different. The findings support the highly subjective and individual nature of coaching approaches that is described in the literature (Chambers, 1997; Fuoss & Troppmann, 1981; Martens, 1997). Furthermore, they support the use of Côté's CM as a means for conceptualizing the coaching process. Recommendations for future research are also provided.

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Chapter I: Introduction

The area of coaching effectiveness is a dynamic combination of many facets of the social and sport sciences. To be effective, a coach must demonstrate a number of exceptional qualities that contribute to the success and development of a team or individual. It is assumed that the process of coaching involves the application of sport science including aerobic and anaerobic training, nutrition, and periodization (Hoffman, 2002). Prior research has contributed to coaches' understanding of sport science issues pertaining to the physical demands placed on athletes. However, the scientific aspects of coaching make up only part of the complex equation that contributes to coaching effectiveness. The psychology of coaching is perhaps the greatest investment on a coaches' part regarding the development of his or her athletes. How a coach communicates, teaches, employs leadership, motivates, and manages a team or individual is a process that requires attention and consistent evaluation. Ultimately, achieving a desired result demands that a coach practice planning and patience, and that he or she maintains a process-oriented focus.

How a coach elicits desired behaviors, motivates, and increases the self-confidence of his or her athletes is part of the "art" of coaching. This process involves an abstract, subjective, and in-depth form of introspection on the part of the coach. Researchers have frequently used empirical investigations of expert coaches to explore the "art" of coaching and subsequent coaching effectiveness. Methods of systematic observation, the Leadership Scale for Sports, surveys and qualitative interviews have been used to investigate expert coach behavior in both training and competition environments. The coaching process has been conceptualized through Côté's (1995)

Coaching Model (CM) which has been used in a number of studies to investigate the means by which a coach helps athletes develop (Côté & Salmela, 1996; Côté, Salmela, Trudel, Baria & Russell, 1995; Côté & Sedgwick, 2003; Sedgwick, Côté & Dowd, 1997). The present study will use Côté's CM as a guideline for investigating high-level baseball coaches' knowledge.

Expert coaches have been investigated in a number of sports, including wrestling (Gould, Hodge, Peterson & Giannini, 1989; Gould, Hodge, Peterson, Petlichkoff, 1987), gymnastics (Côté & Salmela, 1996; Côté, Salmela, Trudel, Baria, & Russell, 1995) basketball (Bloom, Crumpton, Anderson, 1999; Schinke, Bloom, & Salmela, 1996; Tharp & Gallimore, 1976), rowing (Sedgwick, Côté, & Dowd, 1997) swimming (Black & Weiss, 1992), and field hockey (Grove & Hanrahan, 1988). Expert coaches in baseball, on the other hand, have only been the subject of a limited number of coaching studies (Hardin & Bennett, 2002). For the purposes of this thesis, the coaches participating in the study will be referred to as 'high-level' baseball coaches. This is to avoid conflict with criteria for expertise in previous research studies. 'Expert' criteria included having a minimum of 10 years of coaching experience, having developed a number of international athletes and having been recognized by their National Sport Federation as one of the best coaches in the country (Côté and Sedgwick, 2003; Schinke, Bloom, & Salmela, 1995; Sedgwick, Côté and Dowd, 1997). Coaches in the present study all were considered 'high-level' coaches on the basis that they had been the Head Coach of a NCAA Division I baseball program and had coached at the collegiate level for the past five years. As far as could be determined, no study has investigated 'high-level' baseball coaches' perceptions of what a mental approach to the game involves.

"Peak performances" are described as moments when an athlete achieves greatness both physically and mentally (Williams, 1986). It can be assumed that coaches would like their players to experience peak performance frequently. However, the experience is an illusive and unpredictable event. Literature on the subject has revealed that enhancing peak performance may be achieved through psychological skills training and coaching (Williams, 1986). In an effort to produce a set of peak performance guidelines for baseball athletes, Dorfman and Kuehl (1989) produced *The Mental Game of Baseball: A guide to peak performance*. The authors provided strategies for dealing with such tasks as coping with failure, increasing confidence, taking responsibility, concentrating, achieving mental discipline, and learning and dedicating oneself to the process. They offer a simplistic mental approach to the game that has received positive accolades from collegiate and professional baseball athletes and coaches. While it is assumed that high-level baseball coaches are familiar with the ideas conveyed in the book, no study has attempted to investigate the knowledge of collegiate baseball coaches regarding a mental approach to the game.

Defining what constitutes a mental approach is difficult due to the lack of literature available on the subject. How does one approach something mentally? The answers may be wide and varied, perhaps even infinite. In sport however, athletes and coaches are all trying to obtain a positive result. Depending on the goals of the individual, a positive result may range from performing flawlessly, winning a national championship, or simply taking small steps towards improvement. Progressing in any act or athletic endeavor involves a plan, a strategy, and a mindset that is conducive to learning or performing at peak levels. As literature on peak performance and general

sport psychology suggests, the mind is perhaps the greatest difference maker in individual athletes' quest for greatness (Orlick, 2000). The ability of human beings to formulate appropriate thoughts and ideas in order to achieve a certain goal lies at the heart of the term 'mental approach', suggesting that the mentality or mindset of an individual may be taught and learned. This is particularly important for coaches in that the act of teaching their own secrets for success is essential for coaching effectiveness. It is their coaching philosophy, applied through individual flair, that captures the attention of the athlete, committing him or her to the process of achieving greatness. It is this process where a mental approach is built. Mental approach is a frame of mind taught by coaches and committed to by athletes. It becomes instilled in athletes, governing their every action on and off the field, as if it were the missing link to greatness.

Mental approach represents the essential ingredients of coaching philosophy. Known as cornerstones and principles, these elements of a coaching philosophy govern a coach's actions, providing a framework by which he or she expresses their knowledge. These ideas are shaped over time and are generated from experiences from both in and out of the competition venue. As Fuoss and Troppmann (1981) explain, the components of a coach's philosophy are the foundation upon which the coach is able to teach and lead athletes, and contribute to a sport:

> A coach's overall philosophy is made up of interrelated components of one's personal philosophy of life; the philosophy one has toward one's position and work as a coach; and the strategical, tactical, and operational philosophy of the sport one coaches. These are the cornerstones of the foundation on which each coach builds his or her life, work, program, and sport (p.55).

Therefore, the ideas represented in a coach's personal coaching philosophy are a direct reflection of the mental approach that a coach has and wishes to instill in his or her athletes. The ability of athletes to use their own natural talent and the degree to which they apply their coach's philosophical cornerstones in their own experience reflects overall coaching effectiveness. Truly, if a coach can take good players and provide an exceptional learning environment, they are going to be successful. Mental approach, then, is a process built upon coaching philosophy that, when undertaken by athletes, represents the overall effectiveness of a coach. Investigating this idea in the sport of baseball presents an exciting challenge.

1.1 Purpose of the Study

The purpose of this study was to contribute to the literature on coaching effectiveness and expert coaching by interviewing NCAA Division I Baseball Coaches in regards to how they instill a mental approach in their athletes. By analyzing coaches' responses using interpretive qualitative methods (Côté, Salmela, Baria, & Russell, 1993; Strauss & Corbin, 1967), the study attempted to consolidate the knowledge of high-level baseball coaches regarding a mental approach or how high-level baseball coaches institute, maintain, and foster a specific mentality in their athletes. It was believed that all coaches interviewed would be familiar with the idea of a mental approach to life and sport, and that this mental approach would be based to a large extent on the philosophy used by the coach each and every day. It was anticipated that investigating a coach's philosophy would reveal personal and professional strategies used to elicit desirable behaviors from athletes. The interview questions were designed to identify the

application of this knowledge in the training, competitive, and organizational components of coaching as outlined in Côté's (1995) Coaching Model.

1.2 Rationale

The rationale for undertaking this research comes from the results of a number of studies calling for an investigation of expert coaches' knowledge (Côté, Salmela & Russell, 1995; Gould et al., 1989). Côté (1998) summarized the literature available on coaching research and made the following recommendations for future research:

> Future coaching studies should focus on: (a) refining and validating the factors that affect coaching effectiveness in various sports, (b) developing and validating comprehensive measurement instruments for research and applied purpose, and (c) examining relationships among important theoretical constructs, specifically relationships and constructs not previously identified by Chellardurai's and Smoll and Smith's extensive programs of research (p.7).

Gould et al. (1987) suggested that coaches are an important untapped database of sport psychology knowledge. They recommend that future investigations should involve actual observations of coaches at practices and competitions, and in-depth interviews that allow for the acquisition and interpretation of rich qualitative data. The authors conclude: "In doing so the potential knowledge base on the psychological foundations of coaching may be fully realized (p.307)." It is believed that the results from the proposed study will contribute to the research knowledge available on coaching effectiveness and expert coaching specifically in the sport of baseball. Furthermore, a number of Canadian

amateur and collegiate baseball programs may benefit from the ideas brought forth by the NCAA Division I baseball coaches interviewed in the study.

Canada is beginning to produce a number of elite and professional athletes in the sport of baseball. However, because of certain uncontrollable factors such as climate, population density, and overall interest in the sport, baseball in Canada has remained underdeveloped. Recently however, this trend has improved with the emergence of highly competitive high school leagues such as the British Columbia Premier Baseball League, the development of the British Columbia College Baseball League, and Canada's first and only university varsity men's baseball program at the University of British Columbia. Many of the coaches from these leagues are former players who participated in collegiate baseball programs in the United States. Frequently, former Canadian athletes return from competing in American collegiate baseball programs and their baseball knowledge is sought for application in junior level sport organizations. Baseball in Canada truly has very few, if any, expert baseball coaches at the collegiate level. Therefore, NCAA Division I baseball coaches, from having competed at such a high level, are frequently held in high regard because of their knowledge and experience. While the results of this study should not be interpreted as a means to promote best practice in baseball athletes, they are useful for outlining experiences high-level baseball coaches have had in formulating their deepest interpretations of the game.

The proposed research study was guided by three objectives. Through qualitative interviews the research study attempted to:

1) Learn about the strategies that NCAA Division I Baseball Coaches use to establish a mental approach in their athletes.

2) Obtain the opinion of said coaches about how a mental approach is used to optimize performance in their athletes.

3) Compare the coaches' answers to literature available on expert coaching and coaching effectiveness.

It was hypothesized that the coaches would be knowledgeable about the process of establishing a mental approach, will contribute a number of ideas about the process, and there will be congruency among those ideas.

Chapter II: Literature Review

2.1 <u>Expert Coaching</u>

Expert coaches have been studied for years regarding the methods they use to elicit top-level performance in athletes (Bloom, Crumpton and Anderson, 1999; Côté et al, 1995; 1996; 1998; 2003; Gould et al. 1987; 1989; Sedgwick, Cote, & Dowd, 1997; Tharp & Gallimore, 1976). Methodologies such as systematic observation, surveys, and other forms of qualitative research have offered insight into the means by which a coach becomes effective. These forms of investigation have been conducted on expert coaches in a wide variety of sports (Bloom, Crumpton & Anderson, 1999; Côté, & Salmela, 1996; Côté, Sedgwick, 2003; Gould, Hodge, Peterson, & Petlichkoff, 1987; Grove & Hanrahan, 1988; Schinke, Bloom, & Salmela, 1995; Smith, Smoll, Curtis, 1979), offering results that can easily be applied by amateur and novice coaches. More simply, as Côté, Salmela & Russell (1995a) explain, "the examination of expert coaches' knowledge contributed to the ever-growing advancement of athletic training standards for athletes, sport psychologists and coaches (p.66). In the expert coaching literature, due to an increase in the development of coaching as a profession, there is a sense of urgency regarding the need to conduct in-depth research to elicit the knowledge of expert coaches. Expert coaches have proven a valuable resource for understanding the delicate, detailed and finite process that so much of coaching entails.

Woodman (1993) suggests that coaching involves both artistic and scientific application of knowledge and that "regardless of the level of scientific knowledge and the use of scientific methods, it is often the application of that knowledge and the methodology through individual flair that separates the excellent practitioners from the

others (p.6). The art of coaching, however, is an abstract and subjective domain. Documenting expert coaches' knowledge is perhaps the most relevant form of inquiry for understanding the process of coaching. It may, in fact, be far more valuable than coaching books and coaching classes (Côté, Salmela, & Russell, 1995; Gould, Giannini, Krane & Hodge, 1990). Such inquiry has prompted the development of methods of systematic observation (Bloom, Crumpton & Anderson, 1999; Tharp & Gallimore, 1976), the Leadership Scale for Sports (Chelledurai, 1980; 1984; 1990), surveys (Gould, Hodge, Peterson, & Giannini, 1989; Gould, Hodge, Peterson & Petlichkoff, 1987) and qualitative interviews (Bloom, Durand-Bush, & Salmela, 1997; Côté & Salmela, 1996; Mechikoff & Kozar, 1983; Sedgwick, Côté & Dowd, 1997) as forms of empirical investigation for examining expert coaches' knowledge and their subsequent coaching effectiveness. Many research studies employing these methods have effectively investigated expert coaches' instructional behaviors during training and competition, thereby offering strategies that are easily applied by less experienced coaches. It is important to understand the methods used by researchers investigating expert coach practice because each method offers a valuable lens from which to view the coaching process. Each form of investigation assists a coach in recalling specific moments experienced throughout his or her career which, from a research standpoint, offers valuable insight into the complex and detailed process of coaching.

2.2 Systematic Observation

Tharp and Gallimore (1976) performed a systematic observation study on perhaps the greatest college basketball coach of all time: John Wooden. The researchers spent an

entire season with the UCLA Head Coach who had at the time won 10 consecutive

NCAA Division I Championships. The research developed an 11 category Coaching

Behavior Recording Form that coded the coach's behaviors to include the following

categories: instructions, hustles, modeling-positive, modeling-negative, praises, scolds,

nonverbal rewards, nonverbal punishment, scold/re-instruction, other, and uncodeable.

Results indicated that about half (50.3%) of Wooden's behaviors were coded in the

instruction category, which was defined as verbal statements about what to do or how to

do it. Therefore, being able to instruct the technical aspects of basketball is an attribute

that makes John Wooden an effective coach.

More recently, Bloom, Crumpton and Anderson (1999) performed a systematic

observation of Jerry Tarkanian, a collegiate basketball coach who at the time of the study

had a win/loss record of 667-145, ranking him second in most career wins of all Division

I men's basketball coaches. Similar to Tharp & Gallimore's findings, Tarkanian was

reported to use tactical instructions 29% of the time and technical instructions 13.9% of

the time. This finding was significant in that tactical instructions were 13% higher than

the second coded variable, hustles. Two of the most successful college basketball

coaches in history use instruction to increase athlete performance. The findings from

these two studies demonstrate the importance of increasing technical and tactical

knowledge. While other studies have also employed systematic observation for

understanding expert coaches behaviors, Tharp and Gallimore (1976) and Bloom et al.

(1999) focused on coaching at the NCAA Division I level in the sport of basketball. As

the research suggests, in order to be more effective novice basketball coaches should

make an effort to increase their technical and tactical knowledge.

2.3 The Multidimensional Model and the Leadership Scale for Sports

The Multidimensional model and the Leadership Scale for Sports (LSS) (Chelladurai, 1980; 1984; 1990;) have been developed in order to identify specific leader behaviors that influence group and athlete performance. In the multidimensional model, how the group performs and the degree to which members of the group are satisfied are considered to be a function of the congruence of three states of leader behavior. The three states of leader behavior are required, preferred and actual. Characteristics of the situation, the leader, and the members make up the antecedents of these three states of leader behavior. For instance, required leader behavior is influenced by certain demands and constraints from the organization or the environment; preferred leader behavior represents members' preferences such as need for achievement, affiliation and competence in the task that require specific leader behavior; and actual leader behavior links the leader's actual behavior to his or her personality. The model proposes that the amount of congruency found between all of these factors will directly relate to the degree of performance and satisfaction experienced by the team or individual. More specifically, the researchers found that, "performance was linked to the congruence between required and actual behaviors while member satisfaction was linked to the congruence between actual leader behavior and preferred leader behavior (Chelladurai, 1990, p.331)." The model is diagrammed on the following page.

| ANTECEDENTS | LEADER BEHAVIOR | CONSEQUENCES |
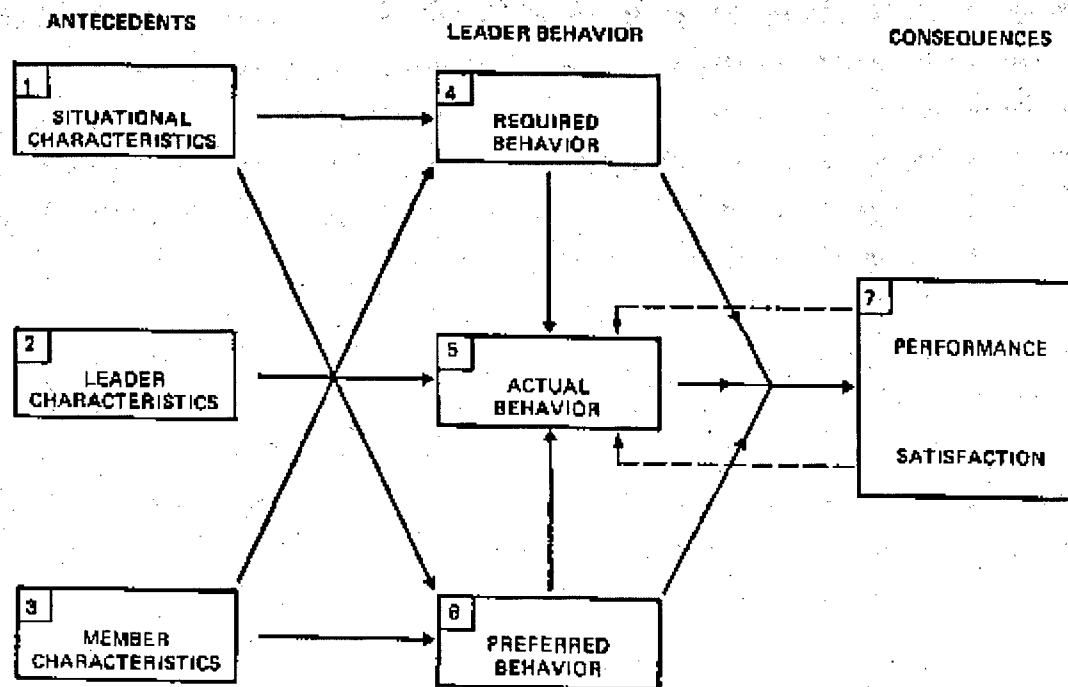
Fig. 1. - The multidimensional model of leadership.

The Leadership Scale for Sport was developed from the multidimensional

model of leadership by Chelladurai and Saleh (1980). The LSS was designed to "test the

relationships specified in the multidimensional model and the applicability of the model

to the prediction of leadership effectiveness in sport" (Côté, 1998, p.3). The five

dimensions of the leader behavior as outlined by Chelladurai (1990) include: training and

instruction, democratic behavior, autocratic behavior, social support, and positive

feedback (or rewarding behavior). The LSS has been used extensively by researchers to

"measure athletes' preferences for specific leader behaviors, athletes' perceptions of their

coaches' leader behaviors, and coaches' perceptions of their own behavior" (p.332).

While this model will not be incorporated into the present study, it is important

to review and understand the means by which researchers investigate the actions of

people in positions of leadership. The coach has frequently been related to a position of

upper management in formal organizations (Ball, 1975; Sage, 1974 in Chelladurai, 1980) who, by analogy, applies many managerial functions including planning, organizing, budgeting, scheduling, recruiting, public relations, and leadership. How team members respond to a coach's actions and behaviors and are subsequently motivated towards their team and personal goals represents the essence of the LSS creation.

2.4 Surveys

Surveys have also been used successfully to investigate the strategies that coaches employ in order to effectively meet the demands of coaching. Gould, Hodge, Peterson and Petlichkoff (1987) surveyed intercollegiate wrestling coaches regarding their opinions on the importance of, the frequency of use, problems arising with, and degree of success they felt they had in changing or developing 21 psychological skills. Results showed that for wrestling coaches, the strategies most easily developed were goal setting, team cohesion, and mental practice imagery. Furthermore, the wrestling coaches were most successful in enhancing team cohesion and communication, and in developing sportsmanship and goal setting. Gould, Hodge, Peterson, and Giannini (1989) then proposed a study to investigate elite coaches' strategies for influencing athlete self-efficacy. One hundred and twenty-four national team coaches representing 30 Olympic sports were surveyed. It was found that strategies most often used by these coaches for increasing athlete self-efficacy included instruction-drilling, modeling confidence in oneself, encouraging positive talk, and emphasizing technique improvements while downplaying outcome. The two studies used surveys to assess a vast number of coach's ideas regarding psychological skills.

More recently, Gould, Guinan, Greenleaf and Chung (2002) surveyed U.S. Olympic coaches regarding variables perceived to have influenced athlete performance and coach effectiveness. Forty-six U.S. Atlanta Olympic coaches and 19 U.S. Nagano coaches reported that variables perceived to have influenced coaching effectiveness included: markedly changed coaching behaviors, the inability to establish trust with athletes, the inability to effectively handle crisis situations, staying cool under pressure, and making fair but decisive decisions. The use of surveys is effective for investigating a large sample. When investigating individual preferences involved in the art of coaching, however, qualitative interviewing may be the most useful method for allowing in-depth expression of the participant.

2.5 Qualitative Interviews

Qualitative interviews were successfully used to investigate expert coaches. For instance, Bloom, Durand-Bush and Salmela (1997) interviewed expert coaches regarding the use of pre-and post-game routines. In their study, 21 expert Canadian coaches from the team sports of ice hockey, field hockey, basketball, and volleyball were identified as experts in their field and subsequently interviewed. Results showed that prior to competition coaches prepared and mentally rehearsed their game plan, engaged in physical activity to maintain a positive focus, held a team meeting, and occupied themselves during the warm-up. Their comments immediately before the game were used to stress key points. After the competition, coaches emphasized the importance of controlling their emotions and adopted different behaviors to appropriately deal with the team's performance and outcome. A brief meeting was held to recapitulate the essential

elements of the game and a detailed analysis was not presented until the next practice or meeting.

Mechikoff and Kozar (1983) investigated the means by which 22 expert coaches incorporated psychological strategies while coaching. Topics included motivation, match or practice preparation, goal setting, and confidence building strategies. Also Schinke, Bloom, and Salmela (1995) conducted in-depth open-ended interviews with expert Canadian basketball coaches in order to examine the coaches' athletic experience. Seven chronological stages were revealed including: early sport participation, elite sport, international elite sport, novice coaching, developmental coaching, national elite coaching and international elite coaching.

More recently, Côté and Sedgwick (2003) investigated the effective behaviors of expert rowing coaches. The researchers interviewed 10 expert rowing coaches and 10 national team rowers and discovered that effective coaching behaviors perceived as important by both athletes and coaches were: 1) planning proactively, 2) creating a positive training environment, 3) facilitating goal setting, 4) building athletes' confidence, 5) teaching skills effectively, 6) recognizing individual differences, and 7) establishing a positive rapport with each athlete. It can be concluded that studies on coaching expertise have helped to build a knowledge domain grounded in coaches' reality (Côté, 1998). Furthermore, qualitative interviews with expert coaches represent a valuable avenue for empirical investigation.

Interviewing is an important research tool. Through interviewing expert and high-level coaches, the finite processes that make up the art of coaching athletes are more

easily studied and identified. Expert and high-level coaches may in fact represent the most valuable resource for uncovering the essence of coaching effectiveness.

2.6 <u>Coaching Effectiveness</u>

What makes a coach effective? The answer is not readily available and uncovering the source of coaching effectiveness is no easy task. The answers may be found in part in the extensive literature on the principles, practices, strategies and dynamics of coaching. Numerous books and videotapes have been produced in an attempt to demonstrate effective coaching techniques. A review of this mass of literature is beyond the scope of this thesis. Instead, this section will offer a concise review of one aspect of coaching effectiveness by focusing on two models that have been developed in an effort to conceptualize the process: mainly The Coaching Behavior Assessment System (CBAS) (Smith, Smoll & Hunt, 1977) and the Coaching Model (CM) (Côté, Salmela, Trudel, Baria, & Russell, 1995a). The latter model will be used as a framework for the present research study.

Coaching effectiveness was first examined by Smith, Smoll and Hunt (1977). The researchers created a coding system to analyze the behaviors of athletic coaches in their naturalistic setting. The system was entitled the Coaching Behavior Assessment System (CBAS). The CBAS has been used in a number of studies to investigate how coaches can foster the psychological development of children through sport (Barnett, Smoll & Smith, 1992; Smith & Smoll, 1990; Smith, Smoll, & Curtis, 1979). The researchers used the instrument to record coaching behaviors of two groups of coaches: a group that had completed a Coach Effectiveness Training program and a group that had

not. Results indicated that children who played for the trained coaches evaluated their coaches, their teammates, and their overall experience more positively. In a related study (Barnett, Smoll, & Smith, 1992), the researchers found that player attrition decreased in the following year. The creation of the CBAS underscored the importance of examining coaches' knowledge.

More and Franks (1996) tested the ability of a systematic observation instrument to provide valid and reliable information on key elements of effective instruction. The researchers tested the utility of the Coach Analysis Instrument II (CAI(II)) as part of an intervention strategy designed to modify behavior. The CAI (II) was designed as a means to provide a complete description of the verbal skills required for discriminative behavior. Four coaches were observed and analyzed throughout twelve practice sessions. Results from the study indicated that coaches were able to change ineffective instructional behaviors after having been exposed to the coaching analysis instrument. Coaches benefited from the data produced by the CAI (II) that supported existing research findings that behavior modification can occur by using data as direct feedback, as reinforcement, and as information in the form of recommendations. More simply, the CAI (II) instrument was important in that it offered advice to coaches in order to improve their verbal communication with athletes, thus enhancing their coaching effectiveness.

Douge and Hastie (1993) reviewed the coaching effectiveness literature from 1988-1992. Results from studies examining coaches through systematic observation suggested that effective coaches: "a) frequently provide feedback and incorporate numerous prompts and hustles, b) provide a high level of correction and re-instruction, c) use high levels of questioning and clarifying, d) are predominately engaged in instruction,

and e) manage the training environment to achieve considerable order" (p.15-16). These findings are in line with literature found in various coaching manuals, which suggest that in order to be effective, coaches must be able to employ a coaching style that matches their personality (Chambers, 1997; Fuoss & Troppmann, 1981; Martens, 1997). More simply, as described by Fuoss and Troppmann (1981):

> There is no one best way to coach. Every coach must discover, therefore, what works and what does not work. A coach cannot become effective merely by adopting the practices or the coaching style of someone else. Each coach must develop a natural style and follow practices that are consistent with one's own personality and philosophy (p.8).

Douge and Hastie's (1993) review assumes that there is an agreed understanding of coaching effectiveness. The authors concluded that a coach could be viewed from several perspectives,

- How well their leadership style responded to many variables that seem to influence the effectiveness of a particular leadership style
- The attributes which are regarded by athletes, administrators, fellow coaches and/or the coach themselves as being necessary to become an effective coach
- The ability of coaches to self-reflect and carry out action research to improve their coaching
- Using systematic observation instruments as tools to facilitate the development of an effective coach rather than as ends in themselves
- The collation of informed opinions from creditable sources

- As a unique set of behaviors whose derivation is problematic and situationally specific (p.19).

Moreover, the authors promote the study of coaching effectiveness with an enthusiastic tone: "What is most pleasing is the increased sensitivity to the complexities of the coaching role and the emergence of an educational purpose in the study of effective coaching" (p.19). Côté, Salmela, and Russell (1995) extended this notion in an in-depth study of expert gymnastic coaches. The study produced the Coaching Model, which has served as a methodological component of the research reported in this thesis.

2.7 Côté's Coaching Model

Côté and colleagues interviewed 17 expert Canadian gymnastic coaches. The data were used to develop a cognitive model of the processes used in coaching athletes (Côté, 1998; Côté, Salmela, Trudel, Baria, & Russell, 1995). Entitled the Coaching Model (CM), this model identified the conceptual and operational knowledge of coaching. The researchers listed the following six components as guidelines for how coaches develop their athletes: (a) competition, (b) training, (c) organization, (d) coach's personal characteristics, (e) athletes' characteristics, and (f) contextual factors (Côté, 1998). The CM serves to create an estimation or mental model of an athlete or team's potential. The mental model then serves as a basis to define which knowledge and behaviors are most important for use in the competitive, organizational and training components of coaching. In essence, the mental model that coaches create regarding athletes and teams actively shapes how coaches interact with their athletes. Ultimately,

coach and athlete interactions can influence an athlete's perception of ability, which can

directly affect a team's success. The CM is diagramed below.

10 / *Côté, Salmela, Trudel, Baria, and Russell*
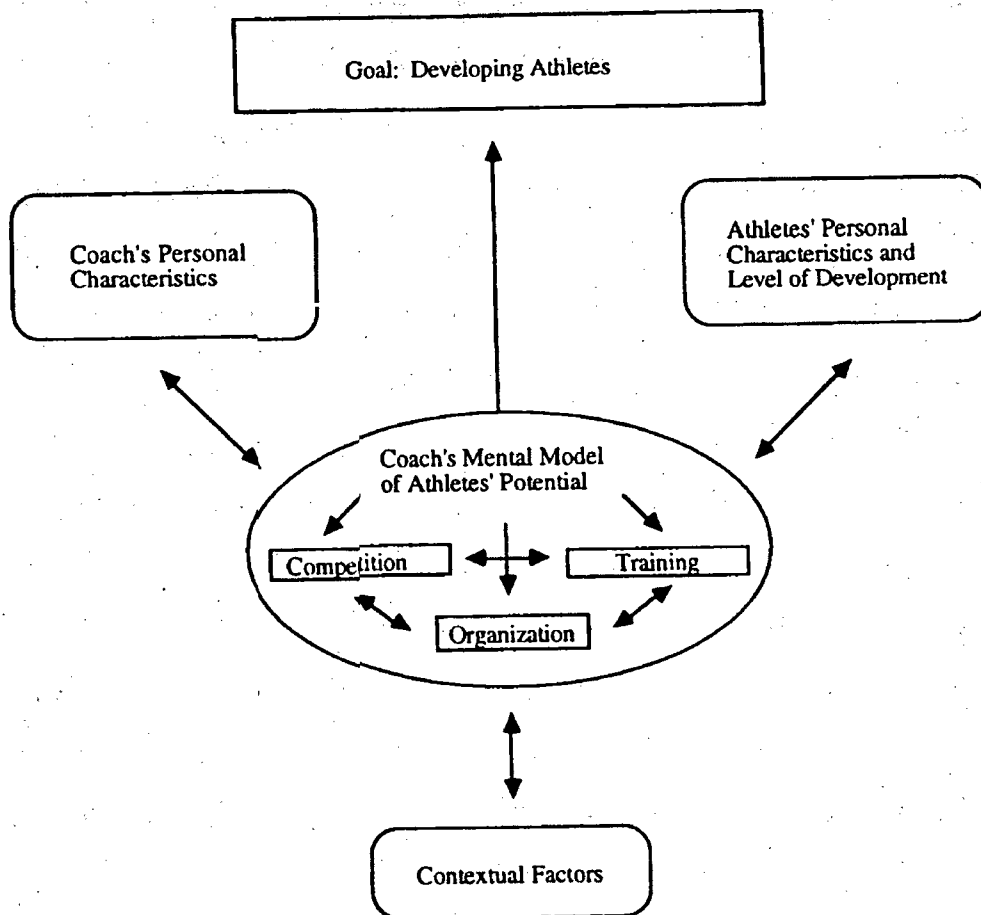
Figure 1 — The coaching model.

The present study used the CM to guide the formulation of interview questions.

Côté outlined the components (which include variables of the CM) as occurring on two

levels: (1) ambient components: those variables related to the coach's personal

characteristics, the athlete's and team's characteristics and contextual factors, and (2)

behavioral components which include variables from three different settings including,

training, competition, and organization. By investigating ambient and behavioral

characteristics of coaches research is better able to understand the variables that

contribute to coaching effectiveness. The components and variables of coaching are

outlined below (Côté, 1998),

<u>Level One: Ambient components</u>
Coach's Personal Characteristics
- Coach's knowledge (e.g. knowledge of coaching principles, intervention strategies)
- Coach's personal philosophy about coaching
- Coach's personal Life demands (e.g. demands from family or other social activities)

Athletes' and Team's Characteristics
- Physical characteristics (e.g. age, height, weight, physical fitness)
- Mental characteristics (e.g. commitment, effort, confidence, anxiety, communication)
- Personal and social demands (e.g., demands from school, friends)

Contextual Factors
- Financial resources (e.g. money available for traveling, availability of scholarships)
- Training resources (e.g., equipment, facilities, training time, coach/players ratio)
- Competitive environment (e.g., crowd, rules, level of competition, win/loss record)

<u>Level two: Behavioral components</u>
Competition
- Coach-athlete(s) interaction before the competition (e.g., pep talk, pre-game routine)
- Coach-athlete(s) interaction during the competition (e.g., tactical strategies)
- Coach-athlete(s) interaction after the competition (e.g., reaction to winning/losing)

Organization
- Planning training and competition (e.g., establishing a training and competition program that includes athlete's and team's preparation)
- Working with assistants (e.g., coach's ability to interact effectively with assistants)
- Working with parents (e.g., interactive with parents, scheduling meetings with parents)
- Helping athlete with personal concerns (e.g., helping athletes that have problems with school, relationships)

Training

- Intervention style (e.g., authoritarian, permissive)
- Technical skills (e.g., teaching sport specific techniques)
- Mental skills (e.g., developing athletes' ability to deal with stress, use imagery)
- Tactical skills (e.g., developing and practicing competitions strategies)
- Physical conditioning (e.g., developing athletes' strength, endurance, power) (p.7).

The interview questions in the present study were designed to incorporate aspects of the CM in an effort to understand the means by which NCAA Division I Baseball Coaches were able to increase coaching effectiveness. This was accomplished by incorporating questions in four sections within the interview guide pertaining to the personal characteristics of the coach, as well as the training, competitive and organizational components of the CM.

2.8 Expert Baseball Coaching

The sport of baseball has been used to test a number of sport psychological techniques. For instance, imagery, self-confidence and baseball batting were tested by She and Morris (1997). The researchers concluded that imagery rehearsal enhanced hitting performance and increased self-efficacy and state self-confidence in advanced baseball batters. The connection between self-confidence and baseball performance were also examined by George (1994). The research used path analytical techniques to examine the causal relationships in Bandura's (1977) model of self-efficacy. Intercollegiate baseball players completed self-report measures that investigated perceptions of self-efficacy, competitive state anxiety, effort expenditure, and objective hitting performance. Results found moderate support for Bandura's model in that higher performances predicted stronger perceptions of efficacy in six games, and lower levels of

somatic and cognitive anxiety were associated with stronger self-efficacy beliefs in seven games. Furthermore, stronger self-efficacy predicted greater effort in six games and higher hitting performance in five games. Expressed succinctly, the researchers found that self-confidence increased when a batter experienced previous success. While both studies acknowledged that mental training aids performance in baseball, the studies did not examine the ability of a coach to promote psychological skill development.

The relationship between perceived coaching behaviors and team cohesion among baseball and softball players was investigated by Gardner, Shields, Bredemeier and Bostrom (1996). The researchers found that, "coaches who were perceived as high in training and instruction, democratic behavior, social support, and positive feedback, and low in autocratic behavior, had teams that were more cohesive" (p.367). While the study promoted a positive approach to coaching (Martens, 1997), it was limited to reporting aspects of coach behavior perceived by athletes rather than exploring the coach's perceptions. As many authors have cited, the exploration of expert coaches' knowledge will ultimately contribute to the understanding of how coaches are able to become effective at their practice.

Expert coaching specific to the sport of baseball has only received limited attention. One study involved investigating the instructional attributes of a successful college baseball coach, Andy Lopez of the University of Florida (Hardin & Bennett, 2002). The researchers spent an entire fall season with Coach Lopez during which they recorded observations at practices and games, interviewed the coach, and reviewed his practice plan and coaching documents. All data were then analyzed to determine the existence of reliable coaching themes and categories. Results indicated that the

successful instructional themes included: "practicing at game speed, checking for understanding when teaching and coaching, repetition when teaching and coaching, and extensive practice planning" (p.43). For Coach Lopez, these were areas that he focused on to increase his effectiveness. Strategies discussed in the study could easily be replicated and applied by amateur and novice baseball coaches. The study only offered the instructional attributes of one expert coach. The study conducted for this thesis gathered information from seven NCAA Division I Baseball Coaches regarding coaching effectiveness from a psychological perspective.

2.9 Sport Psychology, Mental Approach and Winning Way

Sport psychology and mental training techniques have been regarded as the difference between success and failure at the collegiate and professional levels of sport. The past 20 years have witnessed an expansion in the field of mental training with the publication of books and coaching manuals in many sports (Chambers, 1997; Martens, 1997; Orlick, 1980; Williams, 1986). In professional baseball psychological skills have been shown to be significantly related to performance and survival in the sport (Smith & Christensen, 1995). Smith and Christensen (1995) used a self-report measure to investigate how 104 minor league baseball players rated their ability to peak under pressure, be free from worry, cope with adversity, concentrate, use goal setting and mental preparation, be confident through achievement motivation, and be coachable. The authors concluded that "the most important psychological skill of all involves the ability to take advantage of the learning opportunities provided by an instructional program that focuses on both technical and psychological skill development" (p.413). More simply,

the researchers confirmed that the coach plays a vital role in the psychological development of elite baseball athletes.

However, the amount of time coaches spend teaching mental strategies has been reported to be as low as 10% (Dorfman & Kuehl, 2002, p.xiv). In response to this low number, Dorfman and Kuehl (1989) wrote *The Mental Game of Baseball: A guide to Peak Performance,* which has become renowned throughout professional and collegiate baseball for its simplicity and applicability. Within the book, mental strategies and game plans are dissected into simplistic, understandable components which can be applied instantaneously. The book outlines proper goal setting techniques, expectations, dedication, responsibility, confidence, learning, preparation, visualization, concentration, mental discipline and relaxation strategies. In the final chapter the authors describe the "winning way," which summarizes the chapters of the book thereby presenting a practical and philosophical guide for excellence both on and off the field.

The "winning way" represents a lifestyle or an approach to conduct that can be used by athletes to achieve positive results. By acknowledging and simplifying many of the difficult processes that are involved in playing baseball, the book provides a guide that encourages ethical responsibility and commitment to self and sport. For Dorfman and Kuehl, the "winning way" incorporates psychological skills that make athletes successful. In essence, the "winning way" is a mental approach that the authors have outlined to serve as a set of guidelines to produce peak performance in athletes.

2.10 <u>Peak Performance</u>

Peak performance has been described as "those magic moments when an athlete puts it all together – both physically and mentally" (Williams, 1986, p.123). These are the moments that every athlete strives to achieve. Csikszentmihalyi (1990) has done significant research in the area of peak performance and has referred to this experience as being in a state of flow. Jackson and Csikszentmihalyi (1999) wrote *Flow in Sports* and investigated the optimal experience of athletes. The researchers define flow as "a state of consciousness where one becomes totally absorbed in what one is doing, to the exclusion of all other thoughts and emotions." They characterize flow as, "a harmonious experience where mind and body are working together effortlessly, leaving the person feeling that something special has just occurred" (p.5). In order for 'flow' to occur an athlete must have a challenge-skills balance, a merging of action and awareness, clear goals, unambiguous feedback, concentration on the task at hand, a sense of control, a loss of self-consciousness, transformation of time, and an autotelic experience. It follows that coaching may in fact be a key link in producing optimal experiences in athletes. Research on peak performance has searched to uncover answers to questions such as: "Can athletes be trained so that peak performances occur more frequently?" and, "Can athletes be trained so they consistently play closer to their optimal level?" (Williams, 1986). Such questions are applicable to the present study with regard to the notion that a mental approach may serve as a guideline for achieving peak performance.

Researchers in peak performance have asked athletes and coaches about the psychological characteristics of successful athletic performance. Ravizza (1977)

investigated the subjective experiences of athletes during their greatest moment in sport. Twenty male and female athletes from a variety of sports were interviewed. It was discovered that over 80% of the athletes had perceptions which included: loss of fear, no thinking of performance, total immersion in the activity, narrow focus of attention, effortless performance, a feeling of being in complete control, a feeling of time slowing, a perception of the universe as integrated and unified, and unique, temporary, and involuntary experience. Orlick (1980, in Williams, 1986) investigated the physical and psychological attributes required for peak performance. He found that physical attributes varied from sport to sport but psychological attributes did not. Commitment and self-control were regarded as principle psychological attributes for success. Orlick (1980) found that coaches and scouts in the National Hockey League used terms like "desire," "determination," "attitude," "heart," and "self-motivation" to describe the commitment level of those who make it at the professional level. They described the concept of self-control in terms of "being able to do things in big games and tight situations," "staying cool and confident and maintaining composure," "being mature and positive," "reacting well to mistakes," "able to accept criticism," and "not being afraid to fail" (p.275). While the study investigated the attributes a coach would like to have in an athlete, the question of how a coach goes about instilling these attributes in an athlete was not investigated. Investigating how high-level baseball coaches establish such a mental approach may reveal the importance of conditioning athletes so that peak performance may be experienced.

Interestingly, peak performance seems to have a significant relationship to Eastern motor skill acquisition. Canic (1983) investigated an Eastern approach to

acquisition and performance of motor skills, underlying the essence of Zen Buddhism and its relationship to performance. Zen Skill was discovered to incorporate "an approach to life that is logically consistent with the philosophical assumptions which underlie Zen" and that "the practice and performance of a motor skill is merely an avenue through which one may acquire or express the Zen Skill" (p.ii). Throughout the thesis Canic emphasized the importance of acquiring Zen Skill by practicing a motor skill with a detached mind. Furthermore, through subtle instructions from an instructor or coach, the Zen Skill is not learned but realized. The thesis presents interesting parallels between Zen Skill and peak performance. The research is important to the present study in that the mental approach that coaches promote to their athletes underlines principles of their personal and coaching philosophies, suggesting that Eastern and Western ideologies of approaching motor skill acquisition through philosophical beliefs may be shared.

Chapter III: Methodology

The methodology for the present research study followed guidelines put forth by Côté, Salmela, Baria, and Russell (1993) for collecting, organizing and interpreting unstructured data. The approach is built on Glasser and Strauss's (1967) method of grounded theory, a qualitative research strategy. Both methodologies have been utilized extensively throughout the sport psychology, expert coaching and coaching effectiveness literature. Each is discussed more fully below.

3.1 Grounded Theory

Glaser and Strauss (1967) wrote *The Discovery of Grounded Theory* in an effort to establish criteria for and to support qualitative research as an important form of social scientific research. The development of grounded theory came at a critical point in social science history when quantitative research was perceived to provide the only meaningful form of empirical investigation. Charmaz (2000) describes grounded theory methods as "consist(ing) of systematic inductive guidelines for collecting and analyzing data to build middle range theoretical frameworks that explain the collected data" (p.509). Essentially, throughout the process of gathering data, grounded theorists constantly revisit and re-interpret their data to focus further data collection and formulate and refine a developing theoretical analysis. Grounded theory techniques have been referred to as both durable and flexible, as Charmaz (2000) notes: "A grounded theory is durable because it accounts for variation; it is flexible because researchers can modify their emerging or established analyses as conditions change or further data are gathered" (p.511). It is important to

recognize the strengths of grounded theory research, which have been described as: (a) strategies that guide the researcher step by step through an analytic process, (b) the self-correcting nature of the data collection process, (c) the method's inherent bent toward theory and the simultaneous turning away from a contextual description, and (d) the emphasis on comparative methods (Charmaz, 2000). This process is emergent in nature and allows for the flexibility of developing deeper descriptive analytical research questions by studying the data. Grounded theory methods have been employed in various types of data collection, including sport psychology (Côté et al., 1993).

How a researcher gathers data is crucial to the development of a research study. In grounded theory, data represent "narrative constructs" (Maines, 1993, in Charmaz, 2000). That is, data, when gathered, represent a reconstruction of the experience rather than the actual experience itself. Connelly and Clandinin (1990) explain the process of gathering data and doing grounded theory research:

> As we gather rich data, we draw from multiple sources-observations, conversations, formal interviews, autobiographies, public records, organizational reports, respondents' diaries and journals, and our own tape-recorded reflections. Grounded theory analyses of such materials begin with our coding, take form with memos, and are fashioned into conference papers and articles. Yet our statement of the ideas seldom ends with publication. Rather, we revisit our ideas, and, perhaps, our data and re-create them in new form in an evolving process (in Charmaz, 2000, p.514).

This research study will follow guidelines for performing grounded theory research, such as: collecting data, coding data, writing memoranda, and theoretical

sampling. Specific guidelines to performing grounded theory research in sports

psychology have been created by Côté and colleagues (1993). These methods will be

described below.

3.2 Grounded Theory in the Expert Coaching Literature

Qualitative research in sport psychology has predominantly followed the

guidelines put forth by grounded theory, thus providing similarities between elements

inductively derived from the data. Côté, Salmela, Baria, and Russell (1993) provided

guidelines for organizing and interpreting unstructured data from qualitative interviews.

The creation of "tags" and "categories" represents a viable way of interpreting qualitative

data. The researchers explain:

> First, there is the detailed examination of the data to identify topics which best
>
> describe particular segments of text. Secondly, there is the determination of
>
> common features, which characterize the text segments in order to create and
>
> understand the relationship between topics. These two operations are typical of
>
> interpretational qualitative analysis and are usually undertaken in two separate
>
> phases: data organization and data interpretation, which can also be seen as
>
> creating tags and creating categories (p.130).

Another concept that has been associated with the organization of data is "meaning

units". During data analysis, Côté and colleagues (1995a) analyzed the transcribed

interviews of 17 expert gymnastics coaches. The researchers divided the text into

meaningful pieces of information called meaning units. In total, the transcribed

interviews revealed 1,155 meaning units. Upon dividing the text up into valuable

meaning units the researchers then looked for similarities and common features between them. This process was referred to as *creating categories* and involved comparing meaning units and organizing them into distinct categories on the basis of their *properties*. The 1,155 meaning units were assembled into 134 different properties. The researchers then began the procedures of grounded theory by identifying relationships between categories and their properties to formulate a conceptual model that would describe and explain the utilization of knowledge that expert gymnastics coaches used to develop elite gymnasts. This was done at a broad and abstract level and produced the components of the CM. Both articles provide a valuable methodological framework that has aided in the design of the present study.

3.3 Participants

It was felt that interviewing seven NCAA Division I Head Baseball Coaches would be sufficient to bring about theoretical saturation in the study (Côté, Salmela, Baria, & Russell, 1993; Côté, Salmela, & Russell, 1995a) when analyzing the data. Theoretical saturation, "is reached when the categorizing of new data fits adequately into the existing organizing system without the emergence of new themes or categories" (Côté et al., 1993, p.132). Criteria for choosing the sample were as follows: the coaches were a head coach of a NCAA Division I baseball program and had been coaching at the collegiate level for the past five years. These criteria were chosen for a number of reasons. Firstly, the researcher competed in baseball at the Division I level and had access to coaches at this level. Secondly, NCAA Division I baseball is perhaps the highest form of competitive baseball outside of the professional tiers, therefore coaches at

this level are highly skilled and knowledgeable about their profession. Thirdly, to achieve a high level of expertise it was decided that minimum experience should be defined as having coached collegiate baseball either as a head coach or an assistant coach for the past five years.

In past research, expert coaches have been defined as having a minimum of 10 years of coaching experience, developed a number of international athletes and been recognized by their National Sport Federation as one of the best coaches in the country (Côté and Sedgwick, 2003; Schinke, Bloom, & Salmela, 1995; Sedgwick, Côté and Dowd, 1997). For the purposes of this research the term 'high-level' was used to describe the participants so that violation of past criteria listed for expertise in previous research studies would not occur. In Canada, there are no studies to date that have investigated expert baseball coaches. Part of the reason for this lack of research could be that there are no expert baseball coaches at the Collegiate level within the country with which to formulate a sample. Frequently, NCAA Division I baseball coaches are sought after for their knowledge as experts. Because of geographical proximity, many Canadian athletes move south to compete in the National Collegiate Athletic Association. Most return to Canada having broadened their baseball experiences and baseball knowledge considerably. Many former NCAA athletes who have competed in a collegiate system in the United States can be found in the amateur and collegiate coaching ranks of Canadian baseball. Therefore, NCAA Division I baseball coaches may represent the closest link to expert baseball coaches that Canadian coaches, athletes and researchers have access to.

3.4 <u>Interview Guide</u>

The research study followed guidelines outlined by Patton (1980) for a standardized, open-ended interview. This process involves creating interview questions whereby exact wording and sequence are determined in advance of the interview. That is, all interviewees are asked the same questions in the same order. This method was chosen for two reasons: 1) The coaches have limited time to spend with the interviewer and 2) the standardized question format is more conducive to data organization and analysis. According to the protocol, each coach would be interviewed for no longer than ninety minutes. As described by Patton (1980) the rationale for using a standardized open ended interview is as follows,

> The basic purpose of the standardized open-ended interview is to minimize interviewer effects by asking the same question of each respondent. Moreover, the interview is systematic and the necessity for interviewer judgment during the interview is reduced. The standardized open-ended interview also makes data analysis easier because it is possible to locate each respondent's answer to the same question rather quickly and to organize questions and answers that are similar (p.202).

The interview questions were worded carefully and probing questions are used at appropriate places. Probing questions such as, "you mentioned ... can you tell me more about that?" are used in order to stimulate further conversation about an area of interest. It should be noted that a weakness of the standardized open-ended interview includes the possibility that the standardized wording of questions may constrain and limit naturalness

and relevance of questions and answers. To avoid this weakness, careful consideration was given to the composition of the interview questions.

The training, competitive and organizational components of Côté's CM served as a framework to guide development of the interview questions. Personal questions regarding the coach's philosophy were used to begin the interview. Once the coaches elaborated on the principles that make up their personal and coaching philosophy, the means by which they established this philosophy in players was addressed. A copy of the interview guide can be found in Appendix I.

Guidelines regarding effective interview techniques outlined by Gall, Gall, and Borg (2003) were utilized for governing the interview process. The guidelines include assuring respondents of absolute confidentiality before beginning the interview, making clear the objectives of the interview before commencing, explaining procedures if necessary, saving complex questions for the latter part of the interview, explaining potential benefits of the study to the respondents, avoiding hinting either verbally or nonverbally at preferred or expected responses to a particular question, and avoiding leading questions.

3.5 Procedure-Research Design

The research procedures called for an initial letter of contact (See Appendix 3) to be sent via email to each coach outlining the basis of the research study and requesting a meeting for an interview. Each Coach's playing schedule would be reviewed prior to composing the letter in order to find out their availability. Not wanting the coaches to have to travel, their schedule was reviewed to find a time at which they were competing

at their home field, and contact could be made and a convenient time set up between the participant and the graduate student.

Before beginning each interview, the interviewer would make clear the objectives of the interview, and indicate that all information would be kept strictly confidential. The interviewees were asked to sign an informed consent form that acknowledged their participation in the research study as strictly voluntary (see Appendix 2). In addition, it was communicated to the participant that, as a thesis project, the research is a public document. The interviewer asked permission to tape record the interview. Upon receiving permission to tape record the interviewer made clear to the participant that if at any time they wished to speak off the record they could push the stop button on the tape recorder or ask to go off the record.

During the interview, techniques for increasing interviewee and interviewer relations similar to those used by Côté, Salmela and Russell (1995a; b) would be employed. More simply, the questions asked would be as precise as possible about the coaches' working methods and about what they did in certain situations. Any issues revealed by the coaches would be probed by asking the participant to expand on an by idea using such language as "can you tell me more about that?" The investigator would adopt terms, language, and a frame of reference familiar to the coach being interviewed; no leading questions or hints about what would be a desirable or appropriate answer would be asked. The investigator would exhibit a sense of interest regarding the willingness of the coach to share his information by using body signs of verbal tracking such as nodding and with words of thanks, support, and praise. It is believed that this

type of rapport with the coaches during the interview process helps to create a context within which they feel comfortable and motivated to express their knowledge.

The period after an interview is regarded as critical to the rigor and validity of qualitative measurement (Patton, 1980). This time is used to guarantee the accuracy of the data just collected. The following steps are taken: immediately after the interview the investigator checks to make sure that the tape recorder was working properly. If a malfunction is found to have occurred, notes are immediately made recalling as much information as possible. Also, notes made during the interview are reviewed soon after in order to clarify what the interviewees said.

3.6 Interview observations

Immediately following the interview, observations about the interview itself are recorded including where the interview occurred, who was present, how the interviewee reacted to the interview, self-reflection observations about the investigator's actions during the interview, and other descriptions that help to establish a context for interpreting and making sense of the interview. Patton (1980) expresses the importance of the time immediately following an interview: "this period is a critical time of reflection and elaboration. *It is a time of quality control to guarantee that the data obtained will be useful, reliable, and valid*" (p.251).

3.7 Data Analysis

The data collection protocol called for all interviews to be tape recorded and transcribed verbatim. The data analysis would follow guidelines for organizing and

interpreting unstructured data (Côté, Salmela & Baria, 1993). These guidelines were discussed previously and involve the creation of meaning units, codes and categories. The transcribed interviews would be entered into a Microsoft Word format and then analyzed for similarities and differences. Each transcript would be cut and pasted into a separate file. The file would contain seven corresponding answers for each of the 15 questions of the interview guide. The document would be an effective way to view each coach's answer to each of the questions in the interview guide. Qualitative software programs such as Atlas.ti and N.U.D.I.S.T were not incorporated in to the analysis of the data. It was believed that the data could be effectively analyzed without the use of qualitative software because of the small number of interviewees (n=7) and the use of only one interviewer. Also because of the large learning curve associated with such programs the use of qualitative software was thought to be unnecessary.

My own experiences as baseball coach were thought to potentially be both a help and a hindrance for the data collection and interpretation process. In order to limit my subjective bias, guidelines for effective interviewing, including avoiding leading questions and hinting at desirable answers would be followed (Gall, Gall, & Borg, 2003; Patton, 1987; Rubin & Rubin, 1995). Research for this research project commenced after being approved by the Research Ethics Board at the University of British Columbia on March 10th, 2004.

Chapter IV: Results

Interviews were conducted from March 8th to May 25[th,] 2004. In total, seven

NCAA Division I Baseball Head Coaches were interviewed. All interviews took place at

a location convenient for the coach. Five of the seven interviews were conducted face-to-

face at the coaches' offices. Due to time and budgetary constraints, the remaining two

interviews were conducted over the phone. Interviews ranged from 35 minutes to 50

minutes in length and were all done in the late morning hours. In total, 51 pages of

single-spaced transcribed interviews were produced. Five of the seven interviews were

done face-to-face in the coach's office. Two of the seven interviews were conducted over

the phone due to travel and budget constraints of the graduate student. Any unfamiliar

terms that were used by the coaches were questioned and asked to be defined. All

coaches were extremely receptive to the interviews and forthcoming with information.

All face-to-face interviews were done privately in the coach's office except for WCC(2),

in which two assistant coaches were present. While collecting the data it was not felt that

the presence of the assistant coaches affected the responses of the participant. While

answering the questions, the coaches in some cases appeared to be confused by the nature

of the question and requested that it be repeated. Each participant was sent a transcript of

the interview with a request for editorial comments to increase clarity. All coaches

agreed to the interviewer's account of the interview and three participants offered a few

editorial comments, which were incorporated into the final transcript for analysis.

Four universities were visited in the Bay Area of Northern California and another

university was visited in the Pacific Northwest. These schools were chosen for reasons

of geographical proximity and familiarity. In California, the four schools visited were all

within one hour's driving distance from each other. As a former Division I athlete, the student researcher had competed against all the schools that had been chosen to participate, thus making the process of gaining entry more feasible. Three of the seven coaches participated in the Pacific 10 Conference, which is known as one of the top baseball conferences in NCAA Division I. Of these three coaches, two of their teams finished the 2004 season ranked in the Top 25 in the nation, according to two collegiate baseball polls (Baseball America, http://www.baseballamerica.com/today/college/top25.html; College Baseball Newspaper, http://www.pronetisp.net/~rrollins/04stndgs.htm). Four of the seven coaches participated in the West Coast Conference, a conference, though of less prestige, one that is still very competitive. The conference affiliation of the participants is revealed so that distinctions between levels of parity and contextual factors between conferences may be better understood. In addition, identifying coaching similarities and differences was aided by revealing the conference affiliation of each coach.

All coaches interviewed were, at the time of the interview, Head Coaches of NCAA Division I baseball programs and had been coaching at the collegiate level for at least five years. Personal questions in the interview guide addressed areas valuable for understanding the sample of the participants. Questions including length of time coaching, background playing experience, and highest academic degree obtained, offered potentially valuable information regarding the level of expertise of each coach. Further research was done to identify each coach's winning percentage in 2004, as well as demographic information regarding the university that they represent. The coaches' total experience ranged from nine to 32 years. Five out of seven coaches had played baseball

at the professional level. Six out of seven coaches had either completed or were in the

process of completing a Masters Degree. All coaches had earned a Bachelors Degree.

Table 4.1 summarizes the descriptive information about the coaches and their institutions.

Table 4.1 – Descriptive information about coaches and their institutions

Coach	Years coaching	Played Pro	Highest Degree Obtained	2004 Winning %	University enrollment
WCC(1)	27	Yes	Masters Degree	.458	6000
WCC(2)	9	No	Masters Degree	.255	5000
WCC(3)	14	Yes	Masters Degree	.214	5500
WCC(4)	18	Yes	Masters Degree	.625	7262
Pac10(1)	13	Yes	Masters Degree	.446	33,000
Pac10(2)	32	Yes	Masters Degree	.767	18,000
Pac10(3)	21	No	Bachelors Degree	.658	42,757

Data analysis was organized under four categories. The personal, training,

competitive, and organizational components of coaching as outlined by Côté's Coaching

Model (CM) (1995) served as a guide when creating the interview questions. These

components were also used to analyze the coaches' responses. Within each component,

categories and sub-categories were identified as important based on their repetition, and

key commonalities and differences between the coaches were noted.

The results have been organized and are reported here in four sections following

Côté's CM: personal, training, competitive, and organizational components of coaching.

Tables have been created in order to help digest the large amount of information revealed

in the research study. Overall it is important to consider the conference distinctions of

each coach since similarities and differences between conferences are apparent.

However, while there are some similarities between the responses of the coaches, the

means by which they express these ideas are often very different, and this documents the

importance of individuality in coaching effectiveness.

4.1 <u>Personal Information</u>

The personal components of the interview guide addressed issues of philosophy and philosophy formation. Exploring the coaches' personal coaching philosophies revealed three dominant philosophical cornerstones. Cornerstones are described as the foundations upon which a coach builds his or her beliefs regarding life, sport, and strategies within the sport they are coaching (Fuoss and Troppmann, 1981). The cornerstone principles of recruiting, teaching and inspiring/motivating were revealed in the analysis. Furthermore, significant life experiences that influenced the participants' coaching philosophies included the upbringing received from their parents, coaches they had played or worked for, and their overall athletic experience. The results reveal the similarities and differences between the sample of coaches. Table 4.2 summarizes the coaches' philosophical cornerstones, including the life experiences most influencing the formation of their coaching philosophy.

Table 4.2 Philosophical cornerstones and influential life experiences

Coach	Cornerstones cited	Influential life experiences
WCC(1)	Teaching	Parents
WCC(2)	Inspiring/Motivating	Parents
WCC(3)	Teaching	Parents
WCC(4)	Recruiting & Teaching	Coaches & Athletic Experience
PAC10(1)	Recruiting & Teaching & Inspiring Motivating	Athletic Experience
PAC10(2)	Recruiting	Coaches
PAC10(3)	Recruiting & Teaching & Inspiring Motivating	Coaches

The following sections will provide examples of each cornerstone as represented by the recruiting, teaching and inspiring/motivating headings. Furthermore the heading

of philosophy formation will outline the life experiences revealed by the coaches as most influential in formulating their coaching philosophies.

4.1.1 Recruiting

Four coaches mentioned recruiting and or the ability to recruit talented players as the foremost cornerstone in their philosophy. Three of the four coaches who mentioned recruiting as a cornerstone also obtained the highest winning percentage in 2004. As demonstrated by these coach's responses, recruiting talented athletes is an important principle for success in college baseball.

> Well, basically it boils down to recruiting the best players you possibly can spending most of your time doing that, I don't know if that is part of a coaching philosophy. WCC(4).

> Well, I think, simply put it is to try and get as good a player as I possibly can and get them to play and practice as hard as I can or as close to maximum effort as I can. Pac10(2).

4.1.2 Teaching

Five coaches mentioned teaching as a philosophical cornerstone. Two of the seven coaches cited teaching as the foremost cornerstone in their philosophy and another three coaches referred to elements of teaching the game as vitally important. The ability to teach not only baseball but also overall life skills was expressed by two coaches as follows.

Teaching the physical aspects of the game, teaching the emotional aspects of the game, teaching the tactical aspects of the game, as well as teaching the survival skills to stay in the game of baseball as well as to stay in the game of life, I would probably have to characterize my philosophy towards that. WCC(1)

The secret to coaching, you know how to get your guys to do what you want them to do. The best coaches are the best teachers and the best teachers are the ones who get their students to learn. WCC(4)

The theme of teaching expanded to include how the coaches behave during practices and games. Two coaches, for example, expressed the important differences between practice days and game days.

Part of my coaching philosophy is that I see myself as an educator and I try to teach the game as much as I possibly can. That is part of my job that I really value and really truly love to do, is teach the game of baseball. So practice days are very important to us, because that's when I get to do what I enjoy doing. That's sort of my time, that practice days that's my area, that's my day, that's my time to do what I do, and game day is for the kids. WCC(3)

I think you have to trust your guys, you have to coach them up and teach them how to play and then let them play during the ball game, I'm not big on doing a lot of coaching during the game. I think practices are for the coaches and games are for the players. PAC10(3)

4.1.3 <u>Inspiration/Motivation</u>

     A final cornerstone that came through in the discussion of philosophy was the ability to inspire and/or motivate the athletes. Three coaches mentioned the importance of being able to inspire or motivate their players. This category was identified by coaches' comments suggesting that positive actions and making the athletes feel good about themselves was extremely important. Two coaches described their emphasis on positive motivation as follows.

     ...staying positive and optimistic and keeping it just about the game and not attacking personal situations. WCC(2)

     I think that the key to success is making the players feel good about themselves and their teammates and their coaches, and having that feeling that they can overcome. We are all on the same team and were all in this thing together. Truly its how they feel about themselves and their peers is the key to unlocking their potential. PAC10(3)

Finally, two coaches seemed to incorporate all three elements of recruiting, teaching and inspiring/motivating. For example one coach concisely described his coaching philosophy.

     A lot of it is based on effort and enthusiasm and trying to play the game, you know every one says they want to play hard but of course I want them to play hard. I think it is to take good talent and instill some enthusiasm into the level of play and teach them well enough so that the game becomes a discipline for them and a skill rather than just an athletic endeavor. The game can be pretty precise at

times, but you have to train them to compete at the highest level, yet to play with

some enthusiasm while doing it. PAC10(2)

The cornerstones of recruiting, teaching and inspiring and/or motivating athletes recur

throughout the data. The information highlights the importance of developing a coaching

philosophy and reveals similarities and differences between the participants. Exploring

the participants' coaching philosophies revealed personal philosophical elements

necessary for these coaches to be effective.

4.1.4 <u>Philosophy formation</u>

Each coach was found to have generated a coaching philosophy through the

interpretation of a vast number of experiences. In analyzing the coaches' answers

regarding life experiences that shaped their coaching philosophies, three categories were

revealed.   Coaches listed the upbringing from their parents, lessons learned from coaches

with whom they had played or worked , and their overall athletic experience as important

events in shaping their coaching philosophies. Three coaches listed their parents as

playing a large role in how they formulated their principles in coaching. As described by

the three coaches below, the influence of family had a major impact on their coaching.

> I think the biggest life experience that has contributed to my philosophy as a
>
> coach would have to be the upbringing from my parents, the social economic
>
> background of a middle class family, the background of a traditional family of a
>
> mother that did the raising of the kids and the consistency and the father that was
>
> in charge of the discipline parts. I think I took both of those cores into my

personality and that has kind of structured me as understanding and passionate on one end and very firm and disciplined on the other end. WCC(1)

Well, I certainly think now at this point my Dad was very disciplined at home and ran a very strict household. My mother was very loving on the other hand, my parents were divorced and I lived with both of them so as far as my mother was concerned I felt that I needed that nurturing, I needed that so that I wasn't so hard-core disciplined in that I didn't have any real care for the kids. That's how I kind of felt with my dad was that my dad was very admitted about keeping things perfect, clean and organized and very disciplined as far as your grades and how you played the game and how you approached it. So I inherited a lot of those traits as a coach. At the same time I do have the nurturing side and I treat them well and I make sure that they have food and invite them over to my house, my wife cooks for them, I introduce them to my family so that they don't feel like they're outside of that loop. WCC(2)

My parents, my mother was an immigrant from Albania, my father moved from Greece, was put on a boat when he was nine and was told to go and make a better life for himself. I couldn't imagine doing anything like that. Most definitely my parents, they made a better life for themselves through sacrifice, and definitely my own work ethic and values, have been shaped by my parents. They had to compete on a daily basis. My own sense of competition came about from my parents' sacrifices and work ethic. WCC(3)

Clearly, family experiences make up the basis for some coaches' philosophies. Results also indicated that the coaches they had played for had a profound effect on the formation

of their coaching philosophy. Three of the participants named "coaches played for" as the most influential life experience contributing to their coaching philosophy, as indicated by the following responses.

Well, I played all sports growing up. Well, the three basic ones- football, basketball, and baseball- and tried to compete at the highest level at all times. I think that that was ingrained in me from my coaches in high school and in college. PAC10(2)

Really, it has just been a series of people and experiences from little league coaches all the way through my athletic directors, players that I have had and you know peers in the profession of coaching that have shaped who I am as a professional. WCC(4)

Also, I have had the opportunity to be taught by exceptional coaches. Most notably [Coach] who was probably the single greatest influence on my life other than my parents. [Coach] was the first real coach that I ever had. He had a way with people, he knew how to treat the kids properly, with respect, he had a strong personality, and he cared. WCC(3)

Finally, two coaches listed their overall playing experience as important in formulating ideas around a coaching philosophy. This coach expresses the importance of his athletic experience, both playing and coaching, in shaping his philosophy.

I am pretty affected by my background as far as a player. I was fortunate enough to be on a couple of World Series teams. One that was very good that didn't win the National Championship and then one that did win a national championship. Another team that I played for evolved into a national champion winning a

national championship the year after I left. So I am pretty affected by that.
PAC10(1)

The personal information portion of the interview guide revealed characteristics

of each coach which are important for understanding the broader picture. The personal

characteristics and descriptive information described in Table 4.1 undoubtedly affect how

coaches formulate a mental approach to the game. These characteristics and contextual

factors are further explored in a later section.

4.2 Training Components

Questions pertaining to the training components of coaching addressed issues

relating to the extent to which athletes engaged in mental training activities, whether or

not the team worked with a sport psychologist, and the effectiveness or perceived

effectiveness of that program. Coaches were also asked to describe: what the term

mental approach meant to them, how the approach is established during training, the

means by which the approach increases performance, as well as other psychological

strategies employed to increase player performance. Various themes were revealed

throughout this portion of the interview guide. The results are reported and grouped into

categories that represent commonalities occurring throughout the participants' answers to

each question. Categories include: the importance of mental training, the use of a sport

psychologist, the importance of literature, the three elements of mental approach

including psychological, technical and tactical, the process of establishing a mental

approach, mental training techniques for establishing a mental approach, the essence of

mental approach, how a mental approach increases performance, and other psychological

strategies used to increase performance. Table 4.3 summarizes findings in the training

component portion of the interview guide. The table reveals language used by the

coaches to express the frequency of mental training used in their respective programs,

whether the program employed a sport psychologist, the authors the coaches cited when

discussing literature as a valuable means for promoting mental training, the main element

in their definition of mental approach, and techniques most cited for establishing a mental

approach. This information is found in Table 4.3.

Table 4.3 – Summary of findings in Training Component

Coach	Frequency of mental training	Use of sport psychologist	Authors cited	Elements in Definition	Techniques most cited
WCC(1)	"We work on the mental aspects of the game every single day"	No	Dorfman	Psychological	Mental meetings
WCC(2)	"Well, I encourage it. We do a lot of it."	No	Ravizza	Technical/Tactical	Coaching staff modeling excellence
WCC(3)	"It is something that we try and teach every day."	No	Ravizza & Dorfman	Psychological & Technical/Tactical	Developing routines
WCC(4)	"I would say that we are in the top 5% probably of colleges that employ some type of mental training."	Yes	Dorfman	Psychological	Specific Goal Setting & Visualization,
PAC10(1)	"We do address it."	No	None	Psychological	Relaxation
PAC10(2)	"They all do it"	No	None	Psychological	Visualization, Relaxation
PAC10(3)	"Well, we talk about it every day"	Yes	Ravizza & Dorfman	Psychological & Technical/Tactical	Visualization

4.2.1 The importance of mental training

All coaches interviewed indicated that mental training is an important aspect of coaching elite baseball athletes. While the degree to which the coaches used mental training exercises varied, all coaches expressed the importance of mental training. As illustrated by these four coaches, the mental aspects of the game are encouraged and regarded as necessary for success.

We work on the mental aspects of the game every single day, whether it's offence, defense, practice, team building, some component of the mental aspect has to be utilized every single day for our guys, our athletes, to be successful. WCC(1)

Well we talk about it every day and it is the biggest thing that we do. We talk about our brains, how our brains work and that they are the key to our potential is how we feel about ourselves and how our brains are acting. PAC10(3)

We try to employ some sort of mental training every single day. WCC(3)

To a very high extent, I would say that we are in the top 5% probably of colleges that employ some type of mental training. We do a seminar with (sport psychologist) every year. It's like a three or four day deal. We talk about specific goals that day right after our stretching. We have goal partners, we talk about goals for that day and you know they are not result orientated goals its all process stuff all task related. Before games we do what's called the Jager drill, it's just a visualization type of thing as far as seeing pitches, breaking balls changeups, fastballs. We do visualization as a team the day before a series. We'll take fifteen minutes and lie in the outfield and do visualization. We talk about the mental aspect of it throughout the game we talk approach and plan. Emphasis pitch by pitch and we also emphasize clearing out negative thoughts by the phrase "next pitch" and "so what". WCC(4)

4.2.2 <u>Use of a sport psychologist</u>

Only two of the seven coaches interviewed employed a sport psychologist. One team employed a sport psychologist on a full time basis and the other participated in a seminar with a sport psychologist once a year. The two coaches describe the effectiveness of each program as follows:

I think that her seminar gives us a very good foundation, a lot of team building things, a lot of questions, a lot of searching, and a lot of pro-active discussion about where the team wants to be, about how committed we are and different drills that they can do on a daily basis to improve their mental outlook. So I think that it is a highly, highly effective tool. WCC(4)

Having [sport psychologist] around I think has been invaluable, I think it is probably the best thing that I've done…I think it is very valuable. I just think that he gives me ideas all the time about how to approach the team and you know the things that he sees that were good especially when we struggle, you know keep your eye on the positive approach rather than worry about the outcome. PAC10(3).

4.2.3 <u>Importance of literature</u>

While only two of the seven coaches employed a sport psychologist, five coaches expressed the importance of promoting mental training through the use of literature. In particular, coaches cited Dorfman and Ravizza, two authors who have written extensively with respect to mental skills and the sport of baseball. Four coaches described the

importance of educating the athletes about mental skills training through the use of

literature.

> We do address it. We don't have a sport psychologist but we use readings to
> make our students aware of different philosophies out there. And then try to bring
> it back in relation to baseball in particular. So we do try to make the kids aware,
> definitely. PAC10(1)

> We have brought in specific people more true to life, we have read some books by
> Karl Keuhl and Harvey Dorfman on *The Mental Game of Baseball*, we've used
> the *Mind Gym* as a tool, we've used *Golf Is Not a Game of Perfect*, as a tool,
> we've used the mental packet that the Colorado Rockies put together last year
> kind of the six week steps on handling the 10 essentials of mental skills, we've
> used different areas to get to each and every person because they are so different,
> we try and teach it every single day, meaning the coaching staff. WCC(1)

> A book that I use a lot of the time is *Heads up Baseball* by Ken Ravizza, you
> know everybody is probably using that in the whole game, that and I use Dorfman
> as a resource. PAC10(3)

> We like to use a lot of what Ken Ravizza talks about in his book and try to recall
> some of our greatest experiences. By identifying past experiences and the
> thoughts, feelings and emotions or absence of thoughts, feelings and emotions
> that we had during our best performances we are able to paint a picture of that
> experiences. Perhaps then through identifying our top experiences we will be
> more able to recreate the experience in the future or now. WCC(3)

As illustrated by the latter quotes, the authors Dorfman and Ravizza have been instrumental in the promotion of sport psychology in the sport of baseball. Many of the ideas contained in their books (*The Mental Game of Baseball* and *Heads Up Baseball*, respectively) are the basis for investigating the idea of a mental approach.

4.2.4 <u>Three elements of mental approach</u>

When asked to describe the meaning of mental approach, the coaches' answers revealed three elements. These included psychological, technical and tactical elements. Psychological elements of a mental approach were revealed as answers that avoided technical baseball jargon and focused on the process of learning and mastering the mental aspects of the game in an almost Zen-like manner, or by which one has a greater understanding of the process. Technical and tactical components of a mental approach were revealed as having a plan of attack, and incorporated the specific technical and tactical process involved in the sport of baseball. Tables 4.4 and 4.5 summarize the categories revealed as containing psychological and technical/tactical elements of a mental approach, respectively. The tables illustrate the category described by the coaches and the number of coaches reporting.

Table 4.4 – Psychological Elements of Mental Approach

Category	Number of Coaches reporting
Staying consistent	5
Focused and confident	4
Sense of calmness	4
Mental toughness	3
Prepared for success	3
Mastering yourself	2
Importance of team	2
Heightened concentration	2
Keeping things simple	2
Understanding failure	2
Understanding failure	2
Importance of having a positive attitude	2
Putting things in perspective	1
Productivity off the field	1
Creating an identity	1
Programming athletes for success	1
Finding appropriate level of arousal	1
Setting standards	1

4.2.5 Psychological elements

The first of the three elements of mental approach include psychological elements. All but one of the coaches reported mental approach as containing psychological elements. As Table 4.4 reports, the coaches' answers revealed many psychological strategies, but theses strategies avoided technical issues of baseball and referred mainly to the grand scheme of life or "the bigger picture." One coach's description of the meaning involved many of the psychological elements listed in Table 4.4.

I think mental approach has a lot of things. I think it can clear you, it can calm you, it can keep you quiet, it can keep you consistent, it can keep you very focused on what you want to do, moment to moment, day to day, pitch by pitch, out by out, it can give you the confidence necessary to compete under stressful

situations, it can also give you a sound basis to approach each day and not feel

cluttered or hurried and it really puts things in perspective. I think a mental

approach is somewhat like life and seeing the big picture of life. That's the same

thing that a mental approach gives you towards the game of baseball. WCC(1)

For this coach mental approach refers to a general set of actions that govern the behavior

of an individual. A focus on the process becomes very evident in this coach's response,

as mental approach seems to extend far past the baseball diamond. Almost like a Zen

master, he continues to describe the process as if it led to an enlightened state.

As a baseball player sometimes we see base hits, runs, wins, losses, we don't see

the big picture of understanding how to deal with each pitch, each game, each at

bat, each umpire and when you really have a quality mental approach I think it

gives you that tool that you need to see the big picture of what the game is really

about, what the core of the game is really about which is mastering yourself and

not so much mastering the physical parts of the game. WCC(1)

Finally the coach emphasizes the importance of being selfless, that the team is much

greater than the individual.

With a good mental approach they can really learn how to deal with what is

important, which is helping the team, building the team, continuing to give to the

team and then that's how they can be productive outside of baseball in the

classroom. That's how they can be productive outside in the world. WCC(1)

Mental toughness was another psychological element of mental approach that was

reported by three of the seven coaches. The following coach referred to mental approach

as relating to mental toughness. The coach expands on the idea of mental approach to incorporate how one is able to be successful through the use of mental training skills.

> You look for kids that are strong mentally or mentally tough which I think is kind
>
> of a vague term. Mental toughness is not just those that are able to overcome
>
> their mistakes. I can relate it to those who have a strong attitude, maybe with a
>
> no-nonsense approach or a business-like approach, or a mature approach to the
>
> game of baseball, its kind of all lumped into a package called mentally tough.
>
> Where mental approach is someone who I think is prepared for success, is able to
>
> stay out of his own way, or is able to develop the techniques or coping strategies
>
> to deal with adversity or with people that are getting in his way. PAC10(1)

Psychological techniques such as coping strategies for dealing with adversity, keeping things in perspective, and preparedness are all important for understanding the phenomenon of a mental approach. Clearly, mental approach for some coaches refers to psychological skills that can be taught, such as visualization or relaxation. The following coach's interpretation of the term involves understanding and harnessing psychological skills for increasing performance. While the term seems unfamiliar to him, the coach explains his own beliefs in what mental approach may entail.

> Well I think a mental approach has a lot to do with visualization and relaxation.
>
> What I know of it I think those are the two most important things. Most people
>
> that I talk with and who spend a lot of time with it I think that those are the real
>
> values to it. Relaxation is critical if you want to be successful. Even breathing
>
> and a lot of other things that you can do to get that relaxation, there's a lot of
>
> different techniques. Visualization is good. I think anybody who has played has

made use of that whether it is formal or informal. Players from my era even, you

see yourself have a good day and you have a good day, athletes have all done that,

now its just more organized and sophisticated, I think its good. Relaxation for

any athlete is necessary. PAC10(2)

While other coaches may have combined both psychological and technical/tactical

components into their description of the term, the three coaches quoted prior understood

the process as strictly psychological. The following coaches incorporated both

psychological and technical/tactical components in their answers. The psychological

technique of creating a team identity is a part of what creating a mental approach means

for this coach:

I would address this question in two parts. First of all I think that a mental

approach is much like an overall view of how you and your team wants to play

the game. Much like creating an identity. For example there was a team from

Long Beach State University that made it to the College World Series a few years

back that called themselves the "dirt bags". It was their identity, that's how they

viewed themselves as a bunch of dirt bags that played every game hard and knew

that they were going to win, everyday. I think identity is a huge part of creating a

mental approach. It allows you to overcome obstacles-- to perform when it is

time to perform. WCC(3)

Heightened concentration was another psychological element of mental approach

revealed by two coaches. The following coach's answer incorporated both the

psychological and technical/tactical components. He explains how athletes are able to

achieve heightened concentration.

Mental approach to me means concentrating so well that it's effortless, that, in a nutshell, is what we are trying to get to, to the point where concentration is effortless and a lot goes into that. I think it starts with desire, you have to have a desire to be great, or to do something very well, it just has to burn within you, when you have that desire then your concentration level just goes up, and once that concentration level goes up you're allowed to perform without any restrictions on you. WCC(4)

Clearly, when asked to describe what mental approach means, psychological elements were revealed. For all but one of the coaches, mental approach referred to psychological elements such as achieving a sense of calmness, being mentally tough, and having heightened concentration. Three coaches described mental approach as strictly containing psychological elements while three coaches answered the same question incorporating psychological and technical/tactical elements and one coach referred to mental approach as containing strictly technical/tactical elements.

4.2.6 Technical and Tactical elements

Table 4.5 – Technical and Tactical elements of Mental Approach

Category	Number of Coaches reporting
Having a plan	3
Sticking to strengths	2
Importance of pitch location	1
Aggressiveness in strike zone	1
Probability of success	1
Offensive discipline	1
Winning pitches	1

The coaches' answers revealing technical and tactical elements of mental approach are grouped together as they incorporate specific baseball strategies and skills necessary for success. Table 4.5 summarizes the technical/tactical elements of mental approach reported by the coaches. Specific strategies for approaching competition and tactics for achieving greater success for both pitching and hitting were revealed. These included tactical issues of having a plan of attack and technical skills for executing that plan. The following coach describes mental approach as occurring strictly in the techniques and tactics of the game as he described different approaches to specific hitting and pitching situations.

Mental approach means to me, it varies, we're talking about hitting or pitching, we definitely have different approaches for different situations. I'll address our hitting approach is just really having a plan. Going up to the plate with a plan, what pitches are we looking for, are we going to swing at a first pitch off-speed, are we looking for fastballs, how is the opposing team pitching us -- so there's definitely a plan of attack. Our plan of attack is always to look for a fastball early in the count. If we've worked behind in the count as an offensive hitter now we

are going to have to expand the strike zone and you are going to have to be

willing to hit off-speed pitches…As far as pitching, that approach is different. We

pretty much stick to what our pitchers' strengths are. That type of approach is

going to be, we're going to throw fastballs, curveballs, and changeups, we're

going to mix speeds, we're going to mix pitches, we're not going to give into the

hitter in a hitter's count. If it's 2-0 I'm going to throw changeups, I'm not going

to give in to that hitter. So it's important that our pitchers understand right away

that they have to have three pitches. But it's location, location, location, it's

aggressiveness in the strike zone, we have to stick with that plan. We can't be too

fine out there on the mound, we definitely want to challenge the hitters, and we

don't want to waste pitches. So on 0-2 a lot of our pitchers will go right at the

hitters because it is a good count to pitch in. WCC(2)

This coach was the only participant to relate mental approach strictly to the techniques

and tactics of baseball. Other coaches, however, referred to both the psychological and

technical tactical components of the term. For instance coach WCC(3) referred to the

psychological characteristics of creating a team identity, however, continued to explain

more technical elements of the game that help to create confidence in the athletes.

The second part of mental approach that I will address is how to approach a

specific situation or a competition. For instance when approaching an at-bat you

know if you were facing Jamie Moyer [player] and you went up to the plate

thinking that you wanted to drive something hard to the pull side of the field you

are not going to have much success. Against someone that throws so much off

speed with control you better set your sights on letting the ball get deep in the

hitting zone, staying back and driving something to the opposite side of the field.

A mental approach allows players to develop confidence through understanding

that they have done the preparation it takes to be successful. If you have an

approach to competition to each situation you are going to be in the right mind set

to perform with confidence. And that's what it is all about. WCC(3)

Coach WCC(4) related tactical elements of baseball and other sports as important for

understanding the process of having a mental approach. His answer revealed the

importance of focusing on the process and doing that through tactical strategies which he

describes as follows.

> ...this game is played one pitch at a time or in football one play at a time or in
>
> basketball one possession at a time. We're not going to look at the scoreboard
>
> until we absolutely have to and that's always in the later stages of a game or the
>
> later stages of a half in those other sports. So, one pitch at a time, one play at a
>
> time, one possession at a time, everything has to be focused on the process, the
>
> task, and the execution of something where the result is not even a factor.
>
> WCC(4)

Finally, the following coach's answer may perhaps best reflect the three components

described throughout. Having a plan to execute the technical and tactical elements of the

game are revealed, as well as psychological elements such as keeping it simple,

mastering yourself, and sticking to the plan are suggested.

> Well, mental approach means to try to keep things simple, to have a plan that you
>
> understand, whether you are on the mound or at the plate or on defense. To
>
> anticipate what is coming and to have a plan that makes sense-- you can't try to

hit a pitch that you don't have the ability to hit, you can't do something that you're not capable of so you have to have an understanding of yourself first and foremost and then the ability just to concentrate on the task at hand, or the next pitch, or the next strike that your trying to throw, or hitting your spot. So I think that the important part is that you are clear and that you're not thinking about too much stuff, the best players think very little if at all. To be able to do that and not to screw up or to have success you have to be able to have a plan that you can execute. If I am looking for the ball away early in the count, against a pitcher that throws the ball away then I'm not going to swing at a ball that is up, I am going to have to wait for a ball that is out there. A guy that wants to pull against a pitcher that throws away, then I have to adjust somehow, so really it's not just having a plan, it's making sense of it. PAC10(3)

The psychological, technical and tactical elements of mental approach were three themes that were revealed in the coaches' answers. It is important to highlight these themes, as they demonstrate the subjectivity of coaching effectiveness. For some coaches mental approach means to incorporate strictly psychological processes, for one coach strictly technical/tactical aspects of the game were important, and some coaches incorporated all three elements. The significance of the findings is not how the coaches interpret the term but rather that the term is interpreted in different ways. This suggests that each coaches' ideas about effective coaching are individual and subjective. The coaches were probed further to describe the process by which they establish a mental approach in their athletes.

4.2.7 <u>Process of establishing a mental approach</u>

Coaches were asked to describe the process of establishing a mental approach in training. All coaches offered insight into the process of building and establishing a mental approach except one. Answers revealed various themes which included an emphasis on the amount of time it takes to establish a mental approach, techniques used to establish an approach, and the importance of using literature. Also, the essence of mental approach was further revealed.

Five of the coaches interviewed made specific reference to the amount of time that it takes to establish a mental approach through training. For these coaches, it was important that some aspect of mental training be worked on every single day in order for their athletes to be successful. Establishing a mental approach was referred to as a building process. For this coach, establishing a mental approach in athletes is something that must continually be incorporated into the practice plan:

It is a building process. It is a process where we build and we break down, it is a process where we tweak and we learn... It's a process that on a normal given day if we have a two-hour practice I would say that an hour of that practice has to be used on mental training while incorporating the physical aspects of the game. WCC(1)

These five coaches also made reference to the difficulty of establishing a mental approach due to the limited amount of time that coaches are able to spend with the athletes throughout the season. For this coach, establishing a mental approach in athletes is something that has to be done daily but is restricted by the amount of time permitted for coaching athletes.

Establishing that process is something that we have to do every day... Certainly, as hard as we work at it, with the limited amount time we have with the student athletes at the Division I level, it takes time and it actually takes game situations before you can actually see it coming to pass. WCC(2)

4.2.8 Mental training techniques for establishing mental approach

Coaches' answers revealed a number of techniques for establishing a mental approach through training. These techniques included mental training exercises as well as modifying coaching behavior. Mental training exercises that were most reported included journaling, the use of routines, having mental meetings, and setting specific goals, while some specific coaching behaviors listed by the participants included creating intensity and accountability in practice and modeling desirable behaviors. For one coach, the use of mental training meetings combined with journaling contributed to the process of establishing a mental approach.

> What we do more than anything for training, we have mental meetings during the early springtime. We probably have 15 mental training meetings where we talk about different aspects, the players present these things in a forum, they do a written evaluation every day of the season before that. It's something that we really incorporated this year that's been helpful. Then we try to every day at the end of practice ask them to do their mental training in their notebooks, and talk about what they did in batting practice -- how it worked, how it didn't work, we ask them to do the same thing after a game, to go back and self-evaluate. A pitching staff does an evaluation after every game. This consists of a list of 15

questions that they evaluate themselves on, emotional control, physical control, and reaction, all these things. WCC(1)

Clearly, the process is ongoing and the use of specific mental skills is necessary to promote an understanding of what it takes mentally to be successful in the sport. The following three coaches emphasized the importance of routines as valuable means for creating success and subsequent confidence.

Well I think that there are a lot of different ways…whether it's a physical process where someone is in a routine, they need to develop a way to get themselves into a place where success is more likely… relative to…ability. PAC10(1)

I think developing routines is a great way to establish a mental approach and regain confidence. You watch golfers and before they hit a shot, they have a specific routine that they go through. It's a pattern that they have worked on time and time again, it gives them confidence. So, definitely I think confidence is created through mental approach, developing routines and getting to a point where the athletes can trust their mechanics, and let their bodies just take over. WCC(3).

Along with the importance of establishing routines in athletes, goal setting techniques were listed as important mental training exercises. For this coach, establishing a mental approach involved setting specific goals.

There has to be some goal setting for that day, and we call them targets within a specific drill, so we are actually working on staying in the moment, and focused on the execution of something, you know, like hitting the ball up the middle, or hitting the ball on the ground with the infield back, or get the ball airborne when

the bases are loaded, or hitting the ball to the right side of the infield with a runner

on second nobody out. WCC(4)

The coaches interviewed cited mental training skills, such as having mental meetings,

journaling, creating routines and setting specific goals as important when establishing a

mental approach in athletes. Also, establishing a mental approach during training was

reported to involve modifying and/or employing specific coaching behaviors. The

following coach made reference to the importance of modeling excellence by the

coaching staff so that the players understand how important specific behaviors are.

> The difference with our coaching staff and other coaching staffs is that what we
>
> put into the system is something that we believe in and we also adhere to the same
>
> rules and policies. We have a shaving policy for our team. All of the coaching
>
> staff shaves every day, you won't catch us unshaven. Our kids aren't allowed to
>
> drink, coaching staff doesn't drink either so if the players see one of us drinking
>
> then they can drink as much as they want -- but if you don't see us drinking we
>
> expect you to adhere to the same policy... I have to keep things in perspective and
>
> make sure the kids also know that I hold myself to the same standard of
>
> excellence as far as my attitude and how I deal with my emotions. WCC(2).

Creating intensity in practice was another coaching behavior that was revealed

when analyzing the data. Three coaches made reference to the fact that creating intensity

in a practice situation was challenging yet vitally important. This coach referred to the

challenges of practicing and playing at full speed:

> I think that the biggest challenge is to number one to get the individual to actually
>
> practice and play at full speed... And that's my job, my job is to try to make the

practices as much like a game as possible and make sure the players can play at that level. Because there is no good to practice at 80% and then try to play at 90%. But that's hard -- it's hard to get your practices organized in such a way that it's game-like and you can expect them to play at that high level. PAC10(2)

While this coach found it challenging to create intensity in practice, the following two coaches offered specific drills that create intensity and accountability in practice.

Ideally you want to create some pressure during practice. I have a drill that I call BP [batting practice] on Command -- I probably stole that from somebody but it's been so long that I can't remember who, but what it involves is being able to execute "right now." You might have to execute a hit and run the first pitch that you see in a game, or a sac bunt, so you have to be ready. You don't get five or six swings to do it during the game, so why should you in practice? During BP, if a player is unable to execute "right now" then get out of the cage...you have to be able to do it on command. This creates some pressure for the kids, and can be transferred to game like situations. WCC(3)

I think in practice if you put some kind of like "the winners get cold drinks," or if you put some kind of accountability or consequence then it makes the concentration level go up and that's hard to do during training. So you are constantly trying to get that concentration level to its highest point and put them in as much stress as you can -- you know, like some of the marines and armed forces, some of what they try and do in their training. You can get creative through reward, consequence, making games out of drills and things, but it's all designed to try and enhance the concentration to accomplish the execution of

something. I would also say in intrasquad games we have a scoring sheet where the whole thing is filled up and you only get one point for scoring a run. But you get points for moving a guy across, you know, all the execution part of the game, outfield assist, catcher assist, so everything that happens during a game you can be scored for; double play is worth plus two, if you don't execute its minus two so. We call it "the execution scrimmage." Normal scrimmages are like "OK ,you won 6-3 you guys get a Popsicle." Well you know our scores can be negative 17 to negative 14 so that's just another way of being creative and having guys focused on what happens every pitch, and there is a consequence for what happens every pitch. WCC(4)

Techniques for establishing a mental approach during training were expressed by the coaches interviewed. Coaches' answers revealed that mental training exercises such as journaling, goal setting, and having mental meetings were an important part of establishing a mental approach in athletes. Furthermore, coaches identified specific coaching behavior, such as creating intensity in practice through creative and organized practice planning.

4.2.9 How a mental approach increases performance

Coaches were asked to describe their perspectives on how a mental approach increases performance in their athletes. Themes revealed in the analysis included: creating a positive attitude, increasing consistency in play, and creating confidence through preparation. As illustrated by this coach, a positive mental approach is important for success in all areas of life and sport:

I think it increases the mental health of the baseball player, it gives them a better

perspective, I think it increases their day-to-day production and it increases their

maturity as a player overall. How can that help them? If you go into anything

with the right mental approach which is positive focused with the things that are

necessary to be successful, your body language, the aura that you present, I think

you have no other recourse but to be successful. WCC(1)

Consistency in play was another theme in which the following coach emphasized

the importance of mental approach. He explains the importance of understanding how

consistency works in the sport of baseball:

I think a positive result of a mental approach is consistency, not just success. I

deal with this often where a kid's in a learning process, they feel that success is

doing it three or four times on Tuesday to every time on Wednesday. They are

not accepting that three to four times on Tuesday to nine or ten times on

Wednesday is success. They need to appreciate and know that and take that as a

positive. PAC10(1)

Continuing with the idea of consistency, this coach explained the importance of

emotional consistency or "staying even keel." Clearly, for this coach, finding an

appropriate level of arousal and avoiding the emotional highs and lows was a direct result

of having a positive mental approach.

Well, you know from your experience from coaching for a long time you just see

guys that have good mental approaches, they avoid the tremendous highs and

lows. Everybody has slumps, everybody gets hot, but if you're frustrated or

angry, it is harder to play generally speaking. Some guys like to use emotion a

little bit or a lot and that's OK, as long as they can perform when they do that --

some of our best performers have been highly emotional guys, some of our best

performers have also been guys that are very even keel, but I always talk to guys

about trying to find that level of arousal or anxiety or of emotion that you perform

best at. So you need to test and have to go back and look at things that have been

successful for you before, how you feel when you were having a good day or how

you feel when you were having a bad day and just from that develop sort of a

zone or a spot or a sense of arousal that works best for you. PAC10(3)

As PAC10(3) explained, finding the appropriate level of arousal is important for all

players. The idea that athletes are always in control of their actions became clear

throughout the analysis. As the following coach explains, the importance of having the

ability to control your attitude at all times was essential.

Well, a mental approach is the key. We talk about the one thing that we can

control as an athlete, and that is our attitude every day. That's in our system, it's

in our covenant -- the one thing we can control is our attitude. So the kids'

attitude as far as, you know, whether it's practice, whether it's the game, we try

and keep it consistent, we try and keep it positive, we try and keep it optimistic.

But it makes a difference there is no question about it. The mental approach,

being a positive one with enthusiasm, is the difference between winning a lot of

games and losing a lot of games. WCC(2)

4.2.10 <u>Other psychological strategies used to increase performance</u>

The final question of the training component portion of the interview guide attempted to discover further psychological strategies that coaches use to increase performance in their athletes. Coaches' answers included themes of creating a sense of family through teambuilding, promoting mental toughness, using visualization, increasing communication between players and coaches, and recognizing the diversity of each individual.

Team building and having athletes buy into their roles was revealed throughout the data. Three of the seven coaches discussed the importance of players buying into the team concept, accepting their roles and being unselfish.

I think the team has to be the one psychological aspect that we employ, kind of like the family. Anything that you would build to be successful, you need everybody to buy into one core philosophy and you need every person to execute their role in order to be successful, and you have to have each person doing those things. Outside the mental training part of it, you have to build a team where your relievers understand their role, your pinch hitters understand their role, your defensive specialists understand their role -- not so much that they don't expand that role, but they understand it in the beginning and they understand why you have to make the decisions that you have to make. WCC(1)

Because it is a team game they have to buy into the concept that they are going to perform in the game and in the practices to the best interest of the team. Whether that means bunting, whether that means taking a pitch -- whatever it may be. So I think basically that is what we are trying to do, to get them to practice and play as

close to full-speed as possible, and to do that within a team setting and with the team goals. PAC10(2)

The ability to be mentally tough was another psychological strategy that three of the coaches listed as important for increasing performance in their athletes. Mental toughness was described as essential for coping with the tremendous downtime experienced in baseball. Mental toughness for this coach involves having the ability to concentrate and perform for long periods of time, regardless of how you feel.

It has to do with making yourself play and practice at a high level when you don't feel like it. The problem with baseball is that there is just too much standing around, too much dead time. It is more of mentally making yourself does something when you've been standing around bored for two-and-a-half hours. That's really what happens… That's what I mean about mental toughness, getting yourself, in whatever sport you do, or whatever [you] do, whether it is working at a desk or whatever -- do you come in and have a work ethic and a mental toughness that makes you perform at that level whether you don't feel good, whatever [?] You just do it. I think that's what is meant by the word professional. A professional is someone who does it day-in and day-out, has the same approach, good or bad days, whatever. PAC10(2)

Through participating in collegiate baseball, athletes learn the concept of being mentally tough. The skill, as PAC10(2) described, is valuable not only for experiences in sport but in life. The coach explains below the process by which mental toughness is taught, and its overall importance to the team:

Through physical learning we increase mental toughness. There is an old saying: the quickest way to an athlete's head is through his feet. We have used physical conditioning for punishment. One drill we were doing last week in fact was based on the hitters being able to execute. If the hitter was unable to execute a hit-and-run or a sac bunt, then the whole team would run. The message was that the inability of a hitter to execute in a given situation affects the whole team. There are lots of ways to build mental toughness. I think it's a combination of physical and intellectual toughness that makes a player successful; you need to have both. WCC(3)

Visualization was another strategy that was mentioned by all participants. Coaches referred to seeing one's self having a good day as important for understanding the power of the mind. This coach describes the importance of the psychological skill and how he uses it when coaching athletes:

I think that you just set your sights on the big picture and then understand what you need to get accomplished at. If you see that then I think that people tend to be what they think about. It's human nature, the way the brain works is that the way you see yourself is the way you tend to go. If you see yourself having success then you are going to have success --, if you see yourself failing then you are bound to fail... I coach the pitchers, so I tell them that before every pitch they have to throw that pitch twice, once in their brains and see themselves throwing it in a game -- so you want to throw a slider then you see yourself throwing it once -- and guys who get good at it can, you know [snaps his fingers], in a split second

and if you can't do it then you need to back-off the rubber and get that vision right in your brain. PAC10(3)

The importance of having effective communication between players and coaches was also cited by all coaches. For this coach, holding individual meetings periodically throughout the year is essential for increasing player productivity.

Psychological stuff -- something as simple as communication with the players. Which means you have to have individual meetings with your players three or four times during the season -- break it down -- and try to do that outside of the office environment. Players, a lot of times, will feel threatened by a coach sitting behind the desk, so we'll go to the deli or the campus café -- wherever -- no cards, nothing else, and just say you know this is where I see you, boom, boom, boom, offence, defense, baserunning -- here is where you need to be. Players often respect and enjoy the fact of knowing where they stand and feeling comfortable with their role on the team. WCC(4)

Recognizing the diversity and differences between each individual athlete was of apparent import throughout the responses. It is an issue strongly linked to communication, and three coaches addressed the importance of gearing communication and teaching styles to the individual.

We reach kids in different ways. Every student athlete has a different background, and a different approach on how they succeed. It's important for each of the coaches to make sure that they address different ways for reaching different kids. WCC(2)

The problem with baseball is that there are 25 guys on a team and that means that there are 25 different personalities. I try to get to know my guys on a one-on-one basis. It's what you try and do either during the off-season or when you are traveling on airplanes -- really sitting down and connecting with the guys one-on-one and finding out what buttons to push. WCC(3)

Whether it's communication or motivation, people are sparked in different ways. It can't be a typical one-way-fits-all, you can try that, but you are going to meet with varied levels of success... It's between communication and motivation on our side that's important. And not only that, the teaching technique has to be catered to individuals. People learn with different styles. Like with hitting, you can tell a kid exactly what you want and sometimes you have to exaggerate ten fold, some people you have to trick them into a different feel just to get what you think will be successful for them. PAC10(1)

4.2.11 The essence of mental approach

Coaches' answers throughout the interview revealed ideas behind the essence of mental approach. Although they were asked to describe what mental approach means to them, principle issues defining the term became more revealed as the interview progressed. Themes, including being able to trust yourself and your ability, teaching athletes how to understand failure, winning pitches and creating a plan, and promoting excellence on and off the field, were described. Much like personal mission statements, the coaches' responses underline a focus on the process as an essential feature of mental

approach. This coach spoke about the importance of mental training for establishing

trust, self-confidence, and obtaining process-oriented focus:

> You need to train yourself to trust, you need to train yourself to react, you need to
>
> train yourself to have self-esteem, you need to train yourself to have confidence,
>
> you need to train yourself to be a self-evaluator and sometimes we have to retrain
>
> them because they are so successful. We have to retrain them to be unsuccessful,
>
> because there will be a point in time when the game will humble you and you will
>
> need those skills, those mental training skills that we worked on every single day.
>
> WCC(1)

The essence of mental approach was further emphasized in the following coach's

description of understanding how to deal with failure. For this coach, it is important to

teach kids how to deal with failure early so that they are prepared for the inherent nature

of the sport.

> I think that there is a preseason process where you try and teach kids how to deal
>
> with adversity, how to deal with failure. But it's not just dealing with adversity
>
> and dealing with failure, either, a lot of it is how to bring about success. There's a
>
> lot of mental strength needed and mental training for understanding how to deal
>
> with failure: How do you deal when you fail? …Baseball is a game of failure. It
>
> is more conducive to how do you take the positives in each of us, black and white
>
> positives in order to keep yourself mentally strong and mentally positive.
>
> PAC10(1)

Training athletes how to understand and deal with failure proved to be an essential

feature of a mental approach, as all coaches made reference to it's importance. The

following coach suggested that personal understanding and staying in-the-moment are keys to training a mental approach.

>Well, first-off is understanding yourself, and then understanding the game or the opposition, or the pitcher or the other hitter, and understanding the environment that you are going to be playing in... We talk about winning pitches, you know, we probably say it hundreds of times during the course of the day. It's just always about not worrying about or letting the previous pitch bother you, so you we tell our guys that we don't care about what happened prior to what you are doing right now, it doesn't matter, whether you've got four hits or zero, or that you've given up five runs in the first inning or you've got a no hitter going into the ninth -- we want the next pitch to be new, we want it to have great intent, we want you to be concentrating on that one and not let past performances or future things enter into your process, that you have to execute the next pitch or to perform on the next pitch, and just make sure that your present reality is in the now. PAC10(3)

The ideas of establishing trust, understanding failure, and staying in the moment represent the essential features of mental approach. For each coach, the process involves specific characteristics. However, all coaches offered valuable insight into the finite details of the game. Clearly, the essence of mental approach represents a process-oriented focus on the part of the coach. Each coach revealed that focusing on the process and de-emphasizing results were essential to formulating a mental approach to the game.

The training component questions in the interview guide revealed fascinating evidence regarding the formation, institution, and the importance of mental approach.

Coaches' definitions of mental approach incorporated three elements. The psychological, technical, and tactical elements of mental approach were revealed in the analysis and are necessary ingredients for these coaches to be effective. Also, various techniques for establishing a mental approach were uncovered. These included mental training strategies such as visualization, specific goal-setting, establishing routines, and addressing the diversity of each individual. The means by which a mental approach increases performance in athletes was also apparent. The data suggested that through mental approach a player's attitude becomes more positive, the player performs with more consistency, and the confidence level of the athletes rise with proper preparation. High-level baseball coaches offered valuable insight into the importance of psychological training. The essential aspects of mental approach became further revealed throughout the data. Clearly, guided by a process-oriented focus, the coaches emphasized the essence of mental approach as involving the ability to trust oneself, understand failure, win pitches, and promote excellence on and off the field.

4.3 <u>Competitive Components</u>

The competitive component portion of the interview guide attempted to elicit information regarding the change in approach required in the shift from training contexts to competition environments. Also, the coaches were asked about the athletes' behaviors when the approach is employed positively and negatively during competition. The results have been summarized into categories including: mental approach: training vs. competition, actions exhibited by athletes when positively employing the mental approach, and actions exhibited by athletes when negatively employing the mental

approach. Themes in each category are discussed. Table 4.6 summarizes the findings in the competitive portion of the interview guide. Each coach is listed and their answers summarized regarding the change in approach between training and competition and the actions of the athletes reported by the coaches when positively and negatively employing the approach during competition.

Table 4.6 – Summary of findings in competitive component

Coach	Change in approach training vs. competition	Athletes actions when (+) employing mental approach	Athletes actions when (-) employing mental approach
WCC(1)	No change	Calmness, relaxed	Withdrawn, angry, internal turmoil
WCC(2)	No change	Sense of calmness	Negative body language: hanging their head
WCC(3)	No change	Sense of calmness	Negative body language: kicking dirt
WCC(4)	Extreme concentration	Aggressiveness, very focused	Physiological reactions: sweating, increased heart rate
PAC10(1)	Increased intensity	Physical confidence, the way they carry themselves	Negative body language: shows comfort level
PAC10(2)	Very emotional	Maximizing their talent	Negative body language: physically down
PAC10(3)	Much more personal	Breathing properly, consistent tempo	Negative body language: bummed out, depressed, sulking

4.3.1 Mental approach training vs. competition

The coaches were asked to describe how the approach changed from training or practice situations to game situations. Three of the seven coaches reported that there should be no change in the approach in the transition from training to competition. These

coaches' answers revealed a theme of creating a foundation of experiences in which the athletes establish a code of conduct. Necessary ingredients for forming a foundation included establishing consistent intensity in practice, maintaining positive actions, and promoting excellence on and off the field. As described by this coach, mental approach is taught throughout a range of activities both on and off the field.

> We try to make the very first practice in the beginning of the fall with all our new players and old players the same practice as we have before we start our conference play, or when we go to post-season play. We try to stay consistent and if you can find that consistency and you start the mental training then and train it during practice, and train it during weights, and train it during study hall, and train it during social functions, and train it during airplane flights and if you can start to get that foundation together, then eventually what happens when the competition is there -- it's the same exact approach. WCC(1)

This idea of promoting excellence on and off the field is shared and described by the following coach, as he explains that everything counts as an athlete participating in Division I baseball.

> We try and have no change during competition. We try and keep the same mental approach the entire time. We also try and create the same type of pressure and adversity... If our attitude is about excellence we should be making good decisions off the field, we should be making good decisions about going to class and being on time and really pursuing an education. I tell them everything counts. So your approach to life should be same as it is on the field, and certainly from fall to spring it should absolutely be the same. WCC(2)

For the following coach, too, practice time is the time to instill in the athletes that playing hard is necessary for success, as he describes that consistency during practice is a valuable attribute.

> It [the approach] doesn't change. Playing hard isn't a light switch that you can
> just turn on and off. What we do in practice should be replicated during the game.
> Therefore, the approach does not change from practice to competition. WCC(3)

For these three coaches the theme of creating a foundation was revealed. The coaches referred to the importance of positive actions, maintaining consistent intensity in practice, as well as promoting excellent conduct during off-field activities. In essence, in creating a foundation of conduct and training it through experiences both on and off field, athletes may be more able to succeed during intense moments of competition.

The four remaining coaches, in answering the same question, focused on the change that occurs from practice to competition. They described how, when engrossed in competition, it becomes more emotional, personal, and intense. Therefore, the approach must be adjusted to meet these intangibles. As the following coach describes, the emotionality of competition and the importance of being able to control your emotions is essential.

> Well, it can change, because it is very emotional and you have to -- and again it
> gets back to the mental aspect of it -- you can't get too excited and you can't get
> too down; and that has to do with discipline mentally more than physically. It
> affects what you do physically; you can get out of control because you are
> excited. Or you can put less effort into it, or mentally let your mind wander
> because you're depressed because you just failed to do something, or you get a

bad call and you let that call by the official or umpire in our case affect you. Or

you let a fan affect you -- it's not like golf where no one can talk -- you got people

yelling at you, telling you to screw up. So you have to be able to put things out of

your mind. PAC10(2)

The following coach expressed the idea that competition is much more personal and that,

in order to be successful, athletes must have strong mental skills.

Well, during competition it probably becomes much more personal, you don't

have as much help from your coaches, the stakes and breaks are higher, the

performance, the competition is more intense because it's not batting practice

anymore. It's a guy that is trying to get you out, it's not a hitter that you are

throwing to in a scrimmage where you might be working on something -- this is

the real deal. I think that if your skills aren't strong then you may have a chance

to erode much quicker and you have a chance to give away much more pitches, or

at bats if you're a hitter, or innings... so the big deal is that the pressure that the

game provides on you is that the guys that are mentally stronger, that rehearse

their mental imagery, their routine in between pitches -- whether they are on

defense or whether they are hitting -- have a chance to be better because their

ability is greater, and they execute more often because their brain is in the right

place. PAC10(3)

The following coach explains the importance of shifting the mental approach during

practice and games. For this coach, competition represents an intense period where

athletes must be able to shift their focus:

Well, during competition the approach is all about winning every inning. Again

it's just along with our motif or strategy or mantra of one pitch at a time. The

focus shifts from practice, where it's heavy mechanical breakdown, heavy

teaching fundamentals and mechanics of pitching, hitting, baserunning, fielding,

to extreme competitiveness, extreme concentration and the ability to stay focused

on every pitch and to be very reaction-orientated type of behavior... so practice

and games are very different. WCC(4)

Creating a foundation of experiences and being able to adjust to and manage the intense

moments of competition were revealed as important attributes of mental approach. For

these high-level coaches, maintaining a process oriented focus and training the approach

in all experiences both on and off the field will prepare the athletes for success.

4.3.2 <u>Actions exhibited by athletes when positively employing the mental approach</u>

Coaches were asked about their perceptions of athletes' behavior when the mental

approach is positively and negatively employed. When positively employing the

approach, coaches most referred to athletes' actions as being calm, relaxed, and more

confident. The theme of being "Zen-like" emerged, referring to the effort level and focus

of the individual, as elaborated on in the following coaches' comments:

Calmness, quietness, focus, in the moment, able to shed the good and the bad and

know that they need to continue to go... The behaviors that I see most of all is

relaxation. When they are employing the mental approach, they're relaxation is

unbelievable, they're able to laugh, they're able to see, they're able to enjoy,

they're able to continue to play no matter what circumstances -- winning or losing -- and those attributes are wonderful to see. WCC(1)

I think there is a sense of calmness. I think the kids have a relaxed approach... But I think when they are employing a positive mindset there is a sense of calmness, there is not a sense of urgency, they react under control, they don't try and rush things, things slow down for them a little bit. WCC(2)

Also I think there is a sense of calmness in their body language. Athletes that are solid mentally are not phased by negative stuff. They stay positive in their body language and stay with their routine. WCC(3)

I think the biggest single one is breathing, smiles on their face, or their sense of calmness. They're at that arousal level that you're sort of accustomed to seeing. They just have that look. PAC10(3)

When describing the actions and behaviors of athletes who are effectively employing the mental approach, the answers most often revealed a sense of calmness, increased relaxation and acting with more confidence. One coach described the goal as being able to play in a very uninhibited manner. He used the play of Kobe Bryant of the Los Angeles Lakers as an example.

That's what we're after: to play the game in a very uninhibited, very reactionary, I guess you could say like Kobe Bryant. We actually have that in our vocabulary, you know make a "Kobe" play, which is something very instinctive -- playing the game with no fear -- you know, just a courageous type of attitude. WCC(4)

4.3.3 Actions Exhibited by Athletes when Negatively Employing the Mental Approach

Coaches were asked about their perceptions of athletes' behaviors when negatively employing a mental approach. Answers revealed that when negatively employing the approach, the athlete's body language was an indicator of overall comfort level. Specific reference was made to an increase in the players' tempo, and visible physiological reactions. Overall, a sense of internal turmoil may be witnessed when an athlete is struggling to perform. As described by these three coaches, a player's body language is a direct reflection of comfort level and competitiveness.

> Yes, I think body language for me... That shows their comfort level, what they are doing and how they are doing. PAC10(1)

> Their body language gives them away. If they are kicking dirt or their heads are down then you know that they have had enough. WCC(3)

> I think they look bummed out, depressed, or unhappy, or sulking; their body language is stooped over it is not as aggressive, timid, beaten, those types of things weary, energy level is down you see those things. They've given up, and you can see all that stuff. PAC10(3)

The tempo at which athletes perform was another determinant of whether or not they are effectively employing a mental approach. Two coaches described pitchers, when performing poorly, as most likely to increase their tempo in between pitches.

> If a pitcher is going bad you can always tell in their rhythm, it speeds up. They feel as if they have to get back on the mound and throw another pitch right away. But that's not the case, they need to take some time, step off, regroup and get ready for the next pitch. WCC(3)

Taking more time or taking less time than usual. Most of the time it is taking less

time where they want the ball back, or they want to get back on the hill, or they

jump right back in the box and they start attacking balls that they shouldn't and

swinging out of their zone. Again it is just not being in control mentally, to be

able to slow the game down and get their mind right to be able to perform at their

peak. WCC(2)

Other coaches described physiological reactions of players as evidence of ineffectively

employing a mental approach. Two coaches made reference to an increased heart rate,

the ability to articulate, and the look in a player's eyes as evidence of employing a

positive mental approach:

Some guys heart is just racing a mile a minute and some guys are just OK, but

that's very noticeable, eyes darting around, sweating profusely, you can go out to

the mound and a guy's eyes are wide they're breathing hard and other times you

go out there and pitchers are totally in control and in shape and are very articulate

in their answers to me. It's physical effects really. WCC(4)

Their eyes! You look in their eyes and they'll tell you what's going on, if they are

confident or not... By looking in a player's eyes you can see if they are weary or

if they are saying "Hey, I got myself into this jam, but so what, watch this, I'm

going to get out of it right here." WCC(3)

Finally, when players are negatively employing the mental approach, a sense of internal

turmoil can be witnessed. This coach describes the reactive behavior of players

experiencing internal turmoil:

When they're not they're very withdrawn, they're very angry, they're very self-absorbed, they're weighed down, they're caring at-bats, they're caring wins and losses, they're caring errors... You'll see guys slugging it out with themselves during the game and they hardly ever win those wars. WCC(1)

Competition components of the interview guide revealed interesting evidence regarding mental approach. Themes emerged, such as creating a foundation of experiences in which the athletes can learn the importance of being mentally focused. Three coaches suggested that they did not make any changes in approach from practice to competition. The four remaining coaches answered the question by differentiating the approach from practice to competition, stating that during competition the approach becomes more emotional, personal, and intense. All coaches suggested that, through mental training, athletes are better able to control their emotions, concentrate longer, and perform more uninhibitedly. Athletes' behaviors and actions, when positively employing a mental approach, were revealed to include a sense of calmness, increased relaxation, and an ability to perform with a sense of confidence. When negatively employing the approach, the coaches' perceptions of players' actions were reported to include negative body language, an increase in playing tempo, evidence of physiological reactions, and a presence of internal turmoil.

4.4 Organizational Components

The final section of the interview guide addressed the organizational component of coaching. This section addressed how NCAA Division I Baseball Coaches evaluate their athletes, how they evaluate their own coaching, and their perceptions of limitations

as Division I Head Baseball Coaches. All coaches reported making both physical and character evaluations when recruiting athletes. Physical evaluations involved grading players using the five-tool scouting system. Character evaluations were described as selfless acts exhibited by players and their ability to contribute to the team. When describing how they evaluate their own coaching, the importance of recognizing the big picture and not getting wrapped up in wins and losses was important for the participants. Regardless of 2004 winning percentage, all coaches de-emphasized wins and losses and stressed the importance of keeping things in perspective, and/or focusing on the bigger picture. Finally, when asked about their perceptions of limitations, coaches most frequently reported time spent with the student athlete. Facilities, staffing, and budgetary concerns were also listed as limitations experienced by the participants. Interestingly, coaches in the WCC reported more limitations than coaches in the PAC10. The organizational components of the interview guide are summarized in table 4.7.

Table 4.7 – Summary of findings in organizational component

Coach	Physical & Character evaluations	Coaching evaluation	Limitations reported
WCC(1)	Effort & Selflessness	Ability to give back to the kids involved, effectively teaching the game/life	Time, staff shortages, facilities, overall resources
WCC(2)	Understanding controllables	Modeling excellence and receiving feedback from coaching staff	Time
WCC(3)	Five tools & social adaptability	Finding patience and de-emphasizing wins and losses	Budget, facilities, overall resources
WCC(4)	Attention to detail & level of competitiveness	Focus is on the play of the team, regardless of wins and losses.	Time
PAC10(1)	Five tools & ability to deal with fear	Ability of the athlete to succeed, prepared for success	Facilities
PAC10(2)	Consistency & ability of athlete to make adjustments	Maximizing the talent of the team	None
PAC10(3)	Five tools & ability to control their brains and make adjustments	How the team plays, how someone performs and the end result are separate.	Time, staff shortages

4.5.1 Evaluating athletes

When asked about how they evaluate their athletes, coaches' answers revealed that both physical and character evaluations were important. Physical evaluations were based on the five tools in baseball that represent the fundamental skills that baseball players must possess. The higher the grade for each tool the more potential the player has to be successful. The five tools are; 1) foot speed, 2) the ability to hit for power, 3)

the ability to hit for average, 4) arm strength, and 5) instincts. As expressed by this coach, the physical evaluation is simple when recruiting players.

> Physically, it's the simple five tools: you grade them out, you're looking for big and strong and fast with bat speed, pitchers: if they have three pitches: fastball, breaking ball, change up, those are the good guys physically. PAC10(3)

Coaches also made reference to the fact that the physical evaluation is ongoing and that attention to detail through constant monitoring is important in order to prevent players from developing bad habits. As these coaches explained:

> Well, you know it is a daily evaluation. A lot goes into it, I think when you're dealing with young athletes at the college level, the 18-22 year-old age range there is a lot of fluctuation, so you really have to pay attention to what is going on with a guy's swing, a guy's approach with his fielding mechanics, with his pitching, maybe not day-to-day, some guys are day-to-day, but most guys are week-to-week. WCC(4)

> From a playing standpoint, we just use the simple five tools for evaluation, same that scouts use. Once they get here, then the process of evaluation is ongoing. We usually find out that players do things well that we didn't know that they could do, and we find out that we wish they could do some things better. We then try and work on their weaknesses and maximize their strengths. WCC(3)

Evaluating a player's character was also discovered to be an important form of evaluation. Evaluating a player's character was reported to involve identifying the means by which an athlete can help the team. Also, character evaluation responses revealed how important it is for athletes to buy into the team concept and the difficulty for coaches

in encouraging selflessness in a player . This coach explains the means by which he evaluates his players:

> I would evaluate players -- number one, by their effort and, number two, by their selflessness... So many people get caught up in evaluating players by the number of hits they get, or the number of great plays that they make -- we're more interested in what they can do on an everyday basis to help the team from an effort standpoint, and how much they are going to give back from a selfless standpoint. And I think the third part of our evaluation deals with how they stay in the present moment in order to do that, so that they can continue to play all nine innings no matter if they're winning or losing and continue to give the same effort, the same selflessness in order to get to that point. The evaluation really takes the score out of it -- it takes the ERA out of it, takes the batting average out of it and it deals a lot with what they're able to give at that certain moment in order for us to be successful. WCC(1)

This idea of creating a selfless environment was reported as being difficult to employ in today's game. As expressed by this coach, the present state of baseball at the high school and collegiate level is much more individualistic than in the past:

> You have to try and get them to buy in to the team concept and not the individual concept, and that's difficult. I think it is more difficult today than it ever was before. Because we're in an era of individual: hitting coach, pitching coach, running coach, nutritionist, private lessons -- the goal is to get a college scholarship, the goal is to be a major league player, me, me, me, me, me, me... and that's difficult, to get everybody to work together...to sacrifice a little bit of

the individual for the team concept, and that's hard, that's harder today. Players, on a whole, tend to play for themselves. You don't play on a legion team that everybody plays for, you play on a select team. In the old days you'd play summer ball and you'd all play on the same team. Now a select coach takes the best players from eight different high schools and forms a traveling team, and those poor devils who aren't as good and they are left to fend for themselves, because the most important thing is to get exposure for the pro draft and for a scholarship. So, you know, a player comes to me and he has a private hitting coach, or a pitching coach, a nutritionist, so that's a challenge. You have to get that guy to buy in to the team concept, so you can imagine you've got 25 guys on a team and 15 of them have their own pitching and hitting coaches, and what's his agenda? Is it to help the team win or is his agenda in my case to be drafted by the pros? Be the highest draft pick I can be? And if you're at the high school level, is your agenda to have the high school team win or is to make sure I showcase myself so that I can get a college scholarship? So, that's more difficult for a coach today. Much, much more difficult than it was 20 years ago. PAC10(2)

Clearly physical and character evaluations are necessary for evaluating collegiate baseball players. Physical evaluations are important for predicting a player's potential, while character evaluations prove essential for building a team. Coaches' responses revealed both physical and character evaluation methods, while one coach provided a detailed description of the difficulty of promoting a "team first" attitude in modern baseball.

4.5.2 <u>Evaluating their own coaching</u>

  The coaches interviewed were asked to describe the process of evaluating their own coaching. All coaches referred to the importance of de-emphasizing the amount of wins and losses. Conversely each coach offered a process-oriented view of how to effectively evaluate their own coaching. Five of the seven coaches listed the ability to focus on the big picture. This was described as focusing on the process of coaching rather than on winning percentage or overall record. Two coaches who had accumulated a sub .500 winning percentage in 2004 discussed the difficulty of focusing on the process and not getting wrapped up in the wins and losses.

  That's a difficult situation for me...I've had to change with age on my self-evaluations so that I am able to stay more positive and more in the moment and more useful to the players from a mental aspect versus the ups and downs in winning and losing. I've really learned to take the wins and losses out of there and the stress of keeping or not keeping your job, and the stress of how the public sees you and really look at the bigger picture of: Are you giving back to the kids involved in order to be successful? Are you really achieving what you set out to do as a coach, which was to teach the game of baseball that incorporates the game of life? WCC(1)

  Well that's been a tough one for me. Wins and losses is a big one and that's caused me a lot of turmoil. The problem I have is that I relate too much the wins and losses to my value as a person, as an individual, and when you put your own

success in the hands of 18-22 year old kids [laughs], that can create some

problems. WCC(3)

These coaches express the difficulty of keeping things in perspective. This theme was

apparent throughout the participants' responses, and coaches who had obtained a winning

record in 2004 shared similar ideas. These two coaches feel that maximizing the talent of

the athletes, and the importance of focusing on the level of play is far more important

than the end result:

> Well, to evaluate a coach, I think that is one of the problems in athletics today.
>
> For my boss, my athletic director, to really evaluate me, he would have to know
>
> the natural talent of my athletes, and if I was maximizing their talents, regardless
>
> of my record… the general public assumes that if you win the coach has done a
>
> good job. That's the problem with sport because it is all based on if you win then
>
> you've done a good job. And coaches know when they have done a good job and
>
> when they haven't done a good job. PAC10(2)
>
> In terms of the "W" or the "L", We just get way too caught up in that, so if I am
>
> going to evaluate myself it is going to be on how well we play, and the focus is
>
> always going to be on the play and how well we compete. Because in college and
>
> pros, some teams just have way more resources and better players. WCC(4)

All coaches made reference to the fact that college baseball is geared towards preparing

student athletes for life after baseball. As illustrated by the following excerpts, two

coaches described the importance of keeping sight of the bigger picture, of being patient,

and not becoming absorbed in results:

So many times it comes down to wins and losses, and that is unfortunate.

Sometimes I find my own confidence low because we have not been as

successful. I think: "Is it me? is it my coaching?, recruiting?" I have had to learn

to find patience and through patience I feel like I am becoming a better coach and

not placing so much of my personal value in wins and losses. WCC(3)

If the players can not get self-absorbed with ERA or batting averages then we as

coaches can not get self-absorbed with wins and losses and the money we have or

the cars we drive. We have to be able to look at what we are doing to make solid

citizens, and understand that at the college baseball level even at Division I where

there are 275 schools, only 1% of those players will ever go on and have a Major

League career. We need to understand the importance of why the team is there

and not be so absorbed in the other parts of it. WCC(1)

4.4.3 Coaching limitations

The final portion of the organizational section of the interview guide addressed

the limitations that the participants experience. Time with the student athlete was the

most frequently mentioned limitation. Facilities, staffing, and budgetary concerns were

also given as limitations experienced. The perceptions of limitations are interestingly

varied due to contextual issues including financial ability of the institution as well as

certain background experiences. These contextual issues will be further elaborated upon

in the discussion section. Time, however, was reported by four of the seven coaches to

be the number one limitation of a Division I Head Baseball Coach. Reasons for this

include restrictions put forth by the NCAA in order to balance the academic workload of the student athletes. The following quotes express some of the coaches' concerns:

> We get two hours a week with them for fifteen weeks, which is great, but we need more time to teach the mental part as well as the physical part. We'll spend one hour a week on physical and one hour a week on mental Two hours a week is not going to turn these players into the type of team members we need in order to do that. WCC(1)

> Time with the student athletes. Without a question, it is time. The limitation of time in the fall is a real hindrance for these kids... Now, we are limited to two hours a week. So when you are limited to two hours a week, you're not going to be able to have as much of an impact on them with skills as well as the mental part of the game. WCC(2)

> I would say in Division I the limitation would be the amount of time that we can spend with the players in a practice setting and game setting because of the academic load that is placed on them. So it's not like we just play baseball. There is a ton of school and you know, being a very recent Division I player, that it is a huge commitment. It's a grind, you know, to get it done in school and in baseball. WCC(4)

> I suppose it's just time. You don't get as much time as you would like with the guys. It's their time being used up with other priorities, school and social issues that come up, all that stuff. PAC10(3)

The issue of time as a limitation was not shared by all coaches. One coach cited that he experiences no limitations and provided evidence that the reduced amount of time

that student athletes experience is, in fact, a valuable form of education. He felt that by

participating in athletics, student athletes learn how to effectively manage their time.

> Baseball is a tough sport in college because it is a game that you need to play a
>
> lot, and that's a balancing act, from playing so much so that you don't have
>
> enough time to study and to enjoy the things you need to deal with on campus...
>
> But there is a value to that, and if you talk to any athlete who plays intercollegiate
>
> sports, he's going to tell you he learned some valuable lessons playing that sport --
>
> number one being how to budget your darn time. Especially baseball, we play
>
> three times a week for sure, and half the season we play four times a week.
>
> PAC10(2)

Three of the seven coaches listed facilities as a limitation. Facilities were revealed to be

a main ingredient for attracting talented athletes. As expressed by the following coach,

exceptional facilities give athletes a chance to be very successful.

> I think we could do a little better job on our facilities, which would attract
>
> athletes. In our sport, at our level, you are dealing with a lot of kids that are
>
> playing to get to the next level, to play professionally, or in the Major Leagues.
>
> Part of it is you want to show them that the facilities are necessary in order to
>
> train them to get to that level. PAC10(1)

Coaches' answers expressed the need to create parity and set a standard for all facilities.

Clearly, the coaches of the smaller schools are at a disadvantage when it comes to

providing exceptional facilities. This was expressed by two coaches.

> I think there needs to be a standard set for facilities. Administrators need to be
>
> able to say: "This is the minimum requirements that a university must have in

order to be a Division I program, here's what your facilities needs to incorporate, here's how many people should be working in the staff, and here's what we want to do to upgrade it." WCC(1)

Facilities are a big one. Like I said before the facilities that a (Pac10 university) or a (Pac10 university) can offer are more than what we have, yet we still are both Division I programs. Kids like all those bells and whistles and unfortunately we can't compete with that. It's just such an un-level playing field when it comes to resources between the big and small schools. WCC(3)

Shortages in staffing and overall budgetary concerns were also listed by the coaches as limitations .

For us, it is budget. We have a recruiting budget that let's us drive to see players around the (coaches area). WCC(3)

For me the biggest thing is just time, and in college you just don't have as many coaches. I have one guy that helps me with the pitchers who is a graduate assistant, and, you know, three other coaches. In the big leagues, you know, there are 7 or 8 coaches for a 25-man team. PAC10(3)

The organizational components of the interview guide reveal areas of the coaching profession that influence a coach's mental approach to the game. This portion of the interview guide addressed evaluation procedures for athletes as well as their own coaching. Furthermore, coaches were asked about the limitations they perceive to affect their coaching. Results revealed physical and character evaluation methods when evaluating athletes, a general consensus of de-emphasizing wins and losses when

evaluating their own coaching, and numerous limitations including time with the student

athlete, lack of parity regarding facilities, staff shortages and a lack of overall resources.

Chapter V: Summary and Discussion

The discussion chapter of this thesis will focus on three areas. Firstly, a summary of major findings is presented. Secondly, contextual factors of the research participants will be explored to examine the themes revealed in the data analysis. Contextual factors, according to Côté and colleagues (1995), are characteristics which affect the coaching process, including financial resources, training resources and competitive environment. Related to these contextual factors, the present discussion will focus on: the prestige of the institution and its influence on an individual's coaching philosophy, the 2004 winning percentage of the participants and their coaching philosophy, the perceptions of limitations revealed by the participants, as well as the coaches' backgrounds. Lastly, dominant themes revealed in the training, competitive and organizational components of the interview guide are discussed as they relate to sport psychology literature. This research supported Côté's (1995) CM as a valuable model for conceptualizing the coaching process. Components and characteristics of the CM that were discovered in the present study are discussed. Finally, limitations of the study are addressed and recommendations for future research are provided.

5.1 Summary of Results

Results from the present study offer insight regarding the idea of creating, establishing and fostering a specific mentality in high-level baseball athletes. It is useful in order to contextualize this chapter to revisiting the objectives and hypothesis of the study. Firstly the study attempted to identify strategies that high-level baseball coaches use to establish a mental approach in athletes. Numerous strategies were discovered

throughout the training and competition portions of the interview guide that support the importance of mental skills in baseball. Secondly, the means by which a mental approach is used to optimize performance in athletes was also discovered. While all coaches interviewed expressed the importance of mental training and psychological skill, development for their athletes to the degree to which they promoted, used and spoke about mental training strategies varied considerably. Thirdly, the study revealed evidence to support Côté's CM as an effective model in describing the coaching process. Coaches' answers revealed a link to the components and variables described by Côté' et al. (1995) as important in the coaching process. Furthermore, the present study has links to prior research conducted on expert coaches in different sports.

The research results partially support the hypothesis that governed the study. For instance, the study hypothesized that the coaches would be knowledgeable about the process of establishing a mental approach in athletes. Most coaches' spoke with ease and enthusiasm when discussing mental training. However, some appeared to be unfamiliar and uncomfortable with the term. It is assumed that personal characteristics and certain contextual factors such as the prestige and size of the institution that the coach is working in may affect their coaching philosophy, knowledge of sport psychological techniques and subsequent use of mental training activities. Moreover, the research study rejected the hypothesis that the coaches would share congruency among ideas regarding a mental approach. The results revealed numerous strategies and subjectivities regarding the concept. The individuality and subjective interpretations presented by each participant supported what Fuoss and Troppmann (1981) describe as necessary for effective coaching, in that:

There is no one best way to coach. Every coach must discover, therefore, what works and what does not work. A coach cannot become effective merely by adopting the practices or the coaching style of someone else. Each coach must develop a natural style and follow practices that are consistent with one's own personality and philosophy (p.8).

For each individual, the process is representative of a specific personal coaching philosophy. The results from this study explore the subjectivity of coaching effectiveness by offering testimony from seven Division I Baseball Coaches.

The personal components of the interview guide addressed issues of philosophy and philosophy formation. Results revealed that each participant's personal coaching philosophies determine to a large extent the means by which they approach their coaching duties. These philosophies were affected by the personal characteristics and contextual factors of each coach. Three philosophical cornerstones emerged when analyzing the coaching philosophies of the participants; the principles of recruiting, teaching and inspiring/motivating were revealed as integral to achieving success in Division I baseball.

The training components of the interview guide revealed numerous strategies employed by the coaches for establishing a mental approach in athletes. Furthermore, the coaches' definitions of mental approach revealed three elements. Mental approach to the participants in this study represented actions, ideas and strategies that could be incorporated both on and off the baseball field. These elements are identified and include psychological, technical and tactical elements necessary for success in the sport.

The competition portion of the data analysis discusses the change in mentality that is experienced from practice to competition. Some coaches discuss the idea of establishing a foundation. Training a mental approach involves many actions both on and off the field. Coaches reported that establishing a consistent mind-set in all actions may directly translate to increased performance during competition. The coaches also agreed that athletes must be able to change their mental approach to meet the demands of competition. Furthermore, athletes' actions and behaviors when positively and negatively employing a mental approach were also identified. Results indicated that when positively employing a mental approach the athletes' actions were reported as calm and relaxed. Conversely, when negatively employing the approach, the coaches reported that athletes generally have poor body language, are angry, and experience internal turmoil.

The organizational components of the data analysis discuss the means by which the coaches evaluate their athletes as well as their own coaching. Results indicated that all coaches make physical and character evaluations when recruiting athletes. Also, the coaches' perceptions of limitations varied considerably. Coaches in the WCC reported more overall limitations, and spoke with a sense of urgency regarding the lack in parity in Division I athletics while the coaches from the Pac10 reported fewer overall limitations and spoke with less concern regarding the parity issue.

5.2 Contextual Factors and Applicability of CM

Côté and colleagues (1995) developed the Coaching Model, which was discussed in Chapter 2. The researchers organized and conceptualized the coaching process

centering on three main components. The issues of training, competition and organization were discovered to be integral to coaching and therefore were used in formulating an interview guide for the present study. Outside of the three main components are three variables, known as peripheral components, listed as affecting the coaching process. These variables include the coach's personal characteristics, the athlete's personal characteristics and level of development, and contextual factors. While the athlete's personal characteristics were not specifically investigated in the present study, the coaches' personal characteristics and contextual factors such as background, playing experience, highest educational degree obtained, level of enrollment at affiliated university, and 2004 winning percentage, were examined. Despite the fact that athletes' personal characteristics were not investigated, the coaches made reference to the ability of the athletes to learn, stressing the importance of addressing the differences of each athlete within consideration towards their backgrounds and cognitive ability. This suggests that the CM has value for conceptualizing the overall coaching process and its key components. While interviewing the athletes themselves may be the most meaningful way of reporting the athletes' personal characteristics, the coaches mere mention of such highlights the work accomplished by Côté and colleagues, supporting the validity and effectiveness of this part of the model. The personal characteristics and contextual factors investigated in the study are important for discussion, as they affect how expert baseball coaches formulate and organize their ideas regarding a mental approach to the game. Results from the study suggest that the prestige of the institution at which the coaches are employed greatly affects how they formulate a coaching philosophy.

5.2.1 <u>Prestige of institution and coaching philosophy</u>

The Pacific 10 conference is the most prestigious Division I conference for the sport of baseball in the United States. Reasons for this include: climate (schools participating in the PAC10 are located in the states of Washington, Oregon, California, and Arizona), a large student population, and successful Division I athletic programs which provide abundant resources. Schools visited in the PAC10 Conference boasted exceptional athletic facilities and an overwhelmingly larger student population. It was assumed that because of a heightened student population, schools in the PAC10 have more financial resources available for building state-of-the-art athletic facilities. Also, each school visited in the Pacific 10 Conference had successful Division I football programs, which can contribute to the affluence of an athletic department.

The West Coast Conference, on the other hand, is a conference made up of private universities. Their enrollment numbers are considerably smaller than those in the Pac10 Conference, and none of the four schools have a Division I football program. These contextual factors reveal important findings regarding parity levels experienced between big and small schools at the Division I level. Such contextual factors may have influenced the study findings. For instance, a coach's personal coaching philosophy may be shaped by the level of prestige of the institution he is employed at.

Results from the study suggest that coaches from the more prestigious Pacific 10 conference focus more of their efforts on recruiting highly talented athletes rather than teaching the mental aspects of the game. All three of the Pacific 10 participants suggested that recruiting talented athletes was a key to success in college baseball, while

three out of four coaches from the WCC focused their coaching philosophies on teaching and inspiring/motivating. As table 4.1 points out, the smallest Pacific 10 Conference University is twice the size (in terms of student population) of the largest West Coast Conference University, suggesting that the size of the university allows more prestigious programs to recruit the most talented athletes.

The discrepancies in parity experienced throughout Division I athletics becomes apparent when analyzing the results. The larger schools have more resources and better training facilities. Therefore, the coaches participating in this environment are able to recruit finer, more talented athletes. The best athletes or prospects are going to want to participate in the most competitive and prestigious environment. Finer facilities attract athletes who have the intent of competing at the highest levels of professional baseball. It seems only natural for coaches participating in the Pac10 to recognize this opportunity and subsequently gear their coaching philosophy around the idea of recruiting the best players possible, as demonstrated by the quotes in section 4.2.1, and in this coach's statement.

I believe that it is a player's game, and that I think the key to college coaching is to have good players. PAC10(3)

Only one coach participating in the WCC listed recruiting as a principle philosophical cornerstone. Coaches from the WCC mostly discussed the ability to teach the physical and mental aspects of the game and to inspire proper behavior through modeling excellence. WCC coaches interviewed made reference to the fact that they are not able to compete with the larger schools when it comes to resources and facilities. As finer facilities attract more talented athletes, WCC coaches, in order to maximize their

effectiveness, focus their attention on teaching the mental aspects of the game. The WCC participants' coaching philosophies were expressed as incorporating more teaching and subsequent promotion and use of mental training. One coach expressed the importance of being able to teach the physical and mental aspects of the game effectively, due to the fact that they are not going to recruit the most talented athletes:

> We are not a (PAC10 school) or a (PAC10 school) so we are not getting the best
>
> players. What we are getting is a player that is just below the talent of the top
>
> programs but is still going to be the difference in whether we win or loose.
>
> Therefore, the mental aspect of the game is so important. Because of the lack of
>
> skill or talent, a focus on the mental game is a necessity. WCC(3)

Results indicated that coaches participating in the less prestigious WCC are more likely to promote the ideas of mental training, are more fluent when describing and articulating mental training exercises, and focus their coaching philosophies towards teaching the game and the mental skills necessary for success in baseball. Pac10 coaches, on the other hand, were more focused on recruiting the best athletes, creating intensity in practice, and practicing at full speed.

5.2.2 2004 Winning percentage and coaching philosophy

Coaches who mentioned recruiting athletes as a cornerstone of their philosophy were also the most successful in 2004. PAC10(2), and PAC10(3) obtained a winning percentage of .767 and .658, respectively, and both were ranked (by two separate sporting polls at the end of the 2004 season [Baseball America, College Baseball Newspaper]) in the top 25 of Division I baseball programs in the United States,. WCC(4) was the only

other coach to obtain a winning record of the coaches interviewed in 2004, achieving a

.625 winning percentage. The three coaches all mentioned the recruitment of exceptional

players as important to having success in collegiate baseball. The remaining coaches

interviewed all finished the 2004 season with a winning percentage below .500. They

listed teaching or inspiring and/or motivating as principle cornerstones in their coaching

philosophy.

 While recruiting is a vital tool for producing a successful collegiate baseball team,

it should not be interpreted as the only necessary ingredient or even more significant than

the two other findings of teaching and inspiring or motivating. While the study reveals

the 2004 winning percentage of each coach, their overall winning percentage is not

discussed. Simply being employed at the Division I level means they are knowledgeable

about the game and have experienced past success in coaching. If they were not

successful in the past they would not be working at such a high level. The present study

is by no means meant to determine or judge the level of knowledge that the coaches from

each conference possess. Rather, in highlighting the effective practices of each coach,

the present study best brings out the subjectivity involved in determining coaching

effectiveness. In the end, it will be the coaches themselves who decide whether or not

they have done a good job with the team that they are working with.

 Understanding the talent level of the team that a coach must work with is perhaps

the most effective strategy coaches can employ. By nature, all sport operates in a result-

oriented environment. For coaches working at the Division I level, their coaching

effectiveness is judged by how much they win or lose. Therefore, so much of their

perceived success depends on how many exceptional players they have. Understanding

the level of talent and then adjusting a coaching philosophy may be the most effective practice a coach can undertake. This coach describes how coaching effectiveness is relative to the amount of talent present on the team:

> So, that's the hard thing about coaching, it's no different from teaching. There may be a C student doing a great job getting a C and maybe an A student who's not doing a darn thing. It's no different in sport, you're going to be considered by most people to be a great coach if you can recruit good players. You could know nothing about baseball and be able to recruit good players, and I can be the best coach known to man and can't recruit, you're going to be perceived to be a better coach than I am. If you're successful and you're laid back and do nothing, you just show up, throw out the bats and balls and they're talented and win, you're a successful coach because you let the players relax and play the game. If you come out and you're a raving maniac and you run them to death and you monitor their every move and they're robots and you win, you're a great coach because you are highly organized and you're a motivator. Flip side of that: if you lose, you're a bad coach because of the same reasons. But it's true of anything... it's the talent that you're working with. PAC10(2)

The inclusion of these issues in this discussion is merely meant to illustrate the contextual factors in place for each coach. The larger, more prestigious schools are able to recruit the most talented athletes whereas the smaller schools are generally left with athletes that are perhaps less talented, which prompts coaches to gear their coaching philosophy towards teaching the mental and physical aspects of the game. The contextual factors affecting each coach are perhaps the most interesting discovery that the

research study uncovered. Analyzing those life experiences that most contributed to the formation of the coach's philosophies also revealed interesting results. For instance, coaches who reported recruiting as a principle cornerstone in their philosophy listed coaches they had played and/or worked for and their experiences there as valuable life experiences that shaped their coaching philosophies. These coaches also achieved a greater winning percentage in 2004. Coaches who listed teaching and motivating as a principle cornerstone in their philosophy were more influenced by their family experiences in general and, conversely, had a less successful record in 2004. This result is interesting and may spawn future research to look at coaches' family and sporting backgrounds relative to their philosophy. It would be interesting to survey a number of coaches regarding their personal philosophy and the formation of that philosophy through significant life events. Perhaps there is a commonality in the formation of coaching philosophies linking expert coaches from various sports.

5.2.3 Perceptions of limitations

The coaches' perceptions of limitations were undoubtedly affected by the contextual factors discussed. For instance, coaches from the WCC listed more limitations experienced by a Division I Head Baseball Coach than the coaches from the PAC10. Limitations reported by all coaches included issues of time with student athletes, shortages in staff, and sub par facilities. Coaches from the WCC added overall budget constraints and a general lack in parity between the large and small schools. The WCC coaches also spoke with greater intent regarding the limitations they experience than coaches from the PAC10.

5.2.4 <u>Coaches background</u>

The coaches' personal characteristics were investigated and are important for discussion when analyzing the results. Questions were asked pertaining to the number of years coaching, the background playing experience, and highest educational degree obtained. As stated by Côté and colleagues (1995), the personal characteristics of a coach represent a peripheral component of the CM and, therefore, affect the operational knowledge with which a coach approaches his tasks. The coaches' personal orientations were revealed when discussing the length of time that each had been coaching . More simply, the coach that had been coaching the longest was deemed much more "old school" in his approach than another coach who was in his first year of Division I coaching. The first year coach was much more progressive in his ideas regarding mental training. PAC10(2) had been coaching the longest (32 years at the same institution). PAC10(2) was also deemed as more "old school" in his orientation than the other coaches. As he describes the amount of mental training that occurs in his program his personal orientation shows through.

> I haven't been willing to sacrifice on field preparation for the mental training. I'm not sure that is wise, I think that there's a lot to mental training. I would probably consider myself a little more old school because I didn't do that. But I do know it plays a part. But I would say, to answer your question, I think that most of the mental training that is done, and I know we probably talk about it a little bit, visualization and some other things, that a lot of them do that, but is not organized per se. PAC10(2)

Conversely, WCC(2) was in his first year as head coach at a Division I program. When asked about the amount of mental training occurring in his program, he recalled his own playing experience:

> Well, I encourage it [mental training]. We do a lot of it. When I played for [coach] at [university] it was my junior year and I did a lot of mental training on my own which I wasn't aware of. I did goal cards in junior college; I did a lot of visualization on my own. I was very big on doing things that would help me gain confidence as far as repetition, you know, as far as my own approach. But when I went to [university] [coach] gave me a book written by a sport psychologist, I don't know what his name was, but he was with the Braves organization. It was only a 10-page leaflet and really talked about playing the game one pitch at a time and understanding you have to be able to control your emotions and you have to plan yourself and program yourself for success. WCC(2)

The differences in the two coaches' responses represent the personal orientation of the individuals. PAC10(2) feels that incorporating mental training into the practice plan takes away from valuable preparation. This is assumed to be a result of his own playing experiences participating in a pre-sport psychological era, as sport psychology has only recently developed. Conversely, WCC(2) recalls his own experiences as a player using mental training. He, therefore, regards the process as extremely valuable. These results support the literature citing an expansion in the field of mental training and sport psychology over the past twenty years (Orlick, 2000; Sedgwick, Cote, Dowd, 1997; Williams, 1986). When addressing the question of mental training frequency, each coach answered convincingly that they all participate in mental training. While the "old school"

orientation is by no means incorrect, the progression of sport psychology is perhaps most witnessed in coaches who have been coaching for less than 20 years. Evidence of this was found in the remaining coaches interviewed, as they all described mental training as a valuable and integral part of their coaching process.

5.3 Links to Literature

The present study attempts to consolidate the ideas of the high-level baseball coaches interviewed in the study regarding a mental approach to the game. As discussed in the rationale, there is not extensive literature on mental approach and coaching. While Côté and colleagues (1995) effectively conceptualized the coaching process, no equivalent study has attempted to elicit information regarding a mental approach to the game of baseball. The results of this study are not to be taken as a means for promoting best practice. Rather, the results represent subjective ideas conveyed by the coaches in their discussion of a mental approach to the game. In outlining the experiences of the participants, an increased understanding of the subjectivities of coaching effectiveness and the sport of baseball is gained. Due to the fact that no other study has investigated mental approach of either athletes or coaches, drawing comparisons to existing literature is impossible. However, many experiences listed by the coaches touch on many different aspects of coaching effectiveness and sport psychology. For instance, the present study revealed similarities to studies recently conducted on coaching effectiveness.

Confidence building strategies used by Canadian high-level rowing coaches were investigated by Sedgwick, Côté, and Dowd (1997) and produced 16 strategies contributing to confidence building. The researchers compared the themes to 13

strategies listed by Gould, Hodge, Peterson, and Giannini (1989) as influential in

enhancing the self-efficacy of athletes. Sedgwick, Cote and Dowd (1997) discovered that

seven of the strategies they had discovered corresponded with those found by Gould and

his colleagues. Five of the strategies listed in these two studies were discovered in the

results of the present study. These strategies include: exuding self-confidence,

introducing mental preparation strategies, establishing intermediate goals, focusing on

performance as opposed to outcome, establishing structured and competitive training

sessions, and demonstrating consistent behaviors in training and competition. Evidence

of each strategy suggests that in formulating a mental approach to the game, coaches

promote self-confidence building strategies for athletes. The results of the studies are

compared in Table 5.1.

Table 5.1: Comparison of Results to Two Coaching Effectiveness Studies With the
Present Study

Gould et al.'s (1989) study	Sedgwick, Cote, & Dowd (1997)	Present study
Act confident yourself	Exude self confidence	Model excellence both on and off the field
Reduce anxiety by introducing relaxation training	Introduce mental preparation strategies	Mental training necessary for success
Set specific goals	Establish intermediate goals	Set specific process orientated goals
Emphasize technique, downplay outcome	Focus on performance as opposed to outcome	Play the game one pitch at a time
Employ hard physical conditioning	Establish structured and competitive training sessions	Create intensity in practice, practice at full speed

Furthermore, a similar study by Gould, Hodge, Peterson and Petlichkoff (1987)

utilized surveys were used to assess the psychological principles employed by

intercollegiate wrestling coaches. The researchers focused on the psychological

foundations of coaching and designed a survey that assessed coaches' opinions concerning 21 psychological skills. The study found that the psychological strategies most easily developed with athletes were goal setting, team cohesion, and mental practice imagery. Similar results were discovered in the present study, as goal setting, team cohesion, and mental practice imagery were all listed as important psychological skills necessary for establishing a mental approach in athletes. In addition, the coaches in Gould et al.'s (1987) study, reported that they felt they were most successful in enhancing team cohesion and communication. Similarities can be found in the present study, as the coaches interviewed made reference to the importance of building a team and having players perform within the goals of the team. Also, the participants in the present study talked about increased communication with their players by holding periodic athlete-coach meetings away from the coach's office. The relationship between the results of the two studies suggests that psychological strategies used by coaches to increase player performance may be similar, despite the inherent differences of each sport. Perhaps the congruency of psychological strategies represents a psychological foundation of coaching that coaches from all sports may address. More simply, perhaps there is a congruency among elements and components of mental approach that are found in coaching all sports. Future research may reveal such commonalities.

Coaches interviewed in the present study also made reference to the influence of their athletic experience on the formation of their coaching philosophy. The themes of recruiting, teaching, and inspiring were listed as three cornerstones that the coaches based their coaching philosophies upon. It was found that coaches who employed the cornerstone of recruiting the most talented athletes were more influenced by their overall

athletic experience, noting coaches they had played for as influences. This is reflected in some coaching literature in that the idea of mentoring is included as an important element of coaching development. The importance of mentoring in the development of coaches and athletes was investigated by Bloom, Durand-Busch, Schinke, and Salmela (1998), who reported that most coaches interviewed were mentored by more experienced coaches during both their athletic and early coaching careers. Bloom et al. concluded that, because of mentoring, the coaches gained valuable knowledge and insights that helped shape their coaching philosophies and enhanced all facets of their performance. The present study lends support to the notion that mentoring in coaching is a powerful form of influence on coaching philosophy.

The necessity for coaches to participate in mental training has been widely cited in the literature. Research conducted on variables perceived to have influenced coaching effectiveness suggests that in order to be prepared to deal with stress and distractions, coaches need to participate in mental training (Gould, Greenleaf, Guinan, & Chung, 2002). Similarly, research has been conducted on the pre- and post-game routines of expert coaches (Bloom, Durand-Bush, & Salmela, 1997). The present study lends support to this literature, as one coach described the importance of mental training for increasing his coaching effectiveness:

I'm trying to be the best that I can be at this point in time, instead of what the public wants me to be, or what my ego would like for me to be. This mental training, it's for life. There are coaches everyday that need mental training to keep them fresh and going in the right direction, to avoid burnout, and to avoid getting self-absorbed. WCC (1)

A comparative analysis of expert and novice basketball coaches' practice planning was conducted by Jones, Housner, and Kornspan (1995). Results from this study showed that expert coaches spent 60% more time organizing and planning practices than novice coaches did. Also, expert coaches focused their attention, more so than novices, on establishing objectives for the practice session, developing instructional methods designed to facilitate the achievement of the objectives, and strategies for evaluating players' attainment of objectives. Support for this research was discovered in the present study, as two of the coaches interviewed expressed the importance of being organized and creative in their practice plans. One coach in the present study expressed this succinctly.

> I think you have to be very organized in your practice plan and have things set up like you're trying to hit a cone or trying to bunt the ball through cones... You can get creative through reward, consequence, making games out of drills and things, but it's all designed to try and enhance the concentration to accomplish the execution of something. WCC(4)

It can then be assumed that high-level coaches in both basketball and baseball spend more time organizing practices in order to facilitate the concentration level of athletes and the achievement of specific objectives.

Research on the instructional attributes of a successful college baseball coach (Hardin & Bennett, 2002), provide direct similarities to the present study. Hardin and Bennett used systematic observation to investigate Andy Lopez, who at the time, was the head baseball coach at the University of Florida and had over 25 years of coaching experience, including 18 years of head coaching experience at the NCAA Division I

level. The instructional themes revealed in the study were: practicing at game speed, checking for understanding when teaching and coaching, repetition when teaching and coaching, and extensive practice planning. Specific similarities were found when analyzing ideas of practicing at game speed. For Andy Lopez, practicing at game speed meant putting drills on a timed sequence, limiting amount of time spent on a specific drill in order to sustain the attention of the athletes, and performing at a quick repetitive pace. Pac10(2) shares many of the same beliefs as expert coach Andy Lopez, as he explains the importance of practicing at full speed,

> I think that the biggest challenge is to, number one, to get the individual to
> actually practice and play at full speed. The easiest to do is to play, but that is still
> hard to do because most players don't do that. It is a lot harder to get them to
> practice and perform at full speed in a practice setting because there is not a game
> on the line. Nobody gives a 100% let alone 110%. Give me 99%, very few
> athletes can give you 90% in practice and in games, they don't do it. We talk
> about it, run the ball out, 110%, they don't do that, they think they do, they talk
> like they do, coaches say they practice hard but they don't, they say they do but
> they don't. So what we focus on is we try to practice at 99%. Not 100% because
> you can't give me 100%. So we try to do that and I think that is the biggest thing
> we try to do, is to get our players to, number one, to practice at 99% and play at
> 99%. PAC10(2)

It should be noted that PAC10(2) was the most experienced of the coaches interviewed, having amassed over 30 years of coaching experience, including 27 as the head coach at a

Division I university. Practicing at full speed, therefore, is an instructional attribute that is shared by both Lopez and PAC10(2) who both qualify as 'expert' baseball coaches.

5.4 Limitations of Study

Caution should be taken when attempting to generalize the findings of the present study. For instance, the seven coaches interviewed represent a small sample of the nearly 300 schools that participate at the NCAA Division I level. The findings report the subjective means by which these particular coaches formulate a mental approach to the game. While certain themes and contextual factors were compared to the literature available on coaching effectiveness, the ideas expressed by the coaches represent their own orientations and personal approaches to coaching. Due to issues of time spent with the subjects, the interviews lack a certain depth. Perhaps if the student researcher had spent more time interviewing and observing the participants, a deeper understanding of mental approach may have resulted. Amateur and novice coaches reading this thesis should not take the ideas of the coaches as predictors of best performance. That is, there is no guarantee that the strategies listed in and of themselves will produce top performance in a team or individual. Rather the findings should be interpreted as small pieces of a larger puzzle that is coaching effectiveness. The study does provide insight into the subjectivities of coaching effectiveness as expressed by the participants and this gives greater understanding to the specific nature involved in coaching high-level baseball players.

Limitations of the present study also includes the difficulty of consolidating the overall breadth and depth of a concept as vague as mental approach. Mental approach

may encompass a vast amount of information used by a coach on a daily basis. This information is formulated through years of experience. Due to the fact that the coaches were only interviewed for a short amount of time, the possibilities for eliciting valuable information about how coaches formulate a mental approach was limited. Also, because of the unavailability of literature on the psychological foundations of coaches, deeper analysis of the phenomenon could not be examined to the degree desired.

Ethical considerations that must be addressed regarding this research project include my own involvement as a former NCAA Division I athlete and present baseball coaching duties. Two of the coaches interviewed were in fact coaches of the graduate student during his time competing as a Division I athlete. While at University there was a coaching change in between my junior and senior year. The two coaches now compete against one another in the same conference.

5.5 Implications for Future Research

Cited throughout sport psychology literature are mentions of a need to learn more about the psychological foundations of coaching with particular regard to the strategies coaches commonly use to mentally prepare, communicate with, and motivate athletes, as well as the degree of success they perceive in using such techniques (Gould, Hodge, Peterson, and Petlichkoff, 1987). The present study attempted to summarize the ideas of expert baseball coaches regarding a mental approach to the game. Future research may build on this and incorporate athletes' ideas as well. For instance, it would be interesting to interview a group of athletes regarding the ideas expressed by a coach and the subsequent reinterpretation of those ideas by the athletes. By interviewing athletes,

greater perspective may be gained regarding the elements of mental approach communicated by the coach. Athletes' interpretations, subjectivities, and personal characteristics regarding mental approach would add value and depth to the understanding of the mental approach phenomenon.

Future research might also assess the effectiveness of specific components of mental approach. Perhaps an ethnographic study involving a coach and his/her athletes would provide evidence of the profound affect that coaches have. Elements of a coach's personal coaching philosophy may be identified through observation occurring throughout the course of a season. Athletes may be interviewed regarding elements of the philosophy that they feel most contribute to their student athlete experience. In a follow up study the athletes might then be interviewed once more (say in 5-10 years) in an attempt to determine the philosophical ideologies that govern their own actions. Perhaps the influence of a coach lasts far past the days of competing in an athletic environment.

5.6 Conclusion and Final Thoughts

Research on coaching effectiveness has investigated expert coaches' knowledge in various sports, attempting to discover the optimal procedures for achieving success in sport. In doing so, various methodologies have uncovered specific coaching attributes that have proven valuable when applied to the practice of coaching. While past literature made valuable contributions about proper coaching behavior (Smith, Smoll, & Hunt, 1977), instructional techniques of expert coaches (Bloom, Crumpton, & Anderson, 1999; Tharp & Gallimore, 1976), and effective mental training practices (Bloom, Durand-

Busch, & Salmela, 1997; Gould et al., 1987; 1989; 2002), an emphasis was made to encourage future research to explore the operational knowledge of coaches (Côté, 1998). More simply, past research has called for an investigation of the means by which coaches, communicate, manage and motivate their athletes. With this in mind, the present study attempted to identify the ideas of high-level baseball coaches regarding a mental approach to the game.

Results from the present study emphasize the subjective nature of coaching. That is, while the study supports the hypothesis that high-level baseball coaches would be familiar with the concept of mental approach, and contribute a number of ideas regarding the term, it negates the hypothesis that the coaches would have congruencies regarding the techniques and practices used to establish the approach in athletes. While key commonalities and themes of coaching philosophy were apparent, the manner in which the coaches expressed their ideas, communicated their intentions and promoted their beliefs of coaching were entirely different, suggesting that for each coach, their perceptions of effectiveness is a reflection of their own personal definition of success. Therefore, for each coach, the process is a subjective experience. Coaches must formulate, apply and evaluate their ideas of coaching through individuality and a flair that aims to capture the passion of the student athlete.

Undoubtedly, the experience of coaching has tremendous hardships, trials, and tribulations, as anyone who frequently competes will understand. However, from a coaching perspective, to witness the application of your philosophical beliefs in the athletes on a team may, perhaps, be the greatest indication of coaching effectiveness. That is, the coach has to be the greatest evaluator of effectiveness; only he or she knows

if they have achieved something special with the group. It seems fitting then, to close with a remark from one coach, who describes the observation of his ideas capturing a student athlete.

I saw one of our players smile yesterday, he had an 0-13 weekend and he was hitting .460 going into it. I saw him smile at the end of the game yesterday and I mentioned it to him and he said, "I have nothing else to do but smile, we're winning and I'll figure this thing out." And it kind of made me reflect back to the mental training. It is starting to take hold a little bit because you very rarely see that when an individual is not doing well. That's a plus-sign for where we're headed. WCC(1)

References

Barnett, N.P., Smoll, F.L., & Smith, R.E. (1992). Effects of enhancing coach-athlete relationships on youth sport attrition. *The Sport Psychologist, 6*, 111-127.

Black, S.J., & Weiss, M.R. (1992). The relationship among perceived coaching behaviors, perceptions of ability, and motivation in competitive age-group swimmers. *Journal of Sport and Exercise Psychology, 14*, 309-325.

Bloom, G.A., Durand-Busch, N., Schinke, R. J. & Salmela, J.H. (1998). The importance of mentoring in the development of coaches and athletes. *International Journal of Sports Psychology, 29*, 267-281.

Bloom, G.A., Crumpton, R., & Anderson, J.E. (1999). A systematic observation study of the teaching behaviors of an expert basketball coach. *The Sport Psychologist, 13*, 157-170.

Bloom, G.A., Durand-Busch, N., & Salmela, J.H. (1997). Pre-and post-competition routines of expert coaches of team sports. *The Sport Psychologist, 11*, 127-141.

Bloom, G.A. (2004) Building a successful university program: Key and common elements of expert coaches. (In press).

Canic, M.J. (1983) *An eastern approach to motor skill acquisition and performance.* Unpublished master's thesis, University of British Columbia, Vancouver, British Columbia, Canada.

Chambers, D. (1997). *Coaching: Winning strategies for every level of play.* Buffalo, NY: Firefly.

Charmaz, K. (2000) Grounded theory: Objectivist and constructivist methods. In Denzin, N.K. & Lincoln, Y.S. (Eds). *The Handbook of Qualitative Research.* Thousand Oaks: Sage. 509-533.

Chelladurai, P. (1990). Leadership in sports: A review. *International Journal of Sport Psychology, 21*, 328-354.

Chelladurai, P. (1984). Discrepancy between preferences and perceptions of leadership behavior and satisfaction of athletes in various sports. *Journal of Sport Psychology, 6*, 27-41.

Chelladurai, P. & Saleh, S.D. (1980). Dimensions of leader behavior in sports: Development of a leadership scale. *Journal of Sport Psychology, 2*, 34-45.

Côté, J. (1998). Coaching research and intervention: An introduction to the special issue. *Avante, 4*(3), 1-15.

Côté, J., Baria, A., & Russell, S.J. (1993). Organizing and interpreting unstructured qualitative data. *The Sport Psychologist, 7*, 127-137.

Côté, J. & Salmela, J.H. (1996). The organizational tasks of high-performance Gymnastic Coaches. *The Sport Psychologist, 10*, 247-260.

Côté, J., Salmela, J.H., & Russell, S. (1995a). The knowledge of high-performance gymnastic coaches: Methodological framework. *The Sport Psychologist, 9*, 65-75.

Côté, J., Salmela, J.H., & Russell, S. (1995b). The knowledge of high performance gymnastic coaches: Competition and training considerations. *The Sport Psychologist, 9*, 76-95.

Côté, J., Salmela, J., Trudel, P., Baria, A., & Russell, S. (1995). The coaching model: A grounded assessment of expert gymnastic coaches' knowledge. *Journal of Sport and Exercise Psychology, 17*, 1-17.

Côté, J. & Sedgwick, W.A. (2003). Effective behaviors of expert rowing coaches: A qualitative investigation of Canadian athletes and coaches. *International Sports Journal, 7*(1), 62-78.

Csikszentmihalyi, M. (1990). *Flow: the psychology of optimal experience.* New York: Harper & Row.

Dorfman, H.A. (1990). Reflections on providing personal and performance enhancement consulting services in professional baseball. *The Sport Psychologist, 4*, 341-346.

Douge, B., & Hastie, P. (1993). Coach effectiveness. *Sport Science Review, 2*, 14-29.

Fuoss, D.E., & Troppmann, R.J. (1981). *Effective coaching: A psychological approach.* New York: John Wiley & Sons.

Gall, M.D., Gall, J.P., & Borg, W.R. (2003) (7th ed.) *Educational research: An introduction.* Boston: Pearson Education Inc.

Gardner, D.E., Shields, D.L., Bredmeier, B.J.L., & Bostrom, A. (1996). The relationship between perceived coaching behaviors and team cohesion among baseball and softball players. *The Sport Psychologist, 10*, 367-381.

George, T.R. (1994). Self-confidence and baseball performance: A causal examination of self-efficacy theory. *Journal of Sport Psychology, 16*, 381-399.

Glaser, B.G. & Strauss, A.L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.

Gould, D., Giannini, J., Krane, V., & Hodge, K. (1990). Educational needs of elite U.S. National Team, Pan American and Olympic coaches. *Journal of Teaching in Physical Education, 9,* 332-334.

Gould, D., Guinan, D., Greenleaf, C., & Chung, Y. (2002). A survey of U.S. Olympic coaches: Variables perceived to have influenced athlete performances and coach effectiveness. *The Sport Psychologist, 16,* 229-250.

Gould, D., Hodge, K., Peterson, K., & Giannini, J. (1989). An exploratory examination of strategies used by elite coaches to enhance self-efficacy in athletes. *Journal of Sport and Exercise Psychology, 11,* 128-140.

Gould, D., Hodge, K., Peterson, K., & Petlichkoff, L. (1987). Psychological foundations of coaching: Similarities and differences among intercollegiate wrestling coaches. *The Sport Psychologist, 1,* 293-308.

Grove, R.J. & Hanrahan, S.J. (1988). Perceptions of mental training needs by elite field hockey players and their coaches. *The Sport Psychologist, 2,* 222-230.

Hardin, B., Bennett, G. (2002). The instructional attributes of a successful college baseball coach. *Applied Research in Coaching and Athletics Annual, 17,* 43-62.

Hoffman, J. (2002). *Physiological aspects of sport training and performance.* Champaign, IL: Human Kinetics.

Jackson, S.A. & Csikszentmihalyi, M. (1999). *Flow in sports: The keys to optimal experiences and performances.* Champaign, IL: Human Kinetics.

Jones, D.F., Housner, L.D., & Kornspan, A.S. (1995). A comparative analysis of expert and novice basketball coaches' practice planning. *Applied Research in Coaching and Athletics Annual,* March, 201-227.

Lonkila, M. (1995). Grounded theory as an emerging paradigm for computer-assisted qualitative data analysis. In Kelle, U. *Computer-aided qualitative analysis.* London: Sage.

Martens, R. (1997). *Successful Coaching* (2nd ed.). Champaign, IL: Human Kinetics.

Mechikoff, R.A., & Kozar, B. (1983). *Sport Psychology: the coaches' perspective.* Springfield, IL: Thomas.

More, K.G. & Franks, I.M. (1996) Analysis modification of verbal coaching behavior: The usefulness of a data driven intervention strategy. *Journal of Sport Sciences, 14*, 523-543.

Orlick, T. (2000). *In Pursuit of Excellence: How to win in sport and life through mental training* (3rd ed.). Champaign, IL: Human Kinetics.

Patton, M.Q. (1980). *Qualitative evaluation methods*. Beverly Hills, CA: Sage.

Ravizza, K. (1977). Peak experiences in sport. *Journal of Humanistic Psychology, 17*(4), 35-40.

Ravizza, K. (1990). Sport psych consultation issues in professional baseball. *The Sport Psychologist, 4*, 330-340

Ravizza, K., & Hanson, T. (1995). *Heads up baseball: Playing the game one pitch at a time.* Indianapolis, In: Masters Press.

Rubin, H.J. & Rubin, I. (1995). *Qualitative interviewing: The art of hearing data.* Thousand Oaks, CA: Sage.

Schinke, R.J., Bloom, G.A., & Salmela, J.H. (1995). The career stages of elite Canadian basketball coaches. *Avante 1*(1), 48-62.

Sedgwick, Côté, & Dowd (1997) Confidence building strategies used by Canadian high-level rowing coaches. *Avante, 3*(3), 80-92.

She, W., & Morris, T. (1997). Imagery, self-confidence, and baseball hitting, in Lidor, R. (ed.), Bar-Eli, M. (ed). (1997). *Innovations in sport psychology, linking theory and practice:* Proceedings, Netanya (Israel) The Zinman College of Physical Education & Sport Sciences, The Wingate Institute for Physical Education and Sport (1997) pt II, p. 626-628.

Smith, R.E., & Christensen, D.S. (1995). Psychological skills as predictors of performance and survival in professional baseball. *Journal of Sport and Exercise Psychology, 17*, 399-415.

Smith, R.E., Smoll, F.L., & Hunt, E. (1977). A system for the behavioral assessment of athletic coaches. *Research Quarterly, 48*(2), 401-407.

Smith, R.E. & Johnson, J. (1990). An organizational empowerment approach to consultation in professional baseball. *The Sport Psychologist, 4*, 347-357.

Smith, R.E., Smoll, F.L. & Curtis, B. (1979). Coach effectiveness training: A cognitive-behavioral approach to enhancing relationship skills in youth sport coaches. *Journal of Sport Psychology, 1*, 59-75.

Tharp, R.G. & Gallimore, R. (1976). What a coach can teach a teacher. *Psychology Today, 9*, 75-78.

Williams, J.M. (Ed). (1986). *Applied Sport Psychology: Personal growth to peak performance.* Palo Alto: Mayfield.

Woodman, L. (1993). Coaching: A science, an art, an emerging profession. *Sport Science Review, 2*, 1-13.

Appendix I: Interview Questions

<u>Personal</u>

1) How long have you been involved coaching baseball?
2) What is your background playing experience? What is your highest level of education?
3) Briefly describe your coaching philosophy?
4) What if any, specific life experiences most contributed to your philosophy?

<u>Training</u>

5) To what extent do your athletes employ mental training? Do they work with a sport psychologist? If so discuss the experience from your perspective (effective/helpful).
6) What does a mental approach mean to you?
7) Describe the process by which a mental approach is established in training?
8) How does a mental approach increase performance?
9) What other strategies would you employ to increase performance in athletes?

<u>Competition</u>

10) How does the approach change during competition?
11) What actions do you find the players exhibit when they are effectively employing the approach during competition? What about when they are not?
12) Describe how you evaluate your athletes. How about your own coaching?

<u>Organization</u>

13) What do you perceive to be the number one limitation for collegiate baseball coaches?
14) What would you like to see each of your athletes' achieve/accomplish?
15) Is there anything else you would like to add to the interview?