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Mental Training Sessions Between an Eminent Consultant
and Elite Level Athletes: A Case Study

by

© Rebecca J. Lloyd

Thesis submitted to the School of Graduate Studies of the University of Ottawa in partial
fulfillment of the requirements for the degree of Master of Sport Studies

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Abstract

A case study design was used to describe (a) an eminent mental training consultant's published approach to consulting, (b) the content and the process of the verbal interactions between an eminent mental training consultant and four elite level athletes during ten authentic mental training sessions, and (c) the congruencies between the consultant's published approach and the content and process of the mental training sessions. The sources of information were literature published by the consultant, audio recordings of the mental training sessions, interviews with the consultant and interviews with the athletes. An inductive analysis was used with each source of information and an adapted version of the Flanders' (1965) Interaction Analysis in the Classroom was used to systematically code the process. The seven elements of excellence from Orlick's Wheel (1995) were apparent in the content of the sessions. Other categories that emerged were physical elements, injury, emotion, relations with others, transition, balance, competition, outcome, intensity, artistic presentation, money and audio/ visual materials. During the sessions, the consultant's verbal behaviours accounted for 39% of the total coded behaviours where 21% were classified as indirect and 18% as direct. Sixty percent of the total coded behaviours were the athletes responding, initiating or asking questions. One percent of the time was spent in silence. Both the analysis of the content and the process confirmed the consultant's athlete-centered approach to consulting. The comparison of the consultant's published approach with the analysis of the content and the analysis of the process of the mental training sessions indicated that the consultant actually did what he reported to do, i.e., follows an athlete-centered approach.

Table of Contents

Introduction	7
Review of Literature	8
Clarification on the Role of Mental Training Consultants	9
Characteristics and Services of Mental Training Consultants	10
A Description of Mental Training Consultants' Reflections on Their Work	15
Halliwell	15
Ravizza	15
Botterill	16
Orlick	17
Appropriateness of the Case Study Strategy	20
Systematic Observation	21
Methodology	24
Subjects	24
The Mental Training Consultant	24
Athletes	26
Sources of Information	26
Articles Published by the Consultant	26
Interviews with the Consultant	27
Interviews with the Athletes	27
Mental Training Sessions	28
Analysis of the Content	28
Systematic Coding with the Adaptation of the Flanders' (1965) Interaction Analysis in the Classroom	31
The Steps of the Systematic Coding	35
Reliability	38

The Triangulation of the Sources of Information	39
Limitations of the Case Study	40
Results	41
Case Study of Athlete A	41
Description of Athlete A	41
Analysis of the Content for Four Mental Training Sessions with Athlete A	41
Athlete A's and the Consultant's Perception of the Content of the Four Mental Training Sessions	44
Systematic Coding of the Four Sessions Between Athlete A and the Consultant	47
Athlete A's and the Consultant's Perceptions of the Interactions	51
Case Study of Athlete B	52
Description of Athlete B	52
Analysis of the Content of the Mental Training Session with Athlete B	52
Athlete B's and the Consultant's Perceptions of the Content of the Mental Training Session	55
Systematic Coding of the Session Between Athlete B and the Consultant	57
Athlete B's and the Consultant's Perceptions of the Interaction	61
Case Study of Athletes Ca & Cb	62
Description of Athletes Ca and Cb	62
Analysis of the Content of the Mental Training Session with Athletes Ca & Cb	63
Athletes Ca & Cb's and the Consultant's Perceptions of the Content of the Mental Training Session	65
Systematic Coding of the Session Between Athletes Ca, Cb and the Consultant	67
Athletes Ca, Cb's and the Consultant's Perceptions of the Interaction	71
Case Study of Athlete D	73
Description of Athlete D	73

Analysis of the Content of the Four Mental Training Session with Athlete D	73
Athletes D's and the Consultant's Perceptions of the Content of the Four Mental Training Sessions	76
Systematic Coding for the Four Sessions Between Athlete D and the Consultant	79
Athlete D's and the Consultant's Perceptions of the Interactions	83
A Summary of the Systematic Coding for the Ten Sessions	84
Discussion	88
The Relationship Between the Consultant's Published Approach to Consulting and the Results of the Analysis of the Content of the Mental Training Sessions	88
The Relationship Between the Consultant's Published Approach to Consulting and the Results of the Analysis of the Process of the Mental Training Sessions	89
A Comparison of the Results of the Analysis of the Content with Other Publications on Mental Training Consulting	92
A Comparison of the Systematic Coding Results with Other Publications on Mental Training Consulting	94
A Comparison of the Perceptions of the Content with Other Publications on Mental Training Consulting	96
A Comparison of the Perceptions of the Process with Other Publications on Mental Training Consulting	97
Conclusion	98
References	101
Appendix A Interview Questions	104
Appendix B Quotations Illustrating the Analysis of the Content for Athletes A, B Ca & Cb and D	107
Appendix C Systematic Coding for the Four Sessions with Athlete A	122
Appendix D Systematic Coding for the Four Sessions with Athlete D	127

Tables

Table 1. A Summary of Studies that Identified Services and Characteristics Specific to Mental Training Consultants	14
Table 2. A Summary of Mental Training Consultants' Reflections on Their Work	19
Table 3. Examples of Studies that used Systematic Observation Tools	23
Table 4. Awards Received and Professional Activities	25
Table 5. Themes from the Analysis of the Content That Were Grouped for Each Main Category	30
Table 6. A Comparison of the Original and Adapted Versions of Interaction Analysis in the Classroom.	32
Table 7. Definitions and Examples of the Adapted Flanders' Interaction Analysis System	34
Table 8. Analysis of the Content for Athlete A	43
Table 9. Analysis of the Content for Athlete B	54
Table 10. Analysis of the Content for Athletes Ca and Cb	64
Table 11. Analysis of the Content for Athlete D	75
Table 12. Comparison of the Categories from the Analysis of the Content with the Literature	93

Figures

Figure 1. Triangulation of the Sources of Information	40
Figure 2. A Summary of the Interaction Analysis for Four Mental Training Sessions With Athlete A: Cross of Most Frequent Behaviours	49
Figure 3. A Summary of the Interaction Analysis for Four Mental Training Sessions With Athlete A: Positive Motivation (Area A), Interest from the Consultant in Athlete Talk (Area B) and Commencement of Athlete Talk (Area C)	50
Figure 4. The Interaction Analysis for the Mental Training Session With Athlete B: Cross of Most Frequent Behaviours	59
Figure 5. The Interaction Analysis for the Mental Training Session With Athlete B: Positive Motivation (Area A), Interest from the Consultant in Athlete Talk (Area B) and Commencement of Athlete Talk (Area C)	60
Figure 6. The Interaction Analysis for the Mental Training Session With Athletes Ca & Cb: Cross of Most Frequent Behaviours	69
Figure 7: The Interaction Analysis for the Mental Training Session With Athletes Ca & Cb: Positive Motivation (Area A), Interest from the Consultant in Athlete Talk (Area B) and Commencement of Athlete Talk (Area C)	70
Figure 8. A Summary of the Interaction Analysis for Four Mental Training Sessions With Athlete D: Cross of Most Frequent Behaviours	81
Figure 9. A Summary of the Interaction Analysis for Four Mental Training Sessions With Athlete D: Positive Motivation (Area A), Interest from the Consultant in Athlete Talk (Area B) and Commencement of Athlete Talk (Area C)	82
Figure 10. A Summary of the Interaction Analysis for Ten Mental Training Sessions With Athletes A, B, Ca & Cb and D: Cross of Most Frequent Behaviours.	86
Figure 11. A Summary of the Interaction Analysis for Ten Mental Training Sessions With Athletes A, B, Ca & Cb and D: Positive Motivation (Area A), Interest from the Consultant in Athlete Talk (Area B) and Commencement of Athlete Talk (Area C)	87

Over the last few decades, the field of sport psychology has increased in popularity and a new profession has emerged: the mental training consultant (Simons & Andersen, 1995). What do mental training consultants do? A simple answer would be helping people improve their performance through cognitive strategies. Many researchers and mental training consultants have described those strategies as goal setting, relaxation training, arousal regulation, imagery/ visualization, self talk, positive thinking, precompetition planning, competition planning, focus and refocus control, improved interpersonal communication and constructive evaluation (Brown, 1982; Gould, Tammen, Murphy & May, 1989; Halliwell, 1990; Nideffer, 1984; Orlick, 1989; Orlick, 1993; Orlick & Partington, 1987; Owen & Lee, 1987; Partington & Orlick, 1991; Ravizza, 1990). These cognitive strategies could be thought of as the basic building blocks that mental training consultants use when working with athletes.

One may still wonder how these blocks are put together. Is there a recipe, a step by step guide or a logical sequence to apply them, i.e., first meeting - goal setting, second meeting - focus and refocus control? What about the third meeting and the fourth? Should a mental training consultant always direct the theme of the session? Research has shown that effective mental training consultants tend to have an individualized, athlete-centered approach coupled with the characteristics of being a good listener, flexible, open, creative, energetic, positive, knowledgeable and trustworthy (Gould, Tammen, Murphy & May, 1989; Orlick, 1989; Orlick & Partington, 1987; Partington & Orlick, 1991). One could synthesize this information and conclude that mental training consultants should let the athletes' needs dictate what cognitive strategies are discussed and applied. The characteristics that facilitate this athlete-centered approach, such as being a good listener, flexible, open, and creative, have yet to be clearly defined. What does it mean to be a good listener? What percentage of time should be allocated for listening? Is time the only factor? Do the strategies that the mental training consultant use reflect "good listening"?

A significant amount of information could be gained from getting a clear view of authentic mental training sessions. A case study on an eminent mental training consultant could help define what an athlete-centered approach is with respect to mental training consulting and what characteristics are present. The case study approach is not novel in the field of psychology. Specific psychologists were analyzed and case studies of their interactions with their clients were published. Freud is a prime example. The case study of Anna O contributed significantly to the field of psychology. Why has the field of sport psychology not taken a similar direction? There are several well known mental training consultants to date but no one has published a case study of a particular consultant interacting with their athletes. A published case study designed not to evaluate but simply portray a mental training consultant's interactions with their clients would help fill the gap of knowing what an eminent mental training consultant does. Lett (1987) suggested that much can be gained from counselors of long experience, particularly with respect to the extent of the creative adaptation of the counseling process that develops over time.

Since research in the area of mental training consulting has solely been based on the perceptions of consultants, athletes or coaches thus far, it would be interesting to combine perception with the systematic analyses of the mental training sessions. Accordingly, the purpose of the study has three parts: (1) to report the consultant's approach to consulting from published articles (what the consultant says he does); (2) to describe (a) the content of mental training sessions and (b) the process of the verbal interactions during mental training sessions (what the consultant actually does) and (3) to compare the consultant's published approach with the content and process of authentic mental training sessions (congruency between what the consultant says he does with what he actually does).

Review of Literature

The literature review contains (a) a clarification on the role of mental training consultants, (b) a group of studies that have identified characteristics and services of effective mental training consultants, (c) a summary of mental training consultants' reflections on their work, (d) the

appropriateness of the case study strategy to explore the phenomenon of mental training consulting and (e) a description of systematic observation and how it can be applied to specific situations.

Clarification on the Role of Mental Training Consultants

A broad perspective on mental training and the role of mental training consultants should be presented before a single consultant's work is described in detail. This will provide the foundation for interpreting the analyses of this study.

Mental training consulting is a unique field. The focus of mental training consulting is to improve individual achievement, high-level performance, health, and joyful living. More specifically, mental training is an action-oriented approach aimed at developing a positive perspective towards oneself and one's pursuits. Mental skills are identified and developed to help people come closer to their potential (Botterill, 1990; Halliwell, 1990; Orlick, 1993; Ravizza; 1990).

The role of a mental training consultant is an educator in the field of performance enhancement. The tools that a consultant uses to teach performance enhancement are goal setting, relaxation training, arousal regulation, imagery/ visualization, information on self talk, precompetition planning, competition planning, focus and refocus control, improved interpersonal communication and monitoring and evaluation (Brown, 1982; Gould, Tammen, Murphy & May, 1989; Nideffer, 1984; Owen & Lee, 1987; Partington & Orlick, 1991).

Another term for mental training consultant is sport psychologist. This title can be misleading because people may confuse a sport psychologist with a clinical psychologist. Clinical psychologists deal with all clinical issues in and out of sport such as assessing psychopathology; individual and group therapy; crisis intervention; neurotic, psychotic and personality disorders; and drug dependency (Nideffer, 1984). In sport settings, the skills that clinical psychologists use are specifically designed for working with athletes that require therapy. In summary, clinical psychologists deal with individuals who require therapy rather than individuals that are seeking strategies for performance enhancement (Anshel, 1992; Brown, 1982; Nideffer, 1984; Owen &

Lee, 1987). Educationally oriented mental training consultants work with mentally healthy individuals (Anshel, 1992; Nideffer, 1984).

Several studies have further defined the role of mental training consultants and have identified specific services they deliver when they work with teams or individual athletes.

Characteristics and Services of Mental Training Consultants

Several studies have examined the effectiveness of mental training consultants and the services they provide (Gould, Tammen, Murphy & May, 1989; Orlick & Partington, 1987; Partington & Orlick, 1987; Partington & Orlick; 1991). These studies were based on the perceptions of athletes, coaches and consultants.

Partington and Orlick (1987) interviewed 17 coaches from the 1984 Olympics on their perspectives of the personal characteristics of good and bad consultants. The positive personal characteristics included being a good listener, easy to relate to, energetic and hard working, flexible, open, creative, well trained, as well as having useful and relevant skills. The negative characteristics of consultants included an absence of the positive qualities listed above as well as overbearing, dogmatic, not punctual, undisciplined and unpredictable.

The services that the coaches desired from the mental training consultants were (a) improvement in team harmony, (b) positive motivation, (c) problem solving, (d) mental skills specific to the sport, (e) identification of individuals' strengths and weaknesses, (f) group meetings to improve communication and (g) mental training skills, i.e., goal setting, concentration, refocusing, stress management, taught to the athletes and coaches (Partington & Orlick, 1987).

Orlick and Partington's (1987) study examined the perspectives of 1984 Canadian Olympic athletes through semi-structured individual interviews. The analyses of the 75 interviews revealed profiles of best and worst consultants. The characteristics of the best consultants were to be likable, applied, flexible, knowledgeable, accessible, easy to establish rapport with and showed that they cared. The best rated consultants tended to work with the athletes a minimum of nine months and often for several years leading up to major events. This allowed for multiple contacts during the training camps and during the competitive season. The characteristics of the worst

consultants were: (a) poor interpersonal skills; (b) poor application of psychology to sport specific situations; (c) the lack of flexibility to adapt a program to meet the individual needs of athletes; (d) did not allocate enough time for individual consultations; (e) did not behave in an appropriate manner on days of competition, i.e., staring at the athletes, getting athletes to fill out questionnaires immediately before competing and crowding the athlete; (f) bad timing, i.e., they got involved too close to major competitions; (g) they did not provide enough feedback to the athletes.

The findings in the study on the coaches' perspective on effective mental training consulting (Partington & Orlick, 1987) shared some similarities with the study on the athletes' perspective on mental training consultants (Orlick & Partington, 1987). The similar characteristics of effective mental training consultants were: (a) they could apply useful and relevant skills to sport specific situations and (b) they were flexible in adapting to the individual needs of athletes.

Following the earlier work of Partington and Orlick (1987), Gould, Tammen, Murphy & May (1989) examined the effectiveness of US Olympic mental training consultants and the services they provided. Forty-four out of 47 mental training consultants completed questionnaires that assessed (a) demographic information, (b) the nature of the mental training services they provide, (c) the effectiveness of their services and (d) their problems and needs for improvements. Forty-seven athletes, were also asked to rate the effectiveness of the mental training consultants' services with the Consultant Evaluation Form (Partington & Orlick, 1987). The athletes rated the effectiveness of these consultants with an average of 7.21 (SD=1.71), on a scale from zero to ten, while the consultants rated themselves on average as 9.4 (SD=1.0). Although the consultants did select the athletes who filled out the evaluation forms, it is interesting to note that the consultants rated themselves more than two points higher on the scale than the athletes did for overall effectiveness.

The services identified in the Gould et. al. (1989) study that were provided by mental training consultants were goal setting, relaxation training, arousal regulation, imagery/ visualization, self-talk, concentration/ attention training, personal self esteem seminars,

interpersonal conflict seminars and communication training. It was also found that it was important that the consultant could fit in with an athletes' team, draw on the athletes strengths and provide feelings of trustworthiness. The study by Gould et.al. (1989) revealed important information about the type of services provided and desired characteristics of the majority of US Olympic mental training consultants but no detail was given on how the mental training consultants conveyed their services with their individual athletes or teams.

Partington and Orlick (1991) analyzed the best ever consulting experiences of 19 mental training consultants who were funded by Sport Canada to work with the Canadian Olympic athletes. The methodology consisted of (a) a questionnaire asking consultants to complete open-ended questions about their best ever consulting experiences and (b) a four-hour workshop that focused on how consultants could be most effective in helping athletes prepare for the Olympic Games. The analysis of the content of the questionnaire indicated that best ever consultations started by using an athlete-centered approach where the needs of the athletes direct the content of the consultations. The analysis of the content also indicated the common services the consultants provided in best consultations which were: skills for precompetition planning, competition planning, focus and refocus control, activation and anxiety control, imagery, improved interpersonal communication, goal setting and monitoring and evaluation. Best ever consultant experiences were also coupled with athlete / coach openness and receptivity to the consultants' services and sufficient amounts of one on one time. Specific characteristics that were identified with effective mental training consultants were good communication and interpersonal skills, good listening skills, self control and refocusing skills, open to learn about the range of needs of different athletes, nonjudgmental, balanced work and rest relationships, personal commitment and experiences joy in helping or living.

Table 1 summarizes the services and characteristics of four studies on effective mental training consulting. There were apparent similarities between the studies. Services identified in three of the four studies were goal setting, concentration training and communication training. The

characteristics that were similar in the four studies were openness and flexibility to meet individual needs.

Table 1

A Summary of Studies that Identified the Services and Characteristics Specific to Mental Training Consultants

Author (s)	Method(s)	n	Services Offered by Consultants	Characteristics of Effective Consultants
Partington & Orick, 1987	Individual Interviews Subjects: Canadian Olympic Coaches	17	Coaches desired consultants to facilitate: <ul style="list-style-type: none"> • team harmony, • problem solving, • identification of individuals' strengths and weaknesses, • group meetings to improve communication and mental training skills, i.e., goal setting, concentration, refocusing, stress management for the athletes & coaches 	<ul style="list-style-type: none"> • good listener, • flexible, • creative, • willing to travel, • useful and relevant skills, • being able to fit in with a team, • ready to exchange ideas, • being able to relate quickly and easily, • energetic and hard working • open, • well trained, • positive
Orick & Partington, 1987	Individual Interviews Subjects: Canadian Olympic Athletes	75		<ul style="list-style-type: none"> • likable, • accessible for rapport, • had something applied and concrete to offer, • flexible and knowledgeable enough to meet individual needs, • conducted follow up meeting with the athletes before and during the competitive season • caring, • multiple contact time,
Gould, Tammen, Murphy & May, 1989	USOC survey and Evaluation Form Subjects: US Consultants & Athletes	47	<ul style="list-style-type: none"> • Goal setting, • arousal regulation, • self-talk, • personal self-esteem seminars, • communication training 	<ul style="list-style-type: none"> • relaxation training, • imagery / visualization, • concentration / attention training, • interpersonal conflict seminars • non performance topics
Partington & Orick, 1991	Questionnaire, Workshop Program Subjects: Canadian Consultants	19	<ul style="list-style-type: none"> • focus and refocus control, • precompetition planning, • monitoring and evaluation, • goal setting, • activation and anxiety control, • competition planning, • imagery, • interpersonal communication 	<ul style="list-style-type: none"> • good listening skills, • personal commitment, • good communication and interpersonal skills, • self control and refocusing skills, • open to learn about the range of needs of athletes, • balanced with work rest and relationships, • nonjudgmental, • experiences joy in helping or living

* n refers to the number of subjects in the study.

A Description of Mental Training Consultants' Reflections on Their Work

The studies by Gould, Tammen, Murphy & May (1989); Orlick & Partington (1987); Partington & Orlick (1987); and Partington & Orlick (1991) identified general descriptions of effective consulting from the perspectives of consultants, athletes and coaches. Several mental training consultants, namely, Wayne Halliwell, Ken Ravizza, Cal Botterill and Terry Orlick have published their personal reflections on their careers as mental training consultants. These articles give a more detailed view on mental training consulting and provide many examples of what mental training consultants do.

Halliwell

Halliwell discussed, in an article published in 1990, his philosophies and the mental training techniques he used when he consulted with professional hockey players. He had a mental toughness program where he taught players to handle adverse game situations. During individual consultations, Halliwell primarily worked on confidence by (a) preparing peak performance videos of the athletes best plays accompanied by the athlete's favourite song; (b) teaching visualization techniques; and (c) self-talk techniques. Halliwell also taught relaxation skills, concentration skills and goal setting techniques.

Halliwell was opposed to psychological testing due to the players feelings of uncomfortableness and feelings that the tests may be used against them. The key characteristics of mental training consultants, according to Halliwell, were that the players could trust and confide in the consultant and that the player has belief in the consultant. Halliwell felt that his relationship as a mental training coach with the players was better because he did not deal with off ice issues such as alcohol abuse or marital problems. Rather, he would focus on the mental side of their training and refer players to the Employee Assistance Program for other issues.

Ravizza

Ravizza discussed, in an article published in 1990, his philosophy on mental training with relation to his experience with professional baseball teams. His goal was to facilitate the individual athletes' achievement in sport and life, especially when they were dealing with adverse situations.

Ravizza, who was working with players who have been exposed to traditional coaches who teach players to just play the game and ignore the adverse conditions, let the athletes acknowledge an adverse condition, such as a cold day, and taught mental training strategies to play through it. When Ravizza worked with an individual player, he used feedback sheets and sometimes used individually designed monitoring devices that were devised to meet the individual's needs. Ravizza was opposed to using general psychological assessment inventories because (a) there was a strong opposition by players, coaches and management and (b) he has not found them generally useful.

Ravizza (1990) outlined several crucial operating standards, namely, flexibility, adjusting to a situation and confidentiality. Ravizza also mentioned the importance of gaining trust and rapport. The skills that Ravizza indicated he worked on with individual players were goal setting, consistency, stress management, time management, personal problems, career goals after sport, relaxation, imagery, self-talk monitoring, refocusing, concentration and self-regulation training. Unfortunately, Ravizza did not explain how he taught these mental training skills in detail.

Botterill

Botterill published, in an article in 1990, his philosophy on mental training and professional hockey. Botterill described the role of a mental training consultant as a "stretch coach" who would aid in identifying, developing and applying mental skills to enhance performance. Botterill tailored mental training programs to suit the individual needs of performers and had the perspective of learning as much as or more from the performers than he would teach them.

Botterill (1990) outlined several steps in initiating mental training skills, namely, (a) evaluating one's effectiveness, (b) setting a goal to improve, (c) visualizing and practicing the improved technique in progressively more demanding situations and (d) reassessing one's development. Botterill also incorporated the four mental training skills above with relaxation exercises and stretching. Botterill also taught focusing and refocusing and visualization for

maintaining confidence, reducing anxiety and facilitating readiness. Other issues that Botterill dealt with were staying rational and “parking” what is in one’s control.

Botterill (1990) emphasized the importance of the performers to become independent and carry out their mental training skills on their own. Botterill stated that if mental training consultants have done effective jobs they could become expendable.

Orlick

In 1989, Orlick published his personal reflections on mental training consulting with individual and team sport athletes at the 1988 Olympic Games that were in Calgary and Seoul. Orlick revealed that he follows a simple, applied, direct approach with the athlete that taps into their individual uniqueness based on their past experience. During an initial assessment Orlick stated he would often ask the athlete three questions, (a) What are your goals? (b) What have you done during previous best and less-than-best performances with respect to mental preparation and focusing during the event? and (c) What do you feel you need to work on at this point to be mentally ready to achieve your goals? These direct, open-ended questions served as a guide to (a) understand what the athlete was aspiring to do, (b) what methods the athlete had already tried and (c) what areas the athlete should concentrate on now to improve his or her performance. These three questions seem simple, yet according to Orlick, they were very important to ask. By listening to what the athlete already knew, you showed respect and also avoided wasting their time by recommending things that have not worked before or are not likely to work. It allowed the athlete to direct the consulting process to what they felt was important to work on rather than relying on a consultant’s preset agenda or an inventory’s result. Because of his overall orientation toward people, Orlick (1989) did not use standard assessment inventories or psychological tests, unless they were developed specifically for very applied situations. Orlick also found little practical value in applying them with an athlete because the individual differences were not accounted for, nor did they provide solutions for solving situation specific problems, therefore, the athletes valuable time would have been wasted.

Orlick (1989) provided input for improvement to national team athletes based on what they identified as important factors affecting their performance including commitment, focusing, refocusing, imagery, positive mental preparation, team harmony and post competition evaluations. Orlick felt that he helped the athletes improve in these areas by intently listening to the athletes needs and reflecting with the athlete on what makes a best and less than best performance for them.

Orlick (1992, 1995) further expanded on what he found to be the most relevant areas to assess and work on with exceptional performers which he termed the seven elements of excellence. These seven areas were combined into a conceptual map which took the form of a wheel, where commitment and belief formed the hub of the wheel and the five mental skills, full focus, positive images, mental readiness, distraction control and constructive evaluation formed the spokes.

The individual reviews of Halliwell (1990), Ravizza (1990), Botterill (1990) and Orlick (1989), are summarized in Table 2 in terms of the services and the characteristics they discussed. Table 2 allows for an easy comparison of the mental training consultants. Botterill (1990) differed from Halliwell (1990), Orlick (1989) and Ravizza (1990) in that he incorporated the Test of Interpersonal Style by Nideffer in his initial assessments. However, Botterill, like the three others, allowed for individual differences, by interviewing the players on an individual basis to address the mental skills the player deemed as important in improving their performance and specific situations where they would apply their mental skills.

Botterill (1990), Halliwell (1990) and Ravizza (1990) mentioned that they work on relaxation with their athletes. Although Orlick did not publish that relaxation was one of the services he offered, he has produced audio tapes that he gives to his athletes for relaxation purposes. All four of the mental training consultants provided services on improving focusing/concentration skills, goal setting and commitment.

Table 2
A Summary of Mental Training Consultants' Reflections on Their Work

Author	Date	Services Offered by Consultants	Characteristics
Halliwel	1990	<ul style="list-style-type: none"> • confidence and consistency improvement through music videos and visualization techniques. • self talk. • relaxation and concentration. • goal setting. • planning strategies. • provides athletes and coaches with articles and books • no off ice issues 	<ul style="list-style-type: none"> • good rapport with players. • low key approach, i.e., shuns interviews with broadcast and print media • keeps up to date on each game with videos and articles • wants the players to have trust, confidence and belief in him
Ravizza	1990	<ul style="list-style-type: none"> • one on one meetings after initial group meeting. • teaches athletes how to handle adverse situations. • goal setting. • consistency. • stress and time management. • personal problems. • career goals after sport. • relaxation. • self-regulation. • concentration. • refocusing. • self talk. • imagery 	<ul style="list-style-type: none"> • tailors approach to meet the needs of individual players and coaches • flexible in adjusting to situations. • keeps information from the players in confidence
Bottrill	1990	<ul style="list-style-type: none"> • combines relaxation with deep breathing, stretching, audio tapes, goal setting and imagery. • discussing staying rational, "parking" what is in one's control. • strategies for focusing and refocusing • visualization for maintaining confidence, decreasing worry and facilitating readiness 	<ul style="list-style-type: none"> • focuses on the athletes individual needs • has the perspective of learning as much or more from the performers than he would teach them
Orlick	1989	<ul style="list-style-type: none"> • commitment. • focusing/ refocusing. • imagery skills, • positive mental preparation for competition. • team harmony. • effective post competition evaluations 	<ul style="list-style-type: none"> • caring. • good listener. • responsive to athletes' needs. • respects athletes. • focuses totally on athletes when working with them

The reflections presented in Table 2 provide some understanding of what effective mental training consultants do from the perspectives of the individual mental training consultants. However, Halliwell, Orlick, Ravizza and Rotella (1995) took a next step and combined their experiences with consulting and produced a more detailed guide on consultants' values and perspectives on effectiveness and performance enhancement. Many tips and strategies were discussed on how to effectively communicate, listen, recognize athlete commitment, gain or recognize coaches support, allocate contact time, be positive, show respect, draw upon multiple approaches, stay fit, keep things in perspective, and stay open to continuous learning. This furthers the knowledge of what it takes to be an effective consultant from the perspectives of mental training consultants. There is a need, however, for a much deeper understanding of what consultants do during mental training sessions. This deeper understanding will emerge from combining many sources of information. A study that is not solely based on perception alone.

Appropriateness of the Case Study Strategy

The case study was selected as a research strategy because it seemed to be an appropriate way to do "an empirical inquiry that: investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used" (Yin, 1989, p23). The contemporary phenomenon in this study is mental training consulting. The boundaries of this phenomenon are not clearly evident because there is a distinct gap in the literature that describes a mental training consultants approach in actual sessions and the services he offers in detail. The multiple sources of evidence will come from the audio recorded mental training sessions and interviews from the participants in the sessions.

The use of combining multiple sources of information, or triangulation, increases the construct validity (Mathison, 1988; Smith, 1988). This combination of using more than one method is specifically labeled, "between methods triangulation" (Mathison, 1988). This is a sound strategy because the weakness of one method is often the strength of another. For example, the combination of systematic observation with interviewing could possibly produce an integrated

whole where the interviews account for the observable behaviour. It cannot be assumed, however, that these distinct sources of information should always converge. Differences in the results are to be expected and the understanding of these differences give a clearer representation of the phenomenon (Mathison, 1988).

Systematic Observation

Systematic observation is an excellent tool that can shed light on a phenomenon with a relatively unbiased perspective. Systematic observation is where an individual follows a standardized procedure to observe, record and analyze interactions. The goal of the observation is to code the behaviours into certain categories. The purpose of recording the session is to provide a permanent and accurate record (Darst, Zakrajsek & Mancini, 1989).

Systematic observation was initially used to quantitatively analyze teacher behaviour. One of the initial systems to be developed in the 1960s was the Flanders' Interaction Analysis in the Classroom (Darst, Zakrajsek & Mancini, 1989; Flanders, 1966). The initial purpose for Flanders' (1965) system was to evaluate the influence of teachers on students' attitudes and promote productive teaching methods. This was accomplished through coding direct and indirect spontaneous communication between the teacher and students.

Many systems have been adapted from the Flanders' Interaction Analysis in the Classroom such as the Rankin Interaction Analysis System, The Behaviour Analysis Tool, Cheffers' Adaptation of the Flanders' Interaction System, CAFIAS Supervisory Feedback Instrument and the Self-Assessment Feedback Instrument (Darst, Zakrajsek & Mancini, 1989). Many adaptations exist because it is important to tailor a system to represent the behaviours that occur in the phenomenon that is being studied. Over the years, researchers have come to develop entirely new systems to capture the essence of the behaviours unique to a situation, for example, Trudel, Guertin, Bernard, Poileau & Marcotte (1991) developed a systematic observation form that accounted for seven distinct ice hockey coach behaviours related to violence. Jones (1992) developed the Task-Structure Observation System to record the specific tasks and events that occur in an elementary physical education class. Dunbar and O'Sullivan (1986) developed a system to

assess differential treatment of girls and boys in an elementary physical education class where positive and corrective feedback, praise, desists and questioning behaviours were coded.

It is evident that there is a need for many systematic observation tools to account for the behaviours in a specific context. These distinct systems, however, require a certain standard to be met to assess the reliability of the tools' measurements. Different methods can be used to calculate the reliability of interval systematic tools, such as the interval-by-interval method, total interval method, the scored interval method and the unscored-interval method. According to Darst, Zakrajsek & Mancini (1989), it is best to combine the latter two methods. It is common for researchers to use the total interval method to inflate their reliability scores but information is lost with respect to the reliability of the unique categories of coded behaviours. Event recording also has the same limitation because the percentage of agreement can be calculated but information is lost on the accuracy of the individual behaviours being coded.

Table 3 contains some studies that have used systematic observation as a main source of information. These studies were selected to illustrate that (a) systematic tools are designed to reflect the purpose of the study; (b) systematic observation can be combined with other sources of information which allow a triangulation of the results; (c) event and interval coding techniques are used; and (d) different reliability tests exist.

Table 3
 Examples of Studies that used Systematic Observation Tools

Author(s)	Date	Purpose	Systematic Observation Tool	Other Methods	Event / Interval	Reliability (Inter / Intra)
Côté, Trudel, Bernard, Boileau & Marcotte	1993	To verify if the behaviours of hockey coaches at the Banham level change during different game score differentials	A tool designed by Trudel, Guertin, Bernard, Boileau & Marcotte (1991) that measures 7 distinct coaching behaviours.		Event	Interobserver: % of Agreement
Dunbar & O'Sullivan	1986	To determine if teachers' feedback and students' opportunity structures could reach a level of equality between genders in an elementary physical education sex-integrated class	A unique system designed to code praise desist, positive and corrective feedback, questioning demonstrations.		Event and Interval	Interobserver: % of Agreement Event Scored & Unscored Methods
Gilbert, Trudel & Bloom	1995	To develop a portrait of university ice hockey officiating during competition	An adaptation of the Systematic Observation of Referees' Behaviour coding form that was developed by Trudel, Côté and Sylvestre (1996)	<ul style="list-style-type: none"> • Interviews • Stimulated recall interviews • non-participant observation 	Interval	Interobserver Scored- Interval Method
Faucette, McKenzie & Sallis	1992	To describe the differences between a self-contained and team teaching approach in a fourth and fifth grade four month phys.ed. program.	System for Observing Fitness Instruction Time (SOFIT)	<ul style="list-style-type: none"> • Self report • Questionnaire • Interviews 	Interval	Interobserver: % of Agreement
Trudel, Côté Bernard	1996	To observe and record all coaches' behaviours during games.	The Coaches Observation System for Games (COSG)		Interval	Interobserver Scored - Interval Method & Kappa

Methodology

Subjects

The Mental Training Consultant

The mental training consultant that was selected for this case study is eminent and an expert based on the theory presented by Ericsson & Charness (1994). According to Ericsson & Charness (1994) expert performance in any field can be attained through a minimum of ten years or several thousand hours of deliberate practice. The consultant selected for this study has been continually engaged in applied mental training consulting with Olympic athletes since 1973 (24 years). He has also been involved in consulting with a wide variety of sports, level of sports, age ranges, and variety of high performance disciplines. Some of the National team athletes and world champions he worked with chose to continue working with him for their entire athletic careers.

This mental training consultant was also highly regarded by other colleagues in the mental training field. Straub & Hinman (1992) asked 100 members, who belonged to several different sport psychology associations for five years or more, to list the names of ten sports psychologists who had made the greatest contributions to sport psychology from 1980-1990. The selected associations for the study were the Association for the Advancement of Applied Sport Psychology (AAASP); the Canadian Society for Psychomotor Learning and Sport Psychology (CSPLSP); the Sport Psychology Academy of the American Alliance for Health, Physical Education and Dance (SPA); Division 47 of the American Psychological Association (APA); and the North American Society for the Psychology of Sport and Physical Activity (NASPSPA). The top ten people viewed as making the greatest contribution to the field were identified in this study without reference to rank order. The only Canadian mental training consultant selected for inclusion in the top ten in this American study was the consultant selected for this case study.

This mental training consultant was also selected because of meeting the criteria for ongoing access. Observing and recording meetings and multiple interviews with the consultant would be difficult for the researcher to conduct if the consultant was not in close proximity. No funding was given to the researcher to conduct the study.

The consultant completed a BA. in health, physical education and recreation in 1967, an M. Ed. in counseling from the college of William and Mary and a Ph. D. in the psychology of sport and physical activity from the University of Alberta in 1972. Since 1973, the consultant has been a professor in the school of Human Kinetics at Ottawa University.

The consultant has proven to be an accomplished performer on academic and professional levels. Examples of some of his awards and activities are presented in Table 4. Apart from his professional activities, the consultant has published 22 applied books, written 19 chapters of published books, and published 40 articles in refereed journals.

Table 4

Awards Received and Professional Activities

Award	1992	Special Award for Excellence in Teaching
Award	1992	The Canadian Olympic Association Award for supporting the career development of Canada's amateur athletes
Award	1988	Government of Canada Award for Distinguished Service
Award	1984	Professional Award of Merit from the Olympic Canoe Team
Award	1984-1986	Professional Award of Merit for the National Alpine Ski Team
Activity	1973-	Major presenter/ consultant/ advisor for young athletes, parents and youth coaches and program creation workshop leader for school boards, teachers, for children's cooperative games and children's life skill programs
Activity	1973-	Ongoing mental training consultant/ advisor to Canadian Olympic Athletes in more than 25 different sports and in some sports for more than 10 consecutive years
Activity	1977-1995	Writer/ contributor/ consultant to Canadian coaching certification program level 1 to 4
Activity	1988-1995	Program creation/ workshop leader for the Canadian Olympic Association - Olympic Athletes Positive Transitions Program/ Initiatives (Retirement from High Performance Sport)
Activity	1981	Co-chairman: International Congress on Sport Psychology
Activity	1995	Host: World Congress on Mental Training and Excellence
Activity	1992-1996	Chairperson of the Canadian Mental Training Registry
Activity	1991-1996	President of the International Society for Mental Training and Excellence (First elected president)
Activity	1990-	Member of the Canadian High Performance Sport Committee
Activity	1986-	Member of the Sport Science Committee for several sport associations

Athletes

The athletes who participated in this study were high level amateur athletes who worked with the consultant during the data collection period. Every local athlete who interacted with the consultant from February 1996 to December 1996 was used in the study. There was no sampling for this study since every local athlete who interacted with the consultant during this 11 month period was used. The only athletes that were not accessible to the researcher were the ones on the Women's National Basketball Team. The consultant was not welcome to invite a researcher to be present when they were preparing for the Olympic Games.

The high level athletes came from a variety of sports. Athlete A was an Olympic level badminton player. Athlete B was a national champion in archery. Athletes Ca and Cb were Olympic level judo competitors who saw the consultant together. Therefore, Athletes Ca and Cb were grouped together for the analysis of their session. Athlete D was a national competitor in figure skating who had received the title of junior national champion and a silver medal in senior ladies.

All ten mental training sessions with Athletes A, B, Ca & Cb and D were conducted during the year of 1996. Each of the ten recorded sessions occurred in the office of the consultant and lasted approximately one hour. The athletes requested and scheduled every single meeting with the consultant, i.e., the frequency of the sessions were based on the needs of the athletes. When a date was set between the consultant and the athletes the researcher was contacted and invited to attend and record the session.

Sources of Information

The sources of information for the analyses were (a) articles published by the consultant, (b) audio recordings of interviews with the consultant, (c) audio recordings of interviews with the athletes, and (d) audio recordings of the mental training sessions.

Articles Published by the Consultant

Two articles were selected to analyze what the consultant perceives he does during mental training sessions. One article was, "The Wheel of Excellence" (Orlick, 1995). In this article,

seven elements of excellence were identified, namely, (a) commitment, (b) belief, (c) full focus, (d) positive images, (e) mental readiness, (f) distraction control and (g) constructive evaluation. These seven elements were selected as the main categories to use for a comparison with the analysis of the content as seen in Table 5.

The other article was, “Reflections on SportPsych Consulting With Individual and Team Sport Athletes at Summer and Winter Olympic Games” (Orlick, 1989). The article was read with the intention of identifying the services he offers to the athletes. This article contained some of the elements of excellence identified in the Wheel of Excellence (Orlick, 1995) plus additional topics that the consultant covers during mental training sessions. The additional issues revolved around: (a) physical elements, (b) injury, (c) personal or emotional issues, (c) competition, (d) dealing with competitors, (e) coach/ athlete conflicts, (f) officials, (g) family relations, (h) transition to a professional career or retirement from sport, and (i) balance (rest / overload).

Interviews with the Consultant

Semi-structured interviews were used with the consultant. The interviews allowed the consultant to explain his personal approach, give background information on the athlete, describe what he did during the mental training sessions and describe the process of his interactions. Sample questions for the consultant can be viewed in Appendix A.

The analysis of the interviews was geared to portray the consultant’s perceptions of (a) what was discussed (content) and (b) his interaction with the athlete (process).

The interviews with the consultant were transcribed. The consultant’s perception of the content was grouped into themes. Quotations were selected to illustrate the emerged themes.

The consultant’s perception of the process was reported with quotations from the open ended question of “how would you describe your interaction with this athlete”. Specific attention was given to the distribution of talk.

Interviews with the Athletes

Semi-structured interviews were used for Athletes A, B, Ca & Cb and D. The questions to the athletes revolved around (a) their perceptions of what they discussed in their sessions and (b)

the process of the interactions between themselves and the consultant. See Appendix A for the interview guide for the athletes.

The interviews with the athletes were transcribed. The athlete's perception of the content was grouped into themes. Quotations were selected to illustrate the emerged themes.

The athletes' perception of the process was reported with quotations from the open ended question of "how would you describe your interaction with the consultant". Specific attention was given to the distribution of talk.

Mental Training Sessions

The ten mental training sessions were transcribed and analyzed in two distinct ways. The content was analyzed inductively and the process of interactions was analyzed with systematic coding.

Analysis of the Content

Following the Rubin and Rubin (1995) approach, the analysis of the content began with an identification of significant words for each mental training session. A significant word was the main point of a sentence or paragraph. The following sentence illustrates a significant word. "Well I think it is true, once you get the **feel**, you are going to be able to do it."

Most of the significant words were organized into themes. An example of a theme was placement or score. Many significant words were related to placement or score such as, win, lost, first seat and point leader. The themes that frequently surfaced were grouped if they shared common elements. For example, the themes score, placement, qualification and beating opponents were related to the outcome of a competitive situation.

The themes that were created in this inductive process had to be reorganized under main categories. A deductive approach was used in this categorization process. The first group of main categories came from the seven elements of excellence outlined in Orlick's (1995) Wheel of Excellence. For example, Positive Images became a main category because it was one of the seven elements in the Wheel of Excellence (Orlick, 1995). The

inductive analysis initially coded words that either had to do with feeling something or seeing something. These themes (seeing and feeling) were grouped together because they were both part of the visualization process. They were related to Positive Images and therefore formed the main category. This process was done with all the elements in the Wheel of Excellence (Orlick, 1995). The themes that were grouped under these main categories are illustrated in the first block of Table 5 .

The second block of main categories in Table 5 came from the “Reflections on SportPsych Consulting With Individual and Team Sport Athletes at Summer and Winter Olympic Games”, Orlick, 1989). They were (a) physical elements, (b) injury, (c) negative emotion, (d) positive emotion, (e) competition, (f) competitors, (g) coaches, (h) judges/ officials, (i) family/ partner, (j) transition, and (k) balance (rest/ overload). Some of the combined themes that related to the main categories were listed in Table 5.

Grouped themes that were not addressed in either the Orlick 1995 article or the Orlick 1989 article were placed in a third block and were specific to each athlete.

Table 5

Themes from the Analysis of the Content That Were Grouped for Each Main Category

Wheel of Excellence	Themes
Commitment	Best, Goals, Persist
Belief	Confidence, Doubt, Afraid, Support
Full Focus	Focus, Connect, Natural Timing
Positive Images	Image, Feel
Mental Readiness	Prepare/ Plan, Taking Control, Ready, Attitude
Distraction Control	Refocus, Thinking (not), Reminders, Consistent
Constructive Evaluation	Lessons, Training Log

Reflections SportPsych	
Physical	Technical Moves, Fitness Level, Health, Heart Rate, Breathing, Diet
Injury	
Emotion (-)	Anxiety, Stress, Tight, Sad, Negative, Annoyed, Conflict
Emotion (+)	Positive, Passion, Joy
Competition	Level, i.e., National, Olympic
Competitors	Other Competitors, Draw, Order of Competing
Coaches	
Judges \ Officials	
Family \ Partner	
Transition	
Balance	Life Outside Sport, Resting Within Sport, Nature

Other Categories	

Quotations that pertain to each category can be found in Appendix B.

The construct validity of the interviews was increased by (a) tape recording the interviews and returning the transcripts to the interviewee for validation and/or clarification, (b) writing down the immediate thoughts of the observation and (c) describing the environment where the interviews and observations took place (Fraenkel & Wallen, 1993).

Systematic Coding with an Adaptation of the Flanders' (1965) Interaction Analysis in the Classroom

The systematic tool that was used to code the transcripts of the ten mental training sessions was an adaptation of the Flanders' (1965) Interaction Analysis in the Classroom. The original system was developed to analyze the interactions between teachers and students.

An adaptation of Flanders' (1965) Interaction Analysis in the Classroom was created for analyzing consulting sessions for several reasons. The primary reason to use a system based on Interaction Analysis in the Classroom was that this system was designed for observing, recording and analyzing spontaneous verbal behaviour. It is worthy to note that nonverbal and verbal behaviours are both important components of the interactions between a consultant and his athletes. Verbal behaviour was chosen as the medium for the systematic coding because a tape recorder is generally less intrusive than a video camera. Also, note that analyzing the nonverbal behaviours would have been a master's thesis on its own.

Another reason to use a system based on the foundation of the Flanders' (1965) Interaction Analysis in the Classroom was that the categories best fit a consulting situation. A consultant may use indirect and direct consulting tactics to work through situations that require improvement. Flanders (1965) defined indirect influence as a teaching behaviour that encourages participation by the students. Flanders defined direct influence as behaviour that exudes an active control of the classroom with the intent of student compliance. The direct influence decreases the freedom of action for students. The definitions of indirect and direct influence can be applied in analyzing the consulting process. An example of indirect consultant behaviour is having an athlete-centered style where the conversation revolves around the clients' needs, goals and areas they bring forth to discuss. An example of direct consultant behaviour would be the explanation of a mental training concept and a strategy to apply it.

Beside the substitution of consultant for teacher and athlete for student, several changes were made to Flanders' Interaction Analysis in the Classroom based on a pilot study by the researcher (Lloyd, 1996). See Table 6 for a comparison of the original version and the adapted version. The

category of criticizes was removed because there were no entries in this category for the initial reliability tests. Consultant and athlete linking words were added, 2b and 7b, because they encouraged the person talking to continue. Confusion was removed from the silence category because silence does not equate with confusion as it might in a teaching situation. Silence in a consulting situation would be more indicative of a pensive moment of reflection.

Table 6

A Comparison of the Original and Adapted Versions of Interaction Analysis in the Classroom.

<u>Talk</u>	<u>Original Version</u>	<u>Adapted Version</u>
Teacher / Consultant Talk Indirect Influence	Accepts Feelings (1)	Accepts Feelings (1)
Teacher / Consultant Talk Indirect Influence	Praises or Encourages (2)	Praise (2a)
Teacher / Consultant Talk Indirect Influence		Linking Words from the Consultant that Encourage the Athlete Talk (2b)
Teacher / Consultant Talk Indirect Influence	Uses Ideas of Student (3)	Uses Ideas of the Athlete (3)
Teacher / Consultant Talk Indirect Influence	Asks Questions (4)	Questions from the Consultant (4)
Teacher / Consultant Talk Direct Influence	Lecturing (5)	Explaining (5)
Teacher / Consultant Talk Direct Influence	Giving Directions (6)	Giving Directions (6)
Teacher / Consultant Talk Direct Influence	Criticizing or Justifying Authority (7)	
Student / Athlete Talk	Student Talk – Response (8)	Athlete Talk – Response (7a)
Student / Athlete Talk		Linking Words from the Athlete that Encourage Consultant Talk (7b)
Student / Athlete Talk	Student Talk – Initiation (9)	Athlete Talk – Initiation (8)
Student / Athlete Talk		Questions from the Athlete (9)
	Silence or Confusion (10)	Silence (10)

The twelve categories that were used to code the interaction between the consultant and the athletes fit into three major sections: (a) Consultant Talk-Indirect Influence, (b) Consultant Talk-Direct Influence and (c) Athlete Talk. The categories for Consultant Talk-Indirect Influence were: accepts feelings (1), praises (2a), consultant linking words that encourage athlete talk (2b), accepts or uses ideas of clients (3), and asks questions (4). The categories for Consultant Talk-Direct Influence were: explains (5) and gives directions (6). The categories for Athlete Talk were:

responds (7a), athlete linking words that encourage consultant talk (7b), initiates (8), questions (9) and silence (10). See Table 7 for explicit definitions and examples of coding.

Table 7

Definitions and Examples of The Adapted Flanders' Interaction Analysis in the Classroom

Code	Category	Definition	Examples
1	Accepts Feelings	The consultant empathizes with the athlete's experiences or concepts whether they be positive or negative.	A - and I had such a hard time this year with everybody (8) T - and the injury (1)
2a	Praise	Consultant praises or encourages the actions or behaviors of the athlete with words.	T - It's great, It's great you have that going into the Olympics (2a)
2b	Link	Consultant encourages the athlete to continue talking.	T - yeah (2b); T - um hm (2b)
3	Uses Athletes' Ideas	The consultant clarifies, builds or develops the ideas suggested by the athlete.	T - (That is good 2a) - (I think it is a good signal that you need a rest. 3)
4	Questions	The consultant seeks information from the athlete or wants clarification on concepts or situations.	T - So does that qualify you then? (4) T - So how did you feel about the games overall? (4)
5	Explains	The consultant explains concepts or strategies; gives opinions about ideas or behaviors; expresses own ideas.	T - so I guess the lesson in that is to keep the intensity in every game (5)
6	Gives Directions	The consultant tells the athlete to do a behavior or implement a concept concerning the sport . Direction of the talk does not fit into this category. NB as soon as the consultant begins explaining how to implement the behavior or concept the code switches to 5.	T - So you have to make sure you are resting, you are getting healthy, you are feeling well, you are training well with good intensity but not over doing it. (6)
7a	Responds	The athlete responds to the consultants questions with phrases or sentences.	T - Were you in the game or? (4) A - It was really close like 11 8, 11 9 (7a)
7b	Link	The athlete responds to the consultant talk with sounds like um hm or words like yeah. This indicates that the athlete is listening and or agreeing with the ideas shared by the consultant.	A - um hm (7b) A - yeah (7b)
8	Initiates	Athlete initiates concepts, ideas or behaviors to discuss or the athlete discusses ideas brought forth by the consultant without answering a direct question.	T - maybe she is afraid of a loss (5) A - That is what I thought but she is playing very well right now (8)
9	Questions	The athlete seeks information from the consultant	A - Should I think about it or not at all? (9)
10	Silence	Five second intervals with no talking. This could be time taken to reflect by either the consultant or the athlete.(10)

N.B. A → represents A athlete A.

T → represents the consultant.

The pilot test of this system indicated that the content of the interaction had to be reviewed several times and a clear method for indicating the intervals was imperative. Solutions to these problem areas in the pilot study were found by transcribing the audio tape recordings of the mental training sessions. The content became more familiar so it was easier to code the words into the categorized behaviours. The audio tapes were played concurrently with the transcripts that were being coded. This clarified the coding process because the tone of voice would help differentiate the behaviours.

The indications for the intervals were recorded on the transcripts so they could be replicated for the reliability tests. An interval would consist of five seconds if the behavior was consistent. However, every time a behaviour changed, a new interval was recorded.

The Steps of the Systematic Coding

Step One:

Determine the behaviour within the interval and assign it a number.

- D - You can take all that time. (7a)
- T - When do they start getting squirmy? (4)
- D - laughs (7b)
- T - The judges? (4)
- D - I don't know, I never take three minutes so (7a)
- T - How much do, like how much before you skate? (4)
- D - It depends. Like I skate around the rink when they are calling the marks / (7a) / because you know the time when the marks are on but after they call your name you still have three minutes (7a)
- T - okay (2b)
- D - to go so you have about four minutes I guess because it takes about a minute to call out their marks or whatever / (7a) / but I am usually skating when the marks are called on and stuff and I do my little stuff / (7a) / and I go out when they call my name or I wait a couple of seconds and go out or go out when they call my name.(7a)

N . B . T represents the consultant; D represents Athlete D.

Step Two:

Write the numbers that represent the coded behaviours in a vertical column.

7a	
[Read: Row 7a, Column 4
4	
]	Read: Row 4, Column 7b
7b	
[Read: Row 7b, Column 4
4	
]	Read: Row 4, Column 7a
7a	
[Read: Row 7a, Column 4
4	
]	Read: Row 4, Column 7a
7a	
[Read: Row 7a, Column 7a
7a	
]	Read: Row 7a, Column 2b
2b	
[Read: Row 2b, Column 7a
7a	
]	Read: Row 7a, Column 7a
7a	
[Read: Row 7a, Column 7a
7a	

Step Three:

Mark the entries in the cells that intersect the rows and columns.

	1 accept	2a praise	2b link -cn	3 ideas	4 ques- cn	5 explain	6 direct	7a respond	7b link	8 initiate	9 ques	10 Silence	Total
1 accept													
2a praise			<u>Area A</u>										
2b link-cn								1					1
3 ideas													
4 ques-cn								1,1	1				3
5 explain								<u>Area C</u>					
6 direct													
7a respond			1		1,1			1,1, 1					6
8 initiate			<u>Area B</u>										
9 ques													
7b link					1								1
10 silence													
Total			1		3			6	1				

Consultant Talk = Σ columns 1, 2a, 2b, 3, 4, 5, 6

Indirect = Σ columns 1, 2a, 2b, 3, 4; Direct = Σ columns 5, 6

Athlete Talk = Σ columns 7a, 7b, 8, 9

Without the two dimensional matrix the only information one could gain from the coded behaviours would be the bottom row which represents the totals for the coded behaviours. The summation of the totals in the bottom row gives information about the consultant talk and athlete talk ratio. The summation of columns 1 through 6 represents total consultant talk. Consultant talk is divided into indirect and direct consultant talk. The summation of columns 1 through 4 represents indirect consultant talk. Direct consultant

talk is represented by the summation of columns 5 and 6. Athlete talk is calculated by adding the column sums for columns 7a, 7b, 8 and 9.

The twelve by twelve matrix indicates the pattern of behaviours. This allows one to see the trends in the sequence of behaviours. For example, a high frequency in the cell 4-7a (read, "the intersection of row 4 with column 7a") would indicate that athlete response follows questions from the consultant. Patterns of frequent cells, columns and rows will be sought after in the analysis.

Flanders (1966) suggested several patterns to look for in the analysis. Area A outlined in the sample matrix indicated the area of positive motivation from the teacher (consultant). Positive motivation would consist of accepting the feelings of the athlete, praising the athlete and using the athlete's ideas. Area B illustrates the teacher's (consultant's) reaction to pupil (athlete) statements. Area C indicates how pupils (athletes) start to talk.

Reliability

Intra reliability measures with the scored-interval method were carried out for the collected data. The scored-interval method was selected because it is one of the most rigorous ways to assess reliability (Darst, Zakrajsek & Mancini, 1989).

Three pages were randomly selected from each of the ten mental training sessions. The audio tape was cued to each page as the tone of voice clearly differentiated the verbal behaviours. The number of agreements and disagreements were totaled for each category. The number of agreements were divided by the sum of the agreements and disagreements and multiplied by 100% for each category. The reliability score for the categories were: 90.5% for accepts feelings (1); 94.3% for praise (2a); 94.0% for linking words from the consultant (2b); 87.5% for uses athletes' ideas (3); 95.6% for questions from the consultant (4); 95.6% for explanations from the consultant (5); 91.4% for directions from the consultant (6); 97.3% for athlete response (7a); 97.9% for linking words from the athlete (7b); 97.4% for athlete initiation (8); 100% for questions from the consultant; and 100% for silence (10).

The Triangulation of the Sources of Information

The combination of the articles describing “The Wheel of Excellence” (Orlick, 1995) and the consultant’s “Reflections on SportPsych Consulting With Individual and Team Sport Athletes at Summer and Winter Olympic Games” (Orlick, 1989), were used to compare the consultant’s theoretical approach with the content and the process of authentic mental training sessions. The interviews with the consultant and the interviews with the athletes were used to compare their perceptions of the content and the process with the results of the analysis of the content and the process of the authentic mental training sessions. See Figure 1 for a visual representation of the combined sources of information.

The multiple sources of information that were combined, or triangulated, in the analyses increased the construct validity (Mathison, 1988; Smith, 1988). This combination of using more than one method, specifically labeled, “between methods triangulation” was a sound strategy because the weaknesses of one method were the strength of the other. The systematic coding of the verbal behaviours demonstrated the process of the mental training consultant’s interactions with the athletes. This method on its own would not provide any information on what was discussed. Therefore, the combination of the systematic coding and analysis of the content gave a clear description of the mental training sessions.

Figure 1. Triangulation of the Sources of Information

	<u>Articles by the Consultant</u> (What he says he does.)	<u>Results of the Analysis</u> (What he does.)
<u>Content</u>	<ul style="list-style-type: none"> • The Wheel of Excellence (Orlick, 1995) • Reflections on SportPsych Consulting....(Orlick, 1989) 	Analysis of the Content
		Perceptions of the Content
<u>Process</u>	<ul style="list-style-type: none"> • Reflections on SportPsych Consulting....(Orlick, 1989) 	Systematic Coding of Process
		Perceptions of Process

Limitations of the Case Study

According to Yin (1994), the case study strategy has traditional prejudices, namely bias and generalization. Bias can be reduced if the researcher reports all findings fairly. In the present study, the case study design reduces bias by including many sources of information, i.e., the systematic coding of the process, the analysis of the content, and the consultant's and athletes' perceptions of the content and process.

The case study design is not geared for generalizing results to populations or universes (Yin, 1994). Therefore, the findings of this study can not be generalized to all effective mental training consultants. The researcher intends the results of this case study to inspire other consultants to reflect on the content and processes of their own mental training sessions.

Other limitations specific to this case study are (a) the lack of control of the frequency of the mental training sessions and (b) the analysis of the verbal behaviours only. All of the mental training sessions were initiated by the athletes, therefore, the distribution of the ten sessions between the four athletes was not even. However, this distribution reflects the reality of how the sessions are instigated.

The verbal behaviours were selected to be analyzed because a tape recorder was less intrusive than a video camera and analyzing the nonverbal behaviours would have been a study on its own. Transcribing the audio tapes and systematically coding the verbal behaviours with reliability scores exceeding 87% was a time consuming and rigorous process.

Results

The results will be presented in four separate case studies. The headings for each case are: (a) description of the athlete, (b) analysis of the content of the mental training sessions, (c) the athletes' and consultant's perceptions of the content, (d) systematic coding of the sessions between the athletes and the consultant, and (e) the athletes' and consultant's perceptions of the interactions.

Case Study of Athlete A

Description of Athlete A

Athlete A was a female Badminton player. She had competed in national and international level tournaments for about ten years and had competed at the Olympics several times. She had been exposed to sport psychology when she was about 18 at a high performance training center. She got to know the consultant over an eight month period as a student in his undergraduate class. She asked to meet with him initially because she was injured. Four of her mental training sessions with the consultant were recorded. The sessions took place in March, April, June and September 1996. The session in June occurred before the Olympics and the session in September occurred after the Olympics.

Analysis of the Content for Four Mental Training Sessions with Athlete A

Table 8 summarizes the three blocks that were discussed during the four sessions with Athlete A. The frequency of terms related to each category were approximated with stars. One star represented one to ten significant words related to the category. These stars must be seen as an indication of what was discussed, not an exact measure of frequency.

Excerpts from the transcripts were selected to illustrate the categories that were created from the text. These quotations can be found in Appendix B.

The first block in Table 8 indicates categories that emerged in the analysis of the content that were related to the Wheel of Excellence (Orlick, 1995). All seven elements of excellence were addressed at least once over the four mental training sessions. Commitment, belief and mental readiness were addressed in every session with Athlete A. Full focus, positive images and distraction control were only addressed in the three sessions prior to the Olympics. Constructive evaluation was only discussed in sessions one and four.

The categories that were addressed in all four sessions from the second block were injury, negative emotion, positive emotion, competition and other competitors. The analysis of the content indicated that the injury was mostly addressed during session four, which took place after the Olympics. This indicated that the injury was not often discussed prior to the competition. During session one, two and three, more time was spent on strategies to improve her performance rather than focusing on the injury itself.

The second block in Table 8 indicates that physical elements was only addressed in session one. Issues revolving around the coach were only discussed in sessions two. The category for judges / officials was only addressed in session three. Issues regarding her family were addressed in sessions two and four. Her transition was discussed in session four, which took place after her Olympic competition. Balance was only addressed in session three.

The third block illustrated that outcome, increasing intensity, decreasing intensity and money were addressed in all four mental training session with Athlete A. Outcome was the category with the largest frequency overall. The significant words that were related to outcome had represented the pattern of winning the first game and losing the second. Other themes that fell under the category of outcome were placement at tournaments, beating others and qualifying.

Materials such as videos and readings were addressed in sessions one and four.

Table 8.

Analysis of the Content for Athlete A

Wheel of Excellence	A - 1	A - 2	A - 3	A - 4	Reported by Athlete	Reported by Consultant
Commitment	**	*	**	**		X
Belief	*	***	**	*	X	X
Full Focus	*	**	**			X
Positive Images	*	*	*		X	X
Mental Readiness	**	***	***	**		
Distraction Control	**	**	**			
Constructive Evaluation	*			*		

Reflections SportPsych	A - 1	A - 2	A - 3	A - 4	Reported by Athlete	Reported by Consultant
Physical	*					X
Injury	*	*	**	****	X	X
Emotion (-)	*****	****	*	*	X	
Emotion (+)	***	**	**	**		
Competition	**	**	*	***	X	X
Competitors	*****	***	*	**	X	X
Coaches		*				
Judges \ Officials			*		X	
Family \ Partner		*		***		
Transition				****		X
Balance			*			

Other Categories	A - 1	A - 2	A - 3	A - 4	Reported by Athlete	Reported by Consultant
Outcome (Score, Placement, Qualification, Beat)	*****	****	**	***	X	X
Intensity (↑) (Energy, Attack, Excited, Quick)	***	*	**	*	X	X
Intensity (↓) (Relax, Slow)	**	*	*	*		
Money (Carding, Job, Expenses)	*	*	**	*	X	X
A/V Materials (Readings, Video & Audio Tapes)	*			*	X	

Athlete A's and the Consultant's Perception of the Content of the Four Mental Training Sessions

Athlete A and the consultant were asked to summarize what they discussed during the four mental training sessions. Table 8 indicates whether Athlete A or the Consultant reported words or expressions related to the categories that emerged in the analysis of the content of the mental training sessions.

The categories that were reported by both Athlete A and the consultant from the first block were belief and positive images.

The issues that revolved around belief had to do with the athlete's fear of playing competitively after her injury.

Athlete A - "He gave me some stuff to read about people who got injured before like Kerrin Lee Gartner. I started to find out what he did with them. I found out that it is possible... this was my second injury... now it means I will be able to go back or be able to believe"

Consultant - "There was a move that was one of her strengths which was an overhead smash. She was tentative because she was afraid.... if you don't start making the move you are not going to achieve your goals so you either have to do it or forget about it."

Positive Images was used to help the Athlete regain her speed and confidence for playing with her brace.

Athlete A - "Well we did imagery a lot with my brace. We worked on that because I had to learn how to play with the brace... he said the doctor says that you have no choice but to play with it. Try to look at lots of video of yourself when you were really fastjust think that you can move as fast with the brace"

Consultant - "We stood up and made the move in my office and she was in the gym the next day and it made a huge difference."

The categories that were solely reported by the consultant in block one were commitment and full focus. Neither the consultant nor Athlete A reported issues related to mental readiness, distraction control and constructive evaluation.

The categories that were reported by the consultant and Athlete A in block two were injury, competition and other competitors.

Athlete A and the consultant both mentioned the injury as the initial reason for the athlete to talk with the consultant.

Athlete A - "I remember that I told him that I hate my brace... I thought he was going to say are you crazy to take it off and not at all. ..He said go and see your doctor, tell him and see what he is going to say to you... if he says okay then it is okay. He didn't say oh my god, not at all. Other people probably tell me, are you sure and don't do that. ...I was ready to talk to the consultant and he was probably the only person that didn't say don't take it off. It is your second time... keep your brace and not at all. He understood that my brace was heavy and that it slowed me down and basically said yes if you are ready go for it before the Olympics."

Consultant - "Being focused within the games in ways that help her. At the end the brace was still getting in her way... I told her to talk to her doctor about removing the brace...she took it off for the Olympics."

Both Athlete A and the consultant reported words related to competition during their interviews such as, the Olympics and international competitions.

Athlete A - "... before the Olympics"

Consultant - "Going after the big dream, going to the Olympics and then working on all sorts of little steps along the way through these international competitions."

Athlete A mentioned that a lot of time was allocated to discuss her worst opponent but the consultant did not report it to be a significant problem area. However, the consultant did say that she beat a lot of great players during the pre-Olympic tournaments.

Athlete A - "I have never liked to have bad answer for anybody. I am not that kind of person who will destroy everything to win. I don't have that kind of attitude so he told me how to answer, how to deal with this girl... not to avoid her too much because it would be worse... I would show her that I was scared of her... not to attack her either.. if she comes at you say, we will talk on the court... I didn't want to start a big.. you know. I felt really uncomfortable each time I saw her. I had to deal with it. .. we talked about that a lot."

Consultant - "in her pre-Olympic tournaments she beat a lot of great players but she just happened to draw the best player in the world for her first match."

Categories that were reported by Athlete A only in block two were negative emotion and issues related to the officials. Categories that were solely reported by the consultant were physical elements and transition. A possible reason for the athlete not mentioning transition in her interview as a primary topic is that she was experiencing it at that moment in time. It was not a reflection of past material that was discussed.

Categories that were not reported by either the consultant or Athlete A in relation to block two were positive emotion, coaches, family/ partner and balance.

The third block from Table 8 had three categories that were reported by both Athlete A and the consultant. They were outcome, increasing intensity and issues related to money.

Athlete A and the consultant both reported having discussed her pattern of winning the first game and losing the second. The other category that was related to the plan to win the second game was increasing her level of intensity.

Athlete A - "I had trouble between my second and third matches... I had lots of trouble to win the second match. I would win the first.. he said that probably my stress went down. I know I am really hyper to win the first.... then I had trouble to go up again so I would lose the second one... I put something to remind me on my water bottle that I never thought about before. It was.. an arrow that went up"

Consultant - "A thing related to winning the first game and losing the second game so we came up with a strategy to keep her intensity with the second game...a water bottle with the arrow going up."

Funding was reported by Athlete A and the consultant. This seemed to be an important issue in the interviews because the athlete received no funding from Badminton Canada due to her injury.

Athlete A - "He knew a little bit about the inside of sport. He is not just somebody in sport psychology that didn't really work with athletes... He knew what I was talking about, no funding from Badminton Canada."

Consultant - "They had written her off basically, no funding, no money to even go to competitions because she was injured."

Some categories discussed in the athlete's interview were not present in the consultant's interview. They were terms related to negative emotion, judges/officials and audio visual materials.

The category that was just reported by Athlete A was audio/ visual materials. Decreasing intensity was not reported by either the consultant or Athlete A. Artistic presentation was not applicable to the badminton player's mental training sessions.

Systematic Coding of the Four Sessions Between Athlete A and the Consultant

Figures 2 and 3 presents the twelve by twelve matrix that summarized the interactions between Athlete A and the consultant for the four mental training sessions. The matrix gives specific information about the process of the verbal behaviours. (See Appendix C for the four matrices for Athlete A.)

The average percentage of talk for the consultant was 41.0%. Consultant talk was divided into indirect behaviour, where Athlete A's participation was encouraged and direct behaviour, where the consultant was either giving specific directions or explaining concepts. The average percentages for indirect and behaviour were 19% and 22% respectively. The average percentage for athlete talk was 58.6%. Silence accounted for 0.4%.

Figure 2 outlines the cross that consisted of the most frequent rows and columns, 5, 7a and 8. The numeric code for the rows and columns was independent of the meaning for the behaviour. Therefore, the rows and columns could be grouped in any order. This area indicated that the majority of the time in the four mental training sessions was allocated to athlete initiation, athlete response and explanations from the consultant. This is an important pattern. It allows one to easily recognize the most frequent behaviours of Athlete A and the Consultant.

Figure 3 outlines three areas. Area A indicated the area for positive motivation (Flanders, 1966). Positive motivation would consist of accepting the feelings of the athlete, praising the athlete and using the athlete's ideas. The highest frequency (n = 9), was extended praise, 2a-2a. Area A indicated that the consultant used little extended positive motivation during the four mental training sessions. Short amounts of positive motivation were indicated after the athlete responded or initiated (see cells 7a-2b, 8-2b, 7a-2a, 8-2a, 7a-1 and 8-1).

Area B indicates the area where the consultant genuinely showed an interest in what the athlete was saying. The highest frequency (n = 127) for a single cell in this area was

7a-2b, which meant the consultant often used linking words such as um hm and yes to encourage the athlete to continue talking.

Area C indicates when the athlete tended to start talking. The highest frequencies were extended athlete response, 7a-7a and extended athlete initiation, 8-8. This means that the athlete talked freely for extended periods of time without interruption. The cells 7a-7a and 8-8 each had 327 entries. These cells had the highest single cell entries for the entire matrix.

Figure 2 A Summary of the Interaction Analysis for Four Mental Training Sessions With Athlete A: Cross of Most Frequent Behaviours

	1	2a	2b	3	4	6	5	7a	8	7b	9	10	Total
	accept	praise	link-cn	ideas	ques-cn	direct	explain	respond	initiate	link	ques	silence	
1	1					1	1	15	24	8	1		51
2a		9			1	2	13	9	35	16	1		86
2b								130	92	2	2		226
link-cn													0
3													
ideas													
4					9		2	72		10	1		94
ques-cn							7		24	19	1		70
6		1			2	2							
direct													
5	1	5			8	7	146	2	133	148	7	3	460
explain							17	327			1	1	554
7a	18	19	127		44								
respond							111		327		4	2	636
8	29	34	91		16								
initiate													
7b	2	16	3		9	327	150		1			1	203
link							13						19
9		2	4										
ques											1	2	9
10			1		5								
silence													
Total	51	86	226		94	70	460	555	636	203	19	9	2409
%	2.1	3.6%	9.4%		3.9%	2.9%	19.1	23.0%	26.4	8.4%	0.8%	0.4%	

Consultant Talk = 1, 2a, 2b, 3, 4, 5, 6= 41.0%;
 Indirect = 1, 2a, 2b, 3, 4=19%; Direct = 5, 6=22%
 Athletic Talk = 7a, 7b, 8, 9=58.6%

Figure 3 A Summary of the Interaction Analysis for Four Mental Training Sessions With Athlete A: Positive Motivation (Area A), Interest from the Consultant in Athlete Talk (Area B) and Commencement of Athlete Talk (Area C)

	1 accept	2a praise	2b link-cn	3 ideas	4 ques-cn	6 direct	5 explain	7a respond	8 initiate	7b link	9 ques	10 silence	Total
1 accept	1					1	1	15	24	8	1		51
2a praise		9			1	2	13	9	35	16	1		86
2b link-cn		Area A											
3 ideas								130	92	2	2		226
4 ques-cn					9		7	72	Area C				0
6 direct		1			2	2			24	19	1		70
5 explain	1	5			8	7	146	2	133	148	7	3	460
7a respond	18	19	127		44		17	327			1	1	554
8 initiate	29	34	91		16		111	327	327		4	2	636
9 ques		2	4	Area B									19
7b link	2	16	3		9	327	150		1			1	203
10 silence			1		5						1	2	9
Total %	51 2.1	86 3.6%	226 9.4%		94 3.9%	70 2.9%	460 19.1	555 23.0%	636 26.4	203 8.4%	19 0.8%	9 0.4%	2409

Consultant Talk: 1, 2a, 2b, 3, 4, 5, 6 = 41.0%;
Indirect: 1, 2a, 2b, 3, 4 = 19%; Direct: 5, 6 = 22%

Athlete Talk: 7a, 7b, 8, 9 = 58.6%

Athlete A's and the Consultant's Perceptions of the Interactions

Athlete A stated that she found the sessions very easy going. She perceived the consultant to be relaxed and she felt that he was listening. The consultant used similar words to describe their interaction.

Athlete A - "Well I found it was very easy going, he is very relaxed and he listened to you. I think he is at his best one on one and just being positive."

Consultant - "Easy Free and easy."

Athlete A's perception that the consultant was listening to her was supported in the systematic coding because the athlete felt comfortable enough to talk. Extended response (7a-7a) and athlete initiation (8-8) were the highest single cell frequencies. The systematic coding also indicated that the consultant was interested in what the athlete had to say which was confirmed by the high frequencies in cells 7a-2b and 8-2b.

Both Athlete A and the consultant estimated that the athlete talked more during the mental training sessions. The consultant did not estimate a percentage but did discuss the pattern of the interaction by explaining that there are times when he just listens and times where he gives input or suggestions. The Athlete estimated that she talked about 70% of the time which was greater than the actual result of 58.6%

Athlete A - "I talk more definitely. I think I talk more. I know that he was listening and he was giving me some advice...things I could maybe work on or try this you know.... Like 70 - 30."

Researcher - "For you?"

Athlete A - "Yes, for me. I think so because I was going and telling him stuff and he gave me a few ideas"

Consultant - "I think I do more the listening but there are times where you need to give input because there is an issue that you are trying to resolve...so if you have something to offer you might have to make suggestions or talk about how you do it"

Athlete A and the consultant both indicated that they felt athlete A was talking more and more control during the sessions as they progressed.

Athlete A - "At the beginning it was more him because.. I could see that... it was just the confidence. I didn't know if I was crazy to try again because my association didn't give me any money this year... I think for a while before the Olympics it was me who was taking control and I think it is good because in

badminton it is the same thing...I have to be able to make my decision and talk about what really bugs me you know. Not him to say what did you do today in practice or if this was good or this was bad. I think I was mature enough to know what I really wanted and I think that this kind of session was the best for me because to be in control is everything...if you can't control your practice you are not going to be able to control your matches and it the same thing. I was coming to control the situation in my life, how I want it, and for me it was great.”

Consultant - “Generally I think I have less and less input because they are taking more and more control ... maybe commenting on things because they are acting on things we have talked about and I want to know, tell me how it went and did this work and how are you going to do that and then I make comments. That is the general way I think it flows..... My perception is they lead where we are going to go and I pick up on things”

The phenomenon of the athlete taking more control as the sessions progressed was supported in the systematic coding of the four mental training sessions illustrated in Appendix C. During session 4, the consultant was the most indirect, which meant he was encouraging the athlete to talk more than he was explaining concepts or giving directions.

Case Study of Athlete B

Description of Athlete B

Athlete B has ranked number one nationally and has held world record scores in practice. Athlete B also competes in international competitions. The consultant said he had been consulting with Athlete B for about four or five years.

It had been approximately a year since their last meeting. The consultant said, “Once he started getting better at figuring out for himself what he has to do then I would see him less and less.”

The one session with Athlete B occurred in June 1996. This meeting took place during the competitor’s off season.

Analysis of the Content of the Mental Training Session with Athlete B

The results for the content of the session with Athlete B are summarized in Table 9. Quotations from the session that illustrate each category can be found in Appendix B.

The first block in Table 9 indicates that all of the seven elements of excellence were discussed during the mental training session with Athlete B. The category that seemed to be discussed the most was full focus.

The categories from the analysis of the content that were represented within the categories in the second block of Table 9 were (a) physical elements, (b) injury, (c) negative emotion, (d) positive emotion, (e) competition, (f) competitors, (g) family/ partner, and (h) balance. Issues concerning coaches, judges/ officials and transition were not addressed.

The third block in Table 9 indicated that outcome, decreasing intensity, monetary issues and audio/ visual materials were addressed during the mental training session.

Table 9

Content Analysis for Athlete B

Wheel of Excellence	B - 1	Reported by Athlete B	Reported by Consultant
Commitment	***		
Belief	*		
Full Focus	*****	X	X
Positive Images	***	X	
Mental Readiness	*		
Distraction Control	****	X	X
Constructive Evaluation	**		

Reflections on Sport Psych Consulting	B - 1	Reported by Athlete B	Reported by Consultant
Physical	****	X	X
Injury	*		
Emotion (-)	*	X	X
Emotion (+)	*		X
Competition	*		
Competitors	**		
Coaches			
Judges \ Officials			
Family \ Partner	**		
Transition			
Balance	***	X	X

Other Categories	B - 1	Reported by Athlete B	Reported by Consultant
Outcome (Score, Placement, Qualification, Beat)	**	X	
Intensity (↓) (Relax, Slow)	***	X	X
Money (Sponsors, Professional, Job, Expenses)	***		
Materials (Readings, Audio Tapes)	*		

N.B. One star represents 1 to 10 significant words. Two stars represents 11 to 20 significant words, etc..

Athlete B's and the Consultant's Perceptions of the Content of the Mental Training

Session

Table 9 indicates whether Athlete B or the consultant reported the categories from the analysis of the content in their interviews. The categories that were reported being discussed by both Athlete B and the consultant in the first block were full focus and distraction control. Athlete B reported that they discussed how to change his focus. The consultant used the expression, lock on focus during his interview.

Athlete B - "The biggest thing for me is he taught me how to change my focus on certain things by starting to think about something else."

Consultant - "Well the precision of the rhythm of shooting between heart beats... that is pretty precise and it kind of reinforces me of the lock on concept because focus is like that, especially in sport. You need to lock on"

The term that Athlete B and the consultant used to describe distraction control was 'not thinking'.

Athlete B - "Going through the whole sequence and there are certain spots where you have to have your head in the right place and you have to be thinking through certain things and there is that other place where you go where there is nothing. Where you have to have nothing because if you are thinking about anything it is too much. It is interference. It is almost like a trance induced state that you go into where you hit that part of it for a few seconds"

Consultant - "If you are not thinking about anything else then you will be able to relax and feel in more control and that gives you the centre of the centre of the target"

The category that was just reported by the athlete in the first block was positive images. Athlete B said that the consultant would ask him to go through the process of taking a shot and ask him what he thought, felt and saw.

Athlete B - "He gives me little tips when I meet with him on how things are going and he will consistently ask me to go through the process from start to finish. What do you think? What do you see? What do you feel? Go through it again and now what is it about this that works? What is it about this that doesn't work and he breaks everything down."

Neither Athlete B nor the consultant reported that they discussed commitment, belief, mental readiness and constructive evaluation.

The categories that were reported as being discussed within the second block in Table 9 were (a) physical elements, (b) negative emotion and (c) balance.

The first main point that Athlete B reflected on during his interview was related to physical elements. He described that they discussed going through the sequence of taking a shot. Physical elements was also the first category that was addressed by the consultant when he reflected on the session with Athlete B. He described the precise rhythm of shooting between heart beats.

Athlete B - "Where my head sits during my performance and afterwards, like when I am taking a shot before when I am getting ready to aim.... Going through the whole sequence"

Consultant - "Well the precision of the rhythm of shooting between heart beats... that is pretty precise"

The terms related to negative emotion that were reported being discussed during the session were anxiety and worry.

Athlete B - "any sort of anxieties I might have. The build up because no matter how you look at it you are always in the back of your mind going to be thinking score. You shouldn't but it is always going to be there so he more or less gives me guidelines to go by. If this worked this time you know what do you do next time."

Consultant - "I think being in a focus where there is no worry no other thoughts...."

The term that the consultant identified that was related to balance relaxing outside the competition venue. The athlete said that the consultant would ask if he took breaks. The athlete said he did take breaks when he went up to the cottage.

Athlete B - "He'll ask me things like do you take breaks and I do that is why I head up to the cottage and go fishing for it is just nice to have that like he makes sure that as hard as you are working or as hard as you are thinking or not thinking. He asks you to relax and take that part to breath."

The category that was just addressed by the consultant in the second block was positive emotion. He felt that the athlete was feeling good and he wanted to share what was going well.

Consultant - "I think really he just wanted to tell me, you know it has been going great and he was feeling good and he wanted to share."

Neither Athlete B nor the consultant addressed categories in the second block related to (a) injury, (b) competition, (c) competitors or (d) family/ partner. The categories that were not specific to the mental training session were issues related to coaches, judges/ officials and transition.

The only category that was reported by both Athlete B and the consultant in the third block of Table 9 was decreasing intensity. The term the athlete and consultant used that was related to decreasing intensity was relaxing. The athlete identified relaxing to be the most important thing that was discussed.

Athlete B - "To relax 100%. I like to get into that zone where you are so relaxed that you can actually feel your heart rate. You can see your heart rate because you can see it in your scope because your pulse is moving the bow up and down and you stay and you shoot in between heart beats because it is so slow you are so relaxed...when that happens. Archer's refer to that as being in a groove. It is like any sport, it is a groove. It is magic. It just happens"

Consultant - "He goes to his heart rate.. that is what he means you are really relaxing or lying on a lake or something."

The only category that was reported being discussed by Athlete B alone in the third block of Table 9 was outcome. The athlete specifically used the term score.

Athlete B - "You are always, in the back of your mind, going to be thinking score."

Neither Athlete B nor the consultant addressed monetary issues or audio visual materials in their interviews. The categories increasing intensity and artistic presentation were not apparent in the analysis of the content.

Systematic Coding of the Session Between Athlete B and the Consultant

Figures 4 and 5 indicate the twelve by twelve matrix that displays the interaction process between Athlete B and the consultant for their mental training session.

The percentage of total consultant talk was calculated to be 39.8%. Indirect talk had a percentage of 27.1%. Direct consultant talk accounted for 12.7% of the coded behaviours. Total athlete talk had the largest percentage of 59.6%. Silence accounted for 0.1%.

The cross illustrated in Figure 4 outlines the categories with the largest frequencies. The shape of the cross provided a clear visual representation of the three most frequent categories which were response, initiation and explains. The largest category within this cross was athlete response ($n = 222$) which was closely followed by athlete initiation ($n = 209$). The largest behaviour ($n = 86$) for the consultant was explaining concepts.

Area A, as seen in Figure 5, represents the section geared to positive motivation (Flanders, 1966). Positive motivation consists of accepting the feelings of the athlete, praising the athlete and using the athlete's ideas. The largest cell in this area was extended praise, 2a-2a. The cell 2a-2a only had six entries. This means that the consultant did not often use positive motivation for extended periods of time during the session. The consultant did use short amounts of positive motivation after the athlete responded or initiated (see cells 7a-2b, 8-2b, 7a-2a, 8-2a, 7-3, 8-3, 7a-1 and 8-1).

Area B in Figure 5 illustrates the genuine interest the consultant had in what the athlete was saying. The frequencies in cells, 7a-2b and 8-2b were comparatively high ($n = 40$). This means linking words were used such as 'yes' or 'um hm' by the consultant when the athlete was either responding or initiating.

Area C indicates where athlete talk commences. The majority of athlete talk was found in extended response or initiation. The largest single cell frequency ($n = 119$) was cell 7a-7a, extended response. Extended initiation, 8-8, had the second largest single cell frequency ($n = 115$). This means that the athlete often talked for periods of time that exceeded five second intervals.

The other significant places, in Area C, for the athlete to start talking occurred after questions were asked, 4-7a or linking words of encouragement were used by the consultant, 2b-7a and 2b-8.

Figure 4. The Interaction Analysis for the Mental Training Session With Athlete B: Cross of Most Frequent Behaviours

	1	2a	2b	3	4	6	5	7a	8	7b	9	10	Total
1									9				9
2a		6			1	3	7	4	17	3			41
2b					1			38	39	3			81
link-cn										1			15
3				1	1		1	3	8	1			15
ideas										6			71
4					7			56		2			71
ques-cn									1	4	1	1	13
6		2				2	2						13
direct													
5		5		1	2	2	38	2	19	17			86
explain													
7a		8	40	6	31	1	12	119	1				222
respond													
8	5	18	40	4	13	2	12		115				209
initiate													
7b		2		3	13	3	13						34
link													
9			1		1		1						3
ques													
10					1								1
silence													
Total	9	41	81	15	71	13	86	222	209	34	3	1	785
%	1%	5.2%	10%	1.9%	9.0%	1.7%	11%	28.3%	26.6%	4.3%	0.4%	0.1%	

Consultant Talk: 1, 2a, 2b, 3, 4, 5, 6 = 39.8%; Athletic Talk: 7a, 7b, 8, 9 = 59.6%; Indirect: 1, 2a, 2b, 3, 4 = 27.1%; Direct: 5, 6 = 12.7%

Figure 5. The Interaction Analysis for the Mental Training Session With Athlete B: Positive Motivation (Area A), Interest from the Consultant in Athletic Talk (Area B) and Commencement of Athletic Talk (Area C)

	1 accept	2a praise	2b link-cn	3 ideas	4 ques-cn	6 direct	5 explain	7a respond	8 initiate	7b link	9 ques	10 silence	Total
1 accept									9				9
2a praise		6			1	3	7	4	17	3			41
2b link-cn		Area A			1			38	39	3			81
3 ideas				1	1		1	3	8	1			15
4 ques-cn					7			56		6	2		71
6 direct		2				2	2	2	1	4	1	1	13
5 explain		5		1	2	2	38	2	19	17			86
7a respond	4	8	40	6	31	1	12	119	1				222
8 initiate	5	18	40	4	13	2	12	115	Area C				209
9 ques	Area B							1					3
7b link		2		3	13	3	13						34
10 silence					1								1
Total %	9 1%	41 5.2%	81 10%	15 1.9%	71 9.0%	13 1.7%	86 11%	222 28.3%	209 26.6%	34 4.3%	3 0.4%	1 0.1%	785

Athlete B's and the Consultant's Perceptions of the Interaction

The athlete described his relationship with the consultant to be like an experienced driver with a student driver. Athlete B said he was always driving but the consultant would give him suggestions based on his own experience to get results.

The consultant discussed the pattern of the interaction. He mentioned that when the athlete talks he may have things that he can offer and he may talk for a while to make his points clear.

Athlete B - "I kind of feel like I am a student who has a lot of drive and goals but not really a lot of refinement as to how to get there and I know I have come along way in my sport in a short time I think the consultant's advice and the consultant's influence has been let see what I am looking for, it has been sobering. It keeps you modest.....The consultant is like the guy in the car who drives the car who makes it go certain places and makes it do certain things... what it is supposed to do at certain times ... the consultant is like the driver in the car. He makes it go. He makes it stop. He makes it turn left and right and he makes it do the things that he wants"

Researcher- "So in relation to the session, is he directing the session?"

Athlete B - "Not really directing the session, the car is attitude in your own sport and the consultant is sort of the driver in terms of he gives you the wheel and says okay this is what I would do or this is what I have found works while you are driving this particular car and try this. A lot of the times it just sort of matched with the way things fit with what he has taught you. He can say, hey you know I have driven it this way and you should try the things and you will do them and you get results ...I don't think there really is another way to put that other than he's been there. His having experience with other people and because I think competition has in sport in all sports are closely related that he takes from one sport he can relate to another but he is just like that person owning a car. He is experienced at it except I am the student driver"

Consultant - "Well for the first 35 minutes they are doing all the talking and I may ask a couple questions. But then I may have something that I think I can offer and I may talk for awhile to really make a point clear so it still feels like they touched on all those topics and they did this and that and I am just picking one thing that we have to really be very precise and clear about and talk enough to do that. So it may kind of make the ratio seem even or something you know but the content of what the range of things that they may talk about and I may talk about may be very different so they are maybe talking about 15 things and I am talking about one thing and I am being very detailed"

These perceptions were similar in that both the athlete and the consultant felt the consultant had suggestions that would help the athlete improve his performance.

Athlete B and the consultant further reflected on the process of their interaction. The athlete predicted that he primarily responded to questions, which was supported by the

systematic coding. Athlete response was the largest category (n = 222) found in the cross shown in Figure 4.

The athlete perceived the consultant to mainly ask questions and process his responses. The term, 'processing the athlete's responses' could fall under the category explain. Explain was the largest behaviour (n = 86) found in the cross in Figure 4 for the consultant.

Athlete B - "I am just giving him answers. He is asking questions and giving answers back I am just giving him required information that he can sort of make his way through the maze with."

When the athlete predicted the ratio of talk he thought that the consultant talked more because he got a lot out of listening to him. The consultant predicted that the athlete talked more but he over estimated the ratio. He perceived it to be roughly 75% for the athlete and it was actually 59.6%.

Athlete B - "I would guess that he talks more because I get more out of listening to him and his ideas about things"

Consultant - "It seemed to me like he talked most of the time I might have picked up on some things that I thought was really neat and just talked about that for awhile so I don't know how long I would have talked about that much detail but I would say ... he probably talked about three quarters of the time."

The athlete's perception of the consultant talking more than him is a reflection that perceptions are not always indicative of reality. The athlete's high regard for information shared by the consultant clouded his judgment of the talk ratio.

Case Study of Athletes Ca & Cb

Description of Athletes Ca and Cb

Athletes Ca and Cb compete in Judo at an international and Olympic level. They are a couple and they often meet with the consultant together. They have been meeting with the consultant for two years but they feel as it has been at least five years. Cb said it felt as he knew him before because he has read many of his books.

The one session with Athletes Ca & Cb took place in February 1996. This session occurred before the Nationals and after an international competition for athlete Ca. It had been approximately six weeks since they had last seen the consultant.

Analysis of the Content of the Mental Training Session with Athletes Ca & Cb

The content was summarized in Table 10. Quotations from the session that relate to each category can be found in Appendix B.

The first block indicated that six elements of excellence were addressed during the mental training session, namely, (a) commitment, (b) belief, (c) full focus, (d) positive images, (e) mental readiness and (f) distraction control. Constructive evaluation was not addressed during the mental training session.

The categories from the analysis of content that were represented within the second block were (a) physical elements, (b) injury, (c) negative emotion, (d) positive emotion, (e) competition, (f) competitors, (g) coaches, (h) judges/ officials and (i) balance. Issues concerning family/ partner and transition were not addressed during the mental training session.

The third block in Table 10 indicated that (a) outcome, (b) increasing intensity, (c) decreasing intensity, (d) money and (e) audio/ visual materials were apparent in the analysis of the content. Note that words related to outcome were often used during the mental training session.

Table 10

Analysis of the Content for Athletes Ca and Cb

Wheel of Excellence	C	Reported by Athletes Ca or Cb	Reported by Consultant
Commitment	***		X
Belief	*		
Full Focus	*		X
Positive Images	*		
Mental Readiness	***	X	X
Distraction Control	*		
Constructive Evaluation			

Reflections on Sport Psych Consulting	C	Reported by Athletes Ca or Cb	Reported by Consultant
Physical	*		
Injury	**		X
Emotion (-)	**	X	
Emotion (+)	*		X
Competition	****	X	X
Competitors	*****		
Coaches	*****	X	
Judges \ Officials	*		X
Family \ Partner			
Transition			
Balance	*	X	X

Other Categories	C	Reported by Athletes Ca or Cb	Reported by Consultant
Outcome (Score, Placement, Qualification, Beat)	*****	X	X
Intensity (↑) (Energy, Attack, Excited)	**		
Intensity (↓) (Relax)	*		
Money (Carding, Professional, Job, Expenses)	**		
Materials (Readings, Writing, Video & Audio Tapes)	***		

Athletes Ca & Cb's and the Consultant's Perceptions of the Content of the Mental Training Session

Table 10 indicated whether the categories were reported by the athletes or the consultant. The category that was reported being discussed by both Athletes Ca & Cb and the consultant which was congruent with the first block in Table 10 was mental readiness. Mental readiness was described by the athletes as preparing for the Nationals. The consultant's terms for mental readiness were attitude and approach for competition.

Athlete Ca - "We were getting ready for the National and it was a big stress"

Consultant - "She has been working hard. So as they get closer to competition,... her attitude and her focus, ... how she wants to approach it ..."

The categories in the first block that were reported being discussed by the consultant only were commitment and full focus. The term that the consultant used which was related to commitment was goal.

Consultant - "He has to figure out some paths to choose to get to his goal. Some of which he has no control over. His thing was the type of thing that he didn't need any type of mental preparation for."

The consultant reflected on the session and remembered that the Athlete Ca had written some notes about her focus.

Consultant - "She had written down her focus thing. She didn't talk much about her focus although I know what she is trying to do"

The categories that were not addressed by the athletes or the consultant were belief, positive images and distraction control which it not surprising considering they were only marginally addressed during the mental training session outlined in Table 10. Constructive evaluation was neither reported or apparent in the analysis of the content.

The categories that were reported by both the athletes and the consultant shown in the second block in Table 10 were competition and balance. The terms related to competition that were used by the athletes were 'National' and 'tournaments'. The consultant used the general term, 'competition' as well as the 'Olympics'.

Balance was represented in the athletes' interview when they discussed issues in and out of sport. The consultant used the term, taking a break, which was directed toward Athlete Ca.

Athlete Cb - "With him I talk about everything not just about sport it is about life."

Consultant - "She needs a little break. She has been working hard."

The categories from the second block in Table 10 that were just addressed in the athletes' interview were negative emotion and issues related to their coach. The term Athlete Ca used to that was related to negative emotion was 'stress'. The athlete's stress came from her preparation for the nationals.

Athlete Ca - "We were getting ready for the National and it was a big stress."

The athletes reported problems they were having with their coach.

Athlete Ca - "He had problems with the coach too. I really had problems with that coach."

The categories from the second block that were addressed by the consultant only were injury, positive emotion and judges/ officials. The consultant perceived Athlete Cb's injury to be an important issue. An issue that was perhaps holding him back from qualifying.

Consultant - "...the most important issue for him right now because he was injured... he is coming back from an injury."

The consultant reported that he discussed issues related to positive emotion, specifically, joy in Athlete Cb's life. He was aware that the athlete was going through a tough time and perceived that the athlete needed to do some things that would give him a lift.

Consultant - "The whole area of joy... Cb mentioned that he is not having much of a life but she also wanted to talk about that so that was what we ended on. They have got to do some things that will give them a bit of a lift outside of judo."

In relation to the category judges/ officials, the consultant reported the struggle that Athlete Cb was having with the judo association. He was not being sent to fight due to a past injury.

Consultant - "The association, he has to deal with that first"

The categories that were not addressed by the athletes or the consultant were (a) physical elements and (b) competitors. Physical elements were marginally addressed during the session but it was surprising that issues revolving around competitors were not reported. Table 10 indicated that competitors was one of the most frequent categories. Issues related to family/ partner and transition were neither reported during the interviews nor apparent in the analysis of the content.

The third block in Table 10 indicated that the category of outcome was addressed by the athletes and the consultant through the term qualification. The athletes reported that they discussed Cb qualifying for the Olympics. The first theme that the consultant used to describe what was discussed, with athlete Cb, was not having the opportunity to qualify.

Athlete Ca - "Cb wasn't sure again if he was going back to Europe to compete."

Consultant - "He had some bigger issues on his plate about not having the opportunity to qualify... that was a really big issue, the most important issue for him right now because he was injured and he is coming back from an injury. The association, he has to deal with that first..."

Categories that were not identified being discussed by the athletes and the consultant with respect to the third block in Table 10 were (a) increasing intensity, (b) decreasing intensity, (c) monetary issues and (d) audio/ visual materials. Artistic presentation was neither reported or apparent in the analysis of the content.

Systematic Coding of the Session Between Athletes Ca, Cb and the Consultant

The session between Athletes Ca and Cb and the consultant was audio recorded and systematically coded with the adapted version of the Flanders' (1965) Interaction Analysis in the Classroom. The results are indicated in the matrix shown in Figures 6 and 7.

Total consultant talk had a percentage of 36%. Indirect consultant talk accounted for 13.3% of the coded verbal behaviours. Direct consultant talk had a percentage of 18.3%. The percentage for total athlete talk was 63.6%. The percentage for silence was 0.3%.

Figure 6 outlines the cross that contained the most frequent behaviours coded during the session. Notice that athlete response and initiation were equal in their summation, 210 behaviours. The second most frequent behaviour in the cross was explain ($n = 93$) which represented the consultant explaining concepts to the athlete.

Figure 7 identifies three areas. Area A is the highest indication of positive motivation (Flanders, 1966). Positive motivation would consist of accepting the feelings of the athlete, praising the athlete and using the athlete's ideas. The only entry for this area was cell 2a-3 (praise followed by using the athlete's idea). This result indicates that the consultant did not use much positive motivation that exceeded five second intervals during the mental training session. Most of the positive motivation occurred in shorter periods of time which directly followed athlete response and initiation (see cells 7a-2b, 8-2b, 7a-1, 8-1, 7a-2a and 8-2a).

Area B indicates the genuine interest that was taken by the consultant when the athlete was talking. The largest cell ($n = 40$) in Area B is 7a-4 (athlete response followed by questions from the consultant). This means that the consultant would ask many questions when the athlete was responding.

Area C indicates the pattern of behaviours that precede athlete talk. The largest cells ($n = 138$ and $n = 122$ respectively) in this area were extended athlete response, 7a-7a and extended athlete initiation, 8-8. This meant the athletes tended to talk in intervals that were longer than five seconds. Cell 4-7a illustrated that apart from extended response the athletes tended to respond after they were asked questions. Athletes also tended to initiate after explanations from the consultant, 5-8.

Figure 6. The Interaction Analysis for the Mental Training Session With Athletes Ca & Cb: Cross of Most Frequent Behaviours

	1	2a	2b	3	4	6	5	7a	8	7b	9	10	Total
	accept	praise	link-cn	ideas	ques-cn	direct	explain	respond	initiate	link	gues	silence	
1					1	1	3	2	15				22
accept													
2a				1	2	2	1	2	2	1			11
praise													
2b								13	12				25
link-cn													
3									6				6
ideas													
4					4			52	1	2	1		60
ques-cn													
6		1			1	7	2	1	14	8	1		35
direct													
5	1					1	44	1	35	10	1		93
explain													
7a	3	2	14	2	40	1	10	138					210
respond													
8	17	8	11	3	7	15	25		122		1	1	210
initiate													
9					1		2	1					4
gues													
7b	1				4	8	6		2				21
link													
10					1				1				2
silence													
Total	22	11	25	6	60	35	93	210	210	21	4	2	699
	3.1%	1.6%	3.6%	0.9%	8.7%	5.0%	13.3	30.0%	30.0%	3.0%	0.6%	0.3%	

Consultant Talk: 1, 2a, 2b, 3, 4, 5, 6=36%;
 Indirect: 1, 2a, 2b, 3, 4=13.3%; Direct: 5, 6=18.3%
 Athletic Talk: 7a, 7b, 8, 9=63.6%

Figure 7. The Interaction Analysis for the Mental Training Session With Athletes Ca & Cb:
 Positive Motivation (Area A), Interest from the Consultant in Athlete Talk (Area B) and Commencement of Athlete Talk (Area C)

	1 accept	2a praise	2b link-cn	3 ideas	4 ques-cn	6 direct	5 explain	7a respond	8 initiate	7b link	9 ques	10 silence	Total
1 accept	1				1	1	3	2	15				22
2a praise				1	2	2	1	2	2	1			11
2b link-cn								13	12				25
3 ideas									6				6
4 ques-cn					4			52	1	2	1		60
6 direct		1			1	7	2	1	14	8	1		35
5 explain	1					1	44	1	35	10	1		93
7a respond	3	2	14	2	40	1	10	138	<i>Area C</i>				210
8 initiate	17	8	11	3	7	15	25		122		1		210
9 ques					1		2	1					4
7b link	1				4	8	6		2				21
10 silence					1				1				2
Total	22 3.1%	11 1.6%	25 3.6%	6 0.9%	61 8.7%	35 5.0%	93 13.3	210 30.0%	210 30.0%	21 3.0%	4 0.6%	2 0.3%	699

Athletes Ca, Cb's and the Consultant's Perceptions of the Interaction

Athletes Ca and Cb felt that the consultant was a great listener. This was congruent with the consultant's perception because he thought that most of what he did was listen. The athletes mentioned that the consultant maintained eye contact and they felt as if the whole world stops when they talk to him.

Athlete Ca - "He is a great listener, he listens so well you know. I would be bored to just sit there and listen to peoples' stories you know. You feel like with him he is there and he just listens and listens and listens. I can't believe how he is good at this"

Athlete Cb - "I think he is very patient... He is like a dear he just kind of looks at you even though his ears are kind of turning and tuning in. He kind of looks like a dear too."

Athlete Ca - "That is true he is so good to us you know to just sit there it is like the whole world just stops ... you just spend an hour, hour and a half with him, 2 hours it is so good"

Consultant - "Most of what I did was listen."

The results of the systematic coding support the perceptions that the consultant was listening. The largest coded categories ($n = 210$) were athlete response and initiation. Other indications of the consultant listening were the cells 7a-2b and 8-2b found in Area B in Figure 7. This meant that linking words were used by the consultant while the athlete responded or initiated.

The athletes perceived that they could say anything to the consultant. The athletes also perceived that the consultant would have a comment for them on something they said. This was congruent with the consultant's perceptions because he said he would let them talk and he would give input on relevant areas.

Athlete Cb - "You feel like you could say almost anything to him and he would say something back. I mean he would pick something from that and comment on something eventually but he could listen to anything you would have to say."

Consultant - "I just go with the flow so I go with the flow of opening the door for them to say what they have to say and then picking up things that I think are relevant where I have some input that might be relevant."

The feeling of being able to say anything to the consultant was reflected in the systematic coding for athlete initiation (n = 210). This category as well as athlete response had the most entries. The systematic coding also supported the consultant's perceptions of picking up on relevant things to discuss. Area B outlined in Figure 7 illustrates the genuine interest the consultant had in what the athlete was saying. Cell 8-5 indicated that the consultant had a tendency (n = 25) to give explanations after the athlete initiated talk.

Athletes Ca and Cb commented on the consultant's ability to ask the right questions. The consultant commented that his questions allow the athletes to get into more depth.

Athlete Cb - "I think we kind of had a respect for him because he was patient. He asked the right questions and he didn't have to be able to know the sport to be able to help.... technically he will never know"

Consultant - "Well mostly I have met with those two together. Sometimes I have met with them separately too.... I think they are okay together because they know each other really well and they are not afraid to say something because they already know what each other is going through. They live together. They travel together. They compete together.....they may leave understanding each other a bit better because maybe they would get into more depth than understanding things by themselves..... I guess because I ask questions"

The finding that the consultant was able to ask questions that were related to their situation was supported by the systematic coding. The majority of questions were asked when the athlete was already responding to a previous question. This can be seen in Figure 7, Area B, cell 7a-4.

Athlete Ca perceived the percentage of talk was 90% for them and 10% for the consultant. This was not congruent with Cb's perception, 60% for them and 40% for the consultant. The consultant perceived that he did not talk any less in that session than he does in any other session. Cb and the consultant were closer in predicting the ratio of 36% consultant talk and 64% athlete talk. This ratio is slightly higher the average ratio, 39% consultant talk, 60% athlete talk and 1% silence, but not much considering that there were two athletes as opposed to one.

Athlete Ca - "Well the last time we were there with you I think it was 90% 10% maybe....."

Athlete Cb - "I think more like 60, 40. Sixty on our side and 40 on his. It seems like it is more.. because I think he lets us talk and he is always rephrasing like paraphrasing, summarising stuff and putting perspective and putting examples here"

Consultant - "I think probably Ca talked more Cb is more thoughtful ... Ca is very honest and open and bang, stuff comes out .. It is nice and refreshing. Cb is more thoughtful. He picks his words and what he says is maybe fewer words but very to the point or maybe it is kind of in depth. He has thought about it so it is not like you don't need the same number of words to say things. Some people speak in different ways"

Consultant - "I don't think that the ratio of talk would have been any less with two of them and me....I think I probably talk as much as I do in any other session"

Case Study of Athlete D

Description of Athlete D

Athlete D is a figure skater who had received the title of junior national champion in the past. She has been competing at national and international competitions. Her latest accomplishment was a silver medal in senior ladies.

Four sessions were recorded with Athlete D. The first two sessions were in September 1996. The third session took place in November 1996 before a sectional competition and the fourth session was in December 1996 which was before a divisional competition.

The first session that was audio recorded was the very first time Athlete D had worked with the consultant.

Analysis of the Content of the Four Mental Training Session with Athlete D

Table 11 indicates the areas that were discussed during four mental training sessions for Athlete D. See Appendix B for examples of quotations containing significant words related to each category for athlete D.

The first block in Table 11 indicated that every element was mentioned at least once over the course of the four mental training sessions. Commitment, belief, full focus, positive images, mental readiness and distraction control were addressed in every mental training session. Issues related to full focus were discussed the most in session two.

Constructive evaluation was not addressed in session one and was briefly discussed in the remaining three sessions.

The categories from the analysis of the content that were congruent with the second block in Table 11 were (a) physical elements, (b) injury, (c) negative emotion, (d) positive emotion, (e) competition, (f) competitors, (g) coaches, (h) judges/ officials, and (i) family/ partner. The two categories that were not addressed within the second block were transition and balance. Terms related to physical elements were used more often than any other category in the second block. The main physical element discussed was jumping. Terms related to injury were only addressed in the second and third session when the athlete was experiencing pain from her new skates.

Every category from the third block in Table 11 was addressed at least once over the four mental training sessions. Issues related to outcome, increasing intensity, and decreasing intensity were moderately addressed over the four sessions. Special attention to artistic presentation was apparent in the first mental training session. Financial issues were only addressed in the last session. Audio/ visual materials, such as reading or watching videos, were apparent in the analysis of the content for the last three sessions.

Table 11
Analysis of the Content for Athlete D

Mental Skills Wheel of Excellence	D - 1	D - 2	D - 3	D - 4	Reported by Athlete D	Reported by Consultant
Commitment	***	**	**	*	X	X
Belief	**	*****	**	**		X
Full Focus	****	***** **	**	***	X	
Positive Images	****	***	*****	*		
Mental Readiness	*	**	**	****	X	X
Distraction Control	****	****	****	**		X
Constructive Evaluation		*	*	*		

Categories	D - 1	D - 2	D - 3	D - 4	Reported by Athlete D	Reported by Consultant
Physical	***** *****	***** **	****	***		X
Injury			*	*		
Emotion (-)	***	*	***	***	X	
Emotion (+)	**	*	***	**	X	X
Competition	***	*	*	***	X	X
Competitors	**	*	*	*		
Coaches	*	*	**	*		X
Judges/ Officials	*	*	*	*		
Family / Partner			*	*		
Transition						
Balance						X

Other Categories	D - 1	D - 2	D - 3	D - 4	Reported by Athlete D	Reported by Consultant
Outcome (Placement, Beat)	*	*	**	*		X
Intensity (↑) (Energy, Attack, Excited, Quick)	***	****	***	**	X	
Intensity (↓) (Relax, Slow)	***	*	*	***	X	
Artistic Presentation (Audiences' Faces and Emotion)	*****	*	**	*		
Money (Expenses, Carding)				*		
Materials (Readings, Writing, Video Tapes)		*	*	*		

Athletes D's and the Consultant's Perceptions of the Content of the Four Mental Training Sessions

Table 11 not only indicates the areas that were discussed during the sessions, it indicates whether the areas were reported by Athlete D and the consultant. The first block indicated that Athlete D and the consultant both reported discussing issues related to commitment and mental readiness. Commitment was described by Athlete D as attaining her goals. The consultant's term that fell under the category of commitment was working really hard.

Athlete D - "We talked a lot about how to attain my goals in the competition."

Consultant - "If you are working really hard ... we did talk about quality training."

Mental Readiness was described by Athlete D as attitude. The consultant reported that they talked about how you approach jumps and whether or not you decide to do it. This decision was a reflection of being mentally ready. The other area that the consultant identifying that was related to being mentally ready was preparing for competition.

Athlete D - "My attitude and being positive through my sessions."

Consultant - "A lot really was related to approaching things with a certain constructive attitude in practice, in preparing for competitions"

Three categories in the first block of Table 11 showed disparity in terms of what was reported by Athlete D and the consultant. The category that was solely reported by Athlete D was full focus. Athlete D indicated that focus was one of the most important things that she discussed with the consultant. Her problem area with respect to focus was maintaining concentration through a whole hour session. The consultant suggested breaking the session down into 20 minute intervals.

Athlete D - "Breaking them down in 20 minute sessions because an hour is really hard to focus for the whole time for me."

The two categories from the first block that were addressed by the consultant only were belief and distraction control. Issues related to belief were directed towards the athlete's practice and competitions.

Consultant - "Knowing what works.... if you do it, it will work in competitive situations having the confidence to do that a lot really was related to approaching things with a certain constructive attitude in practice, in preparing for competitions, in competitions, in believing and being more consistent."

The significant term, related to distraction control, namely, "being more consistent," was reported by the consultant in relation to the athlete's competitions and practices.

The second block in Table 11 indicated that both Athlete D and the consultant reported discussing issues relating to positive emotion and competition. Being positive was one of the most important areas that was discussed according to Athlete D. The consultant said being positive was an underlying thing that seemed to touch on everything.

Athlete D - "For me it was just how to focus and be positive."

Consultant - "Well I guess an underlying thing that seemed to touch everything was positiveness... and knowing what works.... if you do it, it will work in competitive situations"

Athlete D used the term competition when she was talking about attaining her goals. See the quotation for commitment. The consultant discussed upcoming competitions, Nationals and Worlds.

Consultant - "She has got competitions coming up. She wants to get through these things. She wants to win Nationals. She wants to dream to go to the worlds."

The consultant addressed three categories from the second block that were not reported by Athlete D. They were physical elements, coaches and balance. The category, physical elements, was represented in the consultant's interview when he discussed the athlete doing jumps. The athlete may have not mentioned jumping as an area that was discussed because she may have been reflecting on the terms related to the psychological aspects of the sport.

Consultant - "A lot of things came up that relate to doing jumps. How you approach the jump and whether you decide to do it or not do it."

The consultant used the term coach when he reported the coach's desire for the athlete to have a plan for mentally preparing for the order of when she skated. Her skating order represented whether she started, skated in the middle or at the end, where she had to take her skates off and put them on again. The consultant also referred to the time that the coach suggested she quit after a bad competitive year.

Consultant - "She is leaving tomorrow and she had something that she knows she has to deal with plus the coach said you better have a plan."

Consultant - "She didn't do well last year in competition and fell all over the place in Nationals and was not at all happy with how she performed. Even the coach told her she should probably quit."

The terms that the consultant used that related to balance in his interview were resting and quality practices. This comment was brought forth from the question of whether they discussed things that were not related to figure skating. The athlete was asked the same question and responded that, "It was all related." The consultants perception of discussing balance was not congruent with the analysis of the content. However he did mention that he did not discuss life outside of sport because it was not part of the athlete's agenda.

Consultant - "I think with her it would be more related to performance but there are probably some things related to making sure you are rested.... if you are working hard we did talk about quality training.... I don't think we got into the joyfulness or life outside sport as much as I do with other people because she came in with an agenda"

The categories that were not addressed in the athlete's or consultant's interview were injury, negative emotion, competitors, judges/ officials and family/ partner.

Transition was not specific to Athlete D's four mental training sessions.

None of the categories in the third block of Table 11 were reported by both Athlete D and the consultant. Outcome was solely addressed by the consultant. The consultant used terms related to outcome when he spoke of the athlete's desire to win Nationals and go to the Worlds.

The categories from the third block that were only addressed by Athlete D were increasing intensity and decreasing intensity. These categories were addressed when the key terms relaxing and attacking were identified.

Athlete D - "My key words were relaxing and attacking"

Neither the athlete nor the consultant reported terms related to artistic presentation, money and audio/ visual materials.

Systematic Coding for the Four Sessions Between Athlete D and the Consultant

The sessions were individually coded and added to produce a summary matrix. The results for the four sessions are shown in Appendix D. The summary matrix accounts for all the verbal coded behaviours that occurred during the four sessions. The percentage for total consultant talk was 39.9%. Indirect consultant had a percentage of 20.2%. Direct consultant talk accounted for 19.7% of the coded behaviours. Total athlete talk had a percentage of 58.9%.

Figure 8 outlines the behaviours that occurred most often in the shape of a cross. The most frequent categories in the cross were athlete response (n = 837) followed by athlete initiation (n = 671) and explanations from the consultant (n = 380), columns 7a, 8 and 5 respectfully.

Figure 9 outlines three areas. Area A indicates positive motivation (Flanders, 1966). The largest single cell entry in this area is extended praise, 2a-2a which means the consultant praised the athlete in intervals longer than five seconds in length. The entry for cell 2a-2a was moderately low (n = 15). However, there were more entries in Area A compared to the other matrices for subjects. This indicated that the consultant used extended positive motivation more with Athlete D. This was congruent with the athlete's and consultant's perceptions that being positive was one of the most important things discussed. The athlete had a tendency to be negative. Note that the consultant often used small bouts of positive motivation after the athlete responded to a question or initiated a topic to discuss (see cells 7a-2b, 8-2b, 7a-2a, and 8-2a).

Area B indicates the genuine interest in what the athlete is saying (Flanders, 1966). The largest single cell in this area was response followed by questions from the consultant, 7a-4. This means that when the athlete was responding the consultant would encourage the athlete to continue talking by asking more questions.

Area C indicates the behaviours that illicit athlete talk. The largest single cells in Area C were extended response (n = 513) and extended initiation (n = 418), 7a-7a and 8-8 respectively. This means that the athlete would talk in bouts of time that exceeded five seconds.

Figure 8. A Summary of the Interaction Analysis for Four Mental Training Sessions With Athlete D. Cross of Most Frequent Behaviours

	1 accept	2a praise	2b link-cn	3 ideus	4 ques-cn	6 direct	5 explain	7a respond	8 initiate	7b link	9 ques	10 silence	Total
1 accept	1				1	1	1	7	8	3			22
2a praise		15	1	2	2	2	6	15	35	24	1	3	106
2b link-cn								85	74	2		2	163
3 ideus		1		5	3			10	10	5	1	1	26
4 ques-cn				1	17		1	214	2	17	4	2	258
6 direct		3			5	94	22		22	34	1	1	182
5 explain		5		3	13	24	160	1	96	73	1	4	380
7a respond	12	33	84	4	149	9	23	513	3	1	1	5	837
8 initiate	6	26	72	9	42	19	74		418	1		4	671
7b link	3	21	1	2	15	33	80	1	1			3	160
9 ques		1	2		3		3						9
10 silence		1	3		8		10	1	2			8	33
Total %	22 0.8%	106 3.7%	163 5.7%	26 0.9%	258 9.1%	182 6.4%	380 13.3%	837 29.4%	671 23.6%	160 5.6%	9 0.3%	33 1.2%	2847

Consultant Talk: 1, 2a, 2b, 3, 4, 5, 6 = 39.9%;
 Indirect: 1, 2a, 2b, 3, 4 = 20.2%; Direct: 5, 6 = 19.7%
 Athletic Talk: 7a, 7b, 8, 9 = 58.9%

Figure 9. A Summary of the Interaction Analysis for Four Mental Training Sessions With Athlete D: Positive Motivation (Area A), Interest from the Consultant in Athlete Talk (Area B) and Commencement of Athlete Talk (Area C)

	1 accept	2a praise	2b link-cn	3 ideas	4 ques-cn	6 direct	5 explain	7a respond	8 initiate	7b link	9 ques	10 silence	Total
1 accept	1							7	8	3			22
2a praise		15	1	2		2	6	15	35	24	1	3	106
2b link-cn		Area A						85	74	2		2	163
3 ideas		1		5					10	5	1	1	26
4 ques-cn					1		1	214	2	17	4	2	258
6 direct		3				5	22		22	34	1	1	182
5 explain		5				13	160	1	96	73	1	4	380
7a respond	12	33	84	4	149	9	23	513	3	1	1	5	837
8 initiate	6	26	72	9	42	19	74		418	1		4	671
9 ques		1	2	Area B		3	3	Area C					9
7b link	3	21	1		15	33	80	1	1			3	160
10 silence		1	3		8		10	1	2			8	33
Total %	22 0.8%	106 3.7%	163 5.7%	26 0.9%	258 9.1%	182 6.4%	380 13.3	837 29.4%	671 23.6	160 5.6%	9 0.3%	33 1.2%	2847

Athlete D's and the Consultant's Perceptions of the Interactions

Athlete D described the consultant as, "A normal everyday person." This perception probably accounted for her ease to talk freely which was supported by the results from the systematic coding illustrated in the matrix in Figure 8. Response and initiation were the largest coded behaviours in the cross.

Athlete D also verified her ease in initiating topics to discuss.

Athlete D - "I always told him what I wanted to do."

Researcher - "And was that a good thing for you?"

Athlete D - "Yes, it would help me figure out what I needed to work on... I knew what it was but he had to help me organise it in my brain."

When the consultant was describing Athlete D he reported that he was often arguing for the athlete's strengths while the athlete argued for her weaknesses. This was congruent with the higher number of entries in the area for positive motivation (Area A), in Figure 9.

Consultant - "One thing I wrote down was I was arguing for her strengths, her capacity to do something and she was arguing for her weaknesses, why she can't do it... She should be arguing for her strengths but that has to be internalised... She is saying I can't do that because of this and that and that... I am thinking, well I don't care, I mean those things are irrelevant you can still do this."

This perception of arguing for the athlete's strengths was congruent with the results from the systematic coding. A higher number of entries was evident in the area for positive motivation (Area A), in Figure 9.

When the athlete was asked who talked more or less the athlete responded that she talked more and estimated that the ratio was 60% her and 40% for the consultant.

Researcher - "If you thought about who talked more or less"

Athlete D - "I did"

Researcher - "How much more? If you were to think about a percentage, ... if you were to divide so much percent to him talking and the percent of you talking, what do you think that would be?"

Athlete D - "I don't know. Probably like 60, 40 or something."

The consultant reported that he would let the athlete talk so she would say what she needed to get on track. He would only discuss important issues when he felt the athlete was focused or connected.

Consultant - "You have to pick your spots with her... you have to let her talk and say what she wants to say so she is on track, so she could go anywhere.... then there will be openings where you can just kind of get something in or at the end kind of bottom line it for her... there will be times where I feel she will be really connected"

A Summary of the Systematic Coding for the Ten Sessions

Each session was viewed as an independent interaction with the consultant.

Therefore the ten matrices were added to form one matrix that can be seen in Figures 11 and 12. Note that there was a higher representation from the consultant's interactions with Athletes A and D.

The ten sessions were combined to see if any patterns existed. The most significant pattern that emerged was the cross of the most frequent behaviours. See Figure 10 for the cross where the most frequent categories, response (n = 1823), initiation (n = 1727) and explain (n = 1019) were grouped together. This pattern was found in every session. This means that a typical session between the consultant and an athlete is most likely to consist of athlete response, athlete initiation and explanations from the consultant.

Area A in Figure 10 represented the area of positive motivation (Flanders, 1966). Positive motivation consisted of accepting the feelings of the athlete, praising the athlete and using the athlete's ideas. The largest (n = 30) single cell entry in this area, consistently, was extended praise, 2a-2a. The only matrix that did not support this finding was for the session with Athletes Ca and Cb. They were not praised during their session. Note that the frequency (n = 30) for extended praise is comparatively low for the entire matrix.

There were no consistent patterns for single cell entries in Area B over the four matrices. Area B represented the behaviours from the athlete that elicited a response from the consultant.

Area C in Figure 10 illustrated the commencement of athlete talk. The largest single cell entries in this area were extended response (n = 1097), 7a-7a and extended initiation (n = 982), 8-8. These cells had the highest frequencies for all four matrices. One can

conclude that an athlete, in a mental training session with the consultant, is likely to spend long periods of time responding to questions or initiating their own topics to discuss.

Figure 10. A Summary of the Systematic Coding for the Ten Mental Training Sessions with Athletes A, B, Ca & Cb and D:
 Cross of Most Frequent Behaviours.

	1 accept	2a praise	2b link-cn	3 ideals	4 ques-cn	6 direct	5 explain	7a respond	8 initiate	7b link-cl	9 ques-cl	10 silence	Total
1 accept	2				2	3	5	24	56	11	1		104
2a praise		30	1	3	6	9	27	30	89	44	2	3	244
2b link-cn					1			266	217	7	2	2	495
3 ideals		1		6	4		1	3	24	6	1	1	47
4 ques-cn					37		3	394	3	35	9	3	484
6 direct		7			8	119	33	1	61	65	4	1	301
5 explain	2	15		4	23	34	388	6	283	248	9	7	1019
7a respond	37	62	265	13	264	12	62	1097	5	1	2	6	1823
8 initiate	57	86	214	16	78	59	222		982	1	5	7	1727
9 ques-cl		3	7		5		19	2					36
7b link-cl	6	39	4	5	41	65	249	1	4			4	418
10 silence		1	4		15		10		3		1	10	44
Total %	104 1.5%	244 3.6%	495 7.3%	47 0.7%	484 7.2%	301 4.5%	1019 15.1	1823 27.0%	1727 25.6	418 6.2%	36 0.5%	44 0.7%	6742

Consultant Talk: 1, 2a, 2b, 3, 4, 5, 6=39.9%;

Indirect: 1, 2a, 2b, 3, 4=20.3%; Direct: 5, 6=19.6%;

Athletic Talk: 7a, 7b, 8, 9=59.3%

Figure 11. A Summary of the Interaction Analysis for Ten Mental Training Sessions with Athletes A, B, Ca & Cb and D: Positive Motivation (Area A), Interest from the Consultant in Athlete Talk (Area B) and Commencement of Athlete Talk (Area C)

	1 accept	2a praise	2b link-cn	3 ideas	4 ques-cn	6 direct	5 explain	7a respond	8 initiate	7b link-cl	9 ques-cl	10 silence	Total
1 accept	2	30	1	3	2	3	5	24	56	11	1		104
2a praise		Area A			6	9	27	30	89	44	2	3	244
2b link-cn					1			266	217	7	2	2	495
3 ideas				6	4		1	3	24	6	1	1	47
4 ques-cn					37		3	394	3	35	9	3	484
6 direct		7			8	119	33	1	61	65	4	1	301
5 explain		15		4	23	34	388	6	283	248	9	7	1019
7a respond	37	62	265	13	264	12	62	1097	5	1	2	6	1823
8 initiate	57	86	214	16	78	59	222		982	1	5	7	1727
9 ques-cl		3	7	Area B	5		19	2	Area C				36
7b link-cl	6	39	4	5	41	65	249	1	4			4	418
10 silence		1	4		15		10		3		1	10	44
Total	104	244	495	47	484	301	1019	1823	1727	418	36	44	6742
%	1.5%	3.6%	7.3%	0.7%	7.2%	4.5%	15.1	27.0%	25.6	6.2%	0.5%	0.7%	

Consultant Talk: 1, 2a, 2b, 3, 4, 5, 6=39.9%:
 Indirect: 1, 2a, 2b, 3, 4=20.3%: Direct: 5, 6=19.6%:

Athlete Talk: 7a, 7b, 8, 9=59.3%

Discussion

The discussion addresses (a) the relationship between the consultant's published approach to consulting and the results of the analysis of the content of the mental training sessions, (b) the relationship between the consultant's published approach to consulting and the results of the analysis of the process of the mental training sessions, (c) a comparison of the results of the analysis of the content with other publications on mental training consulting, (d) a comparison of the systematic coding results with other publications on mental training consulting, (e) a comparison of the perceptions of the content with other publications on mental training consulting, and (f) a comparison of the perceptions of the process with other publications on mental training consulting.

The Relationship Between the Consultant's Published Approach to Consulting and the Results of the Analysis of the Content of the Mental Training Sessions

The analysis of the content incorporated (a) the seven elements of the Wheel of Excellence (Orlick, 1995) and (b) the common services for mental training consulting outlined in the "Reflections on SportPsych Consulting With Individual and Team Sport Athletes at Summer and Winter Games" (Orlick, 1989). It was evident in Tables 8, 9, 10 and 11, that the seven elements of excellence, namely, commitment, belief, full focus, positive images, mental readiness, distraction control and constructive evaluation were discussed with every athlete. The only exception was with the judo athletes where constructive evaluation was not addressed.

The range of mental training services outlined by the consultant in the "Reflections on SportPsych Consulting With Individual and Team Sport Athletes at Summer and Winter Games" (Orlick, 1989) were addressed with most athletes. Athlete A discussed all of the eleven categories (physical elements, injury, positive and negative emotion, competition, competitors, coaches, judges/ officials, family/ partner, transition and balance) at one point during the course of her four sessions as shown in Table 8. Table 9 indicated that Athlete B did not discuss issues related to coaches, officials or transition. This may be explained by

the fact that he coached himself, tallied his own score and plans to continue in archery for approximately nine more years. Athletes Ca and Cb addressed all eleven services apart from family/ partner and transition as shown in Table 10. Table 11 indicated that Athlete D addressed every service except transition and balance. These results indicate that services outlined by the consultant in “Reflections on SportPsych Consulting With Individual and Team Sport Athletes at Summer and Winter Games” (Orlick, 1989) are typical services addressed during authentic mental training sessions. Therefore, one could conclude that the content of the mental training sessions was congruent with the services outlined in the articles published by the consultant.

The Relationship Between the Consultant’s Published Approach to Consulting and the Results of the Analysis of the Process of the Mental Training Sessions

The consultant’s article, “Reflections on SportPsych Consulting With Individual and Team Sport Athletes at Summer and Winter Games” (Orlick, 1989), outlined several characteristics that are essential to be effective when consulting, namely, (a) to be a good listener, (b) to respect input from the athlete, (c) to have good interpersonal skills, (d) to have applied sports psychology knowledge, (e) to follow the athletes lead, (f) to be responsive and meet individual needs and (g) to care. These characteristics were evident in the results of the systematic coding of the mental training sessions presented through Figures 2, 3, 4, 5, 6, 7, 8, 9, 10 and 11. Globally, the athletes spent approximately 60% of the time talking, mostly in extended response and extended initiation. There was also a high frequency of linking words from the consultant that encouraged athlete talk. These findings suggest that the consultant was listening and had good interpersonal skills. The frequency of athlete talk also suggests that the athletes’ input was respected and the athletes were leading the session.

The consultant’s athlete-centered approach, however, did not solely revolve around the athletes talking. Although, the consultant talked less than the athlete, the consultant took an active role in problem solving and offering suggestions for the athletes to

implement in their regime. When the consultant did engage in verbal behaviour he was both indirect and direct. Indirect verbal behaviour encouraged the athletes' participation through understanding, encouragement or direct questions. Direct verbal behaviour was when the consultant was sharing his applied sport psychology knowledge through explaining concepts or giving specific instructions for the athletes to follow. With Athlete A the consultant talk, on average, was 19% indirect and 22% direct. A closer look in Appendix C of the four separate sessions shows how the consultant was more direct in the two sessions prior to the Olympics (Sessions 2 and 3). The consultant was more indirect in the session following the Olympics because he was seeking information from the athlete's experience. The consultant also showed direct behaviour in the session after the Olympics (Session 4) because the athlete was seeking guidance for her decision to continue competing in her sport.

The consultant talk with Athlete B was 27.1% indirect and 12.7% direct. This session took place at the end of the archer's competitive season. The consultant was mostly finding out information of the athlete's mental preparation for his performance. The athlete did not seek specific help from the consultant. Rather, the consultant was someone with whom Athlete B could share his successful experiences.

During the session with Athletes Ca & Cb, the consultant was 13.3% indirect and 18.3% direct. The indirect consultant behaviour was related to the update from Athlete Ca who just returned from an international tournament. The direct behaviour was related to Athlete Cb's effort to make the National team after being injured.

The consultant talk with Athlete D, on average was 20.2% indirect and 19.7% direct. Appendix D shows each of the four sessions. The consultant was clearly more indirect during the first session with Athlete D. This was the first time the athlete met with the consultant. The consultant sought detailed information from the athlete during this session to get a feeling for what the athlete needed to work on to improve her performance. The consultant was mostly direct in Session 4 which took place the day before the athlete

left for a divisional competition. During this session, the athlete sought a plan to deal with the order that she skated because the competitor did not like to skate last. Skating towards the end of her competitive group involved taking her skates off after her warm-up and she needed a specific plan from the consultant to get herself mentally prepared for that scenario.

The summary matrix of the most frequent behaviours for the four athletes, Figure 10, indicated that the most frequent behaviour from the consultant was explaining concepts (a direct behaviour). This result was another indication that the consultant had communicated an applied knowledge of sport psychology. The athletes also felt that the consultant had a knowledge of their sport. Athlete A stated, "He knew a little bit about the inside of sport. He is not just somebody in sport psychology that didn't really work with athletes... He knew what I was talking about." Athletes Ca and Cb discussed how the consultant asked the right questions to find out and help them with their sport, "He asked the right questions and he didn't have to be able to know the sport to help."

The systematic coding results indicated the consultant cared about the athletes when he praised them, used linking words to encourage them to talk and accepted their feelings. These categories, indicated in the summary matrix in Figure 11, occurred in small bouts of 4 seconds or less. Therefore, the consultant would give small but definite indications in his verbal behaviour that he cared.

One could conclude that the results from the systematic coding of the consulting process gave further information on the characteristics outlined in "Reflections on SportPsych Consulting With Individual and Team Sport Athletes at Summer and Winter Games" (Orlick, 1989). The characteristics of listening, having good interpersonal skills, respecting the athletes' input, following the athletes' lead, meeting the athletes' needs, sharing applied sports psychology knowledge and showing that the consultant cared was defined through talk ratios, indirect and direct behaviour from the consultant. Therefore the consultant's published approach of the consulting process was congruent with the systematic coding of the authentic mental training sessions.

A Comparison of the Results of the Analysis of the Content with Other Publications on Mental Training Consulting

A next step after analyzing the congruencies between the consultant's publications and the content and the process of authentic mental training sessions would be to compare (a) the consultant's published and actual approach with (b) research on mental training consultants and other published reflections by other mental training consultants. The following table (Table 12) gives a quick visual comparison of the content of the consultant's articles and the content of the mental training sessions with other publications. The first two blocks indicates that all the elements from Orlick's 1995 and 1989 articles were addressed in one or more of the following sources: Botterill, (1990); Gould, Tammen, Murphy & May, (1989); Halliwell, (1990); Partington and Orlick, (1991); Ravizza (1990). This means that Orlick (1995 and 1989) did not address any categories that were original. An indication of an original category would be if an entire row did not include an "X".

The third block in Table 12 illustrates the comparison of (a) the categories that emerged from the analysis of the content with (b) the literature. This comparison indicated whether or not the categories that formed the third block in Table 12 were original. The categories that were congruent with other publications were outcome, increasing intensity, decreasing intensity, issues related to money and audio/ video/ reading materials (Botterill, 1990; Gould, Tammen, Murphy & May, 1989; Halliwell, 1990; Partington and Orlick, 1991; Ravizza 1990). The only category that was not addressed in the literature was artistic presentation. This category came from the figure skater's mental training sessions. Artistic presentation was a topic of discussion that was specific to her sport. This can be seen as an indication of the consultant's ability to adapt to sport specific situations. The ability of a consultant to be flexible in discussing needs specific to the athlete was identified as a key characteristic of an effective mental training consultant (Botterill, 1990; Partington and Orlick, 1991; Ravizza 1990).

Table 12. A Comparison of the Results of the Analysis of the Content with Other Publications on Mental Training Consulting

Wheel of Excellence	Partington & Orlick (1987)	Gould, Tammen, & Murphy & May (1989)	Partington & Orlick (1991)	Halliwel (1990)	Ravizza (1990)	Botterill (1990)
Commitment	X	X	X	X	X	X
Belief		X	X	X	X	X
Full Focus	X	X	X	X	X	X
Positive Images		X	X	X	X	X
Mental Readiness	X		X	X		X
Distraction Control			X	X	X	X
Constructive Evaluation			X		X	X
Reflections SportPsych	Partington & Orlick (1987)	Gould, Tammen, & Murphy & May (1989)	Partington & Orlick (1991)	Halliwel (1990)	Ravizza (1990)	Botterill (1990)
Physical				X		X
Injury		X	X	X		X
Emotion (-)	X	X	X	X	X	X
Emotion (+)	X				X	
Competition	X	X	X			
Competitors	X	X	X			X
Coaches	X	X	X	X	X	
Judges \ Officials		X	X			
Family \ Partner	X	X	X			X
Transition		X			X	
Balance				X		X
Other Categories	Partington & Orlick (1987)	Gould, Tammen, & May (1989)	Partington & Orlick (1991)	Halliwel (1990)	Ravizza (1990)	Botterill (1990)
Outcome	X		X			
Intensity (↑)		X	X	X		
Intensity (↓)		X	X	X	X	X
Artistic Presentation						
Money			X		X	
Materials			X	X	X	X

A Comparison of the Systematic Coding Results with Other Publications on Mental Training Consulting

The systematic coding of the mental training sessions allowed one to really see what behaviours were evident in the consulting process. Communication was broken down into 12 specific categories. These categories clearly mapped out the verbal behaviours in the interaction between the consultant and the athletes.

The results from the systematic coding can be compared to the characteristics of effective consultants identified in the literature. The cross of the most frequent behaviours in the summary matrix, Figure 10, indicated that the mental training sessions mostly consisted of (a) athletes responding at great length; (b) athletes discussing issues they brought forth and (c) explanations from the consultant. The frequency of athlete talk, whether they were answering questions or initiating their own topics of discussion, suggests that the consultant was a good listener and had good rapport with the athletes. Listening and good rapport were characteristics identified by Halliwell, (1990); Orlick, (1989); Partington & Orlick, (1987); and Partington & Orlick, (1991).

The frequency of explanation from the consultant indicated that the consultant (a) had something applied and concrete to offer and (b) was responsive to the needs of the athletes. These characteristics were identified by Orlick, (1989); and Orlick & Partington (1987).

The summary matrix in Figure 11 outlined three main areas. Area A was the area of positive motivation (Flanders, 1966). Within this area, the consultant behaviours, accepting the athletes' feelings, and use of ideas from the athlete were coded. The single cell entry for accepts feeling represented the consultant accepting their feelings for time periods greater than five seconds. This cell entry was low but the consultant did accept the feelings of the athletes in short amounts of time, mostly after they initiated their own issues to discuss and responded to questions (cells, 8-1 and 7a-1 respectively). Accepting the

feelings of the athlete corresponds to the characteristic of caring which was identified by Orlick (1989); and Orlick & Partington (1987).

Extended praise, which lasted more than five seconds, had the highest frequency in Area A. However, most of the praise occurred in short periods of time and followed athlete initiation and response, cells 8-2a and 7a-2a respectively. Praise from the consultant is closely related to being positive which was a characteristic identified in the study by Orlick and Partington (1987).

The use of ideas from the athlete that occurred in time periods greater than five seconds was indicated in Area A. This behaviour did not occur frequently. The comparison of the column totals for 'use of ideas from the athlete' (column 3) and 'directions from the consultant' (column 6) indicate that the consultant tended to use his own ideas rather than to look for them from the athlete. This finding indicates that the consultant did more than passively listen to the athlete. He synthesized their information and suggested strategies specific to their situation. The characteristic of an effective consultant that best suits this phenomenon in the literature is creativity which was identified in the study by Partington & Orlick (1987).

Area B in Figure 11 indicated genuine interest from the consultant in the athlete talk (Flanders, 1966). The high frequency in linking words from the consultant indicated that the consultant showed that he was listening and encouraging the athletes to continue talking. Again, listening was a highly regarded characteristic of an effective mental training consultant (Orlick, 1989; Partington & Orlick, 1987; Partington and Orlick, 1991).

Area B in Figure 11 had a high frequency in the cell that corresponded to explanations from the consultant following the initiation of ideas from the athlete, (cell 8-5). One could infer that the consultant was offering information based on the needs of the athletes. This effective consultant characteristic was identified by Botterill, (1990); Orlick (1989); Orlick & Partington, (1987); Partington and Orlick (1987); and Ravizza, (1990).

The high frequency for consultant questions following athlete response indicated in cell 7a-4, Area B, Figure 11, showed that the consultant sought detailed information from the athletes. This process could infer that the consultant was trying to (a) identify the athletes needs or (b) learn about the range of the athletes' needs which were characteristics identified by Botterill, (1990); Gould, Tammen, Murphy & May, (1989); Orlick, (1989); Orlick & Partington, (1987); Partington & Orlick, (1991); and Ravizza, (1990).

Area C in Figure 11 indicated the commencement of athlete talk. The most frequent cells in this area were extended response (7a-7a) and extended initiation (8-8). One could infer that the athletes felt confident in talking for long periods of time. Also, the high frequency of extended athlete initiation indicated that the athletes felt empowered to discuss issues specific to their situation. This is a prime example of an athlete-centered behaviour. Partington's and Orlick's (1991) analysis of the best-ever sportpsych consultations were based on an individualized, athlete-centered approach.

A Comparison of the Perceptions of the Content with Other Publications on Mental Training Consulting

The perceptions of the athletes and the consultant on what was discussed during the mental training sessions was indicated in Tables 8, 9, 10 and 11. Some categories that were reported were discussed at great length while others were mentioned briefly. This illustrated the difference between the frequency of terms discussed and the importance of the words being said. This finding supported the process of giving approximations to the word count methodology. Originally, all the words related to each category were individually counted. This frequency count would have overshadowed the importance of what was being said.

Tables 8, 9, 10 and 11 were read with the intention of seeking a pattern in what the consultant reported he discussed during the mental training sessions with the four athletes. Not one category was reported four times. This result indicated that the consultant perceived the content discussed with each athlete to be unique for each session. This

supports the athlete-centered approach which was described in the literature as tailoring the sessions to meet the needs of the athlete (Botterill, 1990; Gould, Tammen, Murphy & May, 1989; Orlick, 1989; Orlick & Partington, 1987; Partington & Orlick, 1991; and Ravizza, 1990).

The majority of the reported categories from Athletes A and B were congruent. This indicated that the consultant and Athletes A and B had similar perceptions in the important categories discussed in their sessions. Athletes Ca & Cb and D reported fewer common categories. This disparity in perception indicated that the athletes and the consultant did not always perceive the same categories to be important. This finding indicates the importance of combining many sources of information in the analysis. A study based on one individual's perception would not paint as accurate a picture of what was discussed during the mental training sessions.

A Comparison of the Perceptions of the Process with Other Publications on Mental Training Consulting

Every athlete except one, perceived they talked more during the mental training sessions. This was congruent with the consultant's perception that he talked less than the athletes. One could infer that the consultant and the athletes perceived the mental training sessions to be athlete centered.

In terms of their interaction, the athletes: felt at ease; felt comfortable; felt the consultant was a regular person; or even felt he was a good friend. One could postulate from the athletes' perceptions that the consultant could easily relate his knowledge in a way where athletes could understand it and apply it. This skill - to make complex concepts simple and accessible for use - indicated the consultant excelled in the area of communication. Good communication skills, being approachable and having good rapport with the athletes were characteristics identified in the literature that effective mental training consultants possess (Halliwell, 1990; Orlick, 1989; Orlick & Partington, 1987; Partington & Orlick, 1987; Partington & Orlick, 1991).

One of the main perceptions that was congruent with the athletes and the consultant was the consultant's ability to listen. The judo athletes had a great way of expressing the way the consultant listened. They said they felt as if, "the whole world just stops." The athletes must have felt that the consultant was focused on them the whole time during the session. The ability to focus on the athletes' needs and listen was reported by several sources in the literature as essential characteristics for an effective consultant to possess (Botteriil, 1990; Orlick, 1989; Partington & Orlick, 1987; Partington & Orlick, 1991).

The athletes and consultant often reported that the consultant would pick up on certain things during the session and share his expertise on those specific topics. The consultant perceived he was patient and that he waited for those opportune teachable moments. When the consultant was reflecting on his sessions with the figure skater he said he was waiting for "openings where you can get something in or at the end kind of bottom line it for her...there will be times where I feel she is really connected." This perception was close to what Ravizza (1990) stated in the conclusion of his article, "At times patience is essential and the consultant must wait for the teachable moment" (p340).

Conclusion

The analysis of the content and the systematic coding of the process of the ten mental training sessions as well as the perceptions of the athletes and consultant on the content and the process of the consultations provided a thorough description of what occurred between an eminent mental training consultant and four elite level athletes.

The analysis of the content clearly indicated that the frequencies of the categorized services offered by the consultant fluctuated within and between the four athletes that were involved in the study. This result indicated that the content of the sessions was directly related to the needs of the athlete on a given day. This athlete-centered approach to consulting was most likely developed through the accumulation of the consultant's 24 years of consulting experience. A novice consultant would most likely have a tendency to direct

the content of a session, i.e., follow a preset guide, while this consultant seemed to rely on his intuition to apply a mental training strategy that best fit the needs of each athlete.

The process of the communication between the consultant and the athletes was clearly mapped through the systematic coding of the verbal behaviours. Consistent patterns of the verbal behaviours were apparent in each of the ten recorded mental training sessions. The most frequent coded verbal behaviours indicated that the athletes talked for the majority of the sessions. When the consultant did talk, he was mostly active in sharing his applied sport psychology knowledge. This indicated that the consultant did more than just passively listen.

The perceptions of the consultant and the athlete with respect to the content of the mental training sessions were not always in accordance. Therefore some areas of the content that were addressed during the sessions stood out more or less for the consultant and the athletes.

The perceptions were mostly congruent with regards to the process of the interactions. With regards to the flow of the communication, all the athletes and the consultant felt comfortable and at ease. The athletes felt as if the consultant was a regular person or even an old friend.

The combination of sources of information, namely, the analysis of the content, systematic coding and interviews, helped reduce bias and created a diverse picture of the mental training sessions. If this study was solely based on the analysis of content, systematic coding or perception, it would have lost the essence of the reality provided by the intersection of the three.

A next step in the case study research of mental training consulting would be to go beyond verbal behaviours by incorporating an analysis of non-verbal interactions. The researcher informally noted that the consultant would often mirror the athlete. Whether the athlete was in a calm or energetic mood, the consultant would always match the level of athlete's intensity. The consultant also had continuous eye contact with the athletes apart

from the moments where he made a few notes. Given the appropriate tool, even these non-verbal behaviours could be better understood through systematic coding.

Without a doubt, the biggest benefactor of this study was the researcher. Before this study was conducted, the researcher had knowledge of the separate tools applicable to mental training consulting but little knowledge of how these tools were incorporated in authentic mental training sessions. After observing and analyzing ten mental training sessions, the researcher gained the confidence to start mental training consulting and share her experience with athletes and performers who sought assistance in improving their performance.

It is our hope that the information gained from this study may facilitate the understanding of the mental training consulting process for other individuals beginning to work in the field of applied sport psychology given that it is the first study that provides concrete examples of an athlete-centered approach.

This study has shown that expert consulting can indeed be analyzed. Much was discovered from examining an eminent consultant with 24 years of applied consulting experience, especially with regards to understanding his athlete-centered approach. The intent of this study, however, was not to generalize this mental training consultant's approach to all effective consultants. Rather, inspire new and experienced consultants to reflect on the content and the interactive processes of their own mental training sessions and take one step closer to being the best consultant they can be.

Happy Consulting.

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Appendix A

Interview Questions

Interview for the Consultant - Reflections for Consultations

1. Could you summarize what you did during the sessions with this athlete?

Probe for - services he offered
- problems they discussed

2. How would you compare the topics you discussed in the sessions with what mental training consultants do as described in the literature?

Probe for - similarities with the literature, - goal setting,
relaxation training,
arousal regulation,
imagery-visualization,
self talk,
concentration-attention training,
self esteem building,
interpersonal conflict seminars
communication training,
positive motivation,
problem solving,
mental skills- sport specific,
individual's strengths/ weaknesses
anxiety control,
precompetition planing,
competition planning
monitoring and evaluation,

3. Did you discuss topics that were unique or not typical of mental training consulting?

4. How would you describe your interaction with this athlete?

Probe for - flow, i.e., did one dominate the talk or was it equal, perhaps isolate certain sessions

5. How does this athlete compare to other athletes you have worked with?

probe for - initiating conversation

Interview for the Athletes

1 a). Could you summarize the content of what you discussed with Terry Orlick?

Probe for - (1) mental training topics

(2) life outside of sport

1 b) Repeat a few terms he mentioned and ask for the most important one.

2. How would you describe your interaction with Terry during the session?

What was the role of each person, i.e., what did Terry do what did you do?

Probe for - flow, distribution of talk between both parties

3 a) How many sessions have you had with Terry?

b) What was the frequency of these sessions?

c) Was the session I observed a typical session?

4. How would you compare Terry Orlick to other mental training consultants?

5. What do you think of the analysis of the content?

6. What do you think of the interaction analysis?

Appendix B

Quotations Illustrating the Analysis of the Content for Athletes A, B Ca & Cb and D

Commitment

Best, goals persist.

Athlete A - Session 4

T- the other questions are to think about are I don't know if it is **goals** that I don't know if **goals** are the right words but do you have **goals** or ideas or desires or something in other areas like just in terms of your fitness in terms of your life style how you want to live, in terms of relationships

Athlete B - Session 1

Right now **mid-term goals** are just to shoot indoor tournaments and have fun with them while staying focused. Indoors is **the big goal** right now after the indoors my focus is to get ready for the Olympics in Australia because they will compound in my division, so once I get through the indoors my next focus automatically will switch to the training for the Olympic Games.

Athlete C - Session 1

T- So it would be a relief to actually get up there and fight

C1- laughs, we told him that he was going to **fight for life**, the national

C2- I am going to kill

C1- Like **I am going to knock them down I am coming**. Everybody he is going to beat them

Athlete D - Session 1

D- Well I want to go to Olympics and stuff but it is more focus on winning Nationals and if I win National then I can go to worlds which is **my goal** but I am just focusing on Nationals for now and then everything else is a bonus for now

Belief

Confidence, doubt, afraid, support

Athlete A - Session 2

T- and I think you your not a person that has to show your **confidence** on the outside

A- I don't ...

T- as long as it is on the inside

A- yes I think so because I feel you know **I believe I can win** but to show, I don't know

T- you don't need to do that

A- I am not you know I am not a cocky person...

T- that is not what you are comfortable with

A- no

T- on the outside but you

A- as long as I feel it is fine it is okay right?

T- You have **the strength inside** you know what you can do you take control on the court

A- that is it

T- That is all you have to do

A- yes from inside yes

Athlete B - Session 1

it is just the **confidence** of putting it in the hole every time and I should actually. I've got a target at home that I have tied the world record score

Athlete Ca - Session 1

It is very tough and you know we can see the difference between them and us too. When they fight, they fight for life you know. Like when we were in Thailand you know we were **afraid**. We would just go over there...

Athlete D - Session 2

I know I can do it but I don't know I can do those jumps like I know off the ice I can do all those jumps because I have done them all before but once I go on the ice I just erase it and just keep trying to do and trying and **believing** are two different things and if I **believe** then I could probably land them

Full Focus

connect, natural timing

Athlete A - Session 3

T- So what would you **look at** then? If you're not **looking at her face**, you are **looking at her**

A- the bird the body and then the bird. It should be serve I have to **look at the bird** all the time so that is no problem and I am not I don't think I want to spend time

T- no

A- **to look at her** or

T- You could always just follow

A- **focus**

T- like if I were to **look at you**, I could **look right there**

A- yeah my neck kind of yeah

T- **Look at** the vulnerable part

A- yeah

T- Yeah the soft spot

A- oh maybe, that is good ha ha

T- Because if you just drop your eyes just a little then you are **not looking** at the person so

A- yeah

T-fighters sometimes do that

Athlete B - Session 1

It is almost when the zone is so clear there is almost a micro zone where this is **extremely focused** and that is not but yet outside of these it is not quite **focused** but on the inside there is a state which you could call ultimate contentment with relaxation

T- within the centre

B- Yeah it is in the centre of that where you, like when I am in there and you shoot it when I am in the **lock on zone** there is a part of me there is a part of me that isn't thinking about shooting.

T- um hm

B- There is a part of me that doesn't care about shooting in there, cares about performing the shot and executing perfectly because I know when I do everything right back here it is going to go where it is supposed to up here and if I try too hard to make it go

T- Yes

B- that corners the barrier

Athlete C - Session 1

C1- So from now on we our training for the Olympics not training for the Nationals

T- um hm

C1- different **focus**

Athlete D - Session 2

when I am at practice everyday I am so **focused** that I am almost everybody thinks I am a bitch because they like I don't smile or anything I am just **into my own self** and if somebody is in the way I just keep going anyway

Positive Images

image, feel

Athlete A - Session 2

T- so if you can look at something and have a **vision** of how you are going to play your game

Athlete B - Session 1

T- What are you doing when you are doing your **imagery** of the sequence do you go through that whole sequence with **imagery** or

B- Yes every single time

T- and are you doing it **lying down, sitting** or

B- Most times **I do it when I am sitting** because I can also do it when I am on the bike during the day or when I have a half an hour lunch I'll sit and close my eyes and think about it but I have noticed sometimes when I close my eyes I can't get a **good picture on it** I have to open my eyes and focus on something that **I can get a picture on**

T- And **are you moving when you do it**

B- I am sometimes if I don't get a good feel on it where I set my shoulder and my back tightens up maybe push my shoulders back together so **I can feel it** and I pull

Athlete C - Session 1

C1- ...the last at the Olympics we didn't have cameras

T- Well we will have to use our **imagery** then

C1- yes

Athlete D - Session 3

D- it is just to do it like the part that I want to work on the most is to be able to **visualize** but I can't **visualize** anything I am a **feeling** person

T- but **feeling** is okay you

D- no but it is bad because in a way if I could **visualize** it and **see** my leg where it is supposed to start to come out like and maybe **feel** where it is supposed to come out

T- yes

D- like my thinking process stops at the top of my jump, it doesn't make it all the way down to the end of my jump

Mental Readiness

Prepare / Plan, Taking control, Ready, Attitude

Athlete A - Session 2

T- well the way I feel it is you want **to be prepared** as you can be so I think it is good what you are doing. I mean you are doing everything you can **you are as prepared as you can be** for her and then for after her

Athlete B - Session 1

T- Yeah so that is important as well. Anyway um it is great to get an update because I have been hearing things and wondering how you are doing so maybe we can update a little more often especially as you **prepare** for the that multisport events because that is a new challenge to face with distractions

Athlete C - Session 1

T- The big focus should be to beat them just go out and beat them which you are capable of doing so you focus on that but have that as **plan** you know you can have **plan A B C** even for this one **you have got to be ready** to go on Monday

Athlete D - Session 4

T- because a lot of the time you are not perfectly set up...you can still do it and land it and get a decent jump out of it so that there is kind of that **attitude** you have to take into that... I am capable **I am ready** I am better than I have ever been I am better than anybody else and I am doing it

Distraction Control

Refocus, Thinking (not), Reminders, Consistent

Athlete A - Session 1

A-..... everybody asks me what happened there on your water bottle at the Canadian?

T-ha

A-You know because it is a **big white tape** you'll see it in class..... I said it was just for me **to remind me** of something and that's about it I didn't say anything else but it worked

T-so tell me about

A- it was very funny because I always had a big smile because I won the first game and then I changed side and then I went to drink some water. I always went to drink and I **saw my big arrow**

T-arrow yes

A-my big thing and I always started kind of laughing a bit and what is this you know and I saw it and it is like you know and I **refocused** right away, I knew what it meant and then what I did it **remind me**,

Athlete B - Session 1

B- When I shot the two when I tied the world record at the half I the first two arrows that I shot the very first two out of the thirty were both nines and they were both a millimetre out the rest were fine

T- That is great that you can get **refocused**

Athlete C - Session 1

C1- ...one time I **was thinking** maybe I should try this and he come up to me and said (C1) ten years ago you just **grab and do your thing, do it the same**

Athlete D - Session 2

he put me last purposely so I could take off my skates because I hate doing that and I did the first jump I missed I did a single salchow instead of a triple salchow and then after that I did double toe triple toe and then like so I **refocused** and it was almost like that single salchow was to feel the ice

Constructive Evaluation

Lessons, training log

Athlete A - Session 4

D- and after I didn't do much,the same day like I said it was too hard to really realize you know you just you know **you don't want to analyse too much** but the next day, that is where **you analyse a lot** and I didn't do much, just tried to **analyse** I thought about the past what I could have been and but I still say I really liked the beginning

Athlete B - Session 1

T- Yes it is **knowledge**, I think you are right on as long as you can keep respecting what works for you and try to keep **learning** and try to keep putting out the tiny things you **discover**

B- Well that is how I feel deep down inside I feel that there is so much there so much to, if there was a scale from 1 to 10 and I was beginner and 10 was absolute perfection right now I'd feel like I was about 6 and how much I have to **learn** about the sport before I kid myself and 6 for me is very very successful

Athlete D - Session 2

T-...do you write anything, do you ever keep a **training log** or anything?

D- yeah I have to (coach name) makes me like I do

T- what are you writing in that?

D- Right now I am writing about my skates because he wants to know when I get new skates how long it takes with out getting blisters and stuff so I can do everything all the time and I have to **write my lessons what I learned** in them and that is pretty much it and like (other coach) makes me write she has a different type of book it is a **program run through book** and I check off what I do and what I don't do with checks and x's so I know what needs more work in what I can do all the time so I can go back and look at it and she makes me write positive affirmations and um my daily goal which is always the same anyway it is always to be quicker with my feet.

Physical

Technical moves, fitness level, health, heart rate, breathing, diet

Athlete A - Session 1

T- So you have a little bit of a **cold**

A- I know my **throat**

T- .. you will be strong

Athlete B - Session 1

A number of times it has got me working on **timed breathing** and I am actually trained so I can hear my **heart beat** when I shoot I just turn off, everybody else is shooting around me and I turn off and I listen and when I get peaceful I can do it now or I can hear my **heart rate** going and as soon as I can hear my **heart rate** going I can get in sync with it for my shooting and then I can only shoot in between **heart beats**

Athlete C - Session 1

T- Just got to figure out ways to put in some **recovery** and joy and practice getting free

Athlete D - Session 1

T- Okay so even though the order was maybe not the best you still got through everything in the program

D- um hm but it did only change 2 weeks before Nationals because I was doing a **loop** and it was like a big struggle for me to do the **loop** where it was because it was at the where the **double flip** is so right before I fell on the **salchow** in the middle of the slow part

T- um hm

D- and it was too late because so they wanted to leave early but they trimmed it before the **lutz** so it was like 2 of my hardest **jumps** back to back

InjuryAthlete A - Session 3

I left her behind me and since **my two injuries** then I don't know if I am thinking I might be a bit slower but I don't want anyone to tell me you know. I play with a **brace** it is heavy. Maybe it is on my mind and always tricking me because I have the same shot and everything but, you know, I play games with myself.. people see the **brace**. It is more heavy. That is why I have more trouble to get the shot and to do this.

Athlete B - Session 1

B- those I still am not competing in because I'm still recovering from a **broken rib injury** and I haven't been able to go out and train for those but I'm still shooting I'm still thinking about shooting in my head so if I did go out it would be no problem just slipping back into it I've had about **3 broken ribs**

Athlete C - Session 1

C2- But the thing is (competitor) is number one now anyway because he had 1 win I had no wins because I didn't fight because I was **injured** I only fought in 1 tournament the US open and won.

Athlete D - Session 3

T- What was the best program you did since I last saw you?

D- I don't know they are all about the same like they are like since **I hurt my ankle** in loop. That is the one that is psychological

Emotion (-)

Anxiety, stress, tight, sad, negative, annoyed, conflict

Athlete A - Session 1

So she's like she's crazy and I know she is and I will have to talk to you about it for the Nationals because **she just drove me nuts** and I know she is a good player and it would be tough to beat her

Athlete B - Session 1

there are times where I'm in practice and I am missing the ten by you know a centimetre or something there is a split second where **I get annoyed at myself**

Athlete C - Session 1

C1- Well the first one against the Canadian I just thought okay in the preliminaries in the afternoon just thought about the points I have made and I thought I'm not going to think about this I am going to screw this up it is too **stressful** eh? That is why I had made the final with her at the Nationals because the final. So let's pretend it is the final at the National again then it was the final at the National again so then it was **less stressful** because those points are important

Athlete D - Session 3

D- so for me I am getting a lot more comfortable taking my skates off dealing with the problems that are there like if I have to **cry** I have to **cry** I am not going to hold it in like because I don't want to go on the ice like I mean I didn't have to **cry** like he didn't **get mad at me** like that it was just **I was so pissed off at myself** for skating that bad warm up

Emotion (+)

positive, passion

Athlete A - Session 3

T-and if you are not practising, when it is nice out, just **enjoy the outside** a little bit

A- Go for

T- go for a walk

A- yes you are right

T- just feel the nice especially with the sun or air just **enjoy the moment**

Athlete B - Session 1

B- Absolutely the, if I start thinking that if I was overweight like normal I took everything before the season started and started thinking **positive** about what I wanted to perform and how I wanted to perform and mental ..the final score and always being **positive** and as soon as the season started

Athlete C - Session 1

T- Just got to figure out ways to put in some recovery and **joy** and practice getting free

Athlete D - Session 1

D- Our hip hop dance, a lot of us do it in the hallway people just look at us and we just laugh

T- gets you warm

D- Yeah it gets us all warmed up **and really positive** and in a **good mood** and (a friend) always goes, shake your bootie so we all start **laughing**

Competitors

Other competitors, draw, order of competing

Athlete A - Session 4

so I was still thinking about the **draw** a lot I didn't know at the time but I was saying oh please give me a good **draw**

Athlete B - Session 1

B- **He** has done it a couple of times in practice and **he** has registered his scores as practice scores to beat and nobody else has done that yet. So it's close

T- That would be good

B- And **he** knows where I am from, he lives in ... and **I'll phone him up and say what are you shooting now, hot shot?** and I'll say I was doing a 298 the other day and he said in competition or out and I said in I said I am right on your heels and **he said I'm looking back and I don't see you coming yet**

Athlete C - Session 1

C1- I did something different this time. I didn't look at the **draw**

T- uh huh

C1- Til the morning of the fight til the morning of the tournament because like sometimes you can see **who you are going to compete against** 3 days in advance and you just start **looking at that person** ...she looks such in good shape and you look at the tournament the training..laughs..so this time I didn't look until the last, (C2) told me my **draw** because I didn't want to know....just the morning of the tournament I didn't look I just asked the coach **who I had first** and I didn't want to look you know and it was much better

Athlete D - Session 1

I guess **people** went to internationals this year and I didn't get one I got even more frustrated so it kind of pushed me more like I am the one who is going to stay at home and saving my energy for the nationals because they didn't send me so I am going to prove that I am better than **those ones** that they did send kind of thing and at (competition) our **Canadian Champion** came third and I came 1st

CoachesAthlete A - Session 2

people think I am different right now, like ... not one of my **coaches** but somebody helped me a lot

Athlete C - Session 1

C1- There is a Japanese **coach** that coached us sometimes and him he always said don't think. Grab and do your technique...

Athlete D - Session 3

I had no feeling in this program and (**name of coach**) all he cares about right now is my feeling because he knows my jumps are there

Judges / Officials / RefereeAthlete A - Session 3

A- Yeah I'll ask somebody to come and test the bird for us and we'll play with the bird that the person says it is okay or not

T- and when will you do that? When will you

A- .. I have to do (this) right at the beginning, just before I get it on the court which is, or the night before, I can ask somebody the night before

T- or who can you ask? Like who

A- The **head referee**

T- So you talk to the **head referee**

A-yeah

T- just tell him there has been a problem and to solve it you would like to do this and get an agreement from the **head official** to do this

Athlete C - Session 1

his foot went between 2 mats and the tendon broke and everything and he had to have a surgery in France and everything and he came back and that night he called **Judo Canada** and said something bad happened and they said oh just tell us about the results just tell us about the results (laughs)..because they wanted to know if the guy was screwed so then they would be feeling a bit better

Athlete D - Session 3

I couldn't decide because I liked the other one better but the **judges** like this style better, like the new style, and to me it really doesn't matter what the hell you do ...because all they want to see is triple lutzers anyway

Family / PartnerAthlete A - Session 4

T- because you do have other interests you are you kind of got your feet on the ground you have got **relationships** you have got **family** you have got a lot of interests

Athlete B - Session 1

Well since the last time I saw you I have made 2 national teams I hold several national records, 1 world record and three international records as well which I am ecstatic about I mean I have done really well these last couple of years and it is all since **my divorce**

Athlete D - Session 3

I went to (**name of boyfriend**) house and I had cake and I had meat balls and stuff and then I went skating and stuff and I went back to (**name of boyfriend**) house and I had another piece of cake

TransitionAthlete A - Session 4

T- so that makes it a lot easier if you are ready. If you have all those support systems and you decide yeah I am ready to **move on** then most people have a very positive **transition**

Balance

life outside sport, life inside sport, nature

Athlete A - Session 3

T-and if you are not practising, when it is nice out, just enjoy the **outside** a little bit

A- Go for

T- go for a walk

A- yes you are right

T- just feel the nice especially with **the sun or air** just enjoy the moment

Athlete B - Session 1

At the **cottage** my parents lived there in the summer it is on a hill it is insane about 50 or 60 degrees up and I'll go up and I mean the **river** is at the bottom of it and I'll stop by the **river** to get your **balance** so I usually go up there running up and down the **hills** in the summer time I go up first thing in the morning I'll take the boat over and run in the **hills** and I try really hard to focus but **the view** laughs..

Athlete C - Session 1

C2- And I haven't felt that like **I feel like I am suffocating like it feels like I am in a box** or um you know it has been dark for most of the **winter** you know I get like that. We feel like that and the **warmth** is getting closer and closer you know

T- well give me call, figure out some options and when I get back from Calgary and try and figure out a way where **you can get away for a few days to get out of your box**

Competition

Level, i.e., National, Olympic

Athlete A - Session 1

... two trips, one was the **Huber cup**. It was a team event but it really counts for individual points for the **Olympics**

Athlete B - Session 1

the beginning of July I start training for the **world championships** next March in Turkey and I am already there now for about the last month I have been seeing myself shoot like I was at **internationals** last year very confident and focused and doing what it is supposed to be like.

Athlete C - Session 1

C1- now we can move on and think about the **Nationals** because **Nationals** is in 2 months and it is very important

Athlete D - Session 1

D- Well I want to go to **Olympics** and stuff but it is more focus on winning **Nationals** and if I win **National** then I can go to **worlds**

Outcome

score, placement, qualification, beat

Athlete A - Session 1

T- so did you **win** the second one?

A-yeah I **won** all my second matches there
 T-is that right
 A-**all** the second
 T-that is great

Athlete B - Session 1

See before when I was having problems I would never actually see myself successfully shooting the **score** I would see myself shooting consistent arrows but never dealing with the actual fact that I will **score**

Athlete C - Session 1

C1- even if I am (C1) and I am the **International Champion** I did the competition in the Pan Am and I loved it... and sure enough I **beat** the other Canadian out there

Athlete D - Session 3

I still don't like to work on it, laughs, because I don't like it that much so I just do my long all the time and do my short a little bit but to me the long is more important anyway because it is **75% of your mark** and the short is only **25%** towards where you start

Intensity (↑)

Increase, i.e., energy, attack, excited, quick

Athlete A- Session 1

T- so up the **intensity**. So what did you think of when you saw the arrow? What were you thinking?

A-well when I actually when I put it on my water bottle the first time I was kind of laughing thinking about it because it was kind of funny, a big ugly white tape you know on my water bottle but I just said hey I need to refocus right away and then when I see it I know what it meant right away because we talked about it so it reminds me to you know get back there be **aggressive** you know we said like I was saying to you I play better when I am a bit more **intense**

Athlete C - Session 1

T- Were you pretty **aggressive**?

C1- On yeah, big time (laughs) there was no way I was going to give up on that one.

Athlete D - Session 2

T- what I would suggest you try is just turn up your **intensity** a little bit before you go you know make it good rather than doing so many make this one, so however you kind of **get pumped** imagine that this is in a competition or like there is a dial inside you and maybe you know maybe you are at about a 7 on your **intensity** and you just **turn it up** go after it and even if you say I am going after this thing it is going up and I am landing it period. Then don't think just do it but you have to have somewhere in your brain that you have to land the thing.

Intensity (↓)

Decrease, i.e., relax, slow

Athlete A - Session 1

like I was saying to you I play better when I am a bit more intense....(rather than) trying to be too **relaxed** too nice

Athlete B - Session 1

It is a feel thing to start with and then before I shoot an arrow like when I am getting **relaxed** and **lowering my heart rate** a little bit I'll um when I am closing my eyes part of my brain is thinking about how **calm** I am how **relaxed** I am

Athlete C - Session 1

C1- ...people are so stressed because the Nationals is coming in 2 months anyway. What can you do, I have read your books before, I have the Zen approach from your book (laughs) I read it again you know it is hard just to **relax**

Athlete D - Session 1

T- um well I thought the short you looked pretty **relaxed**

D- um hm

T- and when you were a bit more **relaxed** you take things up you know you don't rush them if you can just delay that fraction of a second to take it up

Artistic Presentation

presentation, audience faces and emotions, perform, strong

Athlete D - Session 1

that was the first year I actually looked into peoples faces when I skated, usually I just do my own thing but I have to improve my **facial expression and presentation** so I started to look up into peoples faces and it was kind of a weird year to do it because I wasn't expecting to see everybody's total emotions on their faces

Money

sponsors, carding, professional, job, expenses

Athlete A - Session 3

A- I phoned for the **money** they froze **my three hundred dollars**, I was telling you (about) my trip to Montreal because I went and I was supposed to get **\$300** to the winner and I found out they just froze my **money**.... Everybody else got their **money** who was supposed to have and it went to a committee to decide...

T- They didn't give you the **money** then?

A- No no no. They didn't give me anything this year and they are still freezing my **\$300**...

Athlete B - Session 1

I am fully **sponsored** by (.....) and I am fully **sponsored** by (.....), my sites my stabiliser everything is supplied 100 %

Athlete C - Session 1

C2- no I don't want to talk. It just turns into a process we can talk about. I don't know how all those skilled people do it although I don't know if they work as hard but I guess they do, **money** and future you know

Athlete D - Session 4

T - Well I mean for down the road I think it is worth simulating some of those conditions for Nationals.. because to me it is not a waste of **money** it is a good use of **money** to wait between because the objective is to perform well

Materials

readings, writing, video tapes, audio tapes

Athlete A - Session 1

T - maybe we could look at that and look at some of your best ones so you have some of this European trip?

A- No I didn't have it. I didn't bring one I was by myself.

T- Did anybody **video** any other teams?

A- Oh yes but I was by myself just in I didn't bring a **camera** and stuff

T- I wonder if it is possible to get a copy from someone. Somebody must have **videod** that those games eh?

Athlete B - Session 1

B- Do you have any new **literature** or anything?

T- I do actually I'll give you, it will be interesting to get some feedback on it, you can mark it up if you want I mean it is going to be distributed with the things you are doing. There are some questions in the back. There actually is **a few quotes**, there is a quote from a fighter pilot I don't know he talks about the lock on thing but um see if it is not in here it is in somewhere, that one. Did I give you **the one with Kerrin Lee Gartner**?

B- I don't think so

T- That is **a good one** too and I'll give one more so you will be right up to date

B- Lots of **articles**

T- Well I really like **reading this**. This is another domain, with surgeons

B- Thank you

T- But you have that the black **In Pursuit book** right? With the medal on it?

B- Yeah that one I have

Athlete C - Session 1

T- ...what did I give you **book wise** most recently?

C2- The **kids book**.

T- Which one **nice on my feelings**?

C1- yes

T- Did you **read the first 6 or 7 pages** of that?

C1- yes

T- did you **read the whole thing**?

C2- **I read the whole thing**

C1- I didn't,

T- you didn't?

C1- not yet

T- Have you **read the stuff on that asks you what you are real loves**?

C1- no

T- you know simple joys, that is what you have to keep right now

C1- Sometimes you forget about them

Athlete D - Session 2

T- do you think you decided though, when do you think you made the decision to not do it
D- in the air?

T- just because you felt a little bit off

D- no because when I stepped forward if I had it on **video tape** you have got to see my step forward and I am going to jump I was already in the air, I was in the air before I knew I was in the air and it was so quick that I was all off balance and my weight was ready to go even though I wasn't like usually I wait longer to jump

Appendix C
Systematic Coding for the Four Sessions with Athlete A

Interaction Analysis for Session 1 with Athlete A

	1	2a	2b	3	4	5	6	7a	7b	8	9	10	Total
1	1					1	1	3	2	6			13
accept													
2a		2			1	2			3	10			18
praise													
2b								23	3	15			38
link-cn													
3													0
ideas													
4					1			20	3		1		24
ques-cn													
5		2			3	27	2		27	19	1		81
lecture													
6						6	10		6	4	1		27
direct													
7a	5	4	23		12	2		86					132
respond													
7b		4			2	28	7					1	42
link-cl													
8	8	6	14		5	13	7			71			124
initiate													
9			1			2							3
ques-cl													
10					1								1
silence													
Total	13	18	38		25	81	27	132	41	125	3	1	504
	2.6%	3.6%	7.5%		5.0%	16%	5.4%	26.2%	8.1%	24.8%	0.6%	0.2%	

Consultant Talk: 1,2a,2b,3,4,5,6 = 40.2%;

Athlete Talk: 7a, 7b, 8, 9 = 59.7%

Indirect: 1,2a,2b,3,4 = 18.7%; Direct: 5,6 = 21.5%;

Interaction Analysis for Session 2 with Athlete A

	1	2a	2b	3	4	5	6	7a	7b	8	9	10	Total
	accept	praise	link-cn	ideas	ques-cn	lecture	direct	respond	link-cl	initiate	ques-cl	silence	
1								3	3	6	1		13
accept													
2a						4	1	3	2	5	1		16
praise													
2b								7	1	26	2		36
link-cn													
3													
ideas													
4								9	1				10
ques-cn													
5	1	3			2	45	2		40	33	5	2	134
lecture													
6						1			5	7			13
direct													
7a	4	3	6		3	5		42				1	64
respond													
7b						43	4						52
link-cl													
8	8	6	27		1	28	5			99	1	1	176
initiate													
9		1	2			8							11
ques-cl													
10			1		2						1	1	5
silence													
Total	13	16	36		10	134	13	64	52	176	11	5	530
	2.5%	3.0%	6.8%		1.9%	25.3%	2.5%	12.1%	9.8%	33.2%	2.1%	0.9%	

Consultant Talk 1 → 6 = 42%;

Athlete Talk 7a → 9 = 57.2%

Indirect 1 → 4 = 14.2%; Direct 5 → 6 = 27.4%

Interaction Analysis for Session 3 with Athlete A

	1 accept	2a praise	2b link-cn	3 idens	4 ques-cn	5 lecture	6 direct	7a respond	7b link-cl	8 initiate	9 ques-cl	10 silence	Total
1 accept	1							3		5			9
2a praise		3				3		1	5	12			24
2b link-cn								6		5			11
3 idens													
4 ques-cn					3	2		24					29
5 lecture					2	24	3	2	21	35			87
6 direct		1			2		6		8	12			29
7a respond	3	5	6		13	8	1	51					87
7b link-cl		1				25	8						34
8 initiate	5	14	5		8	25	11			78		1	147
9 ques-cl													
10 silence					1							1	2
Total	9 2%	24 5.2%	11 2.4%		29 6.3%	87 19%	29 6.3%	87 19%	34 7.6%	147 32%		2 0.4%	460

Consultant Talk 1 → 6 = 41.2%;

Athlete Talk 7a → 9 = 58.6%

Indirect 1 → 4 = 15.9%; Direct 5 → 6 = 25.3%

Interaction Analysis for Session 4 with Athlete A

	1 acceptl	2a praise	2b link-cn	3 idears	4 ques-cn	5 lecture	6 direct	7a respond	7b link-cl	8 initiate	9 ques-cl	10 silence	Total
1 acceptl								6	3	7			16
2a praise		4				4	1	5	6	8			28
2b link-cn								94	1	46			141
3 idears													
4 ques-cn					5			19	6				30
5 lecture					1	50			60	46	1	1	159
6 direct									2	1			3
7a respond			92		16	2		148			1		272
7b link-cl			3		5	57	2			1			78
8 initiate		8	45		2	45				79	3		188
9 ques-cl		1	1			3							5
10 silence					1								1
Total	16 1.7%	28 3.0%	141 15.3		30 3.3%	161 17.4	3 0.0%	272 29.5%	78 8.5%	188 20.4	5 0.0%	1 0.0%	923

Consultant Talk = 1, 2a, 2b, 3, 4, 5, 6= 40.7%;

Indirect = 1, 2a, 2b, 3, 4= 23.3%; Direct = 5, 6= 17.4%

Athlete Talk = 7a, 7b, 8, 9= 58.4%

Appendix D Systematic Coding for the Four Sessions with Athlete D

Interaction Analysis for Session 1 with Athlete D

	1 accept	2a praise	2b link-cn	3 ideas	4 ques-cn	5 lecture	6 direct	7a respond	7b link-cl	8 initiate	9 ques-cl	10 silence	Total
1 accept							1	3	2	2			8
2a praise		3		1		2		7	7	8		2	29
2b link-cn								42		8		2	52
3 ideas				1	2				2	2	1		8
4 ques-cn				1	3			59	3			2	68
5 lecture		2		2	3	30	3		16	21		1	78
6 direct		1				1	10		5	2			19
7a respond		5	10	1	43	7	2	211				3	323
7b link-cl		1	8	1	3	19	3						35
8 initiate		2	5	10	1	18				87		1	131
9 ques-cl					1								1
10 silence			1		6	1		1		1		5	15
Total	8 1.0%	29 3.8%	54 7.0%	8 1.0%	68 8.8%	78 10.1%	19 2.5%	323 42.0%	35 4.5%	131 17.0%	1 0.1%	16 2.1%	770

Consultant Talk: 1, 2a, 2b, 3, 4, 5, 6 = 34.2%;

Athlete Talk: 7a, 7b, 8, 9 = 63.6%

Indirect: 1, 2a, 2b, 3, 4 = 21.6%; Direct: 5, 6 = 12.6%

Interaction Analysis for Session 2 with Athlete D

	1	2a	2b	3	4	5	6	7a	7b	8	9	10	Total
	accept	praise	link-cn	ideas	ques-cn	lecture	direct	respond	link-cl	initiate	ques-cl	silence	
1	1				1			3		2			7
2a		3				2		7	6	6		1	25
2b								27		36			63
link-cn													
3				3						4		1	8
ideas													
4					9	1		59	5		4		78
ques-cn													
5		2			5	91	7	1	14	45		2	167
lecture													
6					1	9	32		3	6		1	52
direct													
7a	4	12	26	1	42	7	3	95	1			2	193
respond													
7b	1	2		1	4	17	3	1					30
link-cl													
8	1	5	33	3	13	34	7		1	67		3	167
initiate													
9					2								4
ques-cl													
10		1	2		1	6						1	11
silence													
Total	7	25	63	8	78	167	52	193	30	167	4	11	805
%	0.9%	3.1%	7.8%	1.0%	9.7%	20.7%	6.5%	24.0%	3.7%	20.7%	0.5%	1.4%	

Consultant Talk: 1, 2a, 2b, 3, 4, 5, 6 = 49.7%;

Athlete Talk: 7a, 7b, 8, 9 = 48.9%

Indirect: 1, 2a, 2b, 3, 4 = 22.5%; Direct: 5, 6 = 27.2%;

Interaction Analysis for Session 3 with Athlete D

	1 accept	2a praise	2b link-cn	3 idens	4 ques-cn	5 lecture	6 direct	7a respond	7b link-cl	8 initiate	9 ques-cl	10 silence	Total
1 accept						1		1	1	3			6
2a praise		8			1	2	2	1	5	15			35
2b link-cn								7	2	15			24
3 idens		1								1			2
4 ques-cn					5			73	3	2			83
5 lecture		1			3	16	8		10	15		1	54
6 direct		1			2	7	27		9	10	1		57
7a respond	2	9	8	1	50	6	3	164		3			246
7b link-cl	1	5			3	12	7					2	30
8 initiate	3	10	16	1	18	7	10			169		1	234
9 ques-cl						1							1
10 silence					1	2				1		2	6
Total %	6 0.8%	35 4.5%	24 3.1%	2 0.3%	83 10.7%	54 6.9%	57 7.3%	246 31.6%	30 3.9%	234 30.1%	1 0.1%	6 0.8%	778

Consultant Talk: 1, 2a, 2b, 3, 4, 5, 6 = 33.6%;

Athlete Talk: 7a, 7b, 8, 9 = 65.7%

Indirect: 1, 2a, 2b, 3, 4 = 19.4%; Direct: 5, 6 = 14.2%;

Interaction Analysis for Session 4 with Athlete D

	1 accept	2a praise	2b link-cn	3 ideals	4 ques-cn	5 lecture	6 direct	7a respond	7b link-cl	8 initiate	9 ques-cl	10 silence	Total
1 accept										1			1
2a praise		1	1	1	1					6	1		17
2b link-cn								9		6			24
3 ideals				1	1					3			8
4 ques-cn								23	6				29
5 lecture				1	2	23	6		33	15	1		81
6 direct		1			2	5	25		17	4			54
7a respond	1	2	9	1	14	3	1	43			1		75
7b link-cl		6	1		5	32	20					1	65
8 initiate		6	13	4	4	15	2			95			139
9 ques-cl		1				2							3
10 silence						1							1
Total	1	17	24	8	29	81	54	75	65	139	3	1	

Consultant Talk: 1, 2a, 2b, 3, 4, 5, 6 = 43.0%;

Athlete Talk: 7a, 7b, 8, 9 = 56.8%

Indirect: 1, 2a, 2b, 3, 4 = 15.8%; Direct: 5, 6 = 27.2%;