THE EFFECTS OF GROUP PROCESS AND SPORT IMAGERY ON THE SPORT EXPERIENCE OF HIGH SCHOOL ATHLETES

by

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ABSTRACT

As sport begins to gain momentum, partly due to the extreme value placed on professional athletics, the study and use of sport psychology has also gained strength. Much, if not all, of its focus has centered on optimizing individual athletic performance. Little, or no attention has been placed on fostering a sport unit whose basis is individual growth and learning. As we enter the new century, researchers and teachers alike must begin to align the education of sport toward the multitude of athletes, including adolescent ones, who will not find a home in professional athletics, but who must take the skills learned in the sporting environment into other avenues of life.

The purpose of the study is two fold: (1) to investigate the role of group development toward the effectiveness of an imagery training program; and (2) to investigate the impact of imagery toward enhancing sport experience.

Qualitative methodology, specifically semi-structured interview analysis, was utilized in this study. Eight (8) high school sport leaders participated in a eight week sport imagery training program. The program was driven by a group counselling approach (Amundson, Westwood, Borgen, and Pollard, 1989), which has received support in non-sport settings, but prior to this study had not been tested with athletes.

The study found that the group process greatly impacted the learner and provided athletes a different perspective in which to view their sport experience. Content analysis uncovered four categories: Group Characteristics, Learning Factors, Application Factors, and Program Limitations, under which sixteen themes were identified. Definitions and interview support are offered in the results chapter, and further discussion is presented in the chapter five.

The findings of the study are discussed to provide the impetus for future research into the budding field of sport counselling. In addition, suggestions for current coaches and teachers are presented.

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CHAPTER 1: INTRODUCTION

As sport begins to gain momentum, partly due to the extreme value placed on professional athletics, the study and use of sport psychology has also gained strength. Much, if not all, of its focus has centered on optimizing individual athletic performance. Little, or no attention has been placed on fostering a sport unit whose basis is individual growth and learning. As we enter the new century, researchers and teachers alike must begin to align the education of sport toward the multitude of athletes, including adolescent ones, who will not find a home in professional athletics, but who must take the skills learned in the sporting environment into other avenues of life.

Utilizing sport to foster the complete individual, rather than the complete athlete, seems a necessary requirement of sport education in the coming years. This movement may be a valuable one for it may open new avenues of thought regarding sport education. The work of the present study has attempted to provide this information based in two potentially essential elements of the overall sport education paradigm: group process and sport imagery.

Although there have been over 120 studies conducted on imagery with athletes, little attention has been given to the imagery environment. For this reason, this study explores the usefulness of a group process model geared toward the creation of an optimal imagery environment. This model has received research support in non-sport environments (Amundson, Westwood, Borgen, and Pollard, 1989), but has yet to be utilized with athletes. In this manner, sport imagery can be explored within a learning environment which not only scripts the use of imagery, but also provides students with a social environment conducive to education, encouragement, and support, which may be essential to imagery's optimal use.

Throughout the literature, many different types of imagery training programs have been utilized. This study introduces another version, entitled sport imagery. The sport imagery training program utilized in this study is characterized by the following:

(1) sport imagery is defined as any and all human pursuits toward the expanding of mind through meditation, relaxation and imagery exercises, with the purpose of activating, developing and cultivating the flowing, balanced mind.
(2) sport imagery utilizes sport as the instrument for application, allowing the tools and lessons learned to have immediate and relevant importance to the student.
(3) sport imagery is prefaced with the creation a safe and productive environment, centered around personal growth and inquiry.

By integrating group process and sport imagery into the sport learning environment, preliminary information of a future of sport education may be obtained. The purpose of the study was (1) to investigate the role of group development toward the effectiveness of sport imagery; and (2) to investigate the impact of sport imagery toward enhancing the sport experience of high school athletes. The corresponding research questions were: (1) What aspects of group process impact the learner? (2) What is the relationship between a sport imagery training program and sport experience?

The combination of a counselling approach to the learning environment and a novel sport imagery training program has culminated in many interesting aspects regarding sport education. Chapter 2 reviews the literature in these areas. Chapter 3 describes methodological procedures. The results of the study, based on information accumulated from semi-structured interviews of high school student-athletes, can be found in Chapter 4. Chapter 5 concludes the thesis with discussion, which includes recommendations for future research and suggestions for coaches and teachers. The literature review follows the researcher's personal grounds which is presented below.

Personal Notation

Ever since I can remember I have been interested in the workings of mind and the mystery of experience. As I entered graduate school, some four years ago, this tendency led naturally into the study of imagery. I began research into this area, with an early eye toward implementing and testing an imagery training program with adolesent athletes.

As the academic journey has unfolded, I have become aware of a great number of things regarding self, school, and life which are worthy of discussion in this narrative. It is with the greatest care that I disclose this information for I know myself to be somewhat atypical, in manner of research and thought.

As I progressed through a literary and historical review of imagery and sport, I found some interesting findings, but was not yet satisfied with what was being reported. Essential elements of training were presented, but none seeming to capture the true value of imagery and its usefulness with athletes. Research provided ample support for its use, but failed to include the actualities of the learning environment. And although success was reported it was always done with the support of sport performance measures; the life effects of these interventions remaining relatively unknown.

At the time of enrollment, I had began my own 'individual research' into the area of imagery and mind. In the past, I had utilized imagery, but did so without preparation or routine. I had not received any training or guidance in its use. I was aware of breathing, but had not yet formed an association between it and imagery. Although I knew of its importance, it was certainly a difficult skill to control.

By my first summer, I became interested in eastern philosophy. And with this interest, an entirely different perspective of imagery became very clear. Reading along with Buddha, I realized that a connection to imagery belonged to a connection to life, and furthermore, that the process of imagery belonged to the process of life. In other words the true visions of sport which I sought to capture, would only appear when I adequately prepared myself for their arrival.

As such, I began studying and practicing the art of meditation attempting to cultivate a flowing, relaxing mind environment to be used in and of itself and in preparation for imagery. I was dilegent in my practice and holding to eastern tradition, attempted to remain true to the process, repeatedly returning to the calm and serenity of my daily sittings. I was holding not to any tangible measures of success, but accepted that my imagery was arriving more vivid, clear and controlled.

In addition to formal meditation, I had begun to draw on Zen teachings, which involved employing meditative techniques throughout my daily activities. This application

of practice was felt in many places, but none more apparent than in the world of sport and exercise. Daily physical and spiritual training allowed the fruits of my practice to grow seemingly exponentially. I had played sport my entire life, but as I connected to its process, I was overwhelmed by my developing strength and stamina. Sport itself had became its own reward, each activity an opportunity to focus and strengthen the mind and body.

In addition to the positive effects on fitness and performance, I made some other personal observations. First, as my meditation/imagery sessions progressed, I became aware of the fact that although I was previously unaware of imagery, it represented something I had possessed from the start. Second, my ability to focus on the nothingness which is meditation, enhanced my ability to concentrate and learn in many other aspects of life, including sport. This realization greatly impacted my need to base my research on the process of imagery, rather than its outcome. Third, many personal issues, which until this time had remained dormant in the unconscious began to surface. Although change always remains difficult, I had gained the ability to see more clearer my deepest wounds and pains.

This clarity was evident in the depth of my meditation and the progress of subsequent imagery, but was also felt quite strongly in my dream world. During this period, dreaming became more vivid. Dream-repitition and cycles began to be felt. I was content to handle these issues solo, but believe wholeheartedly in one's need to traverse these 'murky waters' with guidance.

Whether by coincidence or design, I became drawn to the writings of Carl Jung. At first, his connections to my work seemed distant, but as the study unraveled, incorporating his model of the psyche and subsequent discussions became quite necessary. Due to the nature of this research and its open-ended style and form, it has progressed for the most part, without anchor. To this extent, exercising Jung's mystical authority into this thesis helped provide some point of reference, allowing me to draw a line between my own work, my research and also extending beyond.

By my third year, I was unsure what to make of these transpirings. On the one hand, I was elated to have been able to develop and cultivate this skill, based mainly in

meditation. However, I was unsure how best to teach and research these skills, especially in the group environment. At this same time, I had developed difficulties within my School of Human Kinetics and was drawn to a professor outside the department, who had introduced me to a group process model some two years earlier.

The Counselling Psychology course, a graduate course on group dynamics was taught by Dr. Marv Westwood. He taught and modeled an approach to groups and learning I had not seen before. My attachment to sport led me to think of a great number of ways to use his approach to counsel adolescents. Although this model and practice had not been tested with athletes, its prime focus of creating a safe, comfortable, and unconditional learning environment seemed well suited to the sport imagery program I was designing. It is this model and his supervision which have played vital roles in the actualization of both the learning environment and the thesis.

The shift of focus from sport psychology, which remains interested in sport performance, to counselling psychology was a most important transformation. In the latter, my research and I could proceed with a 'process' approach, one geared to the learning environment. Teaching imagery was no longer the isolating factor of research; guiding self-development, understanding, and acceptance became the central focus. In addition, this shift provided the impetus for me to accept the project as a chance to transform and grow along with my students. In this way, the worldly ground of answers and conclusions gave way to the heavenly ground of questions and process.

I hope that this thesis serves three purposes: (1) provides scientific support for both the usefulness of group process and sport imagery, (2) strengthens our resolve to uncover and make meaning of that which is hidden, (3) provides food for thought regarding the importance of self-discovery and self-healing for adolescents of all ages.

CHAPTER 2: LITERATURE REVIEW

The field of sport imagery (imagery, imaginary rehearsal, mental imagery, imagery training) has received much attention as athletes are constantly searching for ways to enhance sport experience and performance. There have been a multitude of studies and opinions presented in regards to its optimal use. This literature review will highlight these studies in preparation for the learning/research environment, which is the premise of this thesis.

The following review begins by presenting studies linking mental imagery and performance. These optimistic findings find support from mental imagery theories, which are discussed in section two. Section three and four provide a discussion regarding factors (facilitating and essential respectively) which are important to the imagery process. Section five presents studies related to imagery and younger athletes.

Section 1: Mental Imagery and Performance

This section of the literature review presents research studies that support the positive relationship between mental imagery and performance. These results have been generated through a variety of ways, including laboratory studies, questionnaire studies, and self-report measures.

Laboratory studies, which represent much of the early work in mental imagery, involve the standard pre-post test design comparing a mental practice group with a physical practice group, a combined physical and mental practice group and a no-practice group (Corbin, 1967a; Corbin, 1967b; Epstein, 1980). Although some studies utilizing this methodology failed to generate significant results (Corbin, 1967a; Ryan and Simons, 1981), many others have provided support for mental imagery's effectiveness in enhancing athlete performance (Corbin, 1967b).

The cumulative findings of these studies is represented by a statistical meta-analysis conducted by Feltz and Landers (1983). They used this statistical technique on 146 effect sizes (60 studies) and found an overall effect size of 0.48 standard deviations. In a follow-up study incorporating 14 additional studies, Feltz, Landers, and Becker

(1988) reported an average effect size of 0.43 standard deviations. These findings revealed that an individual in a mental practice group will, on average, perform a half standard deviation better than an individual in a no-practice group.

Much of the early mental imagery research, which utilized a pre-post design with four groups (mental imagery alone, physical practice alone, mental imagery and physical practice, and no practice control), were methodologically weak. First, many of the studies failed to check whether subjects had successfully utilized imagery (Smith, 1987). It would also be difficult to ascertain whether subjects not instructed to use imagery did in fact use it. Second, many researchers agree that imagery is a skill and must be practiced (Vealey, 1986; Murphy, 1994), yet many of the early studies (Epstein, 1980) failed to provide practice time. Third, in many cases the subjects' imagery scripts have not been provided (Murphy, 1994). This omission makes it difficult to replicate the studies. These methodological difficulties encouraged researchers to utilize other approaches to verify mental imagery's usefulness as a performance enhancement strategy.

Following the lead set by Mahoney and Avener (1977), several studies used a questionnaire format to obtain information comparing the cognitive styles of successful and unsuccessful competitors. Suinn (1983) administered a questionnaire to skiers of various ability levels and found that imagery was more vivid and clear for skiers of higher ability. Myers, Cooke, Cullen, and Liles (1979) utilized a similar questionnaire with racquetball players, and reported that more successful players had greater clarity and control of imagery. These and similar studies (Gould, Weiss & Weinberg, 1989; Rotella, Gansneder, Ojala & Billing, 1980) suggest that successful athletes are more likely to utilize imagery than unsuccessful athletes.

Additional qualitative support for the importance of mental imagery in skilled performance was provided by McCaffrey and Orlick (1989). The interview process was utilized to accumulate in-depth information about personal mental strategies by high performance golfers. Subjects interviewed for this study included fourteen top professional golfers from both the P.G.A. (Professional Golfers Association) and the L.P.G.A. (Ladies Professional Golfers Association). These professionals, all of whom had won professional tournaments, were compared to a group of nine golf course

teaching professionals. Mental imagery was identified by all of the touring professionals as an important component associated with excellence. Although the type of imagery varied across the golfers, they all reported using imagery daily.

Utilizing different methodologies, researchers have found that mental imagery has a positive effect upon athletic performance. The next section will review the various theories that attempt to explain the underlying process of mental imagery.

Section 2: Mental Imagery Theories

One of the first systematic studies on imagery was conducted by Betts (1909). He investigated the spontaneous use of imagery in a variety of tasks including simple association, logical thinking, mental multiplications, and discrimination judgments. He found that imagery was often used in performing these tasks, but may be more helpful in certain tasks than others and is probably not employed as frequently as might be expected. Since these preliminary findings, researchers have endeavored to discover the processes involved that allow mental imagery to facilitate performance. Several theories have attempted to explain the processes involved when an individual mentally images. More prominent explanations include: the psychoneuromuscular theory, the symbolic learning explanation, the bioinformational theory, and the attention-arousal theory.

The psychoneuromuscular theory. The psychoneuromuscular theory states that during imagery of overt acts there are minute innervations of the involved muscles, which are identical to physical practice, but have weaker magnitude (Hecker & Kaczor, 1988). The minute neuromuscular activation from imagery is said to enhance the motor schema in the motor cortex or the priming of the corresponding muscle movement nodes (Suinn, 1992). Testing this theory involves the use of electromyography, which is used to observe muscle activity during imagery. Early studies using electromyography have supported this theory (Suinn, 1976; Harris and Robinson, 1986).

Symbolic learning theory. Originally developed by Sackett (1935), this theory hypothesizes that imagery rehearsal gains are due to the opportunity to practice the symbolic elements of a motor task. The theory infers that mental imagery will facilitate the learning of skills which are predominantly cognitive. There is limited support for

imagery's effectiveness with cognitive tasks, rather than motor tasks (Wrisberg and Ragsdale, 1979; Feltz and Landers, 1983). Suinn (1992) suggests that if imagery rehearsal works because of symbolic learning, and if videotape modeling also leads to observational learning, then combining the two should enhance the effects found by imagery alone. Videotape modeling studies (Hall & Erffmeyer, 1983; Gray, 1990) lend support to Suinn's assertion.

The bioinformational theory. Proposed by Lang (1977, 1979a, 1985), the bioinformational theory suggests that mental imagery can be understood as products of the brain's information processing capacity (Hecker & Kazcor, 1988). Lang (1979b) states that an image is "a finite information structure which can be reduced to specific propositional units" (p. 109). Imagery, according to Lang, involves the activation of a network of propositionally coded information. The information is organized in long-term memory as either stimulus characteristics or overt behavioral responses (Hecker & Kazcor, 1988). This theory is tested by detecting psychophysiological changes in subjects, such as muscle tension or heart rate. Preliminary support has been provided by Hecker and Kazcor (1988).

The attention-arousal theory. Suggested by Feltz and Landers (1983), the attention-arousal theory states that during imagery, the athlete learns to set his or her physiological arousal at an optimal level. One positive aspect of this theory is its utilization of cognitive and physiological aspects of imagery rehearsal (Vealey, 1987). Enhanced performance resulting from the use of mental practice, can be explained by the fact that imagery helps the athlete to bring his or her attention to task-relevant cues and away from disruptive irrelevant cues (Feltz and Landers, 1983). Studies reporting decreases in anxiety levels lend support to this theory (Weinberg, Seabourne & Jackson, 1981, 1982).

All of the above theories require further testing and no single explanation has yet been agreed upon by mental imagery researchers. However, each theory may partially explain the intricate mechanisms which allow mental imagery to positively affect skill development and performance.

Section 3: Facilitating Factors of Mental Imagery

This section of the review discusses factors which have been reported to facilitate effective imagery use. These factors are: (1) mental imagery and relaxation; (2) imagery practice; (3) imagery ability; (4) skill level; and (5) imagery perspective.

Imagery and Relaxation. Visual motor behavior rehearsal (VMBR; Suinn, 1976) is a covert activity whereby a person experiences sensory-motor sensations that reintegrate reality experiences, and which include neuromuscular, physiological, and emotional involvement (Suinn, 1992). VMBR involves relaxation training, followed by imagery rehearsal.

Early support for VMBR training was provided by anecdotal and case study research. Titley (1976) taught VMBR training to a university football kicker following three missed goals from within 35 yards. VMBR was initiated as a stress management technique and for skill development (assuring a standardized kicking motion). In the games following VMBR, the kicker showed noticeable gains in consistency and accuracy from longer distances. He became the leader in the conference in scoring, established fourteen school records, and set an NCAA field goal record of 63 yards.

Gough (1989) implemented a version of VMBR training (relaxation prompted by soft music, followed by imagery practice) to three varsity baseball players with varying degrees of batting experience and ability. The subject with the poorest ability and experience improved his quality batting practice hits from 12% to 55%. A second subject, of moderate experience and ability, showed no significant improvement. The subject with the greatest experience and ability, improved from a baseline of 50% to 70% following training.

Desiderato and Miller (1979) combined VMBR with stress inoculation training in a program designed for an experienced regional club level tennis player. Stress inoculation (Meichenbaum, 1977) involves self-instructional statements ("Be calm"), constructive self-statements to cope with errors ("okay you have two unforced errors in a row, concentrate on the next point"), and self-reinforcing statements ("good game, keep working hard"). Baseline measures indicated that the percentage of deuce games won

was 49% for noncompetitive matches and 29% for competitive matches. Following program intervention, the player was winning 55% of noncompetitive matches, and 60% of competitive matches. The player also reported an increase in confidence, an eagerness for competitive challenges, and a disappearance of earlier "feelings of disaster" which often preceded matches.

The importance of these case study reports is that they present practical examples of the benefit of mental imagery training combined with relaxation. These examples provide a preliminary introduction, stimulating controlled research; a discussion follows.

Kolonay (1977) tested the effectiveness of VMBR using 72 male basketball players from 8 college teams. Following random assignment to four groups (VMBR training, relaxation training only, imagery without relaxation, and no training control), a six week intervention period involving free-throw shooting was implemented. The VMBR athletes significantly improved their free-throw shooting (7%), while the relaxation-only and imagery-only groups showed no change.

Weinberg, Seabourne, and Jackson (1981) replicated this study, improving it through the use of a placebo-control group. Thirty-two (32) male karate students were randomly assigned to one of four conditions: VMBR training, relaxation-only, imagery-only, or placebo-control. Performance measures were karate skills, karate skills combinations, and sparring. Following a six week training period consisting of bi-weekly meetings, support for VMBR training was provided. Significant findings were found for the sparring performance, in which the VMBR training group performed better than the other groups. In the karate skills combination task, significance was not reached, but the VMBR group showed the highest amount of improvement.

State anxiety levels were also measured, and significantly lower levels of state anxiety were found for the VMBR and relaxation-only groups compared to the imagery-only and control groups. Similar decreases in anxiety levels (both state and trait) were found in another study by Weinberg, Seabourne, and Jackson (1982). In this study, state anxiety levels were significantly lowered for the VMBR training and relaxation-only groups in comparison to the imagery-only and control groups. In the case of trait anxiety, all groups showed significant decreases.

The majority of research supports the importance of relaxation training in combination with mental imagery. However, a few studies exist which are not supportive (Hamberger & Lohr, 1980; Gray, Haring & Banks, 1984). Some reasons for lack of significance may have been ineffective teaching methods, and/or an insufficient amount of time to learn and practice relaxation.

Imagery Practice. Currently there is limited research support for the accepted fact that imagery practice is a necessary aspect to any mental imagery training program. In fact, Weinberg, Seabourne, and Jackson (1982) conducted one of the few studies attempting to isolate the variable of practice time. These researchers assigned karate subjects to either a 6-week VMBR group or a 1-day VMBR group. Results indicated that state anxiety was significantly reduced for the 6-week VMBR group compared to the 1-day VMBR group.

Without extensive quantitative support, researchers have commented on the importance of imagery practice. Marks (1983) states, "the awareness of imagery, and our ability to use it for any specific goal or purpose, is learnable and could be acquired with appropriate experience and training" (p.123). Richardson (1969) suggests that vividness and control of imagery can be enhanced by practice. Vealey (1986) compares imagery improvement to strength development as both require repetitive practice.

Orlick and Partington (1988) interviewed Olympic athletes and found support for imagery practice. They report that some Olympic athletes did not initially have good imagery control. It was through consistent practice that these athletes were able to perfect their imagery skills. Obvious questions emanating from this study are: how long should imagery sessions last? and how long should imagery programs run? Although suggestions concerning imagery practice time have been given (Suinn, 1983; Feltz and Landers, 1983), this topic requires further research attention.

In terms of imagery practice, two other elements are also worth noting. First, athletes will progress at differing rates; therefore, predicting when the benefits of consistent practice will be experienced may be difficult. Similarly, since mental imagery has been proposed to have a multitude of possible uses (building self-confidence,

enhancing motivation, stress management), it may be possible for an athlete to reap the benefits of practice quite early in a program. Second, quality of practice may be as important, if not more important than quantity of practice.

Woolfolk, Murphy, and Parrish (1985) provide support for the importance of quality practice through a comparison of positive and negative imagery conditions. Thirty (30) college students, matched for golf-putting ability, were randomly assigned to one of the following groups: correct practice imagery, incorrect practice imagery, and no-training control. Subjects in the correct practice group were instructed to imagine a correct swing leading to the ball falling into the cup. Subjects in the incorrect practice group were instructed to imagine an incorrect swing leading to the ball narrowly missing the cup. The correct imagery practice group showed a substantial increase from baseline performance, while the incorrect practice group showed a substantial decrease from baseline measure.

Although there appears to be global acceptance that practice is a vital element to mental imagery's effective use, questions regarding the program length and duration of sessions remain unanswered. This information may be essential in the organization of mental imagery programs for athletes.

Imagery Ability. It has been suggested that, although everyone has the ability to generate and use images, the extent of this ability varies considerably (Goss, Hall, Buckolz, & Fishburne, 1986). Common sense indicates that those individuals who possess high imagery ability would be more likely to benefit from its use. However, little empirical evidence exists to support this notion.

Goss et al. (1986), utilized the Movement Imagery Questionnaire (MIQ) to classify subjects into one of three imagery groups: high visual/high kinesthetic (HH); high visual/ low kinesthetic (HL); and low visual/low kinesthetic (LL). Performance was defined by the performance of four different movement patterns. The results showed that the HH group acquired the movements in the least number of trials, followed by the HL group and the LL group, which required the greatest number of trials.

These results are in accord with Ryan and Simon's (1981) study involving physical and mental practice effects utilizing subjects learning to balance on a stabilometer. The study found that participants reporting strong visual images showed greater improvement than those reporting weak visual images. Similarly, strong kinesthetic imagers performed the stabilometer task better than weak kinesthetic imagers.

Although a relationship between imagery ability and motor performance seems to exist, other studies have failed to provide significant results (Epstein, 1980; Start & Richardson, 1964). The difficulty arising with the study of imagery ability is two-fold. First, imagery ability is multi-dimensional including both internal and external perspectives and visual and kinesthetic approaches. It has been suggested that specific requirements of a sport (or task) must be considered prior to implementation of an imagery perspective or approach (McFadden, 1982). Not only may it be necessary to distinguish between visual and kinesthetic imagery and internal and external imagery, but also to determine the imagery type most suited to any specific sport or skill.

Second, effectively testing the factor of imagery ability requires an effective measuring device. Researchers state "it appears that researchers who are interested in imaginal processes in athletes are left in the unenviable position of facing a potentially important phenomenon that may be elusively dynamic and for which there is no psychometrically adequate assessment" (Mahoney and Epstein, 1981,p.448). Subsequent to these comments, The Movement Imagery Questionnaire (MIQ; Hall, Pongrac & Buckolz, 1985) was developed. The MIQ is beneficial because it provides both a visual and kinesthetic imagery rating. Also, imagers are rated on their ability to image actual movements, which was not the case in earlier measures (The Vividness of Visual Imagery Questionnaire, VVIQ; Marks, 1983), which utilize ratings of people, places and scenes. A problem with the MIQ is its inability to provide imagery ratings on sport-specific skills of an athlete.

Although difficult to measure and classify, imagery ability seems to be related to motor performance. Further study into the importance of imagery ability is necessary, however, research must continue to provide practical information for imagers at all levels.

Skill Level. Is mental imagery more beneficial to the novice performer or the skilled performer? There have been opposing views on this issue. Some researchers contend that imagery should be more beneficial to the novice performer than to the expert (Schmidt, 1987; Wrisberg & Ragsdale, 1979). Since imagery facilitates rehearsing cognitive components, these researchers contend that novices will benefit from its use because the initial stage of learning is primarily cognitive in nature. The opposing view suggests that effective imagery skills should be more useful to the skilled performer who has developed a strong internal representation of the skill.

Support for the former view was offered by Wrisberg and Ragsdale (1979). They introduced imagery practice early or later in the learning of a motor skill and found that it facilitated performance as a decreasing function of the amount of physical practice experienced. In other words, subjects with low task ability were more likely to benefit from mental imagery than subjects with higher task ability.

In support of the alternate view, Denis (1985) suggests that an athlete may experience negative effects if imagery is introduced prior to sufficient skill in the task. This contention is based on the notion that as a novice, the athlete's internal representation of the skill may be incorrect or insufficiently elaborated. Suinn (1992) adds that the less experienced athlete may be rehearsing incorrect behaviors, causing performance decrement rather than enhancement.

Experimental support for imagery's effectiveness with experts is provided by Noel (1980) who assigned 14 male tennis players to either a seven session imagery training group or a control group. Baseline performance measures, obtained by the playing of one tennis set, included service accuracy and points played. Subjects were classified as either "high-ability" or "low-ability". The results showed that high-ability experimental subjects improved their baseline service accuracy, but the accuracy of low-ability experimental subjects declined. Points played were depicted as a ratio of "winners" (opponent had no chance to return) to "errors" (player was in position to make a shot, but did not). Results showed a trend for high-ability imagery subjects to have a higher ratio (winners to errors) than high-ability control subjects, while low-ability imagery subjects tended to show a lower ratio than low-ability control subjects.

Although the debate continues, the following study provides support for a third viewpoint which contends that both novice and skilled performers can benefit from mental imagery. Blair, Hall, and Leyshon (1993) utilized a female varsity soccer team (minimum 5 years club level experience) as skilled participants and volunteers from an introductory soccer class (less than 1 year of organized soccer experience) as novice performers. Prior to the implementation of a 6 week intervention program, novice and skilled performers were randomly assigned to either an imagery treatment group or a control group. Results showed that both novice and skilled performers benefited to the same degree from imagery practice.

Imagery Perspective. There are two imagery perspectives that have been identified: internal and external. Internal imagery involves sport imagery through the performer's eye and body. External imagery consists of seeing performance as if one is watching himself/herself on a screen. Much of the literature pertaining to imagery perspective utilizes an exploratory methodology and has been inconclusive as to which perspective is more optimal to performance enhancement.

Mahoney and Avener (1977) questioned 13 male gymnasts, who were finalists for the US Olympic team. The questionnaire asked questions related to various aspects of their personality, self-concept, and the strategies employed in training and competition, including mental imagery. Researchers grouped the subjects into very successful elite gymnasts (those selected to the Olympic team) and less successful elite gymnasts (those not selected to the Olympic team).The results of the study indicate that the very successful elite gymnasts were more likely to utilize internal imagery. A slightly modified version of this study demonstrated that elite rifle shooters used primarily internal imagery (Doyle & Landers, 1980). Murphy, Jowdy, and Durtschi (1989) interviewed 87 elite athletes. Fifty-six percent (56%) indicated that they used internal imagery as they became more skilled in their sport, and 55% reported that internal imagery was more effective in helping their performance than external imagery. The researchers suggested that the internal perspective was used because it made the imagery

clearer, enhanced the ability to feel body movements in the imagery, and enhanced the ability to become more emotionally involved in the imagery.

On the contrary, a number of studies have not supported the premise that internal imagery is better than external imagery. On a questionnaire, 17% of Olympic gymnasts reported using internal imagery, 39% reported using external imagery and the remainder used a combination of both (Smith, 1983). Another study found that dart-throwing performance was not significantly related to internal imagery for males or females (Epstein, 1980). Myers et al. (1979) found no significant differences, between less or more skilled racquetball players in their imagery perspective.

Two studies also fail to show any substantial difference between internal and external imagery. McFadden (1982) examined hockey goaltending performance through the use of four study groups: internal imagery group, external imagery group, film placebo group (subjects viewed hockey films, but received no imagery training), and delayed treatment control group (no imagery training or experimental contact). The study found that both imagery groups improved significantly more than either the film placebo or control groups, however, no significant differences were found between the internal and external imagery groups.

Mumford and Hall (1985) utilized 59 figure skaters of various skill levels. Following a pre-test measure of a figure skating figure task, participants were randomly assigned to one of four treatment groups: an internal kinesthetic imagery group, an internal visual imagery group, an external visual imagery group, and a control training group. Following four training sessions, post-test performance measures indicated no significant differences between the three types of imagery training.

The varied findings regarding imagery perspective encourage additional research attention. Much of the existing literature assumes that athletes use either internal or external imagery, but, in reality, athletes may utilize a combination of the two. In addition, an athlete's skill level may play an important role in determining which perspective should be employed. Novices may be more suited to an external perspective to enhance the possibility of error detection and correction, while well skilled athletes may find internal imagery more beneficial as it enhances kinesthetic sensitivity (Suinn, 1992).

Conclusion. This section of the literature review has attempted to suggest important factors in regards to the facilitation of mental imagery. The difficulty in ascertaining the relative importance of these factors is that the role of imagery may be multi-fold. Mental imagery has been classified as having either a cognitive function (Paivio, 1985) or a motivational function (Paivio, 1985; Martin & Hall, 1995). In addition, there is support to indicate that mental imagery may be beneficial to an athlete's self-confidence (Hall, Rodgers, & Barr, 1990; Barr & Hall, 1992) and anxiety control (Bennett & Stothart, 1978; Weinberg, Seabourne, & Jackson, 1981, 1982). Therefore, until such time that the products of mental imagery training are completely known, the importance of the aforementioned factors may continue to be debated.

Further research notwithstanding, suggestions regarding the implementation of mental imagery training are offered. Factors which facilitate effective mental imagery training include relaxation, imagery practice, and imagery ability. Skill level and imagery perspective may be important determinants, but to what degree requires additional testing. Researchers also suggest that the following may also play important roles in the effectiveness of mental imagery: attitude and belief (Smith, 1987; Martens, 1982); skill type - cognitive versus motor (Feltz & Landers, 1983); individualized programs (Blair, Hall, and Leyshon, 1993); and video-taped modeling (Hall & Erffmeyer, 1983; Gray, 1990). It is also important to note that mental imagery training should not be used in lieu of, but in addition to, physical practice.

Section 4: Essential Elements of Imagery Training

This section extends the work of the previous section by presenting not only factors which may aid the effectiveness of imagery training, but ones which may be indispensable to optimal imagery.

Leadership. Due to the nature of imagery, many athletes may have difficulty creating and developing an imagery training program without guidance. Although many

researchers may agree with the importance of leadership, no studies have attempted to manipulate this factor. However, the nature of imagery has prompted many imagery researchers to touch on its importance.

Hall, Schmidt, Durand and Buckholz (1994) list 'imagery instructions' as an influencing factor of imagery. "Imagery is a complex, multi-dimensional process. Therefore, the imagery instructions given to a performer are extremely important. They must contain sufficient detail to ensure that the performer is imaging the task in the desired manner" (p. 124). In the developmental stages of a program, providing simple and common images for all students further emphasizes the importance of a good leader.

Sheikh and Korn (1994) state: "both experimental and anecdotal evidence clearly demonstrate that imagery techniques can be a valuable tool in improving athletic performance; however, they must be applied with care. Research has demonstrated that they also can have deleterious effects when used inappropriately" (p. v). As imagery training begins to be used by coaches and teachers, the importance of careful application cannot be overlooked. Indeed, effective imagery use may be directly related to how it is introduced and taught.

Further support for the importance of leadership is provided from Sheikh, Sheikh and Moleski (1994), who include 'convincing the client (student)' as one of the methods for improving imagery vividness. They state: "Imaging ability probably is universal; yet, some clients claim that they lack it. An important preliminary step with such individuals is convincing them of the contrary" (p. 238). Presenting students with not only scientific evidence and practical experience, but also a leader who himself believes in its value, may be an essential element of an effective imagery training program.

Other elements of leadership which may affect the imagery training program include: the premise of the program, the value created by the leader for its participants, the enjoyment level of the training sessions, the quality of the learning environment created and the practicality of such a program. Indeed, these elements seem essential to the overall effectiveness of imagery training.

Meditation. Although the term 'meditation' hardly appears in imagery publications, its usefulness to imagery cannot be overlooked. Many leaders in the field utilize other terms to signify the importance of creating a clear, flowing mind environment for creating an optimal imagery. In lieu of meditation, imagery researchers have used the following terms: concentration, self-awareness and focus.

Linking self-awareness to self-talk, Green (1994) states: "The development of self-awareness also includes identifying the content and tendencies of the athlete's self-talk. Is it process or product oriented, descriptive or judgmental, self-enhancing or self-defeating? Are there recurring situations in a contest which trigger a negative form of self-talk? What kind of self-talk occurs during good performances?" (p. 50). The exactness of these questions relating to the self may not be easily answered without the discriminating function of a mind which meditates.

Another researcher cites the importance of concentration, providing further evidence of the importance of a mind which can focus through distractions. Concentration is the elimination of distractions. "In nearly every sport there are multitudes of sound, sights, and physical distractions surrounding the event which can impede focus and performance. By preventing distraction, athletes will perform more optimally" (Korn, 1994, p. 207).

Sheikh, Sheikh, and Moleski (1994) continue: "Relaxation is a necessary preliminary step to visualization; it clears the mind and dispels distracting muscular tension. But another prerequisite for vivid imagery is the ability to concentrate. Generally, an endless procession of thoughts files through our mind, and we seem to have little control over their occurrence or their nature. But obviously this lack of thought control must be overcome by anyone who wishes to focus on one image" (p. 233). Meditation may take imagery to a new level, allowing the 'procession of thoughts' to be accepted and forgotten; the experience itself hailed most important.

These comments relating to the importance of self-awareness, focus, and concentration lend support to the importance of meditation as an essential component of any imagery training program. And for students who have difficulty connecting to the

their naturally flowing images, meditation (and relaxation) may provide the necessary training wheels for useful imagery practice.

Due to its elusive and personal nature, meditation may require an object, which may be used as the student's spiritual training ground. One of the most popular objects is one's own breathing. Although imagery scientists rarely utilize formal meditation as a preparation for imagery, including deep breaths in imagery scripts is quite common. Kornfield (1993) states that the focusing of attention on the breath may be the most universally used object of meditation. In regards to the importance of breathing awareness, he states: "The breath can become a great teacher because it is always moving and changing. In this simple breathing, we can learn about contraction and resistance, about opening and letting go. Here we can feel what it means to live gracefully, to sense the truth of the river of energy and change that we are." (Kornfield, 1993, p.61).

This discussion on the importance of meditation is best concluded with words from the authors of *Seeking the Heart of Wisdom: The Path of Insight Meditation.*

> The art and discipline of meditation is one way of bringing the mind into balance. We train the mind in awareness and concentration, steadying the attention so that it is not restless and agitated. From this increased sense of calm and equanimity we can then look more deeply into our experience. We become aware in each moment of both what it is that's happening and our relationship to it. We ground ourselves in the reality of what is actually present, rather than being lost in our fantasies, thoughts, ideas, or interpretations. This steady and precise awareness brings profound stability because it excludes nothing. In each moment there can be a balance because we practice opening to the full range of changing experience, without attachment or aversion. We see clearly what is happening in the moment, distinguishing the different elements of the mind and body, and also understanding the laws governing this unfolding process (Goldstein & Kornfield, 1987, p. 90-91).

Belief. Several researchers have included belief as an essential element of imagery training (Smith, 1987; Martens, 1982). Given the mysterious individual differences which exist regarding its use, the belief factor may hold a strong predictive value for effective imagery use. Testing belief is made very difficult for two reasons. One, there is no reliable tool for measuring belief. Second, the essence of belief may be as dynamic, elusive, and multidimensional as imagery itself. Notwithstanding, the importance of belief translates directly into building it in imagery students.

The Buddha referred to this entity as faith or saddha and included it as one of the five spiritual faculties[1]. Saddha refers to the quality of mind which includes trust, clarity, confidence, and devotion. As students relax into the imagery experience, Goldstein and Kornfield (1987) offer an image of the power of belief:

> Think of yourself as having set out on a long journey through terrain never before explored. You come to a mountain and climb to its very peak. The view is fantastic, and the chill in the air is exhilarating. Extraordinary though it is, eventually you push on and continue the journey. The trail takes you up other peaks, down into desert valleys, through swamplands and forests. Each place you come is unique, and it is all to be explored. But this is only possible if you travel light, without attachment to what has gone before, without comparing, and without giving up. Faith means trusting the unfolding process of our lives. It is a willingness to let go of fears and attachments, and open ourselves to the unknown in each moment. (p. 129).

Group Learning Environment. No formal research has controlled for this variable, but all those interested in teaching imagery realize the importance of a safe imagery environment. This section briefly discusses group process models for learning and provides an extended discussion of the model utilized for the present study. Suceeding this discussion, the advantages of group process in regards to learning and growth are presented.

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[1] The five spiritual faculties are faith, effort, mindfulness, concentration, and wisdom (Goldstein & Kornfield, 1987)

There are several group process models for learning which seem relevant to the objectives of this study (Trotzer, 1977; Bion, 1959; Yolam, 1985). In order to fully understand and operate groups, Lieberman, Yalom, and Miles (1973) state that the leader must have expertise in one of the behavioural sciences, experiential-learning expertise, and the ability to present conceptualizations which provide group members experiences with meaning. These theorists emphasis that by increasing understanding of oneself and the conscious implementation of interpersonal skills through cognitive learning, one may gain useful insights into one's problems, behaviour patterns, and attitude patterns (Johnson & Johnson, 1982).

Similar to the group process model utilized for the study, Trotzer (1989) believes that groups develop through predictable stages. For each stage- security, acceptance, responsibility, work, and closing- specific learning activities may be used to assure the group proceeds effectively. By incorporating knowledge of groups, learning activities, and effective leadership, the group may provide "a means whereby we as individuals can reconstitute and revitalize the type of personal experience that gives meaning to human existence and generates the impetus to incorporate those experiences into our daily lives" (Trotzer, 1989, p. 5).

W.R. Bion provides additional information for those interested in counselling by suggesting that the therapist should avoid extraneous mental activity. He states, "If the psycho-analyst has not deliberately divested himself of memory and desire, the patient can feel this and is dominated by the feeling that he is possessed by and contained in the analyst's state of mind" (Bion, 1970, p. 42). Given the unconscious nature of imagery and imagery training this "thoughts without a thinker" approach may prove useful.

Although these theorists provide valuable information regarding the group process, this study has selected the group process model of Amundson, Westwood, Borgen and Pollard (1989). A detailed description can be found in *Employment Groups: The Counselling Connection.* In it, Amundson, Westwood, Borgen, and Pollard present a practical model from which to design and operate groups. The book is written for those interested in career counselling, but its global application makes it a wise choice for athletic groups.

The components of the group, as outlined by these authors, include Leader Approaches and Skills, Group Design, Group Goals and Activities, Member Needs and Roles, and Group Processes. Each of these components intermingle into the actualization of the group, which is "constantly in motion, dynamic and multidimensional" (p. 1). As such these components rest in the time span of the group defined in the model as Planning Stage, Initial Stage, Transition Stage, Working Stage, Termination Stage, and Post-Group Stage.

This theoretical framework is supported by practical guidelines leading to unconditional leadership, inclusion, safety, trust, and comfort. In addition to the accomplishment of group objectives, group maintenance is continually monitored and repaired. Ample time at the beginning of the group is secured for group building, allowing members a chance to introduce themselves to the group, including presenting expectations, objectives, fears, and questions. Norms are discussed and agreed upon, allowing all members to take responsibility for their actions and decisions. This orientation has been shown to provide a non-defensive environment, which is conducive to the development of an optimal learning environment (Gibb, 1991).

Leadership approaches include directing, influencing, facilitating, delegating, and directing, and depends on the stage of group development. Leaders learn how to act, react, and interact in order to assure the group proceeds in a healthy and productive way. Skills such as empathy, clarifying, linking, questioning, summarizing, active listening, blocking, and modeling are those utilized by the leader.

Since the nature of imagery training has been shown to be influenced by the induction of a relaxed state, the usefulness of these group guidelines seems essential to imagery training. In addition to the comfort afforded members by the use of group process, other advantages have been presented in the literature.

One of the main advantages for group work is the factor of safety. The confines of the group provide members with a natural camouflage if they need to use it (Trotzer, 1989). Through effective leadership, members may continually feel safe disclosing as much or as little as possible, always benefitted from the 'strength in numbers' tendency of the group. Groups which have established common group goals and guidelines will garner these safety benefits by allowing members to discuss feelings, concerns, attitudes

and beliefs with more frequency than without the presence of the group (Dinkmeyer & Muro, 1971).

A second advantage of group work is its ability to create a sense of belonging for its members. Trotzer (1989) writes, "When members experience acceptance, understanding, and cohesiveness in the group, they begin to realize they are important and worthwhile" (p. 30). By allowing individuals the space to create personal identities, members may directly influence the characteristics of the group (Trotzer, 1989). By promoting inclusion and personal identity, a sense of belonging may materialize, providing members with the support needed for optimal growth and learning.

Gazda (1968) stated that the group is 'a microcosm of social reality'. Group work, therefore, is an important vehicle in which to teach, model, and encourage those social characteristics which are deemed important to the environment under which they are formed (Trotzer, 1989). Creating change in real-life situations is more likely to occur through group interventions because members are making new discoveries and breakthroughs in a social context. For adolescents, this approach may be especially relevent due to the high level of peer influence which is characteristic of this population.

Trotzer (1989) states, "One of the most surprising revelations that occurs again and again as one works with groups is that individuals in many cases know what they want to do or should do to better themselves but will not act on that knowledge until they feel it is acceptable and valued by their peer group" (p. 33). In regards to sport imagery, the value and power of the group process may be necessary requirements. Indeed, athletes may fully understand the importance of sport imagery, but until its use is socially accepted, it will remain in the perifery of the sport learning environment.

Another advantage of group process is its ability to personalize the learning process. Trotzer states, "group counselling is especially helpful in educational settings because it contributes to the personalization of the learning process by providing an environment in which members can discuss their unique and common problems" (p. 39). By incorporating the group process into educational settings, learning may become personalized, allowing each student to be responsible for his own growth and understanding. By integrating the skills learned with personal growth, upon completion,

the student may be more likely to retain the habits and behaviors uncovered in the group setting.

A final advantage of the group process is its ability to allow members to simultaneously act as the helper and the helpee. The mutual help which is afforded the group, allows group members to maintain and build self-respect and self-worth by assisting others (Trotzer, 1989). For leader groups, this dual role may be an important element of allowing group members to make the transition from group member to group leader. The effective leader, therefore, creates an environment which readily redistributes power to all its members. To this end, Trotzer (1989) comments, "The counselor is not the only one who can aid members and indeed should not be since the members are invaluable resources in the helping process" (p. 34).

Other advantages of the group process include spectator therapy (Dinkmeyer and Muro, 1971), mutilple feedback (Cohn, 1967), and increased counselor contact (Trotzer, 1989). These elements may enhance the quality of growth and learning, which are best summarized under Yalom's (1985) term 'curative factors' of group process. MacDevitt (1987) summarizes these twelve components as follows:

(1) Altrusism: the process of helping others;
(2) Cohesion: feeling that one truly belongs to the group;
(3) Catharsis: being able to express feelings and concerns to others;
(4) Insight: acquiring self-knowledge or self-understanding;
(5) Interpersonal learning-input: receiving feedback from other members;
(6) Interpersonal learning-output: acquiring interpersonal skills;
(7) Guidance: receiving advice and suggestions;
(8) Family reenactment: experiencing and learning from the group as if it were one's family;
(9) Instillation of hope: being encouraged by seeing that others have solved or are solving their problems;
(10) Universality: realizing that one is not so different from others;
(11) Identification: modeling oneself after another member or the therapist;
(12) Existential factors: realizing important, painful truths about life (p. 76-77).

"Together these factors interrelate in such a way to both create conditions for change and generate change" (Trotzer, 1989, p. 37).

Conclusion. This section presented a group of essential elements for imagery training: Leadership, Meditation, Belief, and Group Learning Environment. By incorporating these elements into sport imagery, the researcher and teacher may enter the learning environment with a firm philosophical structure, which may also be seen as an essential element.

Section 5: Mental Imagery and Younger Athletes

The information contained in this literature review has provided evidence that mental imagery can be an effective skill for performance enhancement. As such, it may be important to encourage younger athletes to include mental imagery in their regular training schedules. Unfortunately, very few imagery studies have utilized children or adolescents as participants.

Fishburne and Hall (1988) found a positive relationship between imagery ability and motor performance in children. Elementary schools were chosen at random and grade six students were given motor development tests. Children classified as either athletically gifted or physically awkward, were tested on visual and kinesthetic imagery ability by the movement imagery questionnaire (MIQ; Hall, Pongrac and Buckolz, 1985). The results of the study indicate a significant difference in imagery ability between physically awkward and athletically gifted children.

The results of this study were compared to another study, which tested imagery ability for a normal population of children (grades 6 and 8) (Fishburne and Hall, 1988). They found that athletically gifted children showed higher visual and kinesthetic imagery ability than the normal population. Physically awkward children showed inferior visual and kinesthetic imagery ability. The implications of these studies are twofold. First, it has been hypothesized that motor behavior may be improved by developing better imagery abilities in physically awkward children (Hall, Buckolz, & Fishburne, 1992).

Second, although causal inferences are difficult to make, there does appear to be a strong positive relationship between imagery and children's motor performance.

Although these findings are encouraging, implementation and testing of mental imagery training programs for younger athletes is necessary. One such study was conducted by Zhang, Ma, Orlick, and Zitzelsberger (1992). Promising young table tennis players (7-10 years old) were randomly assigned to one of three groups: (1) experimental mental training program (including relaxation, video observation, and mental imagery sessions); (2) video observation (no relaxation or mental imagery); and (3) control group. Following an impressive 22 week training program, it was reported that the experimental group's performance was significantly enhanced in relation to the other groups. These researchers stated that the results clearly indicate that a mental imagery training program can result in enhanced performance among 7-10 year old children.

Prediger (1988) assigned 120 seventh-grade students to one of the following groups: relaxation/imagery; relaxation/imagery/physical practice; or physical practice only. The performance measure was the accuracy with which these field hockey subjects could hit three targets. Results showed that the relaxation/imagery group and physical practice only group experienced similar accuracy gains (68% and 70% gain). The combination relaxation/imagery/physical practice group showed considerably higher gains than the other two groups (160% gain).

These studies only begin to address the issue of mental imagery training for younger athletes. Indeed, comments from other researchers also emphasize the importance of imagery to younger athletes. Gaylean (1983) states that psychomotor skills can be improved by teaching children imagery skills. Hall, Buckolz, and Fishburne (1992) suggest that research focusing on the usefulness of mental imagery to physical education programs is essential. Other researchers have stated that children are capable of experiencing and utilizing both visual and kinesthetic imagery (Fishburne and Hall, 1988).

Mental imagery and younger athletes has yet to receive substantial research attention. However, using mental imagery with children and adolescents may be especially important in enhancing the acquisition and performance of specific motor

skills. By stressing the importance of imagery to younger athletes and allowing ample time for its practice and development, younger athletes will possess an important psychological strategy for performance enhancement.

Section 6: Summary of Literature Review

The first section provided a review of the literature concerning the viability of imagery as an effective tool for enhancing skilled performance. Through the use of a variety of different methodological approaches, results indicate that mental imagery can have a positive influence on performance. The second section of the review focused on possible mechanisms underlying mental imagery. Four theories were discussed; each having merit, but requiring additional empirical evidence. The third part of the review explored the specific factors which facilitate the effective use of imagery. Important factors are relaxation, practice, and ability. Skill level and imagery perspective also require consideration. In addition, mental imagery should not be seen as a replacement for actual physical practice. The fourth section provide additional elements which may be essential to optimal imagery. All require additional testing and include, leadership, meditation, belief and group learning environment. The last section reported studies involving mental imagery with younger athletes. Although initial support has been provided, further research with younger athletes is necessary.

CHAPTER 3: METHODOLOGY

The purpose of the study is (1) to investigate the role of group development toward the effectiveness of an imagery training program; and (2) to investigate the role of imagery training toward enhancing sport experience.

This study is designed to provide a practical learning environment conducive to the extrapolation of research findings regarding imagery training, group process, and the sport experience. In order to effectively represent both the research environment and the learning environment this chapter is presented in two parts. Part One describes the methodological approach adopted, pariticipant information, method of assessment, and data analysis. Part Two presents a description of the learning environment, to permit the reader to better understand themes presented in Chapter 4: Results. This chapter is concluded with Study Limitations.

Section 1: Research Environment

> "The purpose of interviewing is to find out what is in and on someone else's mind...we interview people to find out from them those things we cannot directly observe... we cannot observe feelings, thoughts, and intentions... we cannot observe how people have organized their worlds and the meanings they attach to what goes on in the world. We have to ask people questions about those things. The purpose of interviewing, then is to allow us to enter the other person's perspective" (Patton, 1990, p. 278).

Methodological Approach. The study's purpose can best be met by utilizing a qualitative methodology. This methodology is best suited for the extrapolation of information regarding a individual's experience relating to the relevant themes of study. Semi-structured interview format accompanied with content analysis will be used to provide information pertaining to this study's research questions. Semi-structured interviews will be directed by the use of The Interview Guide, as outlined by Patton

(1990). This methodological approach is one which can allow individual participants an opportunity to describe their perceptions and experience regarding positive and negative elements of both the impact of the group on learning and the impact of sport imagery on the participants sport experience.

Participant Information. Eight (8) senior sport leaders from Oakville Trafalgar High School in Oakville, Ontario served as participants of the study. This group was selected due to the novel and challenging nature of the focus group. It should be noted that these participants were not only sport leaders, but also school leaders. Initial contact was made through the head of the physical education department, following verbal consent. Several student athletes, who were identified by faculty as sport leaders (sport captains and/or student athletic council members), were invited to a preliminary meeting. This preliminary meeting provided the researcher an opportunity to introduce himself and the upcoming sport imagery training group.

Twelve members attended the introductory meeting, and ten decided to participate in the study. For personal reasons, two group members did not remain a part of the study group. The eight remaining members served as the study group, completing all group requirements and providing interview information following the group. Group members and sports played are organized below:

Student	Grade/Age	Sports Played	Other
Christopher	12/17	Volleyball, Rugby	Coached Volleyball
George	11/15	Football, Basketball, Rugby	Athletic Council Exec
Lauren	11/15	B-Ball, Volleyball, Softball	Coached B-Ball, Y/Rep B-Ball
Rachel	9/13	B-Ball, Volleyball, Softball	Y/Rep Basketball
Donovan	12/17	Volleyball, Rugby	Y-Basketball
Frank	12/16	V-Ball, Hockey, Rugby, Golf	Coached Volleyball
Thomas	12/17	Rowing	Athletic Council Exec
Maurice	12/17	Volleyball	Athletic Council Exec, Y-B-Ball

(pseudonyms were utilized to assure participant confidentiality)

Data Collection. Following the sport imagery training program, the researcher organized personal interviews with each group member to provide information regarding relevant topics of study. Participants were given a choice regarding the interview venue, all chose to use a high school seminar room. Initial plans called for interviews to take place immediately following the group. However, following discussion with the participants, interviews were delayed for two months. This delay provided participants an opportunity to process what was actually learned and gained from group participation.

Method of Assessment. A semi-structured interview was used to study the research questions of the project. Four questions have been developed to provide individuals an opportunity to voice their thoughts, feelings, and opinions on the topics of study. The first two questions are related to the role of the group in regards to the effectiveness of the mindfulness training program. The second two questions are used to prompt responses concerning the effectiveness of the sport imagery training program. The four semi-structured interview questions created were:

In regards to the effectiveness of the sport imagery training program:

What was it about the group and its process which was most important?

What was the most limiting characteristic of the group?

Think about the sport imagery training program

What did you value most about the program? Explain.

What was least valuable about the program? Explain.

Data Analysis. The semi-structured interview content analysis developed by Patton (1990) was used to provide general themes related to the specific areas of study. According to Patton (1990), there are several steps that are to be followed. The first step of the process was transcribing interview material. The second step was preparing a transcript summary for each group member. The third step involved verifying the

statements of each transcript summary with the interviewee, to assure that the statements accurately reflected the thoughts, feelings, and opinions of those interviewed.

Following verification of summary, the researcher set out to generate common themes from the collective comments of the eight group members. Common themes were then grouped into categories to enhance the presentation of the data. As will be presented in the next chapter, the data found four categories, under which sixteen themes emerged.

The process of theme generation was as follows: (1) Transciptional material were organized into individual meaning units, with each representing a unique thought, idea, or perspective. (2) Through general perusal of the data, potential themes were noted. (3) Further handling of the individual meaning units allowed the researcher to refine and finalize important themes. (4) Following theme development, four general categories were developed. (5) Themes and categories were validated by the supervising researcher as a reliability check.

Section 2: Learning Environment

> "We must foster individuality by celebrating each person's uniqueness and understanding that we are fundamentally intertwined by our common desire for [spiritual] growth. And the essence of our [spiritual] growth stem from the lessons we teach one another, as students, friends and professors of our own experiences." (Sarah Cho, 1996)

Group Purpose

(1) To provide an environment which provides instruction and encouragement for sport enhancement through imagery training and group process.

(2) To provide a group environment for athletes to share sport and life experiences.

Group Goals

(1) To meet individual needs toward sport enhancement through imagery training.

(2) For individual group members to experience the benefits of group work.

(3) To attempt to apply learning principles (imagery training and group building) to the individual's sport setting.

Group Timelines

Start Date: October 22, 1996
End Date : December 11, 1996
Run Time: 8 weeks

Group Itinerary

Each session consisted of a specific structured group activity in which all members participated. In addition to these activities, sport lessons were organized in which to set a basis for discussion and learning.

Session 1

The purpose of the first session was to allow each member a chance to introduce themselves and their sport (s). The first session also provided the leader an opportunity to outline the agenda for the upcoming weeks.

Session 2

This session focused on members' fears and/or concerns regarding the group. This was accomplished through partner work, followed by a group discussion. The session ended with a preliminary discussion regarding group norms and rules.

Session 3

The purpose of this session was to finalize group norms and rules and to use partner work to brainstorm ideas regarding the definition of sport success.

Session 4

Sport Success/LifeLine Activity

This session extended preliminary work completed regarding sport success. Students were introduced to the LifeLine Activity and began construction.

Session 5

LifeLine/Introduction to Sport Imagery Training

The session began with a processing of the LifeLine Activity, and concluded with a lecture introducing sport imagery training.

Session 6

Sport Imagery Training Discussion
Mock Session

This session was used exclusively to discuss sport imagery. The leader walked the group through a mock session.

Sessions 7-16

The remainder of the sessions began with a sport imagery session, including breathing, relaxation, and imagery. Following the session and partner discussions, the following sport topics were introduced and discussed.

Session 7
Peak Performance/Inverted U-Theory
Session 8
SportFlow/The Flow Experience
Session 9
Optimal Arousal, Stress Management and Sport Imagery Training
Session 10
Communication
Session 11
Motivation and Goal Setting
Session 12
Coaching Issues
Session 13
Barriers to Sport Imagery Training
Session 14
The Optimal Athlete/The Balanced Athlete
Session 15
Consolidation and Integration
Session 16
Closure

Section 3: Study Limitations

(1) The findings of the study may lack generalizability to the general population. The study utilized high school sport leaders, and as such may not be representative of the average adolescent athlete.

(2) Due to the nature of the research, the instructor and the interviewer were the same person. Although all attempts were made to assure that participants honestly and accurately present their thoughts on the group and training program, the absence of a neutral interviewer may have biased the findings.

(3) Although sport imagery tools were presented and taught, the instructor owned not any credentials or training in this discipline, which may limit the contribution of the findings to both sport imagery training and the underlying group process model.

(4) The findings of this study reflect the outcome and process of this particular sport imagery training program and may not necessarily transfer to other groups owning a similar focus.

(5) To gain optimal effects of imagery, its practice must accumulate over time. Therefore, the full impact of imagery training may not have been felt during this program's eight week duration. A 2-3 month follow-up was not possible.

CHAPTER 4: RESULTS

This chapter presents the results of the study, based on the data accumulated during the interview process of the study. As outlined in the previous chapter, students were encouraged to voice their opinions regarding the impact of the group and the imagery training program. The first section of this chapter presents the major categories and accompanying themes drawn from the interview findings. These definitions are presented to familiarize the reader with the general findings of the study. The second section extends these themes by providing supporting evidence from the participant's interview material.

In order to present the format of the upcoming discussion, a summary table listing categories and corresponding themes is provided below. This table is followed by a working definition of each category and theme.

The Sport Imagery Group

Group Characteristics	Learning Factors	Application Factors	Program Limitations
Sharing Experiences	Learning about others	Sport Application	Slow-Moving
Comfort	Learning about sport	Sleep Application	Choosing Members
Support	Learning about imagery	Other Application	Activities
Novelty			Environment
Enjoyment			
Value			

Section 1: Definition of Categories

Data analysis, which involved separating interview data into individual meaning units provided the basis for theme generation. Once identified the themes were then categorized into four major categories: Group Characteristics, Learning Factors, Application Factors, and Program Shortcomings.

Group Characteristics. The category "Group Characteristics" represents the culmination of themes related to specific characteristics of the group, which includes all aspects related to group design, dynamics and interpersonal process. The themes represented in this category appear related to the group process model utilized for the study. There are six themes which have immerged: Sharing Experiences, Comfort, Support, Novelty, Enjoyment and Value.

Learning Factors. The category "Learning Factors" represents those themes regarding a student's actualization of learning. In other words, what did students actually learn throughout the duration of the study. This category is divided into three themes: Learning about others, Learning about sport, and Learning about imagery. In this chapter, imagery refers to any or all elements of the actual imagery sessions, which included meditation, relaxation and imagery.

Application Factors. At the beginning of the group, all members voiced a desire to be able to apply the principles learned in the group. As such, the emergence of this category is quite appropriate. "Application Factors" are those themes related to applying the work to a student's life, including sport, sleep, and other activities which appear connected to the transfer of learning. This category has three themes: Sport Application, Sleep Application, and Other Application.

Program Limitations. The category "Program Limitations" is presented to include those elements of the program which the participants felt were restricting or a hindrance. This section presents a list of program shortcomings in four categories: Slow Moving, Choosing Members, Activities, and Environment.

Section 2: Study Themes and Interview Support

With working definitions of the categories outlined, this section presents the themes of the study. Transcriptional support allow the themes to come alive with the thoughts and opinions of the student athletes who participated in the study group. Due to

the small number of participants and the novelty of the research environment, several comments are used to support each theme.

Group Characteristics

Under the category Group Characteristics, six themes have been generated: (1) Sharing experiences, (2) Comfort, (3) Support, (4) Novelty, (5) Enjoyment, and (6) Value.

Sharing experiences refers directly to comments related to a student's telling of ideas, reactions, thoughts, and stories. These comments supported a direct relevance to either them as the speaker or listener. This sharing could occur one-on-one or in the larger group context. The content of the sharing tended to incorporate both sport and non-sport elements.

Although there was material which needed to be taught, the group's main focus was to allow members an opportunity to express themselves and their experiences, learning from each other in the process. Seven of the eight members commented on the importance of and their ability to share thoughts, feelings, and experiences with the group.

Frank provided support of this group characteristic and at the same time commenting on the group's ability to progress. He says:

"I valued everybody contributing and this made it good, especially as the group developed." (Frank)

When asked what would she would change about the group, One student's comment typified the importance of sharing experiences to the value of the group:

"Choose members who like to discuss" (Rachel)

Rachel's comment supported the usefulness of providing an environment conducive to those who have the ability and to willingness to share experiences.

In explaining the importance of sharing experiences, Maurice replies:

"...discussing allowed us to come up with good thoughts." (Maurice)

Other comments also adequately support the theme, "Sharing Experiences".

"I valued sharing ideas on sport" (Christopher)
"Something I enjoyed was going over experiences with other people." (Thomas)
"I valued sharing experiences with others" (Lauren)
"I valued being able to compare what good friends thought about sport." (Donovan)
"I valued being able to share what you found." (George)

Comfort refers to any comments connected to feelings of comfort, safety, and trust felt within the confines of the group. This theme is supported by comments directly related to a student's comfort level, which they reported contributed to an openness to learning.

Given the nature of the training tools (relaxation and meditative imagery), providing a comfortable, safe environment was a necessity. Utilizing the group approach which fosters feelings of safety and comfort, allowed six of the eight members to positively comment on the comfort level of the group environment. Five of the comments, presented below, highlight the group characteristic of "Comfort."

"The environment was peaceful" (Christopher)
"I valued feeling good about being around good people, good athletes" (George)
"I liked the atmosphere, I liked the group" (Frank)
"a good way to start off the morning" (Thomas)
"we all bonded in some aspect." (Maurice)

A sixth comment from Lauren, not only provides additional support for the high comfort level afforded to group members, but takes it a step further:

"Learning about others made it easier to concentrate around them" (Lauren)

This comment neatly links the first two themes of the this category, suggesting that if persons are given a chance to get to know and trust those around them, concentration and learning can be enhanced.

Support is defined as any comments related to feeling supported by other group members, or providing support for other group members. This support need not be confined to activities directly involved with the group, but may also include other school and sport activities. This theme also encompasses those comments referring to the sharing of common goals.

The group was designed for sport leaders, who may already be inclined to supporting others, and four of the eight provided evidence of this group characteristic. Frank capsualized the essence of what may have been the group's main objective:

"Everyone was trying to accomplish the same thing, everybody was striving to reach that point of inner calmness... It wasn't just one on one, it was the group" (Frank)

The time spent building the group environment prior to beginning actual imagery training went a long way to establishing this and other common goals, which could naturally lead to group support. Bill commented on the impact of the group outside of our morning sessions, relating to supporting each other's decision to be involved in the group:

"Good time with all my friends, we would talk about it during the day." (Donovan)

Although support was experienced within the confines of the group, Maurice provided additional evidence of support occurring in non-group activities:

"I valued the fact that we had two of our girls basketball players; motivated me to organize trips and support them and the team. The support was mutual, began helping each other both in and out of the group." (Maurice)

George provided further proof of the theme of "Support" in a comment related to participation on actual high school teams:

"I valued being able to use it to make you a better athlete and to help your teammates" (George)

Novelty refers to any comments linked to students becoming aware of novel ideas or perspectives, which contributed to both how they felt or what they learned. This 'novelty' may be related to either sport, imagery or learning.

Five persons commented on the group characteristic of "Novelty". Of those commenting four believed that the group provided a new perspective on sport and the sport experience:

"I valued getting new perspectives on sport, it got me thinking about a whole new aspect of sport" (Christopher)
"It showed me something else...opened different doors... I valued learning there was another aspect to it all." (Rachel).
"I thought about sport in a different way." (Donovan)
"Allows sport to be seen from a different angle...opens your eyes." (George)

On the theme of novelty, there was one comment which supported the opposite view:

"Alot of the stuff I had done before and I had seen it before" (Frank)

Enjoyment refers to any comments associated with the degree of enjoyment felt by the student. This category includes enjoying any number of group elements, including its members, its training skills, its application, or other.

The six male members of the group, all made statements supporting an enjoyable group environment. Each of the six members provide a slightly different premise, but each reflect the common group characteristic of "Enjoyment":

'I enjoyed the imagery' (Christopher)
"I enjoyed other people's stories, opinions, and perspectives." (Frank)
"Good time with all my friends, we would talk about it during the day." (Donovan)
"I wanted to have fun and accomplished this" (Maurice)
"Had a good time doing it." (Thomas)
"I liked sportweek, to see where we are and where we are going and I liked applying the work." (George)

The comprehensive support given by these students is a testament to the students themselves. They searched for elements which would make it enjoyable. In addition, the fact that several areas of enjoyment are identified may suggest a degree of intrinsic value in the group's structure.

Value refers to any comments related to students feeling that the group and its program were of personal value. This theme encompasses general statements regarding the value of the program. Specific application value is categorized under "Application Factors".

The majority of comments related to this theme arrive from students when asked what was least valuable about the group and program. Six of the students provided support for the value of the program.

"I do not think there was anything invaluable." (Thomas)
"nothing in my mind sticks out as least valuable." (George)
"there really wasn't anything limiting about the group...I really wouldn't change much...couldn't ask for much more." (Donovan)

"I didn't find anything specifically not valuable to me." (Frank)
"I thought everything we did had a purpose." (Maurice)
"It is something that will be beneficial to me." (Christopher)

Learning Factors

Under the category of Learning Factors, there are three themes, (1) Learning about Others, (2) Learning about Sport, and (3) Learning about Imagery.

Learning about Others refers to comments revealing what members learned about others, including learning about others' experiences, opinions, and perspectives. Students indicated that learning about others influences their perceptions of themselves and others. This theme incorporates learning about what others think and feel about sport and how best to utilize skills taught in the group.

Seven of the eight students positively commented on the value gained from learning about others. An extension of an earlier statement by Lauren exemplifies the essence of this theme:

"We got to know each other better and to learn about different people's sports...it is very important to get different people's opinions...learn about others, made it easier to concentrate around them." (Lauren)

Others comments also support the importance of this theme:

"Once everyone started talking, letting out their ideas, it was good (Frank)
"I valued being able to hear others' experiences" (Donovan)
"I valued finding out what myself and others had to contribute to the group (Maurice)
"I valued meeting people from other sports, even people you knew." (Thomas)
"I valued talking to other people." (George)

Learning about others was also a means of learning how others' relax, breath, and imagine as Rachel's comments about the actual imagery training program suggest:

"I would hear someone say something and know that it applied to me, but I never would have thought of it, and then I would try it." (Rachel)

Learning about Sport refers to comments corresponding to learning about sport. This theme includes a student's learning about the specific task of sport performance, sport training, sport preparation, and sport experience.

Five of the eight students made comments referring to the theme of "Learning about Sport". All comments relate to sport learning, but each says something slightly different, allowing the multidimensional nature of the group to surface:

"It is important to stay calm throughout it all." (Lauren)
"I valued meeting friends, having fun, and learning about sport and psychology" (Maurice)
"I liked learning about peak performance and different things about sport you don't usually talk about." (Christopher)
"I valued learning about the importance of preparation." (Donovan)
"I valued learning about imagery and sport and the way you can apply it." (George)

Learning about Imagery includes comments which focused directly on the impact or value of the specific sport imagery intervention. Imagery is defined by the three training tools, meditation, relaxation, and imagery, and also encompasses learning about why imagery is important.

All eight members made comments referring to learning about imagery. Rachel's comment supported the importance of not only teaching 'how' to image, but also 'why' we image:

"I valued the discussions beforehand because we would not have known why we were doing it." (Rachel)

Rachel continues by accurately describing the process of relaxation, which is extended by comments from Donovan and Lauren.

"I valued the relaxing part of it, the breathing was important, to be doing really nothing, not tensing anything." (Rachel)
"Lights out and learning how to physically relax was important" (Donovan)
"Doing relaxation skills was a good way to start." (Lauren)

Thomas provided support of one of the truths of imagery involving the use of all the senses, not just 'seeing':

"I valued utilizing mental training in regards to the other senses, feeling, hearing" (Thomas)

Christopher's comment emphasizes another truth of imagery training, which is that meditative imagery is a skill which we are already doing, even if we do not realize it:

"It brought imagery a step further from where I was." (Christopher)

Other comments wrap up this theme of "Learning about Imagery".

"Visualizing was good" (Frank)
"I valued the introduction of imagery and being able to use it both in group and outside." (Maurice)
"I found imagery was helpful" (George)

Application Factors

There are three themes represented under the category Application Factors, and include: (1) Sport Application, (2) Sleep Application, and (3) Other Application.

Sport Application refers to any comments related to applying lessons learned to a student's sport. This theme includes comments related to actual application or thoughts regarding future application.

All eight student athletes made reference to being able to apply group lessons into their sport setting.The two female members of the group, Rachel and Lauren were players on the high school basketball team, which finished third in the province, and applied group work directly into their basketball experience.

"I worked it into my foul shot routine: When I knew I was going to the line, I would say okay I know I can do this, and then I would visualize myself; I put in the breath. I am not sure if it helped, but it gives me that second to calm down." (Rachel)
"Rachel and I were the two most calm on the court, and we would look at each other and both know why." (Lauren)

Rachel's comment emphasizes the use of a number of training tools. Her accounting includes positive self-talk, visualization, and breathing and wrapped it into a useful pre-shot routine. Lauren's comment solidifies the importance of group lessons as both players were aware of the importance of remaining calm and focused.

Frank, Thomas and George support the theme of Sport Application by presenting ways of using sport imagery to improve their athletic performances:

"I take more time visualizing and breathing, calm me down, let me play at a higher performance level." (Frank)
"It will be interesting to think about how to use these tools for next season...thoughts related to actual preparation to use in my sport environment." (Thomas)

"using it to make you a better athlete." (George)

Maurice and Donovan provide support for applying group lessons to sport warm-ups, commenting on using tools in preparation for competition:

"I valued using it on my own to prepare for big games." (Maurice)
"Learning how to relax and being able to know that I can step on the court without wondering if I was ready." (Donovan)

Christopher's general comment relating to Sport Application completes this theme:

"I valued using some of the principles in my own sport setting" (Christopher)

Sleep Application is defined as any comments referring to applying lessons learned from the program to enhance or help members prepare for sleep.

There were only two comments related to applying tools learned to the sleep environment. It is included because more than one person has commented on its usefulness for sleep throughout the duration of the group.

"I use breathing techniques to calm down, use it as a preparation for sleep." (Frank)
"I use it to get to sleep some nights." (Donovan)

Other Application refers to any comments associated to applying lessons learned to other avenues other than sport and sleep, which appeared of value to the participants.

There were three comments related to applying sport imagery techniques to other, non-sport activities, two of which are general comments:

"In other pressure situations, not related to sport, we will be able to calm ourselves down, and keep focused on it." (Lauren)
"Find ways to use it in our lives" (Donovan)

Several of the group members were involved in a Leadership Retreat during the implementation of the group. One of the retreat leaders, commented that the work in our group, influenced the leadership retreat. The researcher attended the leadership workshop and answered many questions regarding the topic of sport imagery and the power of the group.

"Influenced the leadership retreat" (Maurice)

Program Limitations

Under the category Program Limitations, four themes are represented and include: (1) Slow Moving, (2) Choosing Members, (3) Activities, and (4) Environment.

Slow Moving refers to any comments recounting the perceived slowness of the group. In particular, comments reflect that the beginning of the program was slow.

Three of the eight interviewed commented that the development of the group could have occurred more quickly:

"Start applying it earlier." (George)
"The group could have got moving faster... the first couple of weeks were slow." (Thomas)
"The beginning was slow...too much time at the beginning getting to know each other." (Lauren)

Choosing Members refers to any comments related to the choosing of group members. These comments were made in reference to future groups, and how best to enhance the quality of such a group.

Five members interviewed believe that choosing members is an important element of an effective group. Given the nature of the tools taught, this consideration is an important one. In the matter of belief and its importance, Christopher replied:

"some people in the group were not sold on mental training" (Christopher)

Thomas suggested that the group may have been enhanced by selecting season-long athletes:

"it would have been better if group members did more than school sports... it was difficult to relate to group members who are not season-long athletes." (Thomas)

Rachel, who was the youngest group member commented:

"They were older than me and this restricted me." (Rachel)

Donovan and Lauren wrap up the theme of "Choosing Members" by suggesting the use of more students and students from different sports.

"Use a greater variety of athletes from different sports." (Lauren)
"We only had a set number of people." (Donovan)

Activities refers to any comments regarding the activities of the group, which limited the group or how they learned. This theme also refers to suggestions made for activities which may be used in a future group.

Although group activities were designed with purpose, four of the eight members interviewed, suggested that the use of other activities may have enhanced the group. Christopher made two separate comments regarding activities. The first refers to partner debriefing, which took place after each imagery session and prior to group work:

"Partner work was not as useful as it could have been." (Christopher)
"More group work, group activities, puzzles and mental games." (Christopher)

Readings were provided to group members related to specific lessons of sport. Frank comments of these readings, presenting another program limitation:

"Readings were not very useful; I am more a listener and a talker, that is how I learn." (Frank)

In regards to activities, Lauren believes that the group would be enhanced by teaching other things:

"Learn different things, like coaching techniques." (Lauren)

And a final comment by George prefers the group to dedicate more time to the actual imagery sessions:

"More guided imagery." (George)

Environment refers to any comments related to limiting characteristics of the environment, which impacted the learning process. This theme includes the physical environment or the time of group meetings.

Three comments referring to the environment are provided:

"Chairs were a bit wobbly." (George)
"People coming late, disturbances (Rachel)
"Work out a night schedule, mornings were hard." (Maurice)

CHAPTER 5: DISCUSSION

The results of the study, presented in the previous chapter, provide preliminary support for the use of group development techniques for imagery training. In addition, the implementation of the sport imagery training program had a positive impact on the sport experience of these athletes. Throughout this chapter, these findings will be expanded into a discussion with three purposes. First, this chapter will answer the research questions of the study, which are reinstated below. Second, the themes generated in the previous chapter are discussed, leading to the third purpose of the chapter, which presents future directions in research and suggestions for coaches/teachers.

It is important to note that this study, although based on a sport imagery training program, utilized no performance measures to test the results of the study. Therefore, direct extensions of current sport psychology literature in this area are not necessarily provided by this study. Although sport psychology literature provided the basis of the study, the research focus has transformed from extrinsic sport performance to intrinsic sport experience and learning. As the chapter progresses this difference may become more apparent.

Reinstatement of Purpose

The purpose of the study was (1) to investigate the role of group development toward the effectiveness of sport imagery; and (2) to investigate the impact of sport imagery toward enhancing the sport experience of high school athletes. The corresponding research questions were: (1) What aspects of group process impact the learner? (2) What is the relationship between a sport imagery training program and sport experience?

Question 1: Group Process and Learner

The group's design and operation was based on a model presented by Amundson, et al. (1989). This approach has been referred to as 'group process' or 'the group process model'. Although this model has received support in non-sport settings, prior to this project, it had not been utilized in a sport environment.

This group process was vital to the success of the program for a number of reasons, a discussion of which follows. This discussion focuses on the first research question: What aspects of the group process impacted the learner? Five general elements are offered: Environment for Change, Knowledge of Groups, Trusting Environment, Learning Communication Skills, and Integration of Learning.

Environment for Change. The group process model presented the learner with the opportunity to serve two main goals, one of learning and practicing imagery skills and the other of forming and refining attitudes. From Amundson et al. (1989); in terms of the group process model, "there are two emphases: acquisition of relevant skills and information, which is the 'educative' element, and the development and/or maintenance of a constructive attitude" (p 3). This combination, referred to as 'psycho-educative', was made possible by creating and operating the group with the use of this counselling paradigm.

Chartrand and Lent (1987) highlight the importance of a psycho-educational orientation for promoting the growth of the student-athlete. In addition to recognizing that counselling paradigms need not be reserved for athletes with psychological difficulties, they state that the learning environment should emphasize: "(a) the individual's desire for acquiring skills; (b) his or her capacity to learn; (c) the counselor's role as a teacher who demonstrates, models, and provides opportunities for practicing desired behaviors; and (d) the applicability of acquired skills to a broader repertoire" (p. 165).

This psycho-educative approach, based on leading the group from inside out, provided an environment for change for the students in the study. These students may have only been familiar with learning based on one-way communication (teacher to student). In contrast, the interactive approach encouraged all members to become teachers, each taking responsibility for each other's learning and movements to change.

Knowledge of Groups. Although the group's main focus was sport, learning about groups and their optimal operation played a large role for the group members.

Learning about the importance of groups, why persons join groups, how best to optimize groups, how best to lead groups, and other items, greatly impacted the learning process for these members. The group included sport leaders, who were not only interested in how this information could be utilized to enhance the group's value, but also how these principles could be applied to other sport and non-sport settings.

Trusting Environment. The group's commitment to the acceptance of varying perspectives and ideas, allowed its members to speak freely. As the group progressed into its working stage, it was this freedom which allowed group members to learn effectively. Differences of opinions had been handled effectively, each member understanding that it was these differences which make each individual unique and special.

The ability for group members to speak freely was based in the group members ability to trust one another, the leader, and the process. Although group members, identified as sport leaders, entered the program with a willingness to trust others, the group's initial commitment to setting common goals and outlining norms and rules, played a large role in assuring the trusting learning environment which prevailed.

The value of such an environment may be best explained by the non-defensive orientation of the group and its members. The counselling paradigm utilized for the study viewed communication as a people process rather than as a language process (Gibb, 1961). The creation of a trusting environment was made possible through attempts to reduce the degree of defensiveness in group members, allowing group members to concentrate more completely on learning and practicing skills. Gibb continues, "Defensive arousal prevents the listener from concentrating upon the message. Not only do defensive communicators send off multiple value, motive and affect cues, but also defensive recipients distort what they receive."

Learning Communication Skills. The group's commitment to the process of learning allowed its members an opportunity to enhance communication skills. This was accomplished in two ways. The first was through partner work, where group members would listen to each other's stories and present back to the group the information from

their partner. This allowed group members an opportunity to practice active-listening, clarifying, and paraphrasing skills, which could be extended to other groups and learning environments. The leader attempted to teach such skills, which is consistent with the comments from Guerney, Stollack and Guerney (1970), who state that the role of the counsellor is to teach "personal and interpersonal attitudes and skills which the student can apply... and to enhance his (or her) own and others' satisfaction with life" (p. 100).

The second way that members learned communication skills was through leader observation. Amundson et al. (1989) state that this type of modeling can be very effective in allowing groups to proceed effectively: "If you can teach, model and reinforce the use of specific communication skills, members will find that understanding each other, making decisions and building trust are easier than if no training is provided or if destructive communication is used" (p. 26). The leader attempted to utilize a positive attitude and model communication skills, such as empathy, linking, active-listening and clarifying.

Integration of Learning. An opportunity to integrate the findings of the group was provided in the final stages of the group (termination). The final group session involved discussing and sharing ideas regarding important concepts learned throughout the duration of the group. These definitions served to consolidate the findings of the group, and the discussions allowed each member to assimilate the information into their own terms, and for their own purposes.

Due to the novel nature of both the group approach and the training program, this integration was especially important. As Amundson et al. (1989) state, "too often groups 'just end' without focusing carefully on what has been learned or determining specific ways to apply these learnings in the absence of ongoing group support" (p. 240). Terminating the group in a manner which focused on integration and closure allowed the group to terminate in a positive manner for its members.

These five elements- Environment for Change, Knowledge of Groups, Trusting Environment, Learning of Communication Skills, and Integration of Learning- summarize those aspects of the group process which impacted the learner.

Question 2: Sport Imagery and Sport Experience

The second research question explored how the sport imagery training program effected the sport experience for its members. Three elements emerged to answer this question: Learning and Practicing Sport Imagery, The Intrinsic Value of Sport, Sport and the Other Senses.

Learning and Practicing Sport Imagery. The majority of studies cited in chapter two of this thesis provide a positive relationship between imagery and sport performance, however many high school athletes have not been introduced this skill. With this program, these students were given an opportunity to learn and practice these mind development skills. These skills may be useful to each of the students due to the transferability of this skill. In other words, the skill could be applied to any sport or activity. Indeed, by connecting oneself to breathing and body awareness, the student was provided a means of relaxing and calming the self for competition.

The Intrinsic Value of Sport. Following a discussion regarding sport success, group members brainstormed ideas regarding the purpose of sport. In addition to well-known factors, such as physical fitness, competition, and social factors, the group also recognized the intrinsic value of sport. The group noted that sport provided each athlete an opportunity to gain mental strength; allowing sport to be used as a means of practicing focus, relaxation, and concentration skills. In this manner, sport itself became the reward, providing group members a chance to identify the intrinsic value of sport.

Sport and All the Senses. The last aspect connecting imagery to the sport experience was allowing group members to do more than merely 'see sport'. Through practical imagery and discussions regarding actual competition, students recognized the importance of utilizing all the senses. Being able 'to feel' the action allowed several students to gain better access to their imagery potential. Indeed, this approach to imagery could be utilized in the actual sport setting, allowing group members to gain a more

refined definition of what sport may provide. By gaining knowledge and practice regarding the use of all the senses, group members may be more likely to optimize their sport experiences.

Three elements- Learning and Practicing Sport Imagery, The Intrinsic Value of Sport, and Sport and All the Senses- are offered in response to this study's second research question. These discussions require further research attention and support, but may begin to provide new perspectives on the purpose and function of sport education.

Discussion of Themes

This section furthers the analysis of the research questions by revisiting the categories presented in Chapter 4. By extending this discussion in this way, additional information regarding the importance of group process and sport imagery are offered. (Themes related to Program Limitations are not discussed in this section, see suggestions for imagery teachers and future directions for imagery research.)

Group Characteristics. The category "Group Characteristics" provides evidence of the value of utilizing the group building techniques. Given the goals of the group, which included teaching, practicing and discussing sport imagery, the six characteristics (sharing experiences, comfort, support, novelty, enjoyment and value) were important ones to surface.

Sharing Experiences. All members made reference to this theme in their interviews. Given the nature of both the group process and the lessons taught and practiced, this occurrence is a positive element of the study's findings. This theme's recognition by all members provides evidence for the high level of trust, safety, and comfort which was present. One of the group's goals was to be able to provide an environment for members to share their stories and opinions regarding sport. In so doing, members were presented with a chance to make sense of their own sport experiences, and in the process, allow other group members to also benefit from each other's experiences.

For advanced groups, this preliminary work could lead to the implementation of sport enactments. In other words, as trust levels increase, group members could be encouraged to act out past or practice future sport experiences. Scripted images and scenes could be the focus of the group allowing group members a chance to act out sport experiences which may be stressful or difficult. In addition, allowing group members the license to discuss and work through elements of sport not related to actual competition may be beneficial (i.e., practicing telling a parent to hold back their comments during a competition, or telling a coach that they do not like being 'put down' in front of others).

Comfort. The importance of comfort is an important element of the program. Given the nature of the skills taught and the open-ended discussions, providing a peaceful, unconditional environment was essential. The use of the group process model paid great dividends in providing such an environment.

The importance of this characteristic for the actual imagery session is important, but also holds significance for the discussions which followed. During the scripted session, comfort was essential for students to be able to quiet, focus, and strengthen the mind. In the group discussions, it was important for the level of comfort to be maintained. This continued comfort allowed members to share their experiences (positive or negative) regarding the session.

Support. In the group context, support was an important theme. Literature with employment groups suggest that the group plays an important role in providing members a sense of inclusion and community. "Because members of the group were mutually interested in what happened in each other's job search, people tended to acquire a sense of purpose and meaning derived, actually from the importance attached by other people" (Amundson et al., 1989, p. 11). For the sport group, group members were interested in each other's sport enhancement. With established group goals, all members could gain a sense of purpose and community from the interactions of the group. The fact that the members supported in each other outside of the group, further emphasizes the importance of this characteristic.

Novelty. The theme novelty is an interesting theme to emerge. On the one hand, sport imagery is itself a novel concept. Gaining new perspectives on sport may be attributed to an early discussion regarding sport success and purpose. Where once the students saw sport as purely physical, following discussion, students began to see sport as also a vehicle for intellectual and spiritual learning.

Although the concepts remain simple, awareness and application seemed to provide the students with a new understanding. For sport imagery specifically, intellectual and spiritual training involves building mind strength, as well as body strength. Sport became seen as an opportunity to practice focus and concentration skills. Relaxation provided a focus, as the student was scripted to tense and relax muscles. Allowing thoughts to 'arrive and pass', 'returning to center', 'letting go', provided activities which were truly something new and different for these students.

The assumed activity of breathing took on new meaning. Where once it was something to keep you alive, now it was something that could keep you awake. Realizing that focused breathing was always possible and always present seem to provide good 'new' information. The sport imagery session lasted twenty minutes, but students were encouraged to continue breathing, and focusing throughout the entire session. This continued orientation to the process of awareness contributed much to the notion of novelty.

Indeed, the group itself became an opportunity to relax, focus, and concentrate, allowing the group itself to be novel. Unconditional leadership, based on sharing stories and opinions, linking students ideas, clarifying ideas, empathizing with feelings, and the use of other group tools, provided an environment which was something quite new and refreshing to these students. Actually being heard, understood, and appreciated seemed to possess its own novelty for these students.

Enjoyment. Since the nature of the group was sport, the emergence of this theme is important. For the most part, sport's role in the high school environment is one of

release and enjoyment. Although this group was not identified as 'a team', creating an enjoyable atmosphere remained a priority.

Value. Most of the comments referring to this element were provided via double negative. What did you find least valuable? was responded to by: "There was nothing least valuable." The importance of these statements can be understood in two ways: (1) the sport imagery and discussions were most valuable and/or (2) the operation of the group was intrinsically valuable to these students.

Students found value in learning a new skill, one which owned a sport focus, but a life value. Students found value in learning how to apply these skills. Students valued being able to share their own thoughts and feelings regarding how best to approach sport. Students valued being able to learn 'why' these skills were important to know and practice.

In regards to value, the group itself also held value. The group owned 16 sessions, and no member missed more than two. Members understood and abided by the rules of the group, including attendance responsibilities, but given the volunteer and extra-curricular nature of the group, its members must have been able to identify with both the group's goals and value.

Learning Factors. "Learning Factors" involved those elements which group members identified as 'what was learned'. The first theme of this category was learning about others, which provides further support for the importance of how the group was operated. The nature of the program was designed to provide members a chance to learn and practice new skills, which were supported by two other themes, learning about imagery and learning about sport.

Learning about Others. The group assembled athletes from different sports, and group members gained insights into what others think about sport. The group's openness to story-telling and opinion-giving allowed this learning to take place. In addition, understanding that individual differences will always surface and knowing that there are

several ways to accomplish the same task allowed group members to remain open to the thoughts of others.

In regards to the imagery skills taught, learning from others was essential. There is not 'one' way to approach breathing, relaxing, and imagery sessions. By discussing the actual imagery sessions, first with a partner and then in the group environment, each member gained insights into how to approach the simple, but difficult process of calming the mind in preparation for imagery and sport.

Learning about Sport. Group members commented on a variety of topics relating to sport. Motivating athletes has been seen as simply one's ability to 'psyche up' for sport. Following the group and its teachings, members were introduced to a different perspective. This perspective mirrors that of one researcher, who believes that the purpose of mental rehearsal is to provide more 'lasting effects' to the athlete. He states, "although self-regulation and arousal/activation goals are still employed, such goals are achieved through skill training with lasting effects, as compared to the transitory influences of the older psyching-up approaches" (Suinn, 1992, p. 492).

This movement away from immediate coach-induced motivation may allow athletes to take responsibility for their own training and learning. In regards to the athlete's sport, the group provided a means of controlling and enhancing the experience through preparation and utilization of mental skills, such as breathing, relaxation, and imagery.

In addition, the group served to educate members on how sport may be used to teach life skills. This important element moves beyond simply sport performance into discussions regarding practical life tools, such as communication and stress management. In addition, creating an environment for spiritual practice and discussion further highlight the importance of this sport group to more than just sport.

Group members commented on the importance of preparation, and how best to prepare for competition. Although useful sport information, members were provided information linking these preparatory skills to a number of different activities, including

those not related to sport. In this manner, a large part of learning about sport involved linking it to other aspects of life. Sport, therefore became a vehicle for other lessons.

Learning about Imagery. Considering the group was about sport imagery, the emergence of the theme "Learning about Imagery" should not be a surprise. Indeed, the students were eager to work with these tools and learn how best to employ these techniques in sport and life. Due to the duration of the group (2 months) and the nature of the skills, much of the learning revolved around building belief in its use. Imagery is an important skill to develop, but tangible results may not be felt directly.

Actually doing the imagery was also important. Using the group environment and leader scripts provided group members first hand experience with this tool. The group context allowed subsequent discussion and questioning to enhance the quality of learning about a new skill. Due to its connection to mind and experience, philosophical and psychological elements found their way into the group's discussion.

Although discussions utilized the word imagery, meditation, flowing imagery, or meditative imagery are better representations of this concept, as taught by this group. Discussions regarding God and energy entered the domain of learning, allowing unanswerable questions to become a part of the learning process.

Application Factors. "Application Factors" was the third category formed from the interview material provided by the students. Sport, Sleep and Other Applications are the themes represented in this category and provide support for the group's ability to transform learning into actual sport and life settings.

Sport Application. Although the effects of imagery training may be slow in arriving, many group members felt comfortable and motivated to utilize these principles directly into their sporting environments. Feedback from the interviews provided support for the usefulness of directly applying these skills.

For future groups, monitoring performance through repeated interviews following competition may be a useful way to test the effectiveness of these principles in the sport

setting. Indeed, extending imagery from an activity to be performed before and after competition into a device to be used during competition has support from this study. Placing importance on meditative and relaxation techniques may have a great deal to do with this extension. Although athletes may not be able to visualize certain elements during competition, there may always be time to breathe and relax.

Sleep Application. Although only a limited number of interviewees commented on the importance of sleep application, it remains a potentially important issue. Utilizing breathing and relaxation principles for sleep is a viable application for the skills taught in the group. Athletes may choose to schedule imagery sessions prior to sleep, allowing the benefits of a relaxed and flowing mind environment to be used for individual imagery and as a prelude to sleep.

As research in this area progresses, sleep and dreams may prove to be a valuable aid regarding the impact and influence of regular imagery training. Indeed, measurement in the area of imagery has always caused researchers problems. Future research utilizing long-term extensive imagery practice may find that interviewing students regarding the quality of both dreams and sleep may provide interesting correlations.

Carl Jung makes reference to the importance of dreams, suggesting that they 'give information about the secrets of the inner life and reveal to the dreamer hidden factors of his personality' (Jung, 1933, p. 16). With deeper levels of practice, this 'inner world' may be accessed, allowing the development of Jung's active imagination, which refers to a technique for granting the psyche freedom and time to express itself spontaneously without the usual interference of the ego (Stevens, 1994). Stevens continues: "active imagination requires a state of reverie, half-way between sleep and waking. It is like beginning to fall asleep but stopping short before consciousness is lost, and remaining in that condition, and observing what occurs" (p. 108).

Other Application. The group quickly found ways of utilizing these techniques in other areas of life. The simple act of breathing awareness is a simple activity which can be used in preparation for tests or exams, job interviews, or other. Indeed, the intrinsic value

of these skills, mainly involving mind conditioning and strength, was seen as owning its own value, regardless of the application, sport or otherwise.

Suggestions for Imagery Teachers

Be bold in creating learning environments. Due to the newness of imagery training, firm guidelines have not been provided. Neither coaching certification nor teacher's college provide guidance or instruction in imagery training. Search for literature concerning its use, and allow it to enhance your own ideas regarding the imagery environment.

Seek professional training in the area of counselling or sport counselling. Participate in groups which own a counselling perspective. Educate yourselves on breakthroughs in education, counselling and psychology. Continuing to play the role of student will enhance your own learning environments.

Utilize a Rogerian approach to learning. "Roger's basic assumptions are that people are essentially trustworthy, that they have a vast potential for understanding themselves and resolving their own problems without direct intervention on the (coach's) part, and that they are capable of self-directed growth if they are involved in a (sport) relationship." (Corey, 1996 p. 202). A coach which sees learning as more than a process of constant attention and input may allow players an opportunity to become more self-directed and responsible.

Establish a trusting environment. Imagery training has been shown to be helpful, but remains relatively new. As such, students of imagery will be unsure of its purpose and process upon entering. Utilizing group-building activities and trust formation techniques will go far to insuring that a safe environment is created for imagery's optimal use.

Provide time for practicing communication skills. Utilizing imagery training may open new perspectives for individual group members, which will require expression to be understood. Be sure that group norms regarding non-judgmental, unconditional support among group members are clearly identified.

Allow students to arrive at their own conclusions. Althouugh guidance and support are essential, imagery training is most definitely a solo journey. By assuring a

relaxing, non-defensive educational environment, there may be little need for further intervention.

Define and redefine key concepts. Stressing the importance of defining concepts and providing the space for students to create their own working definitions may prove quite valuable. The language behind the group has much to do with the group itself. By remaining positive and honest, the imagery group is less likely to stall.

Encourage students to be creative. Creativity and spontaneity are important indicators of personal growth. Promote the use of journals or sport logs to allow students to describe life to themself and others. Painting or writing one's emotions and thoughts may allow an opportunity for healthy expression.

Incorporate imagery skills into a sport or exercise setting. Applying imagery lessons into the sporting environment may prove a useful connection. In order for imagery training to be used effectively, the skills are best utilized directly with sport itself.

Future Directions for Imagery Research

The future of imagery research holds the promise of a great many things. The importance of a strong mind, coupled with a growing interest in mind/body techniques places great responsibility on those interested in shaping the future of sport and sport education. As reviewed in chapter two, the groundwork for new developments in imagery has been laid, with numerous studies supporting its benefit to self and sport. Questions regarding the mechanisms underlying imagery's effectiveness have begun to be addressed, but further and deeper questioning is necessary. This section presents the researcher's ideas regarding future research directions, which may lead to a better understanding of imagery's potential.

Consolidation of Definition. In order for imagery research to proceed effectively, consolidating its definition is needed. This consolidation may involve reviewing , linking, and contrasting the definitions of imagery practitioners. Through identification of important characteristics and motives of both imagery and imagery training programs, avenues of research may be best identified. Clarifying the roles of

relaxation and meditation in regards to the imagery question may allow teachers and researchers an opportunity to best create an optimal learning environment. In addition, a consolidated definition may provide graduate students interested in the study of imagery firm guidelines in which to plan and test programs which may better serve the collective search for answers.

Imagery researchers may also find great value in defining other important concepts of the imagery question. Assuring that the fields of sport counselling, sport psychology and sport philosophy are properly identified may be essential to organizing effective lines of research. Identifying the role of imagery for these connected, but separate fields may allow all information to feed a holistic picture of imagery.

More Learning Environments. The purpose of this study was to present imagery training tools without a link to sport performance, but as a link to life performance and experience. Sport was used as a vehicle to create an interesting and enjoyable learning environment in which to introduce and practice these tools. In this manner, the 'process' of imagery could be investigated, attempting to provide in-depth accounts of how these tools and their implementation impacted the learner. Future research, interested in the process of imagery may also find benefit in this approach to research, one which focuses on actual learning environments.

Although the debate regarding how best to utilize imagery continues, its importance is widely accepted. In the coming years, direct research into actual learning environments seems a necessity. In regards to imagery research, qualitative methodology may be an indispensable tool. By allowing actual imagery students a voice in which to share ideas, opinions, and criticisms of imagery training programs, future imagery learning environments may be enhanced.

This study employed the use of these techniques in an extra-curricular high school environment, bringing together athletes from different sports. Future research attempting to use imagery and group principles directly into the sport setting may be an important direction to take. Much of the value of these techniques is derived from daily use. To this

extent, the high school sport setting may be a prime vehicle in which to better understand these processes.

Performance Measurement. Although there have been many studies in the area of sport imagery, reaching firm conclusions regarding its use remains difficult. The foremost research difficulty in sport imagery is the issue of measurement. For the most part, sport psychology has utilized sport performance measurements to monitor the impact of imagery interventions. Due to the individual nature of imagery and potential time lags regarding its effects, and the extremely large number of factors impacting performance, studies using performance measures may not be able to get to the 'heart' of the imagery question.

In determining the future of imagery, it is important to question its purpose. Why is imagery important? How can imagery be effectively taught? In what setting do students learn and use imagery most effectively? What leader characteristics are necessary? Can imagery be researched with a continual external focus? What does the experience of imagery provide for students? What preparatory tools are important to optimal imagery and why? By first answering these questions, researchers may be able to best direct research to unravel its mystery and power.

In regards to sport performance, this study offers little information. The focus of this study was geared to self-growth and inquiry rather than actual sport performance. As such, future research focused on athletic performance may not choose this type of study design. However, this approach coupled with performance monitoring may also be useful. (For example, Rachel, a ninth grade varsity starter and group member, shot 9/10 from the field and 5/5 from the line in the Ontario Girls Basketball Final Four contributing to the team's bronze medal.)

Imagery and the Group. Further research into the importance of the group and group process is required. The link between the group and the team is a natural one, and testing accepted non-sport group models in the sport environment may provide valuable

information. The group process model utilized in this study, based in non-defensiveness, trust and growth may be a particularly interesting line of research in the coming years.

The importance of the group and its development need not be restricted to the study of imagery. It may be true that safety, trust, and comfort are necessary prerequisites to an effective imagery training program. However, with further research support, these valuable group properties may be shown to be essential elements for any sport team or class, with or without the use of imagery.

As research develops in this area of group dynamics, it may be analyzed with the existing literature on team cohesion and satisfaction. By integrated these findings, positive and progression movements may be identified for teachers and coaches of sport. Furthermore, the budding field of sport counselling may gain strength. Indeed, viewing sport as a prime vehicle for inner growth and transformation may allow experts in the field to develop and implement innovative sport learning environments, which may better serve young students.

Cultural Differences. In regards to imagery, cultural differences have yet to be studied. In order to effectively understand the motive, process, and product of imagery, studying how different cultures view and practice this skill may be necessary. Are certain cultures more likely to use imagery than others? Are certain culture more likely to believe in its power than others? Does the familial support granted certain cultures aid in the usefulness of imagery practice? Indeed, these questions are not easy ones to answer, but by beginning to search for cultural links, the research and practice of imagery may be directed effectively.

Concluding Remarks

As we ponder the implications of this study, many issues arise from a number of different fields. With this project, the study of sport imagery with adolescent athletes has been extended in a number of ways. Most important of which is the utilization of a supported group process model. This study has provided preliminary support for the

usefulness of such a model in providing an optimal environment for imagery use and discussion.

The model and its operation is not an approach which can be taken lightly. Its basis in counselling knowledge and training combined with the leader's own inner strength make this approach to sport and learning a delicate operation. Therefore, although this study provides support for its usefulness, without skilled leadership, the effects could do more harm than good. Regardless of the approach, realizing the importance and value of creating a safe, inclusive, and unconditional environment for learning and sharing remains useful to any and all sport coaches and teachers.

In addition, the use of meditation as a preparation for imagery has also gained exposure with this study. The importance of breathing awareness provides a useful link between the actual experience and the image. In addition, utilizing meditation as 'training wheels' for optimal imagery may be appropriate for some students. As a life tool, meditation serves its own purpose, providing a bridge to sleep and dreams, and also serving spiritual needs. Meditation can help trigger, what Jung refers to as, the transcendent function, allowing persons to access their own archetypes in search of a stronger Self.

For the past forty years, imagery research has developed and transformed in effective ways. As one peers into the vast array of scientific findings, the scope and magnitude of imagery becomes obvious. Imagery has stood alone as a field of study, but seems to naturally touch a vast number of fields- motivation, self-confidence, learning, and performance. And although untested, imagery and its link to the mind also opens avenues of thought regarding other interesting topics- sleep, dreams, inner growth and the flow experience. The challenge for imagery scientists is not only to continue to attack the mainstream lines of inquiry, but also to begin to delve into the deeper questions, which are begging to be asked. It is only through these collective efforts that the imagery puzzle may be completed. And until such time, research and practice continues with the hope that what is finally revealed is that which we already know to be true.

EPILOGUE

Thesis Meditations

The following writing enactments have helped make sense of the vast degree of knowledge and experience which has accompanied this graduate project. Expression has not arrived easily throughout my study period, but as I have prepared the final document, I am pulled to disclose these metaphorical findings. Indeed, much of the value of any research is directly related to the philosophical and moral ground of the researcher. I am hopeful that my disposition toward process and experience is made clear through these individual accounts. The implications to sport, education and life remain in the mind and heart of the reader, however, the writer has gained a greater understanding of these elements under the umbrella of expression, which these stories have allowed.

Contents

The Cove of Knowledge

I wander the halls of The House of Study, without particular purpose, and stumble into a room which has no name on the door. I prop open the door and take the first step into a delightful room, with soft carpet, clean walls, and stacks and stacks of books. As I close the door behind me, signifying my presence, the little voice inside me whispers, "Welcome to the Cove of Knowledge."

I entered peacefully, nobody on any side of me; and was greeted by the picture of a large group clustered in one area of the room. There were other people scattered about, not holding to any particular order or discipline. I waltzed over to the area holding the largest group, believing it was the most important, and helped myself to one of the books. I wiped the dust from this particular volume and read the title of the book: "An Interpretation of Dreams by Sigmund Freud". Intrigued immediately by the word, *dreams*, I began perusing my daily reading. Before I had completed a glance of the table of contents, I could feel the sexual tension building inside me and unconsciously attributed it to the overwhelming sexual energy which was now glaringly apparent in those around me.

I knew very quickly that I was in over my head, but enjoyed remaining a character in this group's lustful space, simply breathing my breath and minding Freud's mind. As the pages flipped, each clearer than its predecessor, I lived out the messages between the lines, dreaming of introductory psychology courses repeating the same shadowy lines; repeating the same intellectual flavour of a writer who had not yet resolved his own sexual repressions; repeating the words of the Grandfather of Psychology, who although unperfected, was provided lisense to anoint the world with his imagination and energy.

I read onward, allowing dreams of both pain and pleasure to whistle through my repressed soul. I felt anger to so many who had poisoned me with their insecurities; and felt anger to myself for having done the same to others. I felt sadness at the state of the world, realizing the chains of bondage in which we were caught. I felt lonely in the face of what I did not know about myself. I felt needy, pleading for a release from this vision of the human condition. Disgust and horror emanating, I continued to flip pages, I continued to read on, I continued to immerse myself into this prescribed academic requirement.

By day's end, I was left studying alone. The group of eager students, who greeted my late arrival were now busy immersing themselves in the Freudian Reality of Life. I was aware of my alone-ness, but continued to read on into the deep of night.

It was not until well after the midnight hour that I finally closed the book. At the time, I had no idea what I had gained from reading it. Quotes and references alluded my grasp, left instead with the implant of many interesting themes: Psychoanalysis, Sublimation, Transference, Hidden Sexual Impulses, Inadequacy, Therapist Dependency, Denial, and Ego to name a few.

I made my way to the exit, and prior to leaving, peered at the empty library of psychology. As the words of Freud flung from the immediate conscious into the always waiting and floating unconscious, I promised myself that the next time I walk into this Cove of Knowledge, I would take a path less travelled.

Creating Snow

On the steps of The House, I stare at the snow I have created. It is pure and white, clean and cool. Most of the patrons choose a more realistic project, one which can be capsualized and presented in a simple project. Why did I choose to create snow? It is beautiful to look at, incredible to feel, but far too difficult to research and to prove.

I look upward and see that the sky is blue and feel that the air is warming. I stutter to myself, knowing the unenviable position in which I am trapped. I have proposed snow, succeeded in creating snow, and must now calmly watch the snow disappear in front of my eyes.

As I stare into the multitude of files, my heart is ripped open as I understand that without the product, any attempts to convince my advisors that I had succeeded will be in vain. Indeed, even the limited articles I have referenced cannot offer any service to my findings. The findings were of the experience and are best suited to discussion rather than analysis.

My spirit sinks as I watch the beloved Sun melt away my graduate thesis. In desperation, I attempt to build something, something which can never capture the essence of snow, but perhaps something that I could present, a piece of the puzzle. In my mind only, I make snowballs and crunch them together, believing the carving can come later.

I am careful not to bite off more than I can chew, realizing that quality is more important than quantity. My last gasps are good ones, and I return to the steps as silly as I was creative. In a heap, I throw the snow back onto the lawn, knowing that as quick as I arrive at my room temperature cubicle, any remnants of the now-disappeared snow would evaporate.

As I picture myself dry but desolate, the campus clock chimes 8:00 and I know that I must begin my day's work, praying that it snows on defence day.

Illusions of Grandeur

I was standing on the roof of the House of Study meditating through the summer breeze which blew in from the North. I remained calm and tranquil, allowing thoughts of study and experience to arrive, be heard, and pass on. On this particular day, there seemed no rest from the spinning mind, but I remained true to my breathing and breezy mantra, awaiting the delicate moments of complete emptiness.

As always, it was difficult to know how many earthly minutes had passed, but I completed my spiritual practice at the precise moment it was destined to be completed and stretched out my painful legs. As I did, a revelation hit me, leaving me gasping for air. Sweat began to pour down, my body temperature rising rapidly, the mind so recently calm and balanced, now spinning and excited. I jumped to my feet, ready to tell the world of the true future of sport and life; ready to tell the world that God had sent another Messenger; ready to tell the world that our modern day savior was not of the human form, but had arrived in the ever-changing and ever-dynamic form of Sport. The revelation was as clear as the crisp blue sky and as mysterious as the chilling summer breeze which continued to float divine messages into my dormant unconscious.

How so wonderful. Everyone knows of sports, and now, they will know of Sport. I had yet to outline a plan to tell the world of this new found vehicle to liberation, when I gazed to the heavens and noticed a ripple in the sky. "A Hole in the Sky", my little voice murmured. But how could this be? I looked down from my perch onto the lawn of The House of Study hoping somebody else was witnessing this mysterious spectacle, but could locate no one.

When I peered back to the sky, the hole in the sky had disappeared. Now shaken and disturbed, I wandered around the roof aimlessly,

wondering what to make of this afternoon's fervent activity. The mind quickly took charge, dispelling all notions of grandeur, and rationalizing the mysterious 'Hole in the Sky' as a post-hypnotic meditative hallucination. I took stock of my ever-growing ego and slid down the ivy vines carrying me back down to Earth.

As I reached the ground, the courtyard clock chimed 3:00 and I knew it was time for my next class, entitled: 'Meditation and The God Complex'. Given the day's events, it was a class I most certainly did not want to miss.

The Tree of Wisdom

As I walk along the Path of Knowledge, dreaming of my return to The House of Study, I catch the vision of a great Tree of Wisdom. My meditative walking transforms instinctively to standing meditation, my object of meditation now The Tree of Wisdom. On the surface, this tree rests like all others, providing both shade and oxygen, but in my state of emptiness I am magnetically drawn to this Coniferous Creature of Creation.

As I rest my gaze on the tremendous presence in front of me, the reason for stopping finds me, as I watch the tree carry itself into the daylight sky. I watch the tree launch itself into the universe floating purposefully out of range, leaving only the clear blue sky. The sun, now beating down on me provides proof that there are answers amidst the forest of theory and knowledge, provides belief that the Light does want to shine, provides encouragement that the journey into nothingness can provide the ultimate gift of everything.

I am aware of my location, not far from the House of Study, aware of my loneliness, aware of my compulsiveness, aware of my stubbornness, aware of my mania, aware of my depression, aware of my doubt, aware of my fear and aware of the pervading darkness which rests underneath the Light which now shines.

I am aware of my body, I am aware of breathing, I am aware of the nothingness which is me. I am aware of my brothers, I am aware of my sisters, I am aware of my mothers, I am aware of my fathers, I am aware of my sons and I am aware of my daughters. I am aware of my self, I am aware of my ego, and I am aware of God, whose Light mysteriously shines amidst the thick and dense forest.

As I stare into the nothingness which is everything, a cloud makes its way in front of the glowing sun. Before I can determine what has caused the shadow, my Tree of Wisdom shoots out of the sky, returning to its rightful place on the Journey of Life. Upon return, the tree does not feel a need to tell of its journey into timeless space, but warmly asks of mine. Before recounting my experience, I stop myself, knowing The Tree of Wisdom knew my story far before I imagined it.

Blinking finally, my gaze returned to the path ahead, which instinctively leads me back to meditative walking. The glowing experience, not held as anything unusual or out of the ordinary, allowed to arrive, be experienced and to pass on, leaving nothing tangible to science, but something very real to life. The path ahead not any brighter from the experience, but for moments after, the steps remarkably lighter.

The Mountain Trail

I walk slowly, bending myself into the depths of the mountain trail. I cannot see The House of Study, but know that the journey leads to a panoramic view of her. As I trek upward, I realize how light 'the way' can be. I realize how peaceful each step can be. I realize how the mountain seems to have known about this journey long before me, and has prepared the trail for me. I realize how each step seems to be greeted with genuine care from the earth beneath.

The path bends, and with it, my eyes catch a different perspective of the sky, which backdrops the branches. The sky, a moment ago blue, has become a shadowy black. The sun, long ago set, echoes her love, beginning in the west and ending in the east. The path continues upward, foretelling only darkness. I realize the truth of night which has happened upon me.

The trail continues and I embrace the darkness which fuels my trip. My pack is light and if my calculations are correct, I will arrive at my summit in time to welcome the Sun.

I remember a time when I would do this trail with a spotlight, but now feel much more comfortable dealing with the darkness, believing it is better to have no light on everything, than some light on somethings. And also, once one has the faith to turn off the spotlight and live in darkness, the light does finally shine. And if you ask God, He is always happy to provide more.

The trail continues and bends again, the sky completely black, but the trail lit up, as if with candles. As I peer into the darkness, I see the answer to my prayers; a quarter moon fluttering amidst the few playful clouds of the night. I carry on, my feet knowing pain, but transmitting pleasure. My heart races with each strengthening step.

There are spots where it is very difficult to see. I look to the skies, but am engulfed with the darkness of heavy leaves and thick forest. I look to the sky and find darkness, but I trudge onward. I move with instinct, knowing that the hidden moon will soon return, that the path will again find light.

As ego and thought transcend leaving only the crunch of the trail and the darkness of the way, I begin to hear the infamous hoots and howls of the forest. I continue onward and hear shouts and shrieks:

"help me, I am stuck.
help me, I have lost my way.
help me, it is too dark to see."

I try to help, but quickly realize that those caught in darkness must learn to stand and walk on their own, before they can be guided to the Light. I continue onward, returning to my loneliness. The forest animals continue to haunt my every step. My rationalizations never securing peace for too long:

"help me learn to walk.
help me to stand on my own.
I am not afraid of the darkness.
I would like to travel along with you, but first teach me how to walk."

My immediate response into the heat of the night, knowing that I have deadlines to meet, is:

"To learn to walk the way, begin breathing and believing, caring and concentrating, relaxing and releasing, studying and seeing, praying and panting, meditating and minding, and inventing and imagining and you will not only learn how to walk, but also how to fly."

I stroll onward, wishing I could do more, but realize unless and until I take care of my needs, how can I possibly be of service to others.

The voices fade as the forest breaks and turns ever closer to my sunrise perch. The moon, on its own travels, stretches higher into the sky, and I think of 'her', wondering if she is watching this same moon. The night rolls

onward, each step heavier and happier than its predecessor. The mountain, as steep as ever, has shifted to the horizontal, my gaze focused on the ground below, believing each step to be as simple as a child's first.

Notions of school, sport, God and 'her' intertwine themselves into my meditative moonwalk, each step bringing me closer to each of them, each step owning an important role in the overall picture, each step knowing that if one is missed, there may be no other. I walk onward, I walk upward, understanding that ending the trip may be the most difficult.

The east horizon glows, signifying the end of night. I wrestle with my last few steps, loving the feeling of pain almost-ended. I embrace the last few steps and know that my summit now awaits. As I rest my pack at journey's destination, the town below sleeps, expectant of alarms.

The air is thin, but fresh. The dawn alive and wonderful. My body aching but awake, each part wanting a piece of the Light. I rest on a rock and melt into the dawning. My mind is peaceful, sacred, and silent, allowing the experience itself to do the talking. My heart is needy but happy, understanding the miracle which is taking place. My spirit, already here, joins my Self soaking in the first few rays of God's new light.

Once seen, the Light arrives quickly, allowing my gaze to drop to the village below. And with eyes unblinking, I spot The House and wonder if they can ever know of the mystery and excitement which pervades on the mountain top.

Morning Session

It has been raining for what seems like weeks. The rain sesshin was only to last a week, but since I had yet to attain 'the greatest gift', I was determined to continue my meditative quest. My morning bike session would begin when I felt ready to finally realize that moment of complete stillness and oneness which characterizes sportflow.

I awake to the mutterings of my bike, but am quickly caught by my sport koan- how does a team score more goals than its opponent and still lose? My simple-mindedness makes this difficult to comprehend by intellectual means and I release into the experience, which rests dropping in raindrops.

Ah ha. My focus. As sleep consciousness fades into the truth which is 'the way', my focus has found me. I remain open and aware, continually asking the rain:

"Where did you come from? Where are you going?

As my kettles brews, I realize that I am again day-dreaming rather than meditating. The tea kettle, happy to have played alarm clock whispers: "there is no difference between dreaming and meditating". I pour my tea, and prepare for morning session.

From the first sip of tea, I am awakened, not needing caffeine, but warmth. My gaze is forward, I sit upright, notebook and pen handy. I am sure to take each sip or gulp of tea with complete awareness, feeling the need, hearing the mind yelling at my hand and arm to lift and twist, smelling the remnants of last night's incense, my spirit flowing and attentive to the rain which drops.

Silence remaining golden, I eat breakfast, saddle up my pack, and float into riding mode. The rain has slowed, seemingly wanting to help me arrive safely. I ride, each rotation acting as a rotation of the earth around the sun, each puddle a scattering of another universe, each car which passes me, another one on their way to enlightenment.

The trail to The House owns two routes and I find myself on the longer route. I wonder if I have time and happily realize that she is on my side. The trail bends and twists, and ends magically with a grueling climb. Upon reaching the top, and seeing the gleam of the campus clock, I realize I am late and pray it is not defence day.

Vancouver Rain

I rest on Faculty Lawn, stranded underneath the pouring rain. There is a chill in the air, but I do not find it cold. I begin by walking about, looking and believing at those around me. The stories of life yet to be told, I embrace the characters, who collective make up The House. I see eyes peering at me, wondering who I am, and why I don't come in out of the rain. Enjoying the rain as much as I do, I cannot verbalize the joy of the experience, I can only model it.

The walk turns tiring, so I find a place to 'sit'. The campus is lush with green grass and wise pines, the air crisp and pure. As I sit and meditate, basking in the showers and storms, I move beyond the people, I move beyond

academia, I move beyond social alienation, I move beyond philosophical misgivings, I move beyond parental pressure, I move beyond career objectives, I move beyond the entity known as mindspace, and find a home in the reality of innerspace.

The drops hit me one by one, each telling a different story. One arriving from a monsoon in India, telling of poverty and progress. Another, on its way to Israel screams, "Keep your promise." Still another vaguely exclaims, "Turn left, turn left, turn left". One raindrop landed and seductively whispered, "I am ready." Still another tells of the TSE, which always has one more share to sell.

The drops hit me one by one, each touching my spirit in its arriving and in its passing. I capture the essence of the falling rain, and do so not to celebrate the clarity, but to open to it. The rain falls, and my mind spins me into an inner reality. My posture had not changed for some time, and this idol-like pose, had found many worshippers, who were both excited and afraid.

I rest alive in the moment, wondering when the explosive realization of a lost soul would hit me. The reward, when thought of, will never arrive, and am saddened by my futile attempts. My inner ear ceases, leaving me again to make external selections. The campus, now expectant of Sun, awakens my dreaming mind.

I breath myself into my body, unleashing the pain of meditative sitting. I revel in the pain, before blinking, signifying the conclusion of my afternoon session. I rise and before I can notice the attention I had attracted, all disperse, as if nothing had happened.

Pillow of Books

I rest now in my study carrel placing final touches on the paper which is destined to cause alarms. The paper spontaneous and errorful owns little academic merit, the methodology and objectivity lost in a graduate sea of freedom and passion. Interview content analysis, representing the thoughts and opinions of students, are skewed by the vocabulary and lessons of the one asking the questions. Validity and reliability becoming difficult to measure, the answer lying in the heart of the researcher; morality claiming the highest authority.

Slap! The Zen Stick slams across the back of my spine. I feel its impact and know its seriousness. The beloved kyosaku, a monk of twenty eight

awakens my dreaming mind, returning it to my place, leaving sport, group, and life for the unconscious caverns of sleep and meditation.

My books transform themselves into pillows, enticing me to abandon my worldly studies for the delight and wonder of another world. 'Arrive calm and flowing, otherwise the waves and winds will skew the picture', whisper the pillows. Evaporating into the clouds of sloth and slumber, the books cry out for retreat, whining their way into sleep and dreams, screaming for a reading of the mind.

I consciously abandon worldly responsibilities, who could not and can not be ready for these proposals on sport and counselling, and accept the pillows' request for transformation. Reading amidst the splendor of sleep, allowing messages to be fused with my own. Pictures and myths understood and applied, the inner student finding its own rewards.

Preparation complete, I drift now aimlessly between two worlds. If I begin dreaming to my left, I dream the world I want to die in. If I begin dreaming to my right, I dream the world in which I cannot die. Both worlds owning flow and balance, but remaining intertwined only by the concept of time. The world which precludes death a wonderful place, the world which knows not death remaining a bastion of egotistical suffering and narcissistic tendencies, continually restricting collective development.

On this day, I move left and hear, "you will die today, but on the baseball diamond, a son is telling his father how to best coach him; on the soccer field, ninety minutes long since over, the teams continue to play on, having long since forgotten the score; on the basketball court, parents and communities jam-pack high school gyms, funding and feeding the children of sport..... .....you will die today, but your legacy lives on, your passion and commitment to knowledge and service owns no bounds; your egotistical ramblings early in life ironed out into progressive theory, practice, and experience in your later years."

I move left, allowing all thoughts of grandeur and circumstance to pass, knowing all to be impermanent. The battle for death remaining only a dream for before one can truly die, he must first of all, have lived.

My heart racing, my mind buzzing, I find myself leaning right, the dreamworld of the unknown toppled by the infinite cycles of life. The hell realm, the realm of the hungry ghosts, the human realm, the animal realm, the jealous gods, and the heavenly realm spinning in a continuos

karmic flow. Indeed, within this samsara is found he who cannot know any different.

Preparation for peace and oneness halted by the battling worlds, the oneness between self and universe impossible to see without first a oneness between self and ego. Where once psychotherapy was for the ill, it is now assuredly for the healthy. Where once, *therapy* was geared towards mending the ego and strengthening the personality, now it is *learning* geared toward moving beyond the ego, trusting personality, and travelling deeper into the experience.

The worlds fuse again, finding their link in breathing, the body flowing and alive, the mind meditative and active, the heart distraught and tired, and the spirit alive and growing. Naptime over, the billowy cushions hardening, books returning to the their original form. Breathing myself out of my afternoon meditation, I return to the books and papers which stand between me and my defence.

Imagining Soccer

Inside The House of Study rests an eager student, pondering exam questions amidst an audience of advisors and peers. He reads questions and answers them, always confident that even the mistakes succeed in clarifying the overall picture.

With the exam not yet finished, the student's mind drifts to soccer. He stares out the window into the open field, hearing the crisp ripple of the net following a goal, feeling the softness of the green grass, tasting the essence of competition. The imagination flies wild, coinciding with the relinquishment of the pen, which drops from the fingers of the unknowing student to the floor. Although all in the room heard a pen drop to the floor, in the mind of the student this sound was perceived as the opening kickoff.

Without attachment to time and space, the student transports himself onto the waiting soccer field, amidst the challenge and excitement of the world's game. The exam now completely forgotten, science and theory left stranded, remaining alive only in the unconscious. The transformation from student to athlete complete.

The game begins bright and bubbly, flowing through each pass, each tackle, and each goal. The crowd is modest but lively, understanding

that the essence of football lies in its simplicity. Teams compete, but remain open to the enemy, not yet knowing who holds victory.

The test, which moments ago was written with a pen, now finds its answers from a pair of six studs. The student come athlete detaching from the reality of 'a player', leaving only 'the play'. And under the invisible guise of meditation, he breaths, relaxes and imagines his way through ninety minutes.

Inside the House of Study, advisors wonder and wait, but punish him not, understanding the dual responsibility of a student to gain both imperical knowledge and experiential wisdom. And it is with support and guidance that the student athlete self-administers his proposed sport elixir onto himself and his chosen game.

Walking and Talking with Jung

Outside the House of Study is a long winding path, a path I traverse quite regularly. I usually have company on this trek, but recall a day I trudged forward on my own. It was difficult to know whether I had lost my group or if they had lost me. Regardless, I confidently searched and researched in solitude. As I immersed myself into the natural waves of the forest I had entered, I knew that this was indeed the correct path.

There were long stretches when I would close my eyes, gaining the wisdom of my journey by listening to the lectures of the whistling birds; and understanding the truth of learning by inhaling the flowing incense of the forest faithful. Under my feet the path was soft, allowing each step to flow unabated and unencumbered. I trudged forward, even the amidst the cries from the House of Study willing me not to go.

As my metaphorical forest dropped into the reality of my work with adolescents, I heard Jung whisper: 'Dan, a psychological commitment to the path of individuation is hardly appropriate to adolescence'. In a daze, I began conversing with Jung on the capability of not teaching individuation, but modeling it. I returned to my bastion of study, sport and argued: 'what of the budding counsellor utilizing not a *psychological* commitment, but a *sport* commitment to the path of individuation'. Jung remained silent, wanting to know more, wanting me to expand. Having the attention of such an important person caused me to pause and stutter. His attentive eyes soon wandered and before I could begin to articulate a real answer, he disappeared, leaving me again alone in my forest of potential knowledge.

As I return from my hallucinatory experience with Dr. Jung, I continue to trudge forward, wishing I had a better answer for Dr. Jung, hoping for another chance to expand on my thoughts concerning sport, adolescents, and life. As I attempt to find my bearings, I realize that the only chance I have to share my findings is to return to The House of Study. Now, if I could only remember the way home.

The Train of Study

I feel the train braking to a halt, and I know I have arrived. It is a peculiar feeling for although I know the end has arrived, the surroundings which face me are identical to those which commenced the trip. It is true that those who greet me may be different than those who departed me. Whichever department checks me, I will try to make it back to the campus in one piece.

The journey has been quite interesting, and will no doubt be hoarded with questions regarding the Sport Imagery Express, which has been zooming around sport groups attempting to let answers been found. "How was the design of the train?", one thesis inspector asks. The design was weak, it was difficult to know what car I was on. Train staff were friendly, but all seemed busy with other passengers. The inspector looked at me not believing, and allowed me to pass for reasons he was not aware of.

Baggage claim. Wait, I had no bags, save the one on my shoulder. I carry not a library, but own a journal and many pens. Sometimes, I have fruit or bread and I always have water. Buddhists text are hardly far away, nor are a pair of cleats. I have also been carrying something else. I have been carrying around my thesis. I will be delighted to leave this behind, for it was not meant for me. The lighter pack will also do wonders for the travels which lay ahead.

I wander through the station, unsure why it continues to feel like I am moving on a train. People are greeted, hugged, and teared. I float aimlessly wondering which bus to catch. Is the journey not yet complete. "I thought the train ride would lead me to my destiny", the child in me whispers, ready to go home, ready to be home. As I write, boxes are stored and telephone lines cut, my mother's house losing a son.

I whistle around, trying to look busy, but realize that the only work left to be done was to wait for my ride. I found a quiet corner and begin altering my thesis, knowing that what I have may already be good

enough. My thesis- is it really *my* thesis? The question begs as I entertain loneliness. What does it matter what I think I know about life? What matters is not the ninety percent that I do know, but that the ten percent I don't known is the ten percent it takes to be successful in the world.

"Maybe my ride is not coming?", I didn't hear myself say. And while not speaking, begin staring at the Schedule of Trains. It seems that the station is somewhat of a hub for there were many trains which I could catch. All seem quite intriguing. It is strange because, I know my train pass will get me on many trains, but I am lacking credentials for many of the destinations. I check and make sure my thesis has not been lifted, wondering if I even own credentials for the place in which I have arrived.

The trip was quite amazing. There were times when all I could see was where I had been. At other times, I could see only where I was going. The pictures are as vivid as the feeling of sitting in a train going backwards. It is only now at the end that I realize the illusion of time, for truly, both perspectives depict the same picture. As I arrive, I know that the arrival is the important thing and so to is the future.

The trip was quite amazing. I talked to children of sport, it was strange because the talk occurred in my dreams and visions. The voice was many times, my own, or else, a six year old soccer player or a ten year old hockey player or a thirteen year old rugby player or a sixteen year old basketball player. The child's face remains faceless for so many chant for the same thing, so many chant for the sport elixir. The frightening thing for new coaches is that what eternalizes one child may poison another.

The trip was quite amazing. I entered with sport, knowing I was teaching something else. I exit teaching life through sport. I entered confident and cautious; I exit scared and reckless. I entered in search of experience and I exit in search of the same. I entered untouched by the ecstasy of nothingness, I exit stronger and deeper, now wanting its opposite. I entered loyal and respectful and exit praying I do the same. I entered and now I exit.

The trip was quite amazing. It was as if, I had tracing paper and I traced around my research environment and placed the result next to my own idealized version of high school sport. The analysis of this thesis is the words behind these two pictures, including how to fuse one into the other. I stare around the now-empty station and believe that I may have detrained prematurely. I try to rise but cannot. My legs are paralyzed, I cannot move. I grip in pain, willing the feeling back into my legs..

I grip in pain, realizing the dream which has occurred. I tense my legs, breath and feel again the legs which remain unmoved. I startle myself awake, and am quickly caught by the 'clampety clamp' of the rails underneath my standing pillow. "Oh, the train ride continues", I cry to myself, not knowing which is more painful, the dream or the reality. "When the conductor appears, I must remind him to wake me when my station arrives.", I whisper to myself before entering another train of dreams.

REFERENCES

Amundson, N.E., Westwood, M.J., Borgen, W.E. & Pollard, D.E. (1989). *Employment Groups: The Counselling Connection.* Vancouver, B.C.: Lugus Productions.

Barr, K. and Hall, C. (1992). The use of imagery by rowers. *International Journal of Sport Psychology*, 23 (3), 243-261.

Bennett, B. and Stothart, C. (1978). *The effects of a relaxation-based cognitive technique on sport performances.* Paper presented at the Congress of the Canadian Society for Motor Learning and Sport Psychology, Toronto, Canada.

Betts, G. (1909). *The distribution and functions of mental imagery.* New York: Teachers College, Columbia University.

Bion, W. (1961). *Experiences in Groups.* New York: Basic Books.

Bion, W. (1970). *Attention and Interpretation.* New York: Basic Books.

Blair, A., Hall, C. and Leyshon, G. (1993). Imagery effects on the performance of skilled and novice soccer players. *Journal of Sports Sciences,* 11, 95-101.

Budney, A.J., Murphy, S.M., & Woolfolk, R.L. (1994). Imagery and Motor Performance: What do we really know? In A.A. Sheikh and E.R. Korn (eds.), *Imagery in Sports and Physical Performance.* (p. 97-120). Amityville, New York: Baywood.

Chartrand, J.M. and Lent, R.W. (1987). Sports Counselling: Enhancing the Development of the Student-Athlete. *Journal of Counselling and Developing,* 66 (4), 164-167.

Cohn, B. (Ed.). (1967). *Guidelines for future research on group counselling in the public school setting.* Washington, DC: American Personnel and Guidance Association.

Corbin, C. (1967a). The effects of covert rehearsal on the development of a complex motor skill. *The Journal of General Psychology*, 76, 143-150.

Corbin, C. (1967). Effects of mental practice on skill development after controlled practice. *Research Quarterly,* 38, 534-538.

Corey, G. (1996). *Theory and Practice of Counseling and Psychotherapy (5th Ed.).* Pacific Grove, CA.: Brooks/Cole Publishing.

Denis, M. (1985). Visual imagery and the use of mental practice in the development of motor skills. *Canadian Journal of Applied Sport Sciences,* 10, 4S-16S.

Desiderato, O. and Miller, I.M. (1979). Improving tennis performance by cognitive behavior modification techniques. *The Behavior Therapist,* 2:4, 19.

Dinkmeyer, D.D. and Muro, J.J. (1971). *Group Counselling: Theory and practice.* Itasca, IL: F.E. Peacock.

Doyle, L. & Landers, D. (1980). *Psychological skills in elite and subelite shooters.* Unpublished manuscript.

Epstein, M. (1980). The relationship of mental practice on motor skill learning and performance of a motor task. *Journal of Sport Psychology*, 2, 211-220.

Feltz, D. & Landers, D. (1983). The effects of mental practice on motor skill learning and performance: A meta-analysis. *Journal of Sport Psychology,* 5, 25-57.

Feltz, D., Landers, D., and Becker (1988). A revised meta-analysis of the mental practice literature on motor skill learning. In D. Druckman and J. Swets (eds). *Ennhancing Human Performance: Issues, Theories and Techniques.* Washington: National Academy Press.

Fishburne, G. and Hall, C. (1987). Visual and kinesthetic imagery ability in children: Implications for teaching motor skills. In GT Barrette, RS Feingold, CR Rees, and Pieron (eds)., *Myths, Models and Methods in Sport Pedagogy*. Champaign, IL: Human Kinetics.

Fishburne, G. and Hall, C. (1988). Imagery ability and movement. In M. Lashuk (ed.). *Proceedings of the Alberta Teacher Educators in Physical Education Society Meeting*. Calgary: University of Calgary.

Gazda, G.M. (1968). Preface. *Journal of Research and Development in Education*. 1 (2), p. 1-2.

Gibb (1961). Defence Level and Influence in Small Groups. In Petralo, L. and Bass, B.M. (Eds). *Leadership and Interpersonal Behavior*, p. 66-81. New York: Holt, Renhart and Wilson.

Goldstein, J. & Kornfield, J. (1987). *Seeking the Heart of Wisdom: The path to insight editation*. Boston: Shambhala.

Goss, S., Hall, C., Buckolz E., and Fishburne, G. (1986). Imagery ability and the acquisition and retention of movements. *Memory Cognition*, 14, 469-477.

Gough, D. (1989). Improving batting skills with small college baseball players through guided visual imagery. *Coaching Clinic*, 27, 1-6.

Gould, D, Weiss, M. & Weinberg, R. (1989). Psychological characteristics of successful and non-successful Big-Ten wrestlers. *Journal of Sport Psychology*, 3, 69-81.

Gray, J., Haring, M. and Banks, N. (1984). Mental rehearsal for sport performance: exploring the relaxation-imagery paradigm. *Journal of Sport Psychology*, 2,329-339.

Green, L.B. (1994). The Use of Rehabilitation of Injured Athletes. In A.A. Sheikh and E.R. Korn (eds.), *Imagery in Sports and Physical Performance*. (p. 157-174). Amityville, New York: Baywood.

Guerney, G.B., Stollack, G., & Guerney, L. (1970). A format for a new mode of psychological practice: Or how to escape a zombie. *Counselling Psychologist, 2(2), 97-104*.

Hall, C., Buckolz E., and Fishburne, G. (1992). Imagery and the acquisition of motor skills. *Canadian Journal of Sport Science*, 17 (1), 19-27.

Hall, C. and Erffmeyer, E. (1983). The effect of visuo-motor behavior rehearsal with videotaped modeling in free throw accuracy of intercollegiate female basketball players. *Journal of Sport Psychology*, 5(3), 343-346.

Hall, C., Pongrac, J., and Buckolz, E. (1985). The measurement of imagery ability. *Human Movement Science*, 4, 107-118.

Hall, C., Rodgers, W., & Barr, K. (1990). The use of imagery by athletes in selected sports. *The Sport Psychologist*, 4, 1-10.

Hall, C., Schmidt, D., Durand, M., and Buckolz, E. (1994). Imagery and Motor Skill Acquisition. In A.A. Sheikh and E.R. Korn (eds.), *Imagery in Sports and Physical Performance*. (p. 121-134). Amityville, New York: Baywood.

Hamberger, K., Lohr, J. (1980). Relationship of relaxation training to the controllability of imagery. *Perceptual and Motor Skills*, 51, 103-110.

Harris, D.V. and Robinson, W.J. (1986). The effects of skill level on EMG activity during internal and external imagery. *Journal of Sport Psychology*, 8, 105-111.

Hecker, J. & Kazcor, L. (1988). Application of imagery theory to sport psychology: Some preliminary findings. *Journal of Sport & Exercise Psychology*, 10, 363-373.

Johnson, D. & Johnson, R. (1982). *Joining together: Group theory and group skills.* (2nd edition). Englewood Cliffs, NJ: Prentice-Hall.

Jung, C.G. (1933). *Modern Man in Search of Soul.* Orlando: Harcourt Brace & Company

Kapleau, P. (1989). *The Three Pillars of Zen.* New York: Anchor Books.

Kolonay, B. (1977). *The effects of visuo-motor behavior rehearsal on athletic performance.* Unpublished master's thesis, The City University of New York.

Korn, E.R. (1994). Mental Imagery in Enhancing Performance: Theory and Practical Exercises. In A.A. Sheikh and E.R. Korn (eds.), *Imagery in Sports and Physical Performance.* (p. 121-134). Amityville, New York: Baywood.

Lang, P. (1977). Imagery in therapy: An information processing analysis of fear. *Behavior Therapy*, 8, 862-886.

Lang, P. (1979a). A bio-informational theory of emotional imagery. *Psychophysiology,* 16, 495-512.

Lang, P. (1979b). Language, image, and emotion. In K. Pliner, K. Blankenstein & I. Speigal (Eds.), *Advances in the study of communication and affect: Perception of emotion in self and others* (p.107-117). New York: Plenum Press.

Lang, P. (1985). The cognitive psychophysiology of emotion: Fear and anxiety. In A. Tuma & J. Maser (Eds.), *Anxiety and the anxiety disorders* (p.131-107). Hillsdale, NJ: Erlbaum.

Lieberman, M., Yalom, I. & Miles, M. (1973). *Encounter groups: First facts.* New York: Basic Books.

Mahoney, M., & Avener, M. (1977). Psychology of the elite athlete: An exploratory study. *Cognitive Therapy and Research*, 1, 135-141.

Mahoney, M. & Epstein, M. (1981). The assessment of cognition in athletes. In T. Merluzzi, C. Glass, & M. Genest (Eds), *Cognitive Assessment* (p.439-451). New York: Guilford Press.

Marks, D. (1983). Mental imagery and consciousness: A theoretical review. In A. Sheikh (Ed.), *Imagery: Current theory, research, and application* (p.96-130). New York: Wiley.

Martens, R. (1982, September). *Imagery in sport.* Paper presented at the VII Commonwealth and International Conference on Sport, Physical Education, Recreation, and Dance, Brisbane, Austrailia.

Martin K. and Hall, C. (1995). Using mental imagery to enhance intrinsic motivation. *Journal of Sport and Exercise Psychology*, 17, 54-69.

McCaffrey, N. and Orlick, T. (1989). Mental factors related to excellence among top professional golfers. *International Journal of Sport Psychology,* 20:4, 256-278.

McCaffrey, N. and Orlick, T. (1991). Mental training with children for sport and life. *The Sport Psychologist*, 5, 322-334.

McFadden, R.S. (1982). *An Investigation of the Relative Effectiveness of Two Types of Imagery Rehearsal Applied to Enhance Skilled Athletic Performance,* unpublished doctoral dissertation, University of Toronto.

Meichenbaum, D. (1977). *Cognitive-behavior modification: An integrative approach.* New York: Plenum Press.

Moritz, S. (1994). *Searching for a relationship between imagery and self-confidence.* Unpublished master's thesis, The University of Western Ontario.

Mumford, B. and Hall, C. (1985). The effects of internal and external imagery on performaing figures in figure skating. *Canadian Journal of Applied Sport Sciences,* 10, 171-177.

Murphy, S. (1994). Imagery interventions in sport. *Medicine and Science in Sports and Exercise,* 26 (4), 486-494.

Murphy, S., Jowdy, D. and Durtschi, S. (1989). *Report on the United States Olympic Committee survey on imagery use in sport: 1989.* Colorado Springs, CO.

Myers, A., Cooke, C., Cullen, J., & Liles, L. (1979). Psychological aspects of athletic competitors: A replication across sports. *Cognitive Therapy and Research,* 3, 361-366.

Noel R.C. (1980). The effect of visuo-motor behavioral rehearsal on tennis performance, *Journal of Sport Psychology,* 2, 220-226.

Orlick,T. & Partington J. (1988). Mental links to excellence. *The Sport Psychologist,* 2, 105-130.

Paivio, A. (1985). Cognitive and motivational functions of imagery in human performance. *Canadian Journal of Applied Sport Science,* 10, 22S-28S.

Patton, M.Q. (1990). *Qualitative Evaluation and Research Methods (2nd Ed.).* Newbury Park, California, SAGE.

Prediger (1988). Performance enhancement through visualization. *Research Quaterly for Exercise and Sport,* Fall.

Richardson, A. (1967). Mental Practice: A review and discussion. *Research Quarterly,* 38, 95-107, 262-273.

Richardson, A. (1969). *Mental Imagery.* New York: Springer.

Rogers, C. (1961). *On Becoming a Person.* Boston: Houghton Mifflin.

Rotella, R., Gansneder D., Ojala, D., and Biling, J. (1980). Cognitions and coping strategies of elite skiers: an exploratory study of young developing athletes. *Journal of Sport Psychology,* 2, 350-354.

Ryan, E., Simons, J. (1981). Cognitive demand imagery, and frequency of mental practice as factors influencing the acquisition of mental skills. *Journal of Sport Psychology,* 4,35-45.

Sackett, R. (1935). The relationship between the amount of symbolic rehearsal and retention of a maze habit. *Journal of General Psychology,* 13, 113-128.

Schmidt, R.A. (1987). *Motor Control and Learning: A Behavioral Emphasis,* 2nd edn. Champaign, Ill.: Human Kinetics

Sheikh, A.A. and Korn, E.R. (1994). Preface. In A.A. Sheikh and E.R. Korn (eds.), *Imagery in Sports and Physical Performance.* (p. v). Amityville, New York: Baywood.

Sheikh, A.A., Sheikh K.S., and Moleski L.M. (1994). Improving Imaging Abilities. In A.A. Sheikh and E.R. Korn (eds.), *Imagery in Sports and Physical Performance.* (p. 231-248). Amityville, New York: Baywood.

Smith, D. (1983). *Changes in competitive state anxiety as time to compete nears for Olympic gymnasts*. Paper presented at the AAHPERD Convention, Minneapolis, MN.

Smith, D. (1987). Conditions that facilitate the development of sport imagery training. *The Sport Psychologist*, 1, 237-247.

Start, K.B. and Richardson, A. (1964). Imagery and mental practice. *British Journal of Educational Psychology*, 34, 85-90.

Stevens, A. (1994). *Jung*. New York: Oxford University Press.

Suinn, R. (1976). Body thinking for Olympic champs. *Psychology Today*, 36, 38-43.

Suinn, R. (1983). Imagery and sports. In A. Sheikh (Ed.), *Imagery: Current theory, research, and application*. New York: Wiley.

Suinn , R. (1992). Imagery. In R. Singer, M. Murphey, and K. Tenant (Eds), *Handbook of Research on Sport Psychology*. New York: Macmillan Publishing Company.

Titley, R. (1976, September). The loneliness of a long-distance kicker. *The Athletic Journal*, 74-80.

Trotzer, J.P. (1989). The counsellor and group: *Integrating theory, training and practice*. Monterrey: Brooks/Cole.

Vealey, R. (1987). *Imagery training for performance enhancement*. Paper presented at the Sports Psychology Institute, Portland, ME.

Vealey, R. (1986). Imagery training for performance enhancement. In J. Williams (Ed.), *Applied sport psychology*. Paulo Alto, CA: Mayfield.

Weinberg, R., Seabourne, T. and Jackson, A. (1982). Effects of visuo-motor behavior rehearsal on state-trait anxiety and performance: is practice important? *Journal of Sport Behavior*, 5, 209-219.

Weinberg, R., Seabourne, T. and Jackson, A. (1981). Effects of visuo-motor behavior rehearsal, relaxation, and imagery on karate performance. *Journal of Sport Psychology*, 3, 228-238.

Woolfolk, R., Parrish, W. & Murphy,S. (1985). The effects of positive and negative imagery on motor skill performance. *Cognitive Therapy and Research*, 9, 335-341.

Wrisberg, C. and Ragsdale, M. (1979). Cognitive demand and practice level: factors in mental rehearsal as factors influencing acquisition of motor skills. *Journal of Human Movement Studies*, 5, 201-208.

Zhang L., Ma, Q., Orlick, T. & Zitselsberger, L. (1992). The effect of mental-imagery training on performance enhancement with 7-10-year old children. *The Sport Psychologist*, 6, 230-241.

Imagery

Imagery guides one to mind and body,
and with heart realizes,
within Spirit, all can be found.

Imagery requires patience and belief.
before her, one must enter His sanctuary,
one of peace, serenity and compassion.

Imagery is of the mind, is it not?
indeed he is, but
the road to him moves through Her.

Imagery teaches awareness.
she suggests taking His awareness lesson,
whose classroom is the body.

Imagery asks but one question:
without Her,
how does one expect to see me?

dan sankar
march 1996