

Sheffield Hallam University

The role of confidence in world class sport performance.

HAYS, Kate.

Available from the Sheffield Hallam University Research Archive (SHURA) at:

<http://shura.shu.ac.uk/20696/>

A Sheffield Hallam University thesis

This thesis is protected by copyright which belongs to the author.

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author.

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given.

Please visit <http://shura.shu.ac.uk/20696/> and <http://shura.shu.ac.uk/information.html> for further details about copyright and re-use permissions.

Learning and IT Services
Collegiate Learning Centre
Collegiate Crescent Campus
Sheffield S10 2BP

101 876 056 3



T

REFERENCE

ProQuest Number: 10702794

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 10702794

Published by ProQuest LLC (2017). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

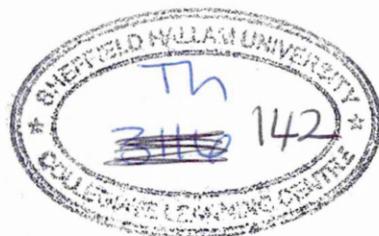
ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

The Role of Confidence in World Class Sport Performance

Kate Hays

A thesis submitted in partial fulfilment of the requirements of
Sheffield Hallam University
for the degree of Doctor of Philosophy

June 2007



ABSTRACT

This thesis provided a detailed examination of the role of sport confidence in World Class sport performance. More specifically, the sources and types of sport confidence utilised by World Class sport performers were identified, and mechanisms underlying confidence effects in this elite subgroup were explored. These findings led to the development of an applied measure of sport confidence which was validated in a practical setting, and used to provide the foundation for a cognitive-behavioural intervention designed to enhance sport confidence. Studies one and two adopted a qualitative approach utilising semi-structured interviews. Study three adopted a more idiographic approach where confidence profiling was used as the primary means of data collection, and reflective narratives were undertaken to report the findings. Finally, study four utilised a case-study approach. The purpose of study one was to identify the sources and types of sport confidence salient to athletes competing on the World Class stage. Results indicated that the most prevalent sources of confidence utilised by these athletes were preparation, performance accomplishments, and coaching. However, gender variations were evident within these confidence sources. Several types of confidence were also identified, providing evidence for the multidimensional nature of sport confidence. Again, gender variations were evident within the types of sport confidence identified. The purpose of study two was to examine the role of sport confidence in World Class sport performance. In accordance with previous research, high sport confidence was found to be synonymous with positive affect, effective competition behaviours and the efficient use of cognitive resources, resulting in successful competition performance. Furthermore, the results uncovered gender differences in both competitive orientation and the factors responsible for debilitating sport confidence. Considered in the context of previous research, the results of studies one and two highlighted the need for an applied measure to assess and monitor athletes sport confidence and factors related to their sport confidence, regardless of their age, gender, sport level or sport type. Consequently, study three described the reflections of three sport psychology consultants who successfully adapted performance profiling to sport confidence specifically. Further evidence was also provided to support the multidimensional nature of sport confidence and the recommendation that types of sport confidence might be viewed as evidence based beliefs grounded in an athlete's sources of sport confidence. The final study adopted a case study approach in which confidence profiling was used as the foundation for the successful delivery of a sport psychology service, adapted from the eight-step cognitive-behavioural consultation model (Murphy & Murphy, 1992). In this study confidence profiling was used to accurately assess the sport confidence of an elite female swimmer, provide the foundation for an athlete-centred intervention designed to enhance the athlete's sport confidence, and monitor any changes in the athlete's confidence as a result of the intervention. Evaluation of the intervention showed that with one exception, the athlete had increased her confidence levels across all types of her sport confidence. In summary, the findings of this thesis have both theoretical and practical implications. From a theoretical perspective, the findings emphasise the multidimensional nature of sport confidence, and the importance of utilising a sport-specific framework to aid future research. From a practical perspective, this thesis highlights the importance of adopting an individualised approach to the assessment of athletes' sport confidence, and developing athlete driven interventions to meet their specific confidence needs.

ACKNOWLEDGEMENTS

There are several people who have contributed in many different ways to the completion of this thesis and I would like to take this opportunity to express my gratitude to them. First, I would like to thank Professor Ian Maynard for his exceptional knowledge and guidance, and for his ability to provide feedback in record breaking time! I would like to extend my thanks to Dr. Owen Thomas whose expertise has had considerable impact upon my academic development. Thirdly, I would like to thank Dr. Joanne Butt for her continued support and encouragement. A special thank you also goes out to Dr. Mark Bawden who has supported me way and beyond the call of duty over the past five years, and to Ben, for understanding me, supporting me, guiding me, and always being there for me.

In addition to those people I have met in a professional context, I am indebted to my friends and family, without whom I would not be where I am today. First and foremost, I would like to thank my parents for their unconditional love and support. They have been behind me every step of the way and I have relied upon them for so much – thank you both for everything! I am also lucky to have the best group of friends anyone could ever wish for, each with their own special qualities. In particular, I would like to thank Prima for her relentless support, kindness and generosity over the past 15 years; Becky, for her empathetic nature, sensitivity and laid back attitude; Jenny, for being there whenever and wherever and knowing exactly what to say; Matt, for being one of the most kind-hearted and trustworthy people I have ever met; Jo, Vicks, Ness and Lou, for their constant support, encouragement, and all the fun times; and finally to Sunni, for filling my life with laughter and keeping a smile on my face.

TABLE OF CONTENTS

CHAPTER I	1
INTRODUCTION	1
1.1 CONFIDENCE AND SPORTS PERFORMANCE	1
1.2 CONCEPTUALISATION OF SPORT CONFIDENCE	2
1.3 PURPOSE OF THE THESIS	3
1.4 STRUCTURE OF THE THESIS	4
CHAPTER II	7
REVIEW OF LITERATURE	7
2.1 INTRODUCTION	7
2.2 DEFINITIONS AND CONCEPTUAL APPROACHES TO THE STUDY OF SELF- CONFIDENCE IN SPORT	8
2.2.1 SELF-EFFICACY	8
2.2.1.1 SOURCES OF SELF-EFFICACY	11
2.2.1.1.1 Enactive Mastery Experiences	11
2.2.1.1.2 Vicarious Experience	13
2.2.1.1.3 Imaginal Experiences	14
2.2.1.1.4 Verbal Persuasion	15
2.2.1.1.5 Physiological and Emotional States	16
2.2.1.2 MULTIDIMENSIONALITY OF SELF-EFFICACY BELIEF SYSTEMS	17
2.2.1.3 SELF-EFFICACY AND SPORTS PERFORMANCE	18
2.2.1.5 COLLECTIVE EFFICACY	18
2.2.1.4 SUMMARY OF SELF-EFFICACY THEORY	19
2.2.2 SPORT CONFIDENCE	19
2.2.2.1 THE CONCEPTUAL MODEL OF SPORT CONFIDENCE	19
2.2.2.1.1 Gender Differences in Sport Confidence	23
2.2.2.2 THE RECONCEPTUALISED MODEL OF SPORT CONFIDENCE	29
2.2.2.3 AN INTEGRATIVE MODEL OF SPORT CONFIDENCE FOR RESEARCH AND PRACTICE	36
2.2.2.3.1 Affect	38
2.2.2.3.2 Behaviour	38
2.2.2.3.3 Cognition	39
2.2.2.4 THE THREE FACTOR MODEL OF SPORT CONFIDENCE	40
2.2.3 MOVEMENT CONFIDENCE	40

2.2.4 PERFORMANCE EXPECTANCY	43
2.2.5 SUMMARY OF CONCEPTUAL APPROACHES TO THE STUDY OF SELF-CONFIDENCE IN SPORT	43
2.3 MEASURING SELF-CONFIDENCE IN SPORT	45
2.3.1 SELF-EFFICACY MEASUREMENT APPROACHES	46
2.3.1.1 TASK SPECIFIC SCALES	46
2.3.1.2 COLLECTIVE EFFICACY MEASURES	47
2.3.2 SPORT CONFIDENCE MEASUREMENT APPROACHES	49
2.3.3 MOVEMENT CONFIDENCE MEASUREMENT APPROACHES	51
2.3.4 ASSESSING PERFORMANCE EXPECTANCIES	52
2.4 FUTURE RESEARCH DIRECTIONS	52
2.4.1 THE PROCESSES AND MECHANISMS UNDERLYING CONFIDENCE EFFECTS	53
2.4.2 SOURCES AND TYPES OF SPORT CONFIDENCE	53
2.4.3 RESEARCH WITH WORLD CLASS ATHLETES	55
2.4.4 MEASUREMENT OF CONFIDENCE IN SPORT	56
2.5 SUMMARY OF THE LITERATURE REVIEW	57

CHAPTER III **59**

STUDY ONE	59
SOURCES AND TYPES OF CONFIDENCE IDENTIFIED BY WORLD CLASS SPORT PERFORMERS	59
3.1 INTRODUCTION	59
3.2 AIMS OF STUDY ONE	61
3.4 METHOD	61
3.4.1 STUDY DESIGN	61
3.4.2 PARTICIPANTS	62
3.4.3 THE SEMI-STRUCTURED INTERVIEW	63
3.4.4 PROCEDURES	64
3.4.5 ANALYSIS	65
3.5 RESULTS	66
3.5.1 SOURCES OF SPORT CONFIDENCE	66
3.5.1.1 PREPARATION	70
3.5.1.2 PERFORMANCE ACCOMPLISHMENTS	71
3.5.1.3 COACHING	72
3.5.1.4 SOCIAL SUPPORT	73
3.5.1.5 INNATE FACTORS	73
3.5.1.6 COMPETITIVE ADVANTAGE	74

3.5.1.7 EXPERIENCE	74
3.5.1.8 TRUST	74
3.5.1.9 SELF-AWARENESS	74
3.5.1.10 ATHELETE SPECIFIC FACTORS	75
3.5.2 TYPES OF SPORT CONFIDENCE	75
3.5.2.1 SKILL EXECUTION	75
3.5.2.2 ACHIEVEMENT	78
3.5.2.3 PHYSICAL AND PSYCHOLOGICAL FACTORS	78
3.5.2.4 SUPERIORITY TO OPPOSITION	78
3.5.2.5 TACTICAL AWARENESS	79
3.5.2.6 ATHLETE SPECIFIC FACTORS	80
3.6 DISCUSSION	80
3.7 SUMMARY	87

CHAPTER IV **89**

STUDY TWO	89
THE ROLE OF SPORT CONFIDENCE IN WORLD CLASS SPORT PERFORMANCE: A GENDER BASED COMPARISON	89
4.1 INTRODUCTION	89
4.2 AIMS OF STUDY TWO	93
4.3 METHOD	93
4.3.1 PARTICIPANTS	93
4.3.2 THE SEMI-STRUCTURED INTERVIEW	94
4.3.3 ETHICAL CONSIDERATIONS	94
4.3.4 PROCEDURES	95
4.3.5 ANALYSIS	96
4.4 RESULTS	98
4.4.1 COMPETITIVE GOAL ORIENTATION	98
4.4.2 FACTORS RESPONSIBLE FOR DEBILITATING SPORT CONFIDENCE	101
4.4.2.1 POOR PERFORMANCES	101
4.4.2.2 INJURY/ILLNESS	104
4.4.2.3 POOR PREPARATION	104
4.4.2.4 COACHING	105
4.4.2.5 PRESSURE AND EXPECTATIONS	105
4.4.2.6 PSYCHOLOGICAL FACTORS	107
4.4.2.7 ATHLETE SPECIFIC FACTORS	107
4.4.3 THE ROLE OF CONFIDENCE IN SPORT PERFORMANCE	107

4.4.3.1 AFFECT	110
4.4.3.2 BEHAVIOUR	112
4.4.3.3 COGNITIONS	114
4.4.4 STRATEGIES TO ENHANCE SPORT CONFIDENCE	116
4.4.5 ATTRIBUTION	120
4.5 DISCUSSION	121
4.6 SUMMARY	128

CHAPTER V **129**

STUDY THREE	129
PROFILING CONFIDENCE FOR SPORT	129
5.1 INTRODUCTION	129
5.2 REVIEW OF LITERATURE	130
5.2.1 CRITICAL ISSUES IN APPLIED SPORT PSYCHOLOGY MEASUREMENT	130
5.2.2 TOWARD PRACTICAL MEASUREMENT	134
5.2.3 APPLIED RESEARCH AND REFLECTIVE PRACTICE	136
5.3 AIMS OF STUDY THREE	137
5.4 METHOD PART 1: DEVELOPMENT & REFINEMENT OF SPORT CONFIDENCE PROFILING	138
5.4.1 PARTICIPANTS	138
5.4.2 PROCEDURES	138
5.4.2.1 STAGE 1: INTRODUCING THE IDEA	140
5.4.2.2 STAGE 2: ELICITING CONSTRUCTS	140
5.4.2.3 STAGE 3: ASSESSMENT	141
5.4.3 ETHICAL CONSIDERATIONS	142
5.4.4 REFLECTIVE PRACTICE	143
5.5 RESULTS PART 1: SECTION 1	144
5.5.1 PARTICIPANT ONE	144
5.5.2 PARTICIPANT TWO	148
5.5.3 PARTICIPANT THREE	151
5.5.4 PARTICIPANT FOUR	155
5.5.5 PARTICIPANT FIVE	159
5.5.6 PARTICIPANT SIX	162
5.5.7 PARTICIPANT SEVEN	166
5.6 SUMMARY OF REFLECTIONS	169
5.7 METHOD PART 2: USABILITY OF CONFIDENCE PROFILING	172
5.8 RESULTS PART 2	173

5.8.1 CONSULTANT 1	173
5.8.2 CONSULTANT 2	176
5.9 DISCUSSION	179
5.9.1 SUGGESTIONS FOR FUTURE RESEARCH	182
CHAPTER VI	185
STUDY FOUR	185
THE ROLE OF CONFIDENCE PROFILING IN COGNITIVE BEHAVIOURAL INTERVENTIONS IN SPORT	185
6.1 INTRODUCTION	185
6.2 AIMS OF STUDY FOUR	188
6.3 INITIAL CONTACT WITH ATHLETE AND COACH	188
6.4 FIRST MEETING WITH ATHLETE	189
6.5 SECOND MEETING WITH ATHLETE	190
6.6 THIRD MEETING WITH ATHLETE	194
6.7 COGNITIVE BEHAVIORAL INTERVENTION	196
6.8 INTERVENTION EVALUATION	203
6.9 CONCLUSIONS	207
CHAPTER VII	211
SUMMARY, DISCUSSION AND CONCLUSIONS	211
7.1 INTRODUCTION	211
7.2 SUMMARY	211
7.3 DISCUSSION	214
7.3.1 CONCEPTUALISATION OF SPORT CONFIDENCE	214
7.3.2 PRACTICAL IMPLICATIONS	217
7.3.3 STRENGTHS OF THE RESEARCH PROGRAMME	219
7.3.4 LIMITATIONS OF THE RESEARCH PROGRAMME	222
7.4.5 FUTURE RESEARCH DIRECTIONS	222
7.4 CONCLUDING REMARKS	227
REFERENCES	228
APPENDICES	250

LIST OF FIGURES

CHAPTER ONE

- 1.1 Structure of the Thesis 6

CHAPTER TWO

- 2.1 Conceptual Model of Sport Confidence (Vealey, 1986) 21
- 2.2 Conceptual Framework of Sport Confidence (Vealey et al., 1998) 26
- 2.3 An Integrated Model of Sport Confidence for research and practice (Vealey, 2001). 33
- 2.4 The Multidimensional Interactional Model of Sport Confidence (adapted from Manzo et al., 2001) 37

CHAPTER THREE

- 3.1 Themes and categories for sources of sport confidence identified by World Class sport performers 63-65
- 3.2 Themes and categories for types of sport confidence identified by World Class sport performers 72-73

CHAPTER FOUR

- 4.1 Themes and categories for factors responsible for debilitating male athletes sport confidence 98
- 4.2 Themes and categories for factors responsible for debilitating female athletes sport confidence 99
- 4.3 Causal network representing affective, behavioural, and cognitive responses to competition when sport confidence is high 104
- 4.4 Causal network representing affective, behavioural, and cognitive responses to competition when sport confidence is low 105

CHAPTER FIVE

- 5.1 Overall Time Scale for the Data Collection Phase of Study Three 140
- 5.2 Sources and Types of Sport Confidence Identified by Participant One 140-141

5.3	Sources and Types of Sport Confidence Identified by Participant Two	144
5.4	Sources and Types of Sport Confidence Identified by Participant Three	147
5.5	Sources and Types of Sport Confidence Identified by Participant Four	150-151
5.6	Sources and Types of Sport Confidence Identified by Participant Five	154-155
5.7	Sources and Types of Sport Confidence Identified by Participant Six	157-158
5.8	Sources and Types of Sport Confidence Identified by Participant Seven	161-162

CHAPTER SIX

6.1	Sources and Types of Sport Confidence Identified by the Athlete	187
6.2	Changes in Athletes Sport Confidence Assessment Scores Pre-Post Intervention	199

LIST OF TABLES

CHAPTER FOUR

4.1	Gender Differences in Competitive Orientation	94
4.2	Strategies to Enhance Sport Confidence	113

LIST OF APPENDICES

APPENDIX 1: Ethical Approval for Study One and Two	251
Application for Approval of Research	2252-258
Risk Assessment Form	2259-260
Participant Information Sheet	261-262
Informed Consent Form	263-265
Letter of Approval from the Sheffield Hallam Ethics Committee	266
APPENDIX 2:	267
A Copy of the Interview Guide Used in Study One and Two	268-277
APPENDIX 3: Ethical Approval for Study Three	278
Application for Approval of Research	279-285
Risk Assessment Form	286-287
Participant Information Sheet	288-289
Informed Consent Form	290-292
Criminal Records Bureau (CRB) Disclosure form	293-294
Letter of Approval from the Sheffield Hallam Ethics Committee	295
APPENDIX 4:	296
Consultancy Schedule for Study Three	297-300
APPENDIX 5:	301
Team Contingency Plans for Competition	303-305
APPENDIX 6:	306
A Copy of the Interview Guide Used in Study Four	307

BLIND REFEREED PUBLICATIONS

Hays, K., Thomas, O., Maynard, I., & Bawden, M. (2005). Sport Confidence in Successful and Unsuccessful World Class Performances: A Comparison of Affect, Behaviour and Cognition. *Journal of Sports Sciences*, **23**, 1289-1290.

Hays, K., Thomas, O., Maynard, I., & Bawden, M. (2005). Competitive Goal Orientations and Expectancy Effects: A Gender-Based Comparison. *Journal of Sports Sciences*, **23**, 1288-1289.

Hays, K., Maynard, I., Thomas, O., & Bawden, M. (2005). Sources and Types of Confidence Used by World Class Sport Performers. *Journal of Sports Sciences*, **23**, 1288.

Hays, K., Maynard, I., Thomas, O., & Bawden, M. (2007). Sources and Types of Confidence Identified by World Class Sport Performers. *Journal of Applied Sport Psychology*, **19**, 434-456.

BLIND REFEREED PRESENTATIONS

Hays, K., Thomas, O., Maynard, I., & Bawden, M. (2005). Sport Confidence in Successful and Unsuccessful World Class Performances: A Comparison of Affect, Behaviour and Cognition. (2005). Research paper poster presented at the British Association of Sport and Exercise Science Annual Conference. Loughborough, September 2005.

Hays, K., Thomas, O., Maynard, I., & Bawden, M. Competitive Goal Orientations and Expectancy Effects: A Gender-Based Comparison. (2005). Research paper poster presented at the British Association of Sport and Exercise Science Annual Conference. Loughborough, September 2005.

Hays, K., Maynard, I., Thomas, O., & Bawden, M. (2005). Sources and Types of Confidence Used by World Class Sport Performers. Research paper poster presented at the British Association of Sport and Exercise Science Annual Conference. Loughborough, September 2005.

Hays, K., Thomas, O., Maynard, I., & Butt, J. (2006). Profiling Confidence for Sport. Research paper poster presented at the Association for the Advancement of Applied Sport Psychology Annual Conference. Miami, September 2006.

Hays, K., Thomas, O., Maynard, I., & Butt, J. (2007). The role of confidence profiling in cognitive behavioural interventions in sport. Research paper orally presented at the British Association of Sport and Exercise Science Annual Conference. Bath, September 2007.

GLOSSARY OF ABBREVIATIONS

SC-trait	Trait Sport Confidence defined as 'the belief or degree of certainty individuals usually possess about their ability to be successful in sport' (Vealey, 1986, p. 223)
SC-state	State Sport Confidence defined as 'the belief or degree of certainty individuals possess at one particular moment about their ability to be successful in sport' (Vealey, 1986, p.223)
TSCI	Trait Sport Confidence Inventory (Vealey, 1986)
SSCI	State Sport Confidence Inventory (Vealey, 1986)
COI	Competitive Orientation Inventory (Vealey, 1986)
BSRI	Bem Sex Role Inventory (Bem, 1974)
SSCQ	Sources of Sport Confidence Questionnaire (Vealey, Hayashi, Garner-Holman, & Giacobbi, 1998)
CSAI-2	Competitive State Anxiety Inventory-2 (Martens, Burton, Vealey, Bump, & Smith, 1990)
CEQS	Collective Efficacy Questionnaire for sports (Short, Sullivan & FeltZ, 2005)
CSCI	Carolina Sport Confidence Inventory (Manzo, Silva & Mink., 2001)
MCI	Movement Confidence Inventory (Griffin, Keogh, & Maybee, 1984)
PMCI	Playground Movement Confidence Inventory (Crawford & Griffin, 1986)
SMCI	Stunt Movement Confidence Inventory (Griffin & Crawford, 1989)
MI	Motivational Interviewing (Miller & Rollnick, 2002)
PCT	Personal Construct Theory (Kelly, 1955)
BASES	British Association of Sport and Exercise Sciences
BPS	British Psychological Society
ASA	Amateur Swimming Association

CHAPTER I

INTRODUCTION

1.1 CONFIDENCE AND SPORTS PERFORMANCE

The most consistent finding in peak performance literature is the direct correlation between high levels of self-confidence and successful sporting performance (Zinsser, Bunker & Williams, 2001). Indeed, as illustrated here by Jimmy Connors, athletes at the very pinnacle of sporting achievement continually identify confidence as the most important influence on athletic performance:

The whole thing is never to get negative about yourself. Sure, it's possible that the other guy you're playing is tough, and that he may have beaten you the last time you played, and okay, maybe you haven't been playing all that well yourself. But the minute you start thinking about these things you're dead. I go out to every match convinced that I'm going to win. That is all there is to it. (Weinberg, 1988, p. 127).

In reality, athletes appreciate not only the importance of *being* self-confident, but also the importance of *demonstrating* their confidence in order to secure a competitive advantage. Consequently, whilst an athlete's confidence might sometimes waver, experienced athletes recognise the importance of appearing confident and strong, as depicted by the following quote taken from an international handball player:

I suppose I'm not the most self-confident person in general, but I have learned the lesson over the years in top level handball that you have to demonstrate confidence on the court. Handball is a team sport and a martial art, and you have to radiate security to spread security in your team, and try to remove some security from your opponent. This is the lesson I try to teach the youngsters on the team. (Ronglan, 2007, p. 87).

Whilst most athletes believe that sport confidence is critical to performance, even the most successful athletes can be susceptible to wavering levels of confidence on occasion. Indeed, confidence has been found to be influenced by the context in which athletes are

immersed (Durand-Bush & Salmela, 2002), and within the highly pressurised environment of Olympic level competitive sport, athlete confidence levels have been found to be particularly susceptible to instability (Gould, Guinan, Greenleaf, Medbery, & Peterson, 1999).

Given that self-confidence in sport is so important, and yet so fragile, it is perhaps unsurprising that the study of self-confidence has figured prominently in the sport psychology research literature. This research is characterised by several different approaches which reflect a general lack of consensus over how self-confidence should be conceptualised and operationalised in the context of competitive sport (Hardy, Jones & Gould, 2001).

1.2 CONCEPTUALISATION OF SPORT CONFIDENCE

Five conceptual approaches have been used to study confidence in sport which have progressed from early performance expectancy (Corbin, 1981) and movement confidence (Griffin & Keogh, 1982) approaches, to self-efficacy (Bandura, 1977), and more recently to two distinct sport confidence approaches (Manzo, Silva & Mink., 2001; Vealey, 1986). Indeed, whilst self-efficacy theory has provided the theoretical underpinning for the majority of performance-related research in sport, more recent research has recognised the need to develop a sport-specific framework, and inventories to operationalise confidence in relation to competitive sport.

In 1986, Vealey provided the first model of sport confidence, defined as ‘the degree of certainty individuals possess about their ability to be successful in sport’ (Vealey, 2001, p. 551). This model was reconceptualised in 1998 to include the sources of confidence that were thought to be specifically salient to athletes. In addition, the reconceptualised model of sport confidence (Vealey, Hayashi, Garner-Holman, & Giacobbi, 1998) identified factors thought to influence the development and manifestation of confidence in athletes. For example, the organisational culture of sport and society, and individual difference characteristics (e.g., gender). More recently, Vealey's work advanced to developing a unifying framework relevant

to both researchers and practitioners interested in the study and enhancement of confidence in sport. Thus, the integrative model of sport confidence (Vealey, 2001) provides an organisational framework from which meaningful extensions to the literature might be generated, and interventions designed to enhance confidence in athletes developed.

Organisational culture was included in the model to represent the influence of competitive level, motivational climate, and the goals and structural expectations of sport programmes, on the sources and levels of sport confidence experienced by athletes. In addition, the physical skill and characteristics of the athlete, and uncontrollable factors such as weather and opponents, were recognised as important influences on performance. However, Vealey (2001) proposed that the sport confidence construct, sources of sport confidence, and the ABC's of sport psychology (affect, behaviour, and cognition) were the core constructs and processes that most directly influence sport performance. Vealey (2001) viewed the ABC triangle as the most critical link in the model since it illustrates the importance of understanding how sport confidence influences performance through its affect on how athletes feel about, respond to, and think about everything that happens to them in sport. Indeed, confidence has been consistently associated with positive emotions, productive achievement behaviours and effective cognitions.

The conceptualisation of sport confidence as specific and unique to sport was intended to enhance understanding in the field of sport psychology (Vealey, 1986). However, little research has been conducted to test the predictions of Vealey's work. Despite numerous studies advocating self-confidence as being beneficial to performance, the processes and mechanisms underlying confidence effects have been largely ignored.

1.3 PURPOSE OF THE THESIS

This thesis was designed to build upon, modify and extend the findings of Vealey (1988; 2001) to world class sports performers. More specifically, the integrative model of

sport confidence provided the theoretical basis underpinning its structure. An overriding goal of this thesis was to make the transition from theory into practice and develop an intervention programme designed to enhance sport confidence. Thus, the four studies were designed to demonstrate a progression from theory to practice and specifically identify and explore: 1) the sources and types of sport confidence utilised by World Class sport performers; 2) the processes and mechanisms underlying confidence effects, including an examination of goal-orientation, the factors responsible for debilitating sport confidence, and the strategies athletes utilise to protect and maintain their sport confidence on the World Class stage; 3) an applied measure of assessing sport confidence: and, 4) the development of an intervention programme targeted towards the specific confidence needs of an individual athlete.

1.4 STRUCTURE OF THE THESIS

This thesis comprises six further chapters within which the four central areas of research are addressed. The research literature providing the rationale for studies one and two is considered extensively within the main review of literature in chapter two. Consequently, to avoid repetition, the chapters associated with each of these studies provide simply an introduction to the specific area of study. In contrast, the chapter associated with study three provides a separate review of literature to supplement the main review. This also provides the basis for study four. As depicted by Figure 1.1, the specific structure of the thesis is as follows:

Chapter two provides a critical overview of the development of confidence research in the context of competitive sport, concluding with the identification of four main areas warranting future research. Thus, chapter two provides the rationale underpinning this thesis.

Chapter three (study one) examines the sources and types of sport confidence salient to athletes competing on the World Class stage.

Chapter four (study two) examines the role of sport confidence in World Class sport performance. The purpose of this study was to explore the mechanisms underlying confidence effects and identify the factors responsible for debilitating sport confidence in athletes competing on the World Class stage, in addition to the strategies they use to protect their confidence.

Chapter five (study three) reports the reflections of three sport psychology consultants who examined the effectiveness of sport confidence profiling in a practical setting. The main purpose of this study was to develop an applied measurement instrument that could be used to assess and monitor athletes sport confidence and factors related to their sport confidence, regardless of their age, gender, sport level or sport type. A secondary aim of this study was to confirm whether types of sport confidence might best be viewed as evidence-based belief systems grounded in athletes sources of sport confidence (as indicated by study one).

Chapter six (study four) examines the effectiveness of a cognitive-behavioural intervention developed to enhance the sport confidence of an international female swimmer. Confidence profiling was used in this study for three major purposes: 1) to accurately assess the sport confidence of the athlete, 2) provide the basis for an appropriate psychological intervention to assist the athlete in increasing her levels of sport confidence, and 3) to monitor any changes in the athlete's confidence as a result of the intervention.

Chapter seven summarises the findings of the research programme and discusses the theoretical and practical applications emanating from the four studies. This chapter also identifies the strengths and weaknesses associated with this thesis, and highlights suggestions for future research.

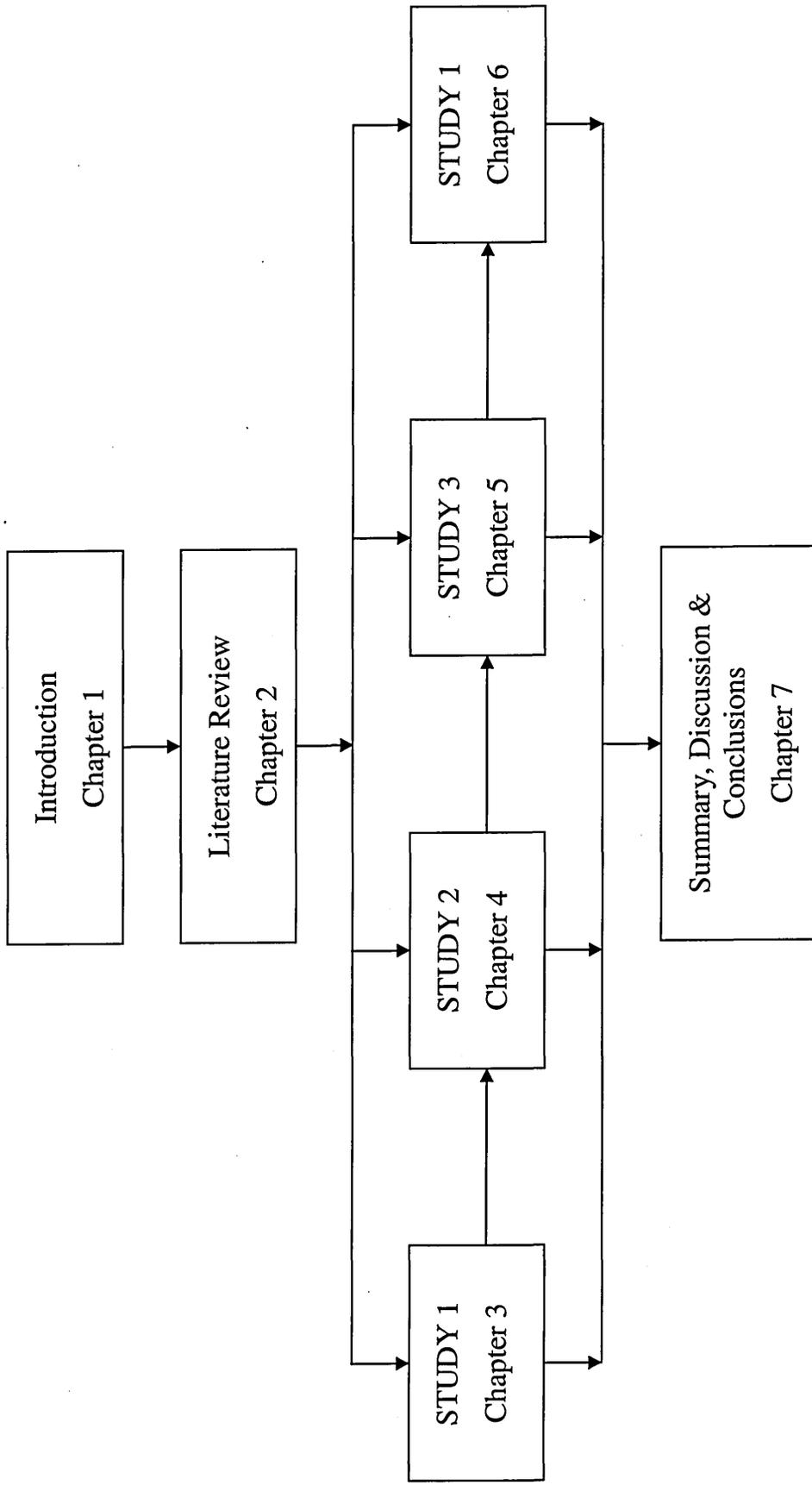


Figure 1.1 Structure of the Thesis

CHAPTER II

REVIEW OF LITERATURE

2.1 INTRODUCTION

Research within the field of sport psychology has consistently identified confidence as an important influence on athletic performance (e.g., Bandura, 1986; Jones & Hanton, 2001; Jones, Hanton & Swain, 1994). Many great athletes continue to attribute their successes at the highest level to elevated levels of self-belief, and their failures to a lack thereof, as highlighted by Great Britain javelin thrower Steve Backley: "If you're slightly down and doubting yourself then you've lost.....you've lost that battle with yourself to create a highly skilled performance" (Jones & Hardy, 1990, p. 273). Furthermore, international-level elite athletes have identified self-confidence as the most critical mental skill defining mental toughness (Bull, Shambrook, James, & Brooks, 2005; Jones, Hanton, & Connaughton, 2002).

The purpose of this chapter is to review the conceptual and research literature pertaining to confidence in sport, providing an overview of the state of knowledge in this area. The review of literature is divided into three sections. First, various definitions of, and conceptual approaches to, the study of self-confidence in sport are reviewed. This section begins with an overview and critique of self-efficacy theory, which is followed by an overview and critique of conceptual models of sport confidence, movement confidence, and performance expectancy. The main focus of the review is the development of confidence in sport and the role of confidence in sporting performance. Consequently, the antecedents (of self-efficacy and sport confidence), and variables thought to moderate the development and maintenance of confidence in athletes are discussed throughout. In addition, the processes that explain the mediating influence of confidence on sporting performance are incorporated into the review. The second section reviews the multiple methods that have been used to measure the construct of self-confidence in sport. The third section concludes the review by identifying

areas of future study, thus providing the rationale for the programme of research undertaken within this thesis.

2.2 DEFINITIONS AND CONCEPTUAL APPROACHES TO THE STUDY OF SELF-CONFIDENCE IN SPORT

Whilst multiple definitions of self-confidence exist in the sport psychology research literature (Hardy et al., 2001), they all refer to individuals' beliefs about their abilities and/or their expectations of success based upon their abilities. The five conceptual approaches that have been used to study self-confidence in sport are presented in this section, including self-efficacy theory (Bandura, 1977), two sport confidence approaches (Manzo, Silva & Mink, 2001; Vealey, 1986), movement confidence (Griffin & Keogh, 1982) and performance expectancy (Corbin, 1981). Particular emphasis is focused toward self-efficacy and sport confidence since these approaches are particularly pertinent in the context of elite sport (Hardy et al., 2001).

2.2.1 SELF-EFFICACY

Bandura (1977) proposed that effective personal functioning is more than a matter of simply knowing what to do and being motivated to do it. People often fail to perform optimally despite knowing what they have to do and possessing the requisite skills to complete the task (Schwartz & Gottman, 1976). This is evident in studies of Olympic athletes who have failed to meet expectations when competing on the World Class stage (e.g., Gould et al., 1999; Greenleaf, Gould, & Dieffenbach, 2001) Consequently, efficacy is viewed as a "generative capability in which cognitive, social, emotional, and behavioural subskills must be organised and effectively orchestrated to serve innumerable purposes" (Bandura, 1997, p.36-37).

Possessing subskills and being able to transfer them into appropriate courses of action, is markedly different from executing them well under difficult circumstances. Bandura (1997)

proposed that self-referent thought activates cognitive, motivational, and affective processes that govern the translation of knowledge and abilities into action. Thus, self-efficacy (one's belief that a certain level of performance can be attained) is not concerned with how many skills an individual may possess, but is instead concerned with the performer's perception of their ability to succeed in a given situation at a given time (Hardy et al., 2001). Hence, different people with similar skills, or indeed the same person under different circumstances, might perform poorly, adequately or exceptionally well, depending upon fluctuations in their personal efficacy beliefs.

Indeed, research has consistently shown that skills can be overruled by self-doubts causing even the most skilled individuals to perform poorly under circumstances that undermine their belief in themselves (e.g., Bandura & Jourden, 1991; Wood & Bandura, 1989). A point emphasised by one of the athletes interviewed by Orlick and Partington in their 1988 study to assess mental readiness for the Olympic Games. This particular athlete did not perform to expectations at the Olympic Games despite having a very strong track record.

I was thinking about things I did wrong in previous Games. I was lacking confidence. I was worried about what the coach was expecting of me or what I thought he wanted from me. I really didn't want to play (pp. 128).

Conversely, a resilient sense of efficacy enables individuals to perform exceptionally well by productive use of their skills in the face of overwhelming obstacles (White, 1982). As highlighted by one of the athletes interviewed by Greenleaf et al. (2001, pp. 165) in their study of factors influencing Olympic performance. This athlete developed her sense of self-confidence by using mental imagery training while recovering from an injury.

In the past, knowing that I'm the strongest person out there, the fittest person, always gave me confidence, but I couldn't have that this time....So I really worked on the mental part and that gave me a level of confidence that I hadn't had before.

As these studies reveal, efficacy beliefs are an important contributor to performance accomplishments, whatever the underlying skill of the performer (Bandura, 1997).

Efficacy beliefs can vary along three dimensions that have important performance implications. First, they differ on *level* which is concerned with the individual's expected performance attainment (Hardy et al. 2001). According to Bandura (1997), an individual's perceived efficacy might be limited to simple task demands, extend to moderately difficult task demands and/or include the most challenging task demands within a particular area of functioning. Thus, efficacy beliefs are measured against levels of task demands that present varying degrees of challenge or impediment to successful performance (Bandura, 1977). The nature of the challenges against which personal efficacy is judged will depend upon the sphere of activity. However, many areas of functioning are primarily concerned with self-regulatory efficacy; whether an individual can guide and motivate oneself to do the things that they are capable of in the face of dissuading conditions. For example, being tired, depressed or under pressure (Bandura, 1997). Consequently, when assessing self-regulatory efficacy it is important to consider factors that might make it hard for an individual to perform the required activities regularly (i.e., personal/social factors, injury, or financial/time constraints).

Efficacy beliefs also differ on *generality* which refers to the number of activities or domains of functioning in which the individual considers him/herself efficacious. Generality can itself vary on several dimensions including the similarity of activities, the modalities in which capabilities are expressed (behavioural, cognitive, and affective), qualitative features of situations, and the characteristics of the persons toward whom the behaviour is directed (Bandura, 1997). Assessments which are associated with activity domains and situational contexts reveal the patterning and generality of people's beliefs in their efficacy.

The third and final dimension on which efficacy beliefs are thought to vary is *strength*. This reflects the certainty with which the individual expects to achieve success (Hardy et al.,

2001). Bandura (1997) ascertains that weak efficacy beliefs are easily negated by disconfirming experiences, and people who have a strong sense of personal efficacy will persevere in their efforts despite innumerable difficulties and setbacks. Consequently, those individuals who have a tenacious belief in their capabilities are more likely to perform successfully.

2.2.1.1 SOURCES OF SELF-EFFICACY

According to Bandura (1997) efficacy expectations are thought to be predicted by five principle sources of information: Enactive mastery experiences, vicarious experience, verbal persuasion, physiological states, and emotional states. Maddux (1995) added a separate category for imaginal experiences. These six sources of efficacy expectations are readily applicable to sport which is largely responsible for the theory's popularity in sport psychology research (Hardy et al., 2001).

2.2.1.1.1 Enactive Mastery Experiences

Enactive mastery experiences are thought to represent the most influential effects upon self-efficacy since they provide the most genuine evidence of whether one possesses the attributes necessary to succeed. As highlighted by elite gymnast, James May: "The more times you go through a routine successfully, then you are going to feel more confident about going through the performance on the day" (Jones & Hardy, 1990, p. 274).

Successes lead to a robust belief in one's ability whereas failure tends to undermine it, particularly if failure occurs before a sense of efficacy has been established (Bandura, 1997). People that have experienced easy success are particularly discouraged by failure as they have come to expect quick results. Therefore, a resilient sense of efficacy requires experience in overcoming obstacles and setbacks through perseverant effort (Bandura, 1997). Once people become convinced that they have what it takes to succeed, they will persevere in the face of adversity and quickly rebound from setbacks, emerging stronger and more able. Gould,

Dieffenbach and Moffett (2002) provided an example of this in their analysis of the psychological characteristics of Olympic champions. In discussing the positive impact that the frustration of losing had on him, one athlete stated:

Two years in a row, I was beat by the same guy. I actually just turned those losses into a positive and by the third year there was no way he was going to beat me. I was prepared mentally and I think, you know, physically I was probably as prepared as I was any time. But mentally I was really sound and I ended up with a time that is still a conference record. I'm positive that getting beat had everything to do with mental preparation and I am positive I wouldn't have run that time if it weren't, if I hadn't been put in that situation (pp. 190).

Although performance successes are forceful persuaders, they do not necessarily raise personal efficacy beliefs, just as performance failures do not necessarily lower them.

According to Bandura (1997) changes in perceived efficacy result from cognitively processing information based on one's mastery experiences, rather than from performances per se. Thus, the impact of performance attainments on efficacy beliefs is dependant upon the way in which those performances are appraised. For example, the way in which various personal and situational factors are interpreted and weighted (Bandura, 1982). After a strong sense of efficacy is developed through repeated successes, occasional setbacks or failures are unlikely to undermine one's belief in their own capabilities. Rather, people with a high sense of efficacy are likely to attribute deficient performances to impeding situational factors such as insufficient effort or poor strategies. Attributions to poor strategies rather than inability in times of failure can actually serve to enhance self-efficacy through belief that improved strategies will result in future success (Bandura, 1997). The extent to which people will alter their perceived efficacy through performance experiences depends upon several factors including, but not limited to, their preconceptions of their capabilities, the perceived difficulty of the tasks, the amount of effort they expend, the amount of external aid they receive, the circumstances under which they perform, the temporal patterning of their successes and failures, and the way these enactive experiences are cognitively organised and reconstructed

in memory. Specifically, success at a difficult task that is independently mastered early in learning will result in greater self-efficacy than success at a simple task that is achieved with the help of others following early failures (Hardy et al., 2001).

2.2.1.1.2 Vicarious Experience

Although perhaps the most powerful, enactive mastery experiences are not the only source of efficacy information, vicarious experience refers to information derived from seeing oneself perform successfully through video footage or visualisation, and/or seeing others perform the skill in question (Hardy et al., 2001). Elite athletes have often paid tribute to the huge influence their competitors performance has had on their own, for example:

There have been cases where people have set World records and people have gone out 5 or 6 minutes later, and improved the World record again. The mentally tough performer uses others' good performances as a spur rather than say "I can't go that fast". They say, "well, he is no better than me, so I'm going to go out there and beat that." (Jones et al., 2002, pp. 212).

The influence of modeling on efficacy beliefs is dependant upon several factors. For example, as highlighted above, the attainment of others who are similar to oneself are judged to be diagnostic of one's own capabilities. The greater the assumed similarity, the more influential are the model's successes and failures (Bandura, 1997). Seeing people similar to oneself perform successfully, typically raises efficacy beliefs in the observer that they too have the capabilities to raise their performance (Bandura, 1982). In the same way, observing performers who are deemed to be similarly competent fail reduces observers' judgements of their own capabilities (Brown & Inouye, 1978). The amount of uncertainty about one's capabilities also deems people particularly susceptible to vicarious information (Bandura, 1997). Consequently, efficacy expectations can be readily changed through modeling when people have had little prior experience on which to base their own capabilities. Modeling that conveys effective coping strategies can also boost the self-efficacy of individuals who have undergone experience confirming their inefficacy (Bandura, 1977).

Several different vicarious modes of influence exist and perform different functions dependant upon the types of information they convey. In addition to actual modeling, symbolic modeling refers to the observation of attitudes, styles of competencies, and attainments of members of different segments of society and cultures, provided by television and other media (Bandura, 1997). Exposure to actual or symbolic models who demonstrate useful skills and strategies raises observers' beliefs in their own capabilities (Bandura, 1982). However, the majority of the research in this area has examined the effectiveness of symbolic modeling in performers who are relatively unskilled at the criterion task (Hardy et al., 2001). Highly skilled elite athletes are more likely to focus upon themselves as models. Indeed, self-modeling has been shown to enhance self-efficacy and performance. For example, after observing themselves perform effectively via videotape recordings, people display substantial improvement in performance compared to baseline, or to activities that are filmed but not observed (Bandura, 1977). Elite athletes also utilise visualisation as a major source of enhancing self-efficacy (Jones & Hardy, 1990). The key to using imagery in the context of vicarious experience is to see oneself demonstrating mastery (Moritz, Martin, Hall, & Vadocz, 1996). Seeing oneself perform successfully is thought to enhance proficiency in at least two ways; through the provision of clear information of how to best execute skills, and through the strengthening of beliefs in one's own capability.

2.2.1.1.3 Imaginal Experiences

Maddux (1995) introduced imaginal experiences as a separate source of efficacy information through which people can generate efficacy beliefs by imagining themselves behaving successfully or unsuccessfully in anticipated performance situations. Bandura (1997) refers to this as cognitive self-modeling. This particular mode of self-influence requires the individual to visualise themselves repeatedly confronting and mastering progressively more challenging or threatening situations. Cognitive simulations of skilled

performances improve subsequent performance (Bandura, 1986), partly mediated by boosts in perceived self-efficacy (Bandura, 1997).

All of the various modes of influence, whether conveyed through effective actual modeling, symbolic modeling or self-modeling, enhance efficacy beliefs and performance (Bandura, 1997). The level to which efficacy is raised provides a good indicator of subsequent performance, with greater levels of perceived self-efficacy resulting in greater performance accomplishments (Bandura, 1997).

2.2.1.1.4 Verbal Persuasion

Verbal persuasion refers to persuasive techniques used either by the performer or significant others to manipulate the behaviour of the performer (Hardy et al., 2001). These techniques most commonly include verbal encouragement and feedback as a means of strengthening people's beliefs that they possess the capabilities to succeed at a given task. Of particular importance is the nature of an athlete's own self-persuasion, via self-talk. Indeed, the sport psychology research literature provides multiple examples of the way in which athlete's can manipulate their feelings of competence and self-belief through positive self-talk (e.g., Feltz & Riessinger, 1990; Orlick & Partington, 1988). Verbal persuasion is also an important technique used by coaches and the link between coaching feedback and encouragement, and perceptions of competence in elite athletes, has been well established (e.g. Gould et al., 2002; Greenleaf et al., 2001; Durand-Bush & Salmela, 2002). The credibility and expertise of the persuader is an important mediating factor (Gould et al., 2001) as people tend to trust those who can themselves demonstrate skill in the activity, have access to some form of objective measure, or possess a wide range of knowledge gained from observing many different aspirants and their later accomplishments (Crundall & Foddy, 1981). People who are persuaded that they possess the skills necessary to master given tasks are likely to sustain greater effort than people who harbour self-doubts and dwell on personal deficiencies when difficulties arise. However, to raise unrealistic beliefs of personal

capabilities can result in failures that will serve to discredit the persuaders and further undermine the performer's beliefs in their personal capabilities.

2.2.1.1.5 Physiological and Emotional States

The final predictor of self-efficacy refers to somatic information conveyed by physiological and emotional states. However, this information refers to the performers' perceptions of their control of emotional arousal, as opposed to their actual physiological state (Hardy et al., 2001). For example, in stressful situations people often interpret their physiological activation as a sign of vulnerability (Bandura, 1997) and fear an adverse effect on performance. Focusing on their stress reactions and associated negative thoughts can incite elevated levels of distress that produce the very outcomes that they fear (Bandura, 1997).

In judging their capabilities it is not the sheer intensity of emotional and physical reactions that is important, but rather the way in which people perceive and interpret their symptoms. For example, arousal will have different meaning for those individuals who have found it to be facilitating to performance, as opposed to debilitating. In addition to past experiences, the perception and interpretation of emotional and physical reactions to stressful events is mediated by pre-existing efficacy beliefs which have been found to create attentional, interpretive, and memory biases in the processing of somatic information (Bandura, 1997). For example, Jones and Hanton (2001) assessed differences in feeling states indicated by performers who reported being either facilitated or debilitated by symptoms associated with competitive anxiety before competition. Not only did 'facilitators' report significantly more positive feelings than 'debilitators' (who reported significantly more negative feelings), but they also identified with feelings of confidence more frequently. These findings support previous sport research that has identified self-confidence as a mediating factor in the interpretation of pre-competition symptoms, where high confidence in some way protects or overrides debilitating interpretations of pre-competition emotions usually perceived as negative (i.e. anxiety; Jones et al., 1994).

2.2.1.2 MULTIDIMENSIONALITY OF SELF-EFFICACY BELIEF SYSTEMS

Human competencies are developed and manifested in numerable different forms. Self-efficacy theory recognises the diversity of human capabilities and as a result, treats the efficacy belief system as a 'differentiated set of self-beliefs linked to distinct realms of functioning' (Bandura, 1997, pp. 36). Thus, a high sense of self-efficacy in one activity domain is not necessarily accompanied by high self-efficacy in other spheres of activity (Hofstetter, Sallis & Hovel, 1990). Furthermore, efficacy beliefs are differentiated across major systems of expression within activity domains. For example, football players might differ in their perceived efficacy to fulfil the different technical demands of the game. A player who has a high sense of efficacy in their ability to create space and receive the ball, might have a low sense of efficacy in relation to their ability to take a penalty. Consequently, personal efficacy is viewed as a multifaceted phenomenon (Bandura, 1997) rather than as a global disposition which can be assessed by an omnibus test. Indeed, efficacy beliefs should be measured in terms of capability judgements that may vary across different realms of activity, under different levels of task demands within a given activity domain, and under different situational circumstances (Bandura, 1997). Thus, measures of self-efficacy must be tailored to domains of functioning and must represent different grades of task demands within those domains. This requires a sound knowledge of the activity domain to include a good conceptual analysis of its different facets, the types of capabilities it calls upon, and the range of situations in which these capabilities might be applied (Bandura, 1997). For example, in a sporting context, Maddux and Lewis (1995) proposed that self-efficacy could be categorised into three distinct domains: Behavioural self-efficacy refers to the belief in one's ability to perform the specific actions needed to gain mastery over a specific problem situation; cognitive self-efficacy refers to perceptions of one's ability to exercise control over one's thoughts; finally, emotional self-efficacy refers to beliefs in the ability to perform actions that influence one's moods or emotional states.

2.2.1.3 SELF-EFFICACY AND SPORTS PERFORMANCE

Support for the effectiveness of self-efficacy as a predictor of sport performance is predominantly derived from studies using non-athlete populations in contrived settings (Feltz, 1992). The relatively few studies that have assessed the relationship between self-efficacy and performance in actual sports situations have generally shown a positive correlation between high self-efficacy and successful performance. In a recent review, Feltz and Lirgg (2001) identified 25 studies in which the self-efficacy of athletes was assessed using self-efficacy scales. The athletes utilised ranged from youth and high school athletes to extreme sport participants and athletes with disabilities. Of the 25 researchers who investigated self-efficacy beliefs, 18 also examined the self-efficacy performance relationship. The majority of these studies showed a significant and at least moderate relationship between self-efficacy and sports performance. Since self-efficacy research has focused primarily on performance as the dependant variable, few studies have examined the processes and mechanisms underlying self-efficacy effects. Those studies that do exist have shown that the cognitive variables most strongly associated with self-efficacy expectations of athletes are anxiety, positive and negative affective states, goal orientation to win and trait sport confidence. For example, Treasure, Monson and Lox (1996) found that efficacious individuals not only displayed lower levels of cognitive and somatic anxiety prior to competition, but they also maintained a more positive affective state.

2.2.1.5 COLLECTIVE EFFICACY

Whilst the preceding discussion has focused upon personal efficacy in individual pursuits, the theory is also extended to include the shared beliefs of a group. Collective efficacy is the term used to define a group's judgement of their conjoint capabilities to organise and execute the courses of action required to produce specific levels of performance (Bandura, 1997). According to Bandura, collective efficacy influences what athletes choose to do as a team, the amount of effort they exert, and their resilience when team labours fail to

produce results. Although self-efficacy and collective efficacy differ in the unit of agency, they are thought to influence performance through the same processes and share the same sources of efficacy information. Indeed, performance accomplishments, thought to represent the most influential effects upon self-efficacy, are also predicted to be the most powerful source of information for collective efficacy beliefs. However, since this thesis is primarily focused toward individual perceptions of confidence in sport, research pertaining to collective efficacy is not extensively reviewed. Nonetheless, measurement approaches to the assessment of collective efficacy are included within this review of literature, because collective perceptions of efficacy/confidence are rooted in individual perceptions of task self-efficacy (Bandura, 1997).

2.2.1.4 SUMMARY OF SELF-EFFICACY THEORY

In summary, self-efficacy theory has provided the theoretical basis adopted for the majority of research designed to study the manifestation of self-confidence in sport (Hardy et al., 2001). According to this approach, self-confidence in athletes is a multifaceted belief system rather than a single trait or disposition. Bandura (1997) states that self-efficacy is different from the more popular term 'confidence', because where confidence refers to strength of belief, self-efficacy includes an affirmation of ability as well as strength of belief. However, because the term 'confidence' is a widely understood and accepted term in sports, it is used throughout this thesis as the main descriptor for constructs that focus on the beliefs of individuals' about their abilities to achieve success.

2.2.2 SPORT CONFIDENCE

2.2.2.1 THE CONCEPTUAL MODEL OF SPORT CONFIDENCE

Although self-efficacy theory has contributed considerably to the sport psychology research literature, it was originally developed within a social cognitive framework of mainstream psychology and then expanded and applied to other domains of psychological functioning, not least sport and motor performance. Early attempts to operationalise self-

efficacy in sport situations proved low in predictive validity (McAuley & Gill, 1983), primarily because the constructs represented physical self-concept as opposed to self-confidence in sport ability (Vealey, 1986). In an attempt to develop a sport-specific framework and inventories to operationalise confidence in relation to competitive sport, Vealey (1986) provided the first model of sport confidence, defined as 'the degree of certainty individuals possess about their ability to be successful in sport' (Vealey, 2001, p. 556). Whereas self-efficacy theory refers to the performer's perception of their ability to succeed in a particular task at a particular time, the original conceptualisation of sport confidence was more concerned with the global level of self-confidence associated with overall performance expectancies in sport (trait sport confidence) and specific competitions (state sport confidence). Consequently, sport confidence was divided into trait (SC-trait) and state (SC-state) components. SC-trait was defined as 'the belief or degree of certainty individuals usually possess about their ability to be successful in sport' (Vealey, 1986, p.223). In contrast, SC-state was defined as 'the belief or degree of certainty individuals possess at one particular moment about their ability to be successful in sport' (Vealey, 1986, p.223).

Competitive orientation was the third construct included in the model and accounts for the goal on which sport confidence is based. This construct was essentially derived from the work of Maehr and Nicholls (1980) who suggested that success means different things to different people. Consequently, the term indicates a tendency for individuals to strive towards achieving a certain type of goal in sport. Outcome, performance and process are the three different types of goal most commonly identified in the sport psychology literature (Hardy & Jones, 1994). Outcome goals focus on the outcome of events (i.e., winning) and usually involve some form of social comparison (Kingston & Hardy, 1997). Performance goals also specify an end product of performance but are relatively independent of other performers (e.g., achieving a particular time or score). In contrast, process goals specify the actual behaviours in which the performer will engage during performance (Hardy et al., 2001).

Vealey (1986) selected performing well (performance goal orientation) and winning (outcome goal orientation) as the goals upon which competitive orientations are based.

As depicted by Figure 2.1, the conceptual model of sport confidence proposed that SC-trait and competitive orientation interact with the objective sport situation to produce SC-state, which directly influences performance and behaviour. Thus, SC-state was predicted to be the most important mediator of behaviour.

Vealey (1986) developed three inventories to operationalise the key constructs in the theoretical framework. The Trait Sport confidence inventory (TSCI) and the State Sport Confidence Inventory (SSCI) were developed to assess the unidimensional constructs of SC-trait and SC-state, respectively. The Competitive Orientation Inventory (COI) was developed to produce an outcome orientation and a performance orientation score for each individual completing the inventory. A multiphase research project involving approximately 700 high school and college sports participants provided evidence to support the reliability and validity of the instruments, and some support for the proposed model of sport confidence (Vealey, 1986). However, examination of the interaction between constructs in the model and actual sporting performance showed that high SC-trait performance-oriented athletes performed better than high SC-trait outcome-oriented athletes, and low SC-trait performance- and outcome-oriented athletes. These findings demonstrated that contrary to Vealey's (1986) predictions, SC-trait predicted performance more effectively than SC-state. Further, these findings are in accord with substantial research that has shown outcome goals can create anxiety and interrupt psychological functioning (Burton, 1992).

A second limitation with the original model was that it did not take into account the influence of social and organisational factors on the development and maintenance of confidence in athletes. For example, Gould et al. (2002) examined psychological characteristics and their development in Olympic champions. As might be expected, coaches

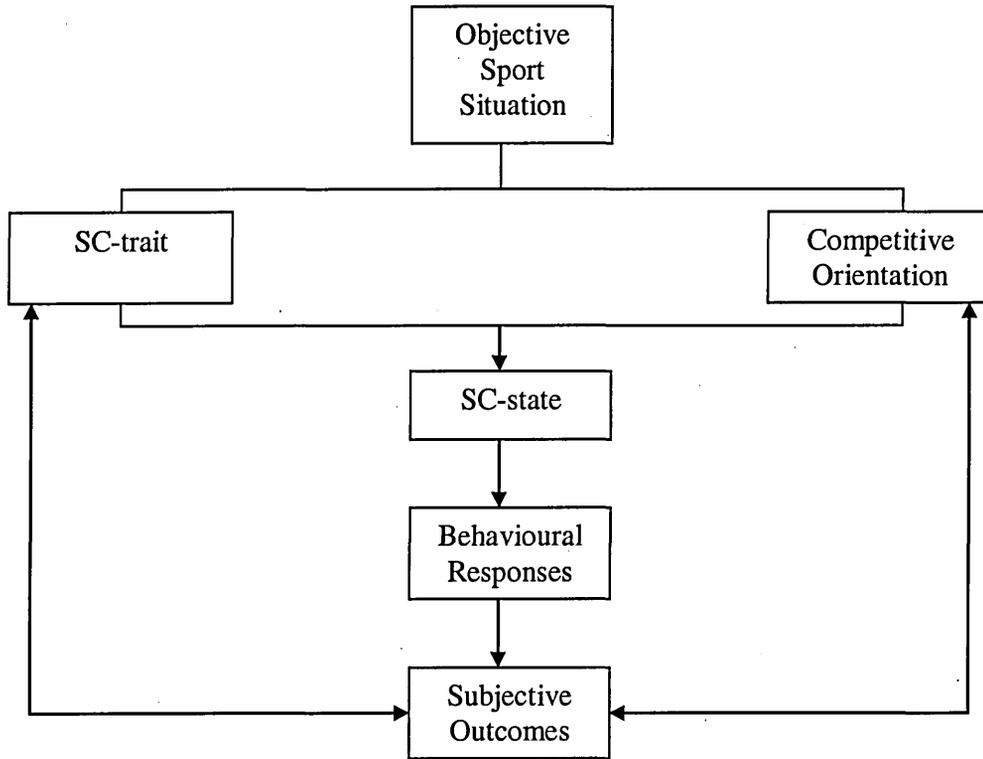


Figure 2.1 Conceptual Model of Sport Confidence (Vealey, 1986)

played an important part in the development and growth of these athletes and the confidence that these coaches had and displayed in their athletes helped psychological development. As one athlete highlighted: "Coach X, I mean, he just believed in me and that is all it takes. You know, I just feel like he cared about me as a person and he believed in me as an athlete" (Gould et al., 2002, p. 193).

2.2.2.1.1 Gender Differences in Sport Confidence

In 1988 Vealey extended her analyses to examine gender differences in sport confidence and competitive orientation and found that both male and female elite athletes based their feelings of competence and satisfaction on how well they performed, rather than on outcomes. Furthermore, gender differences in confidence were not identified at the elite level. Although elite male athletes demonstrated higher levels of confidence than their male and female high school and college counterparts, there was no difference in confidence between elite male and elite female athletes. Vealey (1988) proposed that either elite female athletes have become such due to a deep rooted confidence that is less susceptible to cultural constraints, or alternatively, their elite status has given them cause to develop greater confidence than females competing at a lower competitive level. These findings are not synonymous with previous research in which gender has been found to influence confidence levels. Indeed, a relatively consistent finding in the research literature is that in general, male athletes demonstrate higher levels of confidence than female athletes (e.g., Lirgg, 1991). For example, Krane and Williams (1994) examined cognitive anxiety, somatic anxiety and self-confidence in male and female high school and college track and field athletes. No gender differences emerged for cognitive anxiety, however, consistent with previous research (e.g. Martens, Burton, Vealey, Bump, & Smith, 1990), male athletes displayed lower somatic anxiety and higher self-confidence than female athletes. In a more recent study, Vargus-Tonsing and Bartholomew (2006) examined the effects of pre-game speeches on team efficacy in male and female soccer players. Consistent with the findings of Krane and

Williams (1994), team efficacy scores showed a significant gender difference with males reporting higher feelings of efficacy, and predicting larger margins of victory when compared to their female counterparts.

Research examining the pre-competition temporal patterning of self-confidence in male and female athletes endorses differences not only in confidence levels, but also differential changes in self-confidence during the pre-competition period. For example, Jones and Cale (1989) examined changes in cognitive anxiety, somatic anxiety and self-confidence in a sample of male and female university athletes during the pre-competition period. As competition neared the female athletes showed a progressive increase in cognitive anxiety, whereas the male athletes demonstrated no changes in cognitive anxiety levels. Furthermore, self-confidence remained stable in males but decreased in females on the day of competition, and females showed an earlier increase in levels of somatic anxiety when compared to their male counterparts. Jones, Swain and Cale (1991) extended Jones and Cale's study to also include the examination of situational factors that might be associated with any gender differences. Their results supported the differential temporal patterning of cognitive anxiety and self-confidence between males and females. Furthermore, different antecedents were found to predict cognitive anxiety and self-confidence in males and females. The importance of perceived mental and physical readiness, and perceived importance of a good personal performance, were the main predictors of self-confidence in females. In contrast, the main predictors in males were the extent to which they were likely to win, together with their opponents' ability in relation to their own. The authors proposed that gender differences in confidence could be explained by differences in sport orientation and reasons for participation. For example, the findings provide support for Gill's (1988) proposal that females focus more upon personal goals and standards whilst males focus more upon interpersonal comparison and winning. However, much of what we know and understand about women and self-confidence in achievement situations is drawn from the more general

discipline of psychology. Thus, to truly understand the observed gender differences in anxiety and self-confidence experienced by athletes, it is necessary to draw from this knowledge and consider its application to a sporting context.

Gender research in sport and exercise psychology largely follows gender research within psychology, and as such, represents a very important revolution within social psychology. Like many other scientific fields, social psychology was historically dominated by men, with an emphasis on 'masculine' issues such as aggression, leadership, conflict and achievement, at the expense of now familiar 'feminine issues' such as sex differences, gender stereotypes, sexism, and harassment (Baron & Byrne, 1997). Many female social psychologists have challenged the old order by introducing creative new lines of research, and in both social psychology, and sport and exercise psychology research, there has been a shift in focus from sex differences, to gender role as personality, to social context and processes (Gill, 2000).

Early sex differences work assumed biology-based psychological differences between males and females. Indeed, prior to the 1970s, psychologists tended to think of masculinity and femininity as lying at two opposite ends of the same continuum. Each individual was thought to be either highly masculine or highly feminine, and there was no way to be both (Baron & Byrne, 1997). In reviewing the sport related research, Ashmore (1990) concluded that sex differences are relatively large for some physical abilities, modest for other abilities and social behaviours (e.g., aggression), and negligible for all other domains (e.g., leadership, attitudes, reaction time). Furthermore, since even the larger sex differences are confounded with non-biological influences, Ashmore advocated that the sex differences approach should be abandoned in favour of multifaceted social approaches.

In the mid 1970s, Bem (1974, 1975) proposed a theoretical framework and associated inventory (Bem Sex Role Inventory: BSRI) that has had a profound impact on the study of

gender, and provided the basis for most sport and exercise psychology gender research. Bem acknowledged that many people do fit the gender stereotypes of masculine and feminine. However, in contrast to earlier approaches, Bem conceived that the varied personality characteristics associated with masculinity and femininity lie on independent continuums that range from low to high masculinity and from low to high femininity. Thus, many individuals might actually be high on characteristics associated with both genders and characterised by psychological androgyny (a balance of feminine and masculine personalities). Many studies are consistent with the proposition that 'androgyny is good' and strong adherence to gender roles is often found to be associated with problems. For example, androgynous men and women have been found to be better liked (Major, Carnevale, & Deaux, 1981) and more adaptable to situational demands (Prager & Bailey, 1985). Furthermore, both men and women who endorse a purely feminine role are lower in self-esteem than either masculine or androgynous individuals (Lau, 1989). Whilst advocates would argue that androgyny is best and we should treat everyone the same to encourage both masculine and feminine personalities, traditional gender roles remain powerful.

In the 1980s, gender research turned from the sex differences and personality approaches to a more social approach, focusing on gender beliefs and stereotypes (Gill, 2000). An extremely important aspect of one's personal identity includes a complex gender schema that is the result of being categorised from birth as either male or female (Baron & Byrne, 1997). Generally, children are rewarded for engaging in gender-appropriate behaviour, and discouraged (or ridiculed) when they engage in gender-inappropriate behaviour (Baron & Byrne, 1997). Indeed, parents, teachers, peers and institutions have been found to treat girls and boys differently resulting in independence and efficacy in boys and emotional sensitivity, nurturance, and helplessness in girls (Gill, 2000). Thus, beyond biological differences, we acquire attitudes, beliefs, emotions and prejudices that are associated with gender and shape who we are. Once we learn the gender role behaviour 'appropriate' for our culture, our

behaviour and reactions to others are guided by our conceptions of masculinity and femininity. These male-female differences are reinforced by images provided by the media. For example, coverage of male and female athletes shows several forms of gender bias (e.g., Kane, 1989; Kane and Parks, 1992). Females receive substantially less coverage than males and also different coverage, reflecting gender hierarchy. Generally the emphasis is placed on femininity and physical attractiveness for female athletes, and athletic ability and accomplishments for males. Thus, it is perhaps unsurprising that in comparison to men, women have been found to be more concerned about their body image (Pliner, Chaiken, & Flett, 1990), more likely to express body dissatisfaction (Heinberg & Thompson, 1992), and more concerned about their physical appearance in general (Hagborg, 1993).

Females receive confusing cultural messages that they should be “firm but shapely, fit but sexy, strong but thin” (Markula, 1995) and although they see images of powerful female athletes, they cannot escape the images of fashion models whose bodies are shaped by food deprivation and multiple cosmetic surgeries (Coakley, 2007). Women athletes are just as susceptible as others to societal pressures toward unrealistic, unhealthy thinness and eating disorders, and such concerns are particularly pertinent within sports emphasising aesthetic qualities (Gill, 2000). Indeed, research has shown that some female athletes use laxatives, diet pills, diuretics, self-induced vomiting, bingeing, and starvation diets in conjunction with their training (Beals, 2000; Johns, 1997; Madison & Ruma, 2003). Consequently, the tensions between cosmetic fitness and being strong and physically skilled create for many female athletes, the challenge of negotiating the meanings that they, and those around them, give to their bodies (Dworkin, 2001; Garrett, 2004; Heywood & Dworkin, 2003).

Despite an increase in sport participation among girls and women since the mid-1960s (Coakley, 2007), gender stereotypes still exist within the social context of sport. Sport is often perceived as masculine, with associated masculine behaviours, leading Vealey (1988) to propose that females might not receive the same levels of social support for eliciting those

behaviours. Consequently, females might feel less confident in their sporting abilities than males. Indeed, research has shown that tasks that are perceived as more masculine elicit a greater confidence difference between males and females. Specifically, Lirgg, George, Chase and Ferguson (1996) examined the interaction between perceived sex-type of task and conception of ability on gender differences in self-efficacy. They found that males were not affected either by the sex-type of the task or their conception of ability. In contrast, the females only believed that they could succeed at a masculine task if they were told that they had the ability to learn the task. This was not true for feminine or gender neutral tasks leading Lenney (1977) to conclude that females are situationally dependant on external information in establishing performance expectancies.

Information about the ability of an opponent has also been cited as an important factor in establishing performance predictions. Corbin (1981) found that the threat of playing "a good opponent" seems to create vulnerability in females that is not present in males. Taken collectively, these findings support Lenney's (1977) contentions that the particular social situation is the primary source of confidence differences observed between male and female athletes. More specifically, gender differences emerge when tasks are masculine, when settings are competitive, and when clear, unambiguous feedback is missing (Gill, 2000).

An alternative explanation to account for the observed gender differences in anxiety and self-confidence experienced by athletes relates to gender differences in reporting symptoms of anxiety and self-confidence (Jones & Cale, 1989; Krane & Williams, 1994), and gender role socialisation (Vealey, 1988). Krane and Williams (1994) suggest that female athletes are more honest and open in their self-reporting of anxiety and confidence. Since they are more forthright regarding their feelings, they might be more likely to reveal emotions that may be perceived as undesirable. To check the assumption that male athletes tend to be boastful and overestimate their self-efficacy and performances whereas female athletes are modest and underestimate their self-efficacy and performances, Short et al. (2002b) correlated

self-efficacy ratings with actual performance ratings in a golf-putting task. The correlation between pre-test self-efficacy and performance showed that the females may have been slightly more accurate in their efficacy ratings. However, as expected, pre-test self-efficacy ratings and performance ratings were higher for males compared to females. Thus, it is likely that the higher self-efficacy ratings and performance scores for males were related to their greater accuracy in the task. Simply stated, males were more accurate putters than the females.

Whilst it is clear that gender does make a difference in sport and exercise settings, it is difficult to come to any definitive conclusions about the reasons for gender differences in sport confidence. Although biological sex is part of the gender mix, many researchers are convinced that men and women differ primarily because they have learned to differ (Baron & Byrne, 1997).

2.2.2.2 THE RECONCEPTUALISED MODEL OF SPORT CONFIDENCE

In 1998 Vealey et al. updated the original model of sport confidence in an attempt to overcome some of the deficiencies identified with the initial approach. More specifically, the revised model (see Figure 2.2) suggests that the organisational culture of sport and society, in addition to individual difference characteristics (e.g., gender), influences the manifestation of sport confidence in athletes. Organisational culture was included in the model to represent the cultural forces that shape human behaviour. For example, competitive level, motivational climate, and the goals and structural expectations of sport programmes. Furthermore, sport confidence was reconceptualised as a single construct as opposed to separate dispositional and state elements, and the antecedents or sources on which athletes base their confidence were identified.

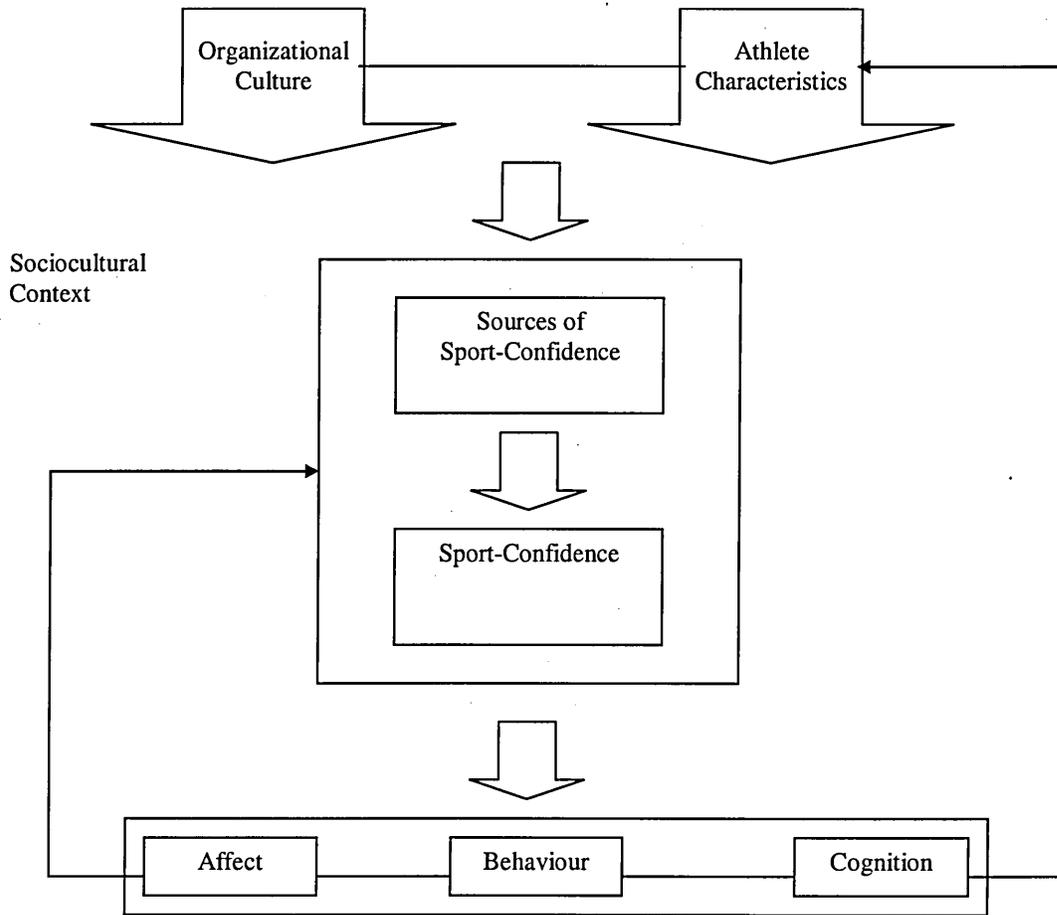


Figure 2.2 Conceptual Framework of Sport Confidence (Vealey et al., 1998)

As Bandura (1990) stated, advances in a field are best achieved when the phenomena of interest are rooted in theories that specify their determinants. Although the six predictors of self-efficacy have been supported by a substantial amount of research in sport psychology, Vealey et al., (1998) questioned whether these efficacy predictors were the most salient to athletes within the sporting context. They proposed that athletes rely on additional sources of confidence influenced by social, organisational and/or demographic factors. For example, the current research base supports the notion that coaches' behaviour significantly affects athletes' psychosocial growth and development (Horn, 2002). However, research in this area (e.g., Chelladurai & Saleh, 1978; Terry, 1984) has focused predominantly on the relationship between coaching behaviour and athletes self-perceptions, affective reactions, and level of motivation. Considerably less information is available concerning the coaching styles, behaviours and feedback patterns that might affect athletes' confidence (Horn, 2002). Indeed, relatively few studies have examined the precursors of global self-confidence in terms of overall performance optimism (Hardy et al., 2001). Hanton and Jones (1995) reported that perceived physical and mental readiness were consistent and important predictors, with perceived readiness predicting much more of the variance in confidence in elite swimmers when compared to non-elite swimmers. Jones et al., (1991) also identified several antecedents of self-confidence in their study of male and female university athletes. However, as mentioned previously, they found that different antecedents predicted cognitive anxiety and self-confidence in males and females.

The preliminary sources of sport confidence identified by Vealey et al. (1998) were based upon a review of literature and deductions by the investigators. These sources then provided the initial organisational structure from which to query the participants. Psychometric evidence, obtained from over 500 high school and collegiate athletes from a variety of sports, demonstrated that the Sources of Sport Confidence Questionnaire (SSCQ; Vealey et al., 1998) was a reliable and valid measure of nine sources of confidence in athletes.

These sources included: mastery, demonstration of ability, physical/mental preparation, physical self-presentation, social support, vicarious experience, coach's leadership, environmental comfort and situational favourableness.

Mastery is a source of confidence derived from mastering or improving personal skills and *demonstration of ability* becomes a source of confidence when the athlete has opportunity to exhibit their skills or demonstrate superior ability to their opponents. Whilst providing support for Bandura's (1977) contention that performance accomplishments are an important source of self-confidence, the emergence of mastery of skills and demonstration of ability as two separate sources, suggests that performance accomplishment is manifested in two ways in sport settings (Vealey et al., 1998).

Physical/mental preparation involves feeling physically and mentally prepared with an optimal performance focus. Indeed, quality physical and mental training has been consistently identified and an important factor influencing successful athletic performance (e.g. Durand-Bush & Salmela, 2002; Greenleaf et al., 2001; Orlick & Partington, 1988). For example, world trampoline champion Sue Challis indicated that she built her confidence by 'training very hard. I like to do what I'm going to do in competition over and over again. Most trampolinists don't do that.....they do bits and pieces, but I like to have done the whole routine many times so I really know that, whatever happens, I can do it' (Jones & Hardy, 1990, p. 272).

Physical self-presentation is defined as an 'athlete's perception of their physical selves or body image' (Vealey, 2001, p. 554). This is in accordance with a preliminary study conducted by Martin and Mack (1996) which showed that sports participants are often concerned with the appearance and evaluation of their bodies.

Social support is similar to Bandura's (1986) verbal persuasion source of self-efficacy; however, Vealey et al., (1998) proposed that it more specifically referred to getting positive

feedback and encouragement from coaches, team-mates, and/or friends. Indeed, previous research (e.g., Weinberg, Grove & Jackson, 1992) has identified verbal persuasion as an important technique used by coaches to facilitate self-efficacy in athletes, and evaluative feedback from coaches, parents and peers has also been shown to influence children's feelings of competence (Black & Weiss, 1992). Furthermore, Olympic athletes have consistently identified coach feedback as helpful to performance (e.g., Orlick & Partington, 1988).

Vicarious experience is based on Bandura's (1977) contention that seeing someone else perform successfully serves to enhance confidence. Indeed several studies within the sport psychology domain have demonstrated that vicarious experience provides a means of enhancing confidence (e.g., Hardy et al., 2001; Jones et al., 2002)

Coach's leadership is a source of confidence derived from believing in the coach's skills in decision-making and leadership. Some support for this source of confidence is provided by recent research which has established a link between coaching behaviour and perceptions of competence in Olympians. For example, one gold medallist revealed that her coach was instrumental because she believed in her, demanded respect, and was extremely knowledgeable.

'She really knew how to motivate me. She knew exactly what to say to fix something that I was doing wrong.....She really believed I was the best thing since sliced bread so that was great for me. She was also the typed of person who demanded respect and you would not dare cheat in a workout.....and be five minutes late for practice. I was almost a little afraid of her.....because she just demanded that kind of respect from you. Anything she would say was golden because she was just so knowledgeable about everything' (Durand-Bush & Salmela, 2002, p. 159).

Environmental comfort is a source of confidence that is generated from feeling comfortable in the competitive environment, for example, competing with a home advantage. Finally, *situational favourableness* refers to a source of confidence that occurs when the

athlete feels that the breaks of the situation are in their favour. For example, favourable officiating decisions, lane draw or starting position.

These nine sources of sport confidence were further categorised into three main domains: *achievement* (which includes both mastery and demonstration of ability), *self-regulation* (which includes physical/mental preparation and physical self-presentation), and *social climate* (which includes social support, vicarious experience, coach's leadership, environmental comfort and situational favourableness).

Beyond the identification of sources of sport confidence, Vealey et al. (1998) also investigated which sources were the best predictors of sport confidence levels. High school and collegiate athletes identified physical/mental preparation, social support, and mastery among their top five sources of sport confidence, although social support was a more important source of confidence for female athletes than males. Physical self-presentation was also identified as more important for female college athletes than males. Conversely, male and female high school athletes reported that physical self-presentation was the least important source of their confidence. Vealey et al. (1998) proposed that either the more elite nature of collegiate sport produced a greater emphasis on physical self-presentation and body image as compared to high school sport, or alternatively, differences in the sports studied might have confounded the results. For example, the collegiate athletes consisted of a large sample of athletes from individual sports such as cross country and track athletes, as well as swimmers, gymnasts and tennis players. In contrast, the high school sample consisted solely of basketball players. Vealey et al. (1998) highlighted that typically greater emphasis is placed on body type and presentation in individual sports as compared to team sports and it is likely that physical self-presentation is a more salient source of sport confidence in sports where body type is more closely scrutinised.

An additional purpose of Vealey et al.'s (1998) study was to examine the interrelationships among sources of sport confidence, trait sport confidence and various measures of cognition and affect, as specified in the reconceptualised model of sport confidence. Higher levels of sport confidence (as measured by the TSCI; Vealey, 1986) in high school and collegiate athletes were related to focusing on physical/mental preparation for competition, whereas lower levels of sport-confidence were related to focusing on body image. Vealey et al. (1998) interpreted these results to suggest that some sources of sport confidence may be more effective than others in promoting consistently high levels of sport confidence, and those athletes that derive their confidence from uncontrollable sources such as the environment, may develop weaker or unstable perceptions of control and competence. Indeed, performance oriented athletes in the collegiate sample utilised physical/mental preparation as a confidence source more so than outcome oriented athletes who tended to deem demonstration of ability and environmental comfort as more important. Vealey et al. (1998) suggested that these differences indicate that performance oriented athletes focus primarily on controllable sources of their confidence, whereas outcome oriented athletes focus primarily on uncontrollable sources. These findings are supported by both theory (Deci & Ryan, 1985; Nicholls, 1984) and research (Vealey & Campbell, 1988; Williams, 1994) that emphasises the crucial links between perceived competence, perceptions of control and mastery orientations.

Both SC-trait and competitive orientation were also shown to influence the athletes' attributional patterns, with those athletes high in SC-trait and those with a performance orientation eliciting more internal attributions than low SC-trait and outcome oriented athletes. These results support the earlier work of Weiner (1979) who suggested that internal attributions for success relate to pride, confidence and satisfaction.

2.2.2.3 AN INTEGRATIVE MODEL OF SPORT CONFIDENCE FOR RESEARCH AND PRACTICE

Since reconceptualising her original sport confidence model, Vealey's work advanced to developing a unifying framework relevant to both researchers and practitioners with regard to the study and enhancement of confidence in sport (Vealey, 2001). The function of such a model was twofold. First, it provided an organisational framework from which meaningful extensions to the literature could be generated. Second, the model served as a foundation from which interventions designed to enhance confidence in athletes could be developed. As such, the integrative model of sport confidence shown in Figure 2.3 represents merely a point of departure for both researchers and practitioners.

Organisational culture was included in the model to represent the influence of competitive level, motivational climate, and the goals and structural expectations of sport programmes on the sources and levels of sport confidence experienced by athletes. And although sport confidence, like self-efficacy, is viewed in the model as a critical influence on human functioning and sport performance, the model indicates that performance is also influenced by the physical skill and characteristics of the athlete (e.g., competitive orientation and demographic characteristics such as age, experience, gender and ethnicity), in addition to uncontrollable factors such as weather and opponents. Vealey (2001) predicted that the personality characteristics, attitudes, and values of individual athletes would influence their development and manifestation of confidence as well as the sources they use to gain confidence.

The core constructs and processes that Vealey (2001) predicted to most directly influence sport performance are contained in the central diamond of the model. Specifically, the sport confidence construct, the three domains representing sources of confidence (achievement, self-regulation, and social climate), and the ABC's of sport psychology (affect, behaviour, and cognition).

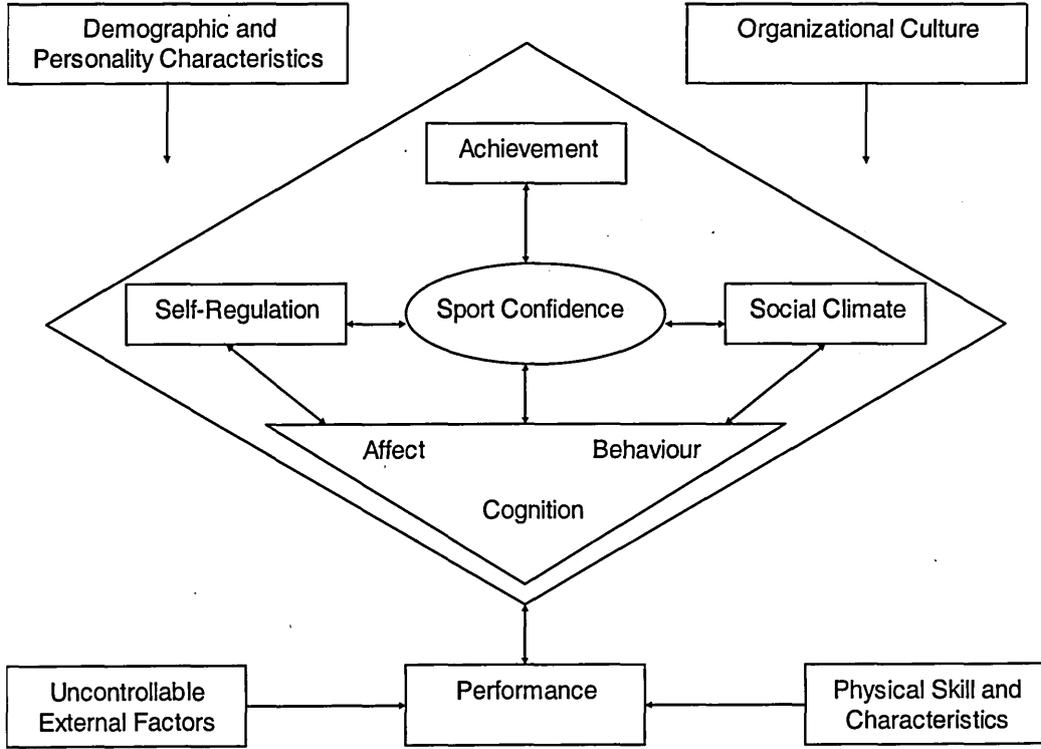


Figure 2.3 An integrative model of sport confidence for research and practice (Vealey, 2001)

2.2.2.3.1 Affect

Confidence has been consistently associated with positive emotions whereas a lack of confidence has been associated with anxiety, depression and dissatisfaction (e.g., Martens, Vealey, & Burton, 1990; Vealey, 1986; Vealey & Campbell, 1988; Vealey et al., 1998). Furthermore, self-confidence has been identified as a moderating factor in the interpretation of pre-competition anxiety symptoms (Jones et al., 1994). Consequently, participants who experience high anxiety and confidence simultaneously might still perform successfully. These propositions seem to accord with reports of athletes performing exceptionally well when they are feeling both anxious and self-confident. Conversely, performers who experience high anxiety without the accompanying feelings of confidence may suffer performance decrements (Jones & Hanton, 2001). Indeed, Mahoney and Avenier (1977) explored the differences between successful and unsuccessful performances in trials for the United States Olympic Gymnastics Team. They reported that:

...the more successful athletes tended to 'use' their anxiety as a stimulant to better performance. The less successful gymnasts seemed to arouse themselves into near panic states by self-verbalisations and images which belied self-doubts and impending tragedies (Mahoney & Avenier, 1977, p. 140).

2.2.2.3.2 Behaviour

Self-confidence has also been linked to productive achievement behaviours such as increased effort and persistence. In their processing efficiency theory, Eysenck and Calvo (1992) argued that a decrease in performance efficiency as a result of anxiety might manifest itself in higher levels of subjective effort, but only if participants felt they had a reasonable chance of success. Further, a strong sense of confidence has been associated with challenging goals being set and the expenditure of maximal effort and persistence in the achievement of those goals (Bandura, 1986). Thus, athletes that are high in confidence are likely to succeed due to their productive achievement behaviours.

2.2.2.3.3 Cognition

In addition to goal attainment, the attributions made by individuals to appraise success and failure have been found to influence expectations and motivation for future behaviour. Early sport-related studies typically compared the differential attributional patterns of successful and unsuccessful performers (McAuley & Blissmer, 2002). These results were then interpreted from the perspective of the self-serving bias (Bradley, 1978) which sees self-esteem protected by the attribution of success to internal, stable and controllable factors, and the attribution of failure to external factors. Research within the sport psychology literature (e.g., Morgan, Griffin & Heyward, 1996) has indicated that the self-serving bias for success is a relatively robust finding. However, attributing success to stable causes and failure to external factors might lead athletes to believe that future outcomes will be similar and thus the exertion of effort futile. Alternatively, and as aforementioned, attributing failure to poor strategies, can actually serve to enhance self-efficacy through the belief that improved strategies will result in future success (Bandura, 1997). Attributing success to personally controllable causes would seem conducive to both self-efficacy and the expenditure of future effort, because personal control is dependant on intention and effort (Gernigon & Delloye, 2003).

Confident individuals have also been found to be more skilled and efficient in using the cognitive resources necessary for sporting success (Vealey, 2001). Bandura and Wood (1989) suggested that confident individuals remain task-diagnostic when faced with obstacles and seek process solutions to problems, whereas less confident individuals become self-diagnostic and focus on their inadequacies. This has yet to be tested within the sport domain.

The ABC triangle is viewed as the most critical link in the model since it illustrates the importance of understanding how sport confidence influences performance through it's affect on how athletes feel about, respond to, and think about everything that happens to them in sport. Vealey (2001) proposed that all core constructs contained within the central diamond of

the model interact continuously to influence performance, and the two-way nature of the arrows emphasise that such an interaction is bi-directional.

2.2.2.4 THE THREE FACTOR MODEL OF SPORT CONFIDENCE

Another conceptual approach to the study of sport confidence was recently developed by Manzo et al., (2001). Their approach to sport confidence offers a dispositional perspective which includes components that embody the way athletes judge their athletic capabilities and how they interpret information to form generalised expectancies. These generalised expectancies are thought to impact upon situational expectancies, and eventually behaviour. Based upon a review of the research literature, Manzo et al., (2001) identified sport competence, dispositional optimism, and perceived control as dispositional factors contained in sport confidence. Thus, as depicted in Figure 2.4, the hypothesised three-factor model of sport confidence proposed that sport confidence is defined as:

A relatively enduring belief system which is the result of the interaction between possessing an expectation that good things will happen (dispositional optimism), believing one's skills and abilities can successfully fulfil the demands of a sport task (sport competence), and a positive estimation of the cause and effect contingency between one's ability and the resultant performance and outcome (perceived control) (Manzo et al., 2001. p. 263-264).

However, two independent studies conducted by Manzo et al. (2001) supported a two-factor (dispositional optimism and perceived competence) model. The results of these studies suggested that the perceived control items were unable to distinguish themselves from the other two factors, possibly because one's sense of perceived control contributes more to a sense of optimism than to a distinct factor on its own (Manzo et al., 2001).

2.2.3 MOVEMENT CONFIDENCE

Whereas the sport confidence approach focuses on confidence in the context of competitive sport, the movement confidence approach was developed to examine confidence in basic movement, or physical activity situations (Griffin & Crawford, 1989; Griffin &

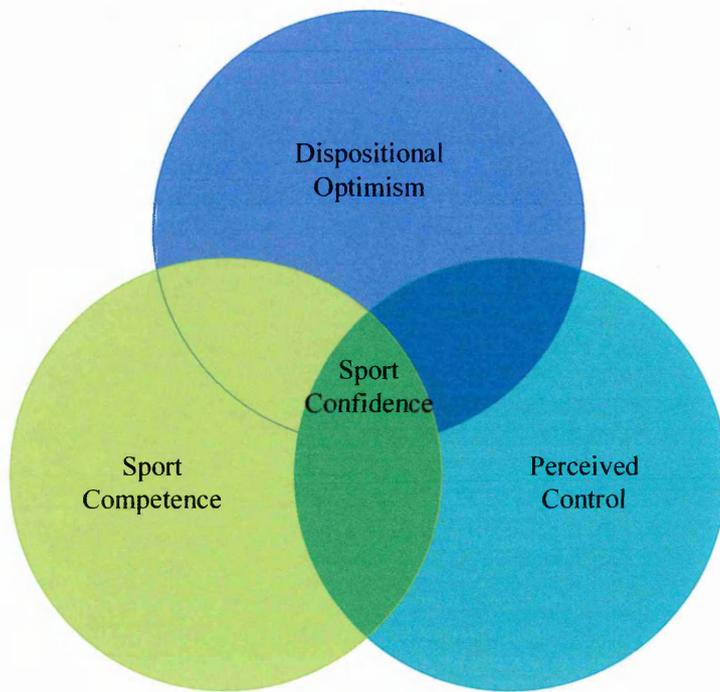


Figure 2.4. The Multidimensional Interactional Model of Sport Confidence (adapted from Manzo et al., 2001)

Keogh, 1982; Griffin, Keogh, & Maybee, 1984). More specifically, movement confidence is defined as a type of confidence that describes an individual's feeling of adequacy in performance of movement. Like self-efficacy and sport confidence, movement confidence involves a cognitive evaluation of one's abilities in relation to the task. However, the movement confidence model is unique from other theoretical models and frameworks of self-confidence in that the sensory experiences associated with movement confidence are considered i.e. it encompasses not only the perception of physical competence (movement competence) but also the appraisal of sensory experiences related to movement (movement sense). According to Griffin and Keogh (1982), this sensory experience has two subcomponents; the perceived potential for enjoying movement (E) and the perceived potential for physical harm (H). An individual's evaluation of his/her movement competence in relation to their sensory experiences produces a sense of movement confidence.

Griffin and Keogh (1982) suggest that movement confidence is both a consequence and mediator of performance. For example, an individual evaluates his/her movement competence and movement sense to form movement confidence, which will then in turn mediate future participation (choice, performance, persistence) in movement situations. Thus, a cyclic pattern exists in which those individuals with high movement confidence will likely participate in movement situations and have enjoyable experiences. In contrast, those individuals with low movement confidence will be less likely to participate and performance will be less enjoyable.

Griffin and colleagues have consistently supported the identification of competence, enjoyment and perceived harm as influential to movement decisions (Griffin & Crawford, 1989; Griffin & Keogh, 1982; Griffin et al., 1984). However, the relative importance of each of these factors would seem to depend upon the type and nature of the movement experience. For example, Crocker and Leclerc (1992) found perceived potential for physical harm to be

the strongest predictor of movement confidence in performing a back dive from a 1 metre diving board. In contrast, perceived competence has been shown to more adequately predict movement confidence in lower risk activities (Griffin & Crawford, 1989; Griffin et al., 1984). This research is important since it provides further evidence that confidence is more than perceived competence or an evaluation of one's ability, and that the determinants of confidence may vary between individuals and in relation to different movement situations.

2.2.4 PERFORMANCE EXPECTANCY

Self-confidence as a judgement about personal capabilities is closely tied to expectancies about outcomes in various situations. Consequently, performance expectancy is a term that has defined and operationalised self-confidence in some sport psychology research, by asking participants how well they expect to perform (Corbin, Landers, Feltz & Senior, 1983; Cox & Whaley, 2004) or whether they expect to beat their opponents (Corbin, 1981; Corbin & Nix, 1979). Indeed, many motivational theories have emphasised the role of expectancies in the regulation of behaviour (e.g., Carver & Scheier, 1981; Feather, 1982). For example, expectancy-value theory predicts that high motivation to perform an activity is the result of a high expectancy that the activity will result in specific valued outcomes (Feather, 1982). The motivating potential of performance and outcome expectancies is in part governed by self-confidence, or one's beliefs about personal capabilities.

2.2.5 SUMMARY OF CONCEPTUAL APPROACHES TO THE STUDY OF SELF-CONFIDENCE IN SPORT

The performance expectancy approach was adopted in early research on self-confidence in the 1970's and 1980's and the movement confidence model (Griffin & Keogh, 1982) has yet to be tested extensively in sport. Consequently, despite early attempts to operationalise self-efficacy in sport situations proving to be low in predictive validity (McAuley & Gill, 1983), self-efficacy theory (Bandura, 1977) has been the theoretical basis adopted for the majority of research on self-confidence in sport (Hardy et al., 2000). In an

attempt to operationalise confidence in relation to competitive sport, Vealey (1986) provided the first model of sport confidence in 1986. The more recent integrative model of sport confidence (Vealey, 2001) represents a conceptually distinct approach to Bandura's self efficacy theory. Whereas self-efficacy is a micro-level situation specific conceptualisation of confidence; the sport confidence model represents a more generalised, macro-level conceptualisation of perceptions of ability to be successful in sport. Furthermore, whilst self-efficacy theory indicates that self-efficacy is a multidimensional construct, sport confidence (Vealey, 1986) was originally conceptualised as unidimensional. More recently, Manzo et al. (2001) presented a multidimensional and interactional model of sport confidence, but as advocated by Vealey (2001), more research is needed to fully explain how self-confidence is manifested in the unique context of sport, including the relevance of various dimensions, or types, of sport confidence. Indeed, whilst the conceptualisation of sport-confidence as specific and unique to sport was intended to enhance understanding in the field of sport psychology (Vealey, 1986), little research has been conducted to test the predictions of Vealey's work, particularly research using high-level athlete groups. This is noteworthy given that a recent meta-analysis conducted by Woodman and Hardy (2003) showed self-confidence to be more strongly related to the sporting performance of high standard athletes as opposed to low standard athletes, possibly due to increased pressure at the elite level (Woodman & Hardy, 2003). However, these findings need to be interpreted with caution given that only one study in the meta-analysis contained a sample of truly high-standard (international) athletes. Other studies comprising the 'high-standard' athletes used athletes competing at a national level. As highlighted by Woodman and Hardy (2003) the lack of studies investigating elite athletes make generalisations to this particular athlete group very difficult. The stress that elite athletes endure might be markedly different to that endured by low standard athletes, making generalisations of findings with low-level athletes to elite performers inappropriate. Consequently, research with truly high standard performers is needed to enhance our

understanding of the effects of stress, anxiety and self-confidence in an elite sport environment (Woodman & Hardy, 2003). Particularly studies investigating female athletes as the majority of existent studies focus on males.

2.3 MEASURING SELF-CONFIDENCE IN SPORT

Emanating from the conceptual approaches to the study of self-confidence in sport is the issue of self-confidence measurement. Self-confidence, like other psychological constructs studied within the context of sport, is not observable or overtly measurable since it is an abstraction of a theoretical construct. However, the importance of using reliable and valid measures in the assessment of self-confidence cannot be overestimated.

The vast majority of studies to date have utilised the Competitive State Anxiety Inventory-2 (CSAI-2; Martens et al., 1990) and examined the relative impact of cognitive anxiety, somatic anxiety and self-confidence on sport performance, rather than sport confidence per se. These studies have revealed discrepant results with regard to the relationship between self-confidence and performance. As aforementioned, several researchers have identified the important positive relationship between self-confidence and performance (e.g., Bandura, 1986; Jones & Hanton, 2001; Jones et al., 1994; Martin & Gill, 1991). However, other studies have revealed no significant relationships between self confidence and sport performance (e.g., Maynard & Cotton, 1993; Williams & Krane, 1992). In light of these discrepant results, Woodman and Hardy (2003) conducted a meta-analysis to explore two relationships in competitive sport; state cognitive anxiety with performance, and state self-confidence with performance. The results revealed a significant positive relationship between self-confidence and performance which was moderated by sex, competitive standard, and measurement.

The CSAI-2 (Martens et al., 1990) was the measure of self-confidence most commonly adopted by studies included in the meta-analysis. However, Woodman and Hardy

(2003) revealed that studies which matched the task with more specific measures of self-confidence revealed stronger effect sizes. These findings are in accord with the results from another meta-analysis designed to examine the self-efficacy-sport performance relationship. Task-specific measures of self-efficacy were found to be correlated significantly more strongly with performance (Moritz, Feltz, & Mack, 2000).

2.3.1 SELF-EFFICACY MEASUREMENT APPROACHES

2.3.1.1 TASK SPECIFIC SCALES

The measurement of self-efficacy involves assessing people's beliefs in their abilities to produce specific levels of attainment (Bandura, 1997). Bandura (1977, 1986) advocates using self-efficacy measures that are specific to particular domains of functioning rather than assessing self-efficacy as a global disposition with an omnibus test. Consequently, most self-efficacy researchers have constructed measures which are tailored to their specific study. Bandura also advocates using a microanalytic approach, which requires a detailed assessment of the level, strength, and generality of self-efficacy beliefs. As discussed in section 2.21, efficacy beliefs can vary along three dimensions: *Level* which is concerned with the individual's expected performance attainment (Hardy et al., 2001), *strength* which reflects the certainty with which the individual expects to achieve success (Hardy et al., 2001), and *generality* which refers to the number of activities or domains of functioning in which the individual considers him/herself efficacious. However, generality is rarely used in studies on self-efficacy (Maddux, 1995).

Task specific self-efficacy measures are typically constructed by listing a hierarchical series of tasks, usually varying in difficulty, complexity, and/or stressfulness (Feltz & Chase, 1998). Participants are asked to designate (yes or no) the tasks that they believe they can perform (efficacy level). For each task designated as 'yes', they rate the strength of their belief ranging in 10 unit intervals from 0 (total uncertainty) to 100 (total certainty). The efficacy strength scores are summed and divided by the total number of items to provide a

measure of self-efficacy for the activity. A measure of efficacy level can also be obtained by identifying the last item before participants judged themselves unable to complete the task.

The validity of self-efficacy measures is typically inferred from how well they predict the behaviours hypothesised in the research study, such as choice of task, persistence, thought patterns, and emotional responses (Feltz & Chase, 1998). However, when these scales are used with athletes in competitive situations, they tend to have lower correlations with measures of performance outcome. Furthermore, one-item competitive or comparative efficacy scales have the tendency to create ceiling effects when utilised with athletes who may not demonstrate much diffidence (Vealey, 1986).

2.3.1.2 COLLECTIVE EFFICACY MEASURES

Only a few studies have examined collective efficacy in sport and the instruments used have varied in their approach (Feltz & Chase, 1998). Early collective efficacy measures utilised one-item questions to assess comparative efficacy at the team level. For example, Spink (1990) used two questions to measure team efficacy in volleyball: “What placing do you expect to attain in Supervolley?” (open question) and “How confident are you that your team will attain this placing?” (scored on a 7 point Likert scale). However, as highlighted by Feltz and Chase (1998), the first question is more related to expectancy, and the second question is invalid. For example, an athlete who is very confident that his/her team will achieve a poor placing, would receive a higher efficacy score than a player who is less certain about a poor placing. In a later study designed to assess the effects of different levels of collective efficacy on performance of a muscular endurance task, Hodges and Carron (1992) assessed collective efficacy by asking “What do you think your group’s chances are of winning?” and “How confident are you of your prediction?” However, the measures suffered the same limitation associated with Spink’s (1990) study. Furthermore, whilst the first question was intended to measure strength of efficacy expectations, and the second question

measured certainty of efficacy, these are actually conceptually the same thing according to Bandura's (1977, 1986) definitions.

More recently, the measurement of collective efficacy has evolved in complexity. Contemporary research has utilised two methods for measuring team efficacy, as advocated by Bandura (1997). The first method involves aggregating team members' appraisals of their own abilities for the functions they perform within the team. This is calculated by summing all team members' responses to various items using the stem question "How confident are you that you can...?" The second method involves aggregating team members' appraisals of their team's capability as a whole using items that assess competitive task components in addition to coordination, communication, and coordination within the team. Two different stem questions have been adopted: "How confident are you in your team's ability to...?" and "What is your team's confidence that they can...?" The former has been utilised to assess individuals' perceptions of the collective efficacy of the team (Feltz & Lirgg, 1998; Magyar, Feltz & Simpson, 2004; Myers, Feltz & Short, 2004; Myers, Payment & Feltz, 2004). The latter has been used to assess individual's estimates of the team's collective efficacy (Heuzé, Raimbault, & Fontayne, 2006; Heuzé, Sarrazin, Masiero, Raimbault, & Thomas 2006; Paskevich, Brawley, Dorsch, & Widmeyer, 1999; Short, Sullivan & Feltz, 2005).

The relative merits of these two stem question approaches to assessing collective efficacy has been debated (Short et al., 2005). Whether the stem question should direct a respondent to focus on his/her individual belief in the team, or his/her perception of the team's belief, is at present unclear. Indeed, Short et al., (2002a) found no differences between the two stem questions on team efficacy ratings. Further research is needed to more fully understand the way in which each type of stem question might influence the measurement of collective efficacy, thus advancing our understanding of this important concept.

Unlike the task-specific collective efficacy measures presented above, the Collective Efficacy Questionnaire for sports (CEQS; Short et al., 2005) was developed as a multidimensional measure of general team sport functioning, allowing researchers to examine team efficacy across different sport types. Furthermore, the CEQS was developed as a state measure, with specific instructions for participants to base their responses on upcoming sport competition. An overall team efficacy score can be computed as the average of five interrelated team efficacy factors: Ability, Effort, Preparation, Persistence, and Unity.

2.3.2 SPORT CONFIDENCE MEASUREMENT APPROACHES

Several inventories have also been developed to measure sport confidence. As mentioned previously, Vealey (1986) developed inventories to operationalise the three key constructs in her conceptual model of sport confidence. The Trait Sport Confidence Inventory (TSCI) was developed to measure one's dispositional belief about their sporting ability. In contrast, the State Sport Confidence Inventory (SSCI) was developed to measure one's belief about their sporting ability in a particular situation.

Both the TSCI and the SSCI are 13-item inventories assessing sport confidence on a 9 point Likert scale (1 = low and 9 = high). Total scores are obtained by summing the items. The TSCI asks athletes to think about how confident they 'generally feel' when competing in sport, in comparison to 'the most confident athlete' they know. The SSCI requires athletes to think about how confident they feel 'right now' about performing in an upcoming competition, in comparison to 'the most confident' athlete they know. The 13 items assess sport as a unidimensional construct and address various abilities that an athlete typically displays during competition (e.g., skill execution, performing under pressure, making critical decisions). The items for the TSCI and the SSCI are the same except for the state or trait reference.

According to Feltz (1988), the TSCI and SSCI should not be used when investigating self-confidence in specific sport situations because they will have a lower predictive power with respect to performance. The format of the TSCI and the SSCI has also been under scrutiny since participants are instructed to rate their perceived confidence in comparison to the most confident athlete they know. This format is thought to produce unsystematic variance, depending upon whom participants select as their standard of confidence (Feltz & Chase, 1998). A final point for consideration is the conceptualisation of sport confidence as a unidimensional construct. That is, although items on the TSCI and SSCI assess athletes' confidence about various areas (e.g. skill execution, focusing, re-focusing after errors) the instruments provide a single confidence score which integrates all types of confidence into a unitary sport confidence construct. As discussed previously in this review, self-efficacy theory indicates that self-efficacy is indeed a multidimensional construct (Bandura, 1997), categorised into three distinct domains (Maddux & Lewis, 1995). Thus, as advocated by Vealey (2001), more research is needed to identify possible dimensions, or types, of sport confidence, and subsequent methods of assessment.

In addition to the TSCI and SSCI, Vealey et al., (1998) developed the Sources of Sport Confidence Questionnaire (SSCQ) to measure nine sources of confidence particularly salient to athletes in competitive sport (41 items divided into nine subscales). From an overall psychometric standpoint, evidence was found across the phases of Vealey et al.'s study to support the reliability and validity of the SSCQ as a multidimensional measure of sources of sport confidence in high school and collegiate athletes. However, in a study examining the sources of sport confidence in master athletes, Wilson, Sullivan, Myers and Feltz (2004) failed to replicate the proposed 9-factor structure of the SSCQ, suggesting potential inconsistencies between different athlete groups.

Finally, the 13-item Carolina Sport Confidence Inventory (CSCI; Manzo et al., 2001) was developed as a dispositional sport confidence inventory that measures dispositional

optimism and perceived sport confidence. Confirmatory factor analytic techniques with intercollegiate varsity athletes, along with measures of convergent validity, have supported the two factor model and the psychometric properties of the instrument (Manzo et al., 2001). However, additional research is needed to further the convergent and divergent validity of the CSCI, and explore the potential relationships between dispositional optimism, sport confidence, and other psychological constructs.

2.3.3 MOVEMENT CONFIDENCE MEASUREMENT APPROACHES

Three inventories have been developed within the movement confidence conceptual approach. The Movement Confidence Inventory (MCI; Griffin et al., 1984) assesses an individual's feeling of adequacy in a movement situation, and asks respondents to rate their experience and confidence in 12 movement tasks (e.g., shooting basketball free throws). In addition to measuring confidence levels, the MCI also assesses how feelings of competence, enjoyment and physical harm contribute to an individual's confidence in doing each task.

Since the development of the MCI using college-age students, very few studies have utilised it in the study of movement confidence, and there has been no evaluation of whether this measure would be appropriate for different participant samples. Furthermore, the initial work by Griffin et al., (1984) to construct the MCI failed to identify movement competence, personal enjoyment of moving sensations, and perceived physical harm as independent components of movement confidence. Instead, the items loaded on two factors and indicated that an individual's feelings of competence were the major contributor to perceived movement competence.

Two modifications of the MCI were developed for use with children. The Playground Movement Confidence Inventory (PMCI; Crawford & Griffin, 1986) was developed to measure children's confidence in six playground activities, while the Stunt Movement Confidence Inventory (SMCI; Griffin & Crawford, 1989) was developed to measure

children's confidence in six movement skills involving performance demands such as height, speed, strength, coordination and balance.

Whilst the movement confidence model is unique in the conceptualisation of confidence because the sensory experiences associated with movement confidence are considered, there appears to be no evidence that movement sense is not accounted for in other conceptions of self-confidence (i.e., sensory experiences via physiological states in self-efficacy theory) (Feltz, 1998). A further criticism relates to the lack of research using the MCI, thus, further research is needed to examine its reliability and validity.

2.3.4 ASSESSING PERFORMANCE EXPECTANCIES

Assessing athletes performance expectancies typically involves a single question such as "How well do think you will play in the game today?" or "How well do you expect to do in basketball?" (Cox & Whaley, 2004; Scanlan & Passer, 1981). A variation on this is the use of a single question to assess outcome expectancies, thus, involving comparison with others. Examples of these types of questions are "Do you think you will win or lose?" or "How many times out of 10 do you think you can beat this opposition at this game?" (Corbin & Nix, 1979). Whilst one-item measures of self-confidence would seem to be useful in terms of their practical relevance, their inability to demonstrate reliability has been the subject of criticism (Feltz & Chase, 1998).

2.4 FUTURE RESEARCH DIRECTIONS

As aforementioned, the purpose of the Integrative Model of Sport Confidence (Vealey, 2001) was to generate meaningful extensions to the literature and to serve as a foundation from which interventions designed to enhance confidence in athletes can be developed. As such, there are several lines of enquiry that warrant research attention.

2.4.1 THE PROCESSES AND MECHANISMS UNDERLYING CONFIDENCE EFFECTS

The conceptualisation of self-confidence as specific and unique to sport was intended to enhance understanding in the field of sport psychology (Vealey, 1986). However, although evidence exists to support the constructs in the model, little research has been conducted to test the predictions of Vealey's work. For example, despite numerous studies advocating self-confidence as being beneficial to performance, the processes and mechanisms underlying confidence effects have been largely ignored. The research in this area is characterised by correlational designs which show quite a strong association between confidence and performance, but preclude any inference regarding perceived causal relationships (Jones et al., 1994). As highlighted by Vealey's (2001) model, such investigation would seem imperative to aid understanding of the processes and mechanisms by which confidence facilitates sport performance and guide the development of interventions targeted at specific confidence needs. This would require examination of confidence in relation to the affective, cognitive and behavioural responses it elicits.

2.4.2 SOURCES AND TYPES OF SPORT CONFIDENCE

Vealey et al., (1998) identified nine sources of sport-confidence within her reconceptualised model of sport-confidence, categorised into three main domains; achievement, self-regulation, and climate. However, limitations associated with this study warrant the need for further investigation. For example, Vealey et al., (1998) compared athletes of differing sport types (individual and team) and levels (high school and college). Consequently, it is not possible to infer how these factors might influence athletes' sources of sport confidence, and how these sources might interrelate to other constructs in the conceptual model. The significance of investigating sources of confidence has both theoretical and practical applications. From a theoretical standpoint, these sources are viewed as critical as a basis for levels of confidence and subsequent affect, behaviour and cognitions. From a

practical perspective, self-confidence is viewed by many athletes as unstable and fleeting; particularly at the Olympic level (Gould et al., 1999). The findings of Vealey et al., (1998) imply that this might be a function of the sources upon which that confidence is based. For example, the interrelationships between sources of confidence, sport confidence, and competitive orientation identified by Vealey et al., (1998) emphasise that some sources of confidence may be better than others in facilitating consistently high levels of sport confidence. Thus, by further examining the antecedents of confidence in athletes, we might achieve a better understanding of the way in which organisational culture, the sociocultural context, and individual differences might influence the development of sport confidence. This would seem particularly pertinent with regards to young athletes who are not only developing their self-confidence, but also their schema as to what sources of confidence are relevant to them (Vealey et al., 1998). Thus, a clearer understanding of the sources underlying self-confidence and their relationships to other psychological constructs and behaviours may provide useful insight for interventions designed to enhance athletes' confidence levels.

More research is also required in order to identify possible types of sport confidence. In a recent study, self belief emerged as being the most important attribute of the mentally tough performer (Jones et al., 2002). However, this self-belief had two dimensions: belief in ability to achieve goals and believing that you are different to and therefore better than your opponents. In accordance with self-efficacy theory, further exploration and identification of types of confidence used by sports performers would lend support for the conceptualisation of sport confidence as a multidimensional construct, and might provide a useful insight for interventions designed to enhance sport confidence. For example, different dimensions of sport-confidence might be targeted by specific interventions similarly to the 'matching hypothesis' discussed in the competitive anxiety literature (Martens et al., 1990). Thus, research that endeavours to identify different types of sport confidence, explore how different types of sport confidence might influence competitive behaviours and performance, and

examine the effectiveness of interventions targeted towards specific confidence needs is urgently required.

2.4.3 RESEARCH WITH WORLD CLASS ATHLETES

The notion of sport confidence, the models of sport confidence, and the sources of sport confidence are based upon high school and collegiate athletes and as such, cannot be readily generalised to other athlete groups. As highlighted by Woodman and Hardy (2003), research with truly high standard performers is needed to enhance our understanding of the effects of confidence in an elite sport environment. Few studies have explored sport confidence in World Class sport performers; although there is evidence to suggest that these athletes derive confidence from mental and physical training (Greenleaf et al., 2001) and performance accomplishments (Jones & Hardy, 1990). More research attention has been paid to psychological development and the factors influencing performance in Olympic athletes (e.g., Durand-Bush & Salmela, 2002; Gould et al., 2002; Gould et al., 1999; Greenleaf et al., 2001).

Psychological characteristics, including confidence, have been consistently identified as a positive performance factor and found to be influenced by the context in which Olympic athletes are immersed (Durand-Bush & Salmela, 2002). For example, several resources including the community, family, individual development, non-sport personnel, sport environment personnel, and the sport process have been identified as important (Gould et al., 2002). Numerous non-psychological factors such as Olympic housing, physical training and multifaceted preparation have also been identified as major performance influences by Olympic level athletes (Greenleaf et al., 2001). The interactions that these factors have with psychological factors need to be examined, particularly given that at the Olympic Games athlete confidence levels can be susceptible to instability (Gould et al., 1999). The level of competition, motivational climate, and the goals and structural expectations placed upon Olympic athletes is likely to differ significantly from that of the high school and college

athletes studied in previous research. Indeed, Fletcher and Hanton (2003) and Woodman and Hardy (2001) found that athletes who performed at the highest level of competition in their sport (Olympic Games, World Championship and/or World Cup), were subject to several organisational stressors including environmental issues (i.e., personal and leadership issues), personal issues (i.e., injury, goals and expectations), leadership issues (i.e., coaches and coaching styles), and team issues (i.e., team atmosphere and support network).

2.4.4 MEASUREMENT OF CONFIDENCE IN SPORT

The vast majority of research on self-confidence in sport has used quantitative, nomothetic research approaches. Quantitative measurement refers to the use of numbers to represent athletes perceived sport confidence (usually on a Likert scale), and the nomothetic approach (Allport, 1937) to the study of confidence in sport assumes that all people can be characterised by the same set of descriptors or dimensions, and that group results represent general tendencies that can be applied to all people. However, in applied settings, or in some individual sports where there are many levels of competition with different skills employed by different competitors (e.g., figure skating, gymnastics, diving), typical measurement scales that consist of preselected items might not be relevant for all competitors (Feltz & Chase, 1998). Consequently, qualitative approaches have more recently been employed. Thus far, deductive interviews, based upon existing conceptual frameworks, have described manifestations of confidence in athletes, and how these manifestations have influenced perceptions of anxiety as well as performance (Hanton & Connaughton, 2002; Hanton, Mellalieu, & Hall, 2004). However, future research would likely benefit from the utilisation of inductive interviews to derive information about athlete's personal constructs and experiences related to confidence in sport. The inductive approach allows important patterns or findings to emerge from the data without making prior assumptions about what the important dimensions might be (Patton, 2002).

In addition to qualitative approaches, single subject designs (Barker & Jones, 2006), and case study methods (Mamassis & Douganis, 2004; Pensgaard & Duda, 2002; Savoy, 1993) have been employed as idiographic measurement approaches to assess athletes self-confidence in sport. As aforementioned, Vealey (2001) predicted that the personality characteristics, attitudes, and values of individual athletes would influence their development and manifestation of confidence as well as the sources they use to gain confidence. Thus, more idiographic research adopting an individualised approach to measuring sport confidence would likely provide a promising method for assessing an athlete's individual confidence needs in an applied setting, and monitoring the effectiveness of subsequent interventions.

2.5 SUMMARY OF THE LITERATURE REVIEW

This literature review has attempted to provide a critical overview of the research pertaining to self-confidence in sport. The review has directed the reader through the five conceptual approaches that have been used to study confidence in sport, including; self-efficacy theory (Bandura, 1977), two sport confidence approaches (Manzo et al., 2001; Vealey, 1986), movement confidence (Griffin & Keogh, 1982), and performance expectancy (Corbin, 1981). Particular emphasis was focused toward self-efficacy and sport confidence since these approaches are particularly pertinent in the context of elite sport (Jones et al., 2000). The literature review concluded by identifying the lack of research directed towards the most recent sport confidence framework, the integrative model of sport confidence (Vealey, 2001), providing the rationale underpinning the general aim of this thesis. More specifically, four main areas were identified as warranting further research attention: The processes and mechanisms underlying confidence effects, sources and types of sport confidence, confidence in relation to World Class athletes, and the measurement of confidence.

The integrative model of sport confidence (Vealey, 2001) was designed to stimulate further research of the plethora of constructs and processes that influence the complex relationship between confidence and sport, one such complexity being the study of human behaviour in specific social contexts. Thus the general aim of this thesis was to examine confidence within the unique organisational subculture of World Class sport.

CHAPTER III

STUDY ONE

SOURCES AND TYPES OF CONFIDENCE IDENTIFIED BY WORLD CLASS SPORT PERFORMERS¹

3.1 INTRODUCTION

The previous review discussed the current status of research surrounding sport confidence and identified several areas warranting further exploration. Specifically, limited research has been conducted to investigate the predictions of Vealey's (2001) integrative model of sport confidence. Furthermore, the notion of sport confidence, the model of sport confidence, and the sources of sport confidence are based on high school and collegiate athletes and cannot be readily generalised to other athlete groups.

One of the functions of sport psychology outlined by Griffith (1925) over 80 years ago was that experienced and successful coaches and athletes be systematically studied for the purposes of identifying the psychological principles they employ, so that these principles can then be disseminated to inexperienced and less successful coaches and athletes. Few studies have explored sport confidence in World Class sport performers; although there is evidence to suggest that these athletes derive confidence from mental and physical training (Greenleaf, et al., 2001) and performance accomplishments (Jones & Hardy, 1990). The preceding review highlighted the theoretical and practical applications of exploring the antecedents of sport confidence in World Class athletes. Specifically, sources of sport confidence are viewed as the basis for levels of self-confidence and subsequent affect, behaviour and cognitions. Furthermore, psychological characteristics, including confidence, have been found to be influenced by the organisational context in which Olympic athletes are immersed (Durand-

¹ The study reported in this chapter has been accepted for publication: Hays, K., Maynard, I., Thomas, O., & Bawden, M. (in press). Sources and Types of Confidence Identified by World Class Sport Performers. *Journal of Applied Sport Psychology*.

Bush & Salmela, 2002). As highlighted by the preceding review, confidence levels can be susceptible to instability, particularly at the Olympic level (Gould et al., 1999). The findings of Vealey (1998) imply that this might be a function of the sources upon which that confidence is based. By further examining the sources of sport confidence we might achieve a better understanding of the way in which the sociocultural context, organisational culture, and individual differences, such as gender, might influence the development of confidence in athletes. For example, different antecedents have been found to predict cognitive anxiety and self-confidence in males and females (Jones et al., 1991). Research in this area is sparse, thus the notion that confidence levels may vary as a function of gender warrants further investigation.

As advocated by Vealey (2001), more research is also needed to explore the relevance of various dimensions, or types of sport confidence. In contrast to early conceptualisations of sport confidence as a one-dimensional construct (e.g., Vealey, 1986), emerging theory and research supports the notion of confidence as a multidimensional construct (Maddux & Lewis, 1995). Indeed, self-efficacy theory recognises that human competencies are developed and manifested in numerable different forms. A high sense of self-efficacy in one activity domain is not necessarily accompanied by high self-efficacy in other spheres of activity (Hofstetter et al., 1990). Furthermore, efficacy beliefs are thought to be differentiated across major systems of expression within activity domains (Bandura, 1977). Consequently, personal efficacy is viewed as a multifaceted phenomenon rather than as a global disposition (Bandura, 1997). Further exploration and identification of different types of confidence would lend support for the conceptualisation of sport confidence as a multidimensional construct, and might provide a useful insight for interventions designed to enhance sport confidence.

Despite the obvious benefit of examining the psychological principles employed by World Class athletes, studies employing athletes of this calibre are limited (Greenleaf et al., 2001). Those studies that do exist (e.g., Durand-Bush & Salmela, 2002; Gould et al., 1999;

Greenleaf et al., 2001; Orlick & Partington, 1988) have been designed to explore a wide variety of factors in relation to performance and psychological development. Consequently, confidence per se has not been explored in-depth with an elite sample group. As highlighted by the preceding review, the organisational culture of World Class sport is likely to differ significantly from that of the high school, college and master athletes previously examined, and World class athletes are likely to be subject to additional organisational stressors not present in lower level competition.

This chapter is constructed around the first study conducted as part of the thesis. Following the introductory section, the aims of the study are stated. A detailed explanation of the methods employed throughout the study is then presented, including the participant selection criteria, details of the interview guide, and the procedures adhered to during data collection. The results section precedes the final section of the chapter which discusses the results from a theoretical and applied perspective leading to the identification of future research questions that emanate from the study's findings.

3.2 AIMS OF STUDY ONE

Synopsis of the literature throughout chapter two has identified the importance of extending the sport confidence research to truly high standard performers in order to enhance our understanding of sport confidence in an elite sport environment. Thus, one purpose of the present study was to identify the sources of sport confident salient to athletes successful on the World Class stage. The second purpose of this study was to explore possible types of confidence necessary to succeed in sport (i.e., identify what athletes are confident about).

3.4 METHOD

3.4.1 STUDY DESIGN

The preliminary sources of sport confidence identified by Vealey et al. (1998) were based upon a review of literature and deductions by the investigators. These sources then

provided the initial organisational structure from which to query the participants. Conversely, the purpose of the present study was to learn from World Class sport performers about their sources and types of confidence. It has been established that qualitative enquiry based upon responses to open ended questions permit one to understand the world as seen by the respondents (Patton, 2002). Thus, qualitative interviews in which the athletes' sources and types of confidence were able to emerge inductively were deemed the most appropriate method of data collection.

According to Morse & Richards (2002), qualitative methods require that the researcher balance the use of what is already known with discovery from the data. Whilst the sources and types of confidence were allowed to emerge inductively through the analysis of the interview transcripts, the present study is oriented within a deductive reasoning framework. Specifically, the purpose of the present study was developed through a thorough review of the sport confidence literature and the semi-structured interviewed guide was informed by existing sport confidence research. The deductive reasoning approach to research is consistent with traditional methodologies in sport psychology (Gould et al., 2002; Edwards, Kingston, Hardy & Gould, 2002).

3.4.2 PARTICIPANTS

With Institutional ethics approval² 14 athletes (7 males, 7 females) aged between 21 and 48 years (31.2 ± 8.4 years) were interviewed. Thirteen of the athletes had medalled in at least one major championship (i.e., Olympic Games, World Championship and/or World Cup), and the remaining athlete was the current world record holder in their discipline. The athletes had competed at their highest level (Olympic and/or World Class) for between 5 and 16 years (10.4 ± 3.6 years) and included 2 team sport participants (rugby and hockey) and 12 athletes who participated in eight different individual sports (diving, $n=1$; athletics, $n=2$;

² Ethical clearance for study one and two was applied for and approved by the Sheffield Hallam University Ethics Committee (see Appendix 1). Please see section 4.3.4 for further details.

taekwondo, n=1; judo, n=2; bob-skeleton, n=1; speed-skating, n=1; modern pentathlon, n=2; and swimming, n=2). To familiarise the participant with the process of the interview and maximise the retrieval of in-depth data, each athlete was sent a summary schedule of the interview prior to the interview date and asked to reflect upon their most confident career moments. It was thought that allowing the participants to reflect upon their sport confidence prior to the interview taking place would assist in the recovery of information. Participants gave their written consent for the interview to be audio taped so that a typed transcription could be made for later review.

3.4.3 THE SEMI-STRUCTURED INTERVIEW

The interview was divided into four sections to cover three separate phases of the interview. Section one (phase one) established rapport with the participant and comprised general questions about sport confidence (e.g., the athlete's perception of sport confidence). Since the purpose of the interviews was to derive information about each athlete's personal constructs and experiences (Jones et al., 2002), a standard definition of confidence was not provided. Sections two and three (phase two) formed the main body of the interview and explored the athlete's sources and types of confidence and their most confident competition experience. Section two comprised of questions specifically related to the participants sources of sport confidence (i.e., Where do you think your confidence in yourself as an athlete comes from?) and the types of confidence they possessed (i.e., Can you give me some specific examples of the types of things you are confident about?). None of the athletes experienced any difficulty in making the distinction between sources and types of confidence so no further elaboration was provided. Section three required each participant to describe the time that they had felt most confident going into an important competition. They were then asked about their sources and types of confidence in this situation. The final section discussed the interview experience and provided the participants with the opportunity to add any other important information that might have been overlooked during the process.

The author conducted three pilot interviews with international representative performers prior to data collection. These athletes represented three individual sports; table tennis, rowing, and white-water canoeing. The pilot study provided the interviewer with an opportunity to practice the technique of interviewing and refine her interviewing skills. Furthermore, the interviewer completed two postgraduate M.A. modules in Qualitative Research Methods. Minor changes were made to some of the interview questions to enhance clarity. All athletes who participated in the pilot study also confirmed that the interview had exhausted all areas relating to their sources and types of confidence in sport.

3.4.4 PROCEDURES

Qualitative methods require that the researcher balance the use of what is already known with discovery from the data (Morse & Richards, 2002). As aforementioned, a thorough review of the sport confidence literature provided the rationale for the present study. The information pertaining to sources of sport confidence was then summarised and bracketed (set aside) prior to data collection. Given the exploratory nature of the topic, an open-ended, semi-structured interview³ (Patton, 2002) was conducted by the author with each athlete. Consequently, the interviewer followed an interview guide but allowed the natural flow of the conversation to dictate the direction of questioning (e.g., Patton, 2002). On conclusion of the interview, all participants had been asked the main questions from the interview guide.

At the onset of each interview, standardised introductory comments were provided pertaining to the purpose of the study, the use of data, and issues regarding confidentiality and anonymity. To control for guessed responses, participants were reminded that there were no right or wrong answers, to take their time responding to questions, and to tell the interviewer if they could not remember something rather than guess (Hindley, 1979; Moss, 1979). Clarification and elaboration probes were used throughout the interview to ensure an accurate and in-depth understanding of what the participants were describing, and to create a consistent

³ See Appendix 2 for a copy of the interview guide used in study one and two

level of depth across the interviews (Patton, 2002). The interviews lasted between 45 and 135 minutes, were tape recorded in their entirety, and yielded 307 single-spaced typed pages.

3.4.5 ANALYSIS

Recent literature has suggested that qualitative sport-based researchers need to embrace questions of an epistemological or philosophical nature (Biddle, Markland, Gilbourne, Chatzisarantis, & Sparkes, 2001). A requisite for qualitative research is that the research question sets the goals for the outcome of the project. The purpose of study one was to explore and describe the sources and types of confidence identified by successful World Class sport performers, outside the limits of existing models and measures. Such an approach attempts to seek patterns rather than create theories and does not conform to one of the recognised qualitative methods of theorising analysis (Morse & Richards, 2002).

All interviews were transcribed verbatim by the author, and then content analysed by the author and the three members of her PhD supervisory team. The four investigators followed procedures recommended by Miles and Huberman (1994) and successfully applied to sport psychology research (e.g., Gould et al., 2002; Greenleaf, et al., 2001). Each investigator independently read and re-read the 14 interview transcripts and manually identified all the raw data responses representing a source (i.e., where the athlete derived their confidence from) or type of confidence (i.e., what the athlete was confident about). The raw data responses were then organised into patterns of data to create more meaningful sub-themes (e.g., confidence derived from structured goal-setting), higher-order themes (e.g., confidence derived from mental preparation), and then global dimensions (e.g., confidence derived from preparation). Although these were allowed to emerge from the data inductively, they were subsequently verified through deductive methods ensuring they existed in the raw transcripts (c.f., Hanton & Jones, 1999). This entire process was repeated by the author as a means of verifying the findings.

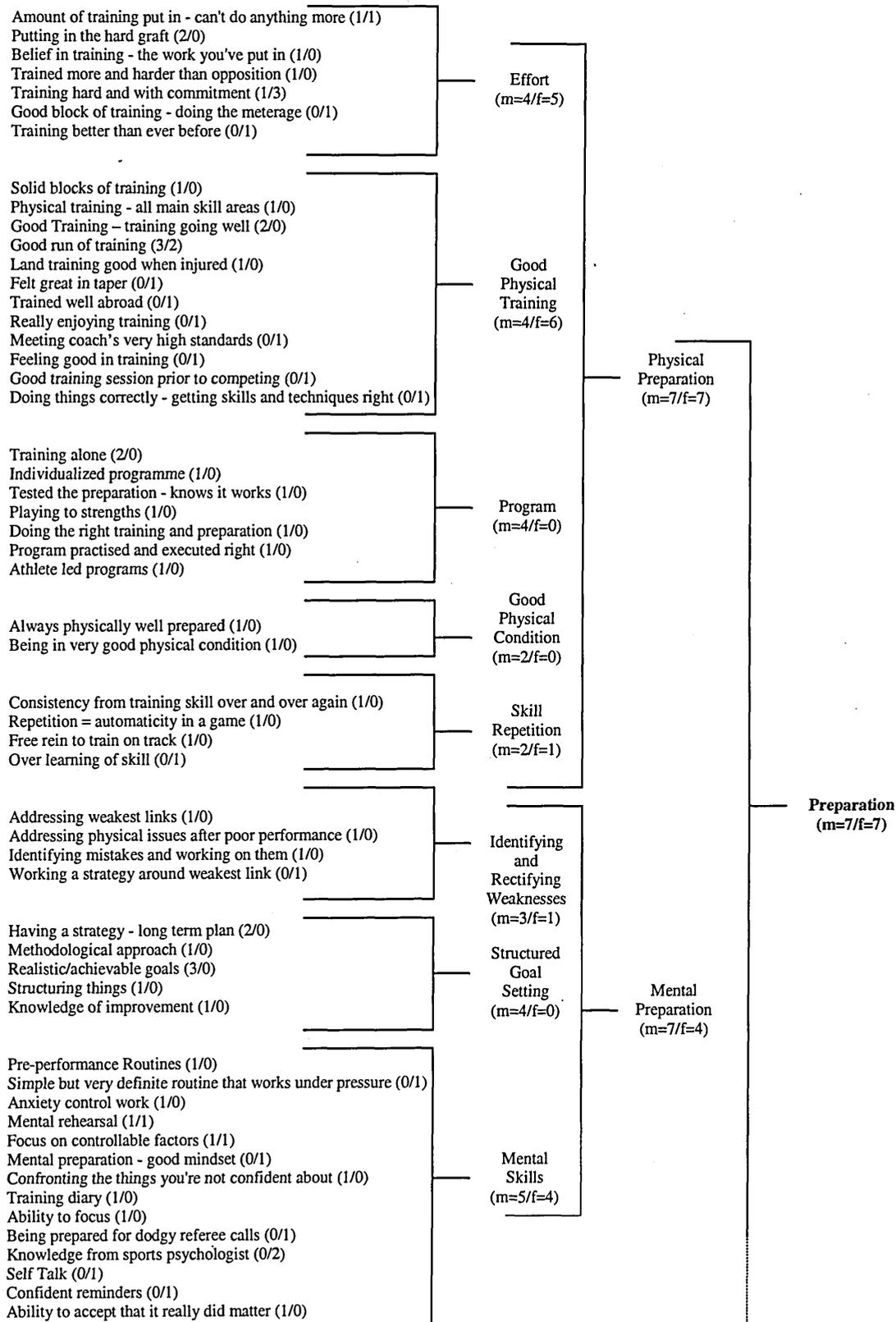
To ensure trustworthy and credible data, the sub-themes, higher-order themes, and global dimensions were validated during a focus group meeting in which the author presented her findings to the remaining three investigators. When inconsistencies or differences arose between the investigators, a discussion ensued until disagreements were resolved and consensus reached (Greenleaf et al., 2001; Sparkes, 1998). As advocated by Greenleaf et al. (2001), no inter-rater reliability statistics were computed as the goal of the analysis was to establish an understanding of the sources and types of confidence utilised by successful World Class performers, not to test the four investigators ability to identify common themes.

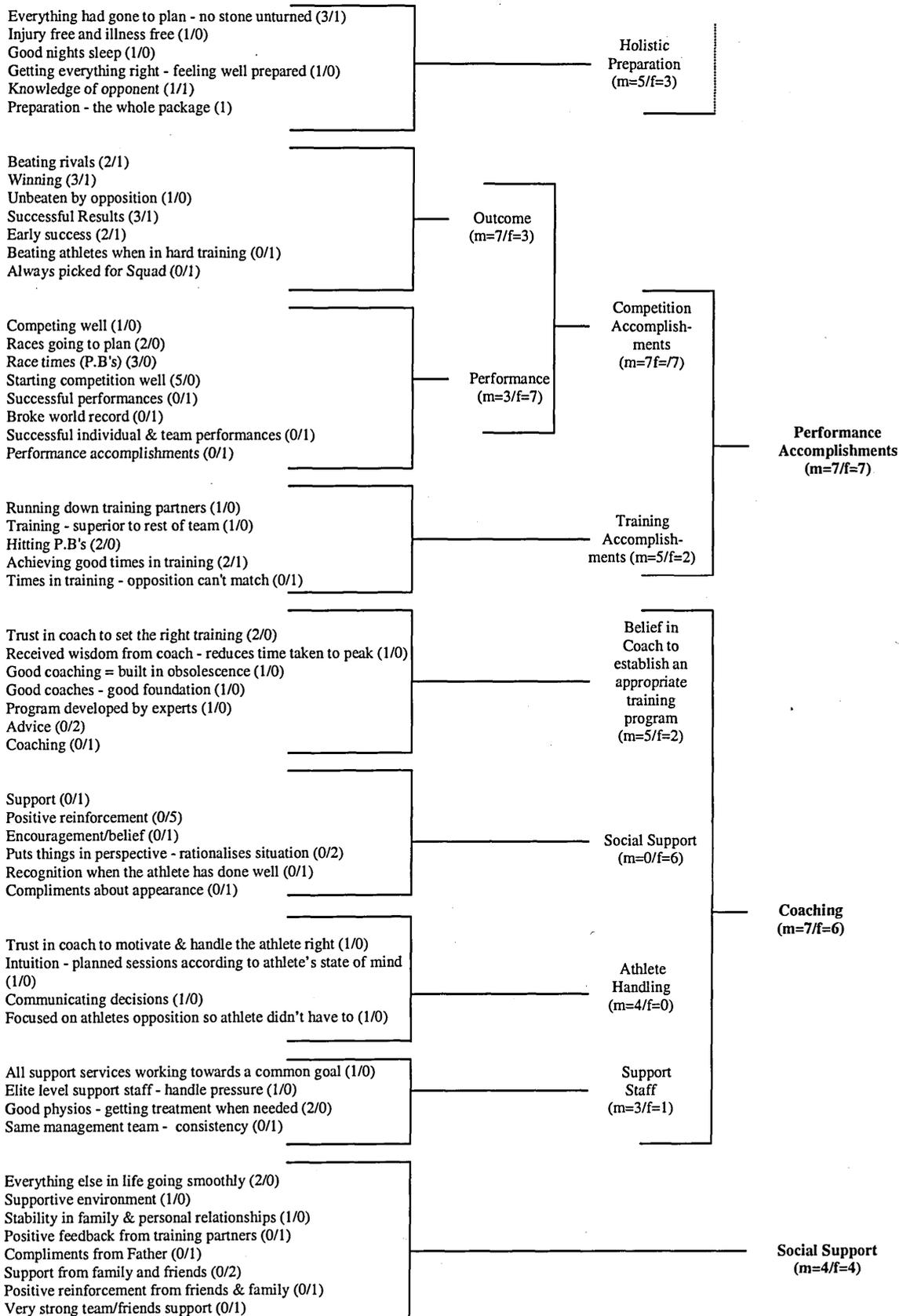
3.5 RESULTS

The results are presented in two parts: First, the sources of confidence used by World Class athletes are outlined (see Figure 3.1). Second, the types of confidence identified by these athletes are presented (see Figure 3.2). In accordance with previous research (e.g., Gould et al., 2002; Greenleaf et al., 2001) the number of male and female athletes citing each raw data response, sub-theme, higher-order theme, and global dimension are shown in brackets (M/F). Although frequency of response does not determine the importance of the response, it highlights the sources and types that are more likely to be transferable across an elite athlete population. The frequencies and descriptive text are provided together to enable the reader to reach their own conclusions regarding the applicability of the findings for use with other athletes in other settings.

3.5.1 SOURCES OF SPORT CONFIDENCE

The sources of sport confidence identified by the athletes were categorised into nine global dimensions representing preparation, performance accomplishments, coaching, social support, innate factors, experience, competitive advantage, trust and self-awareness. The results indicated that successful World Class athletes generate confidence primarily from





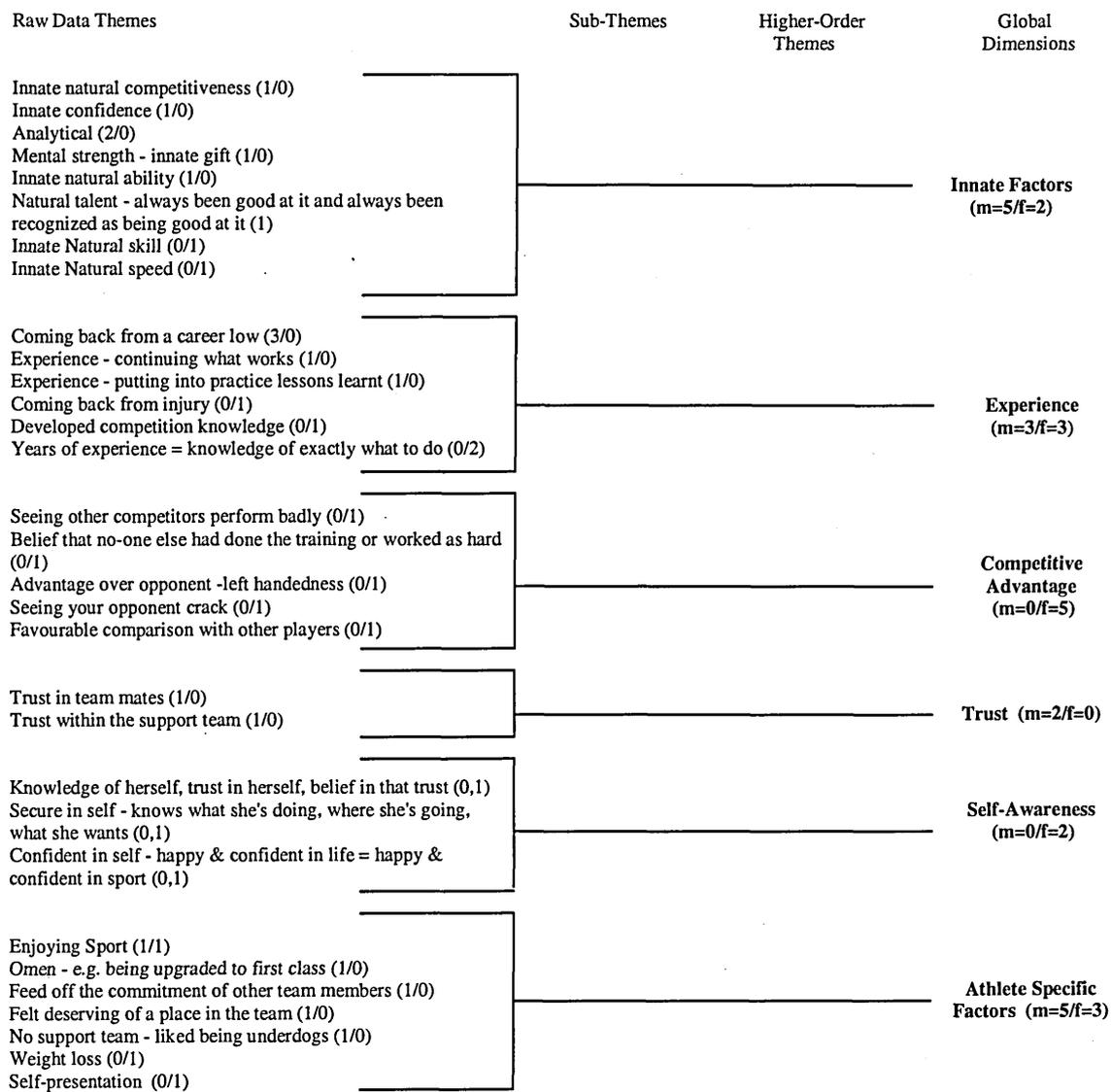


Figure 3.1 Themes and categories for sources of sport confidence identified by World Class sport performers

preparation, performance accomplishments and coaching (see Figure 3.1), and that the sources of confidence used by these athletes are influenced by gender.

3.5.1.1 PREPARATION

All of the 14 athletes highlighted the importance of good physical preparation, as one Olympic gold medallist highlighted: "For me there was no doubt at all that when I felt confident it was because I was physically in very good condition." Ultimate physical training included responses pertaining to effort, good physical training/condition, programme, and skill repetition. As one athlete highlighted: "If I do things correctly in training and get things like skills and techniques right, then I become more confident of how I'm gonna perform."

Eleven athletes also made reference to mental preparation such as identifying and rectifying weaknesses, and structured goal setting. Indeed, "Doing things in a structured, ordered way" facilitated the achievement of goals which further contributed to the athletes' feelings of confidence. The discussion of mental preparation ranged from general comments, such as "I was a good trainer so that was a good mindset," to full descriptions about mental training practice, for example:

I do anxiety control work and visual imagery work which helps to make me more confident with my dives. I also use best performance imagery all the time in the lead-up to a major competition. I go through my pre-dive routine with my psychologist and I visualise myself doing my dives to the best of my ability and that helps. I've done that right before competing at the World championships and that worked well as a confidence booster. Goal setting, and just generally structuring things and ignoring things I can't control and concentrating on the things I can control also makes me more confident and less distracted by other stuff.

Evidence of improvement further facilitated feelings of confidence, as one athlete highlighted: "Confidence comes from meeting the milestones we've set as coach and athlete and having evidence of the progress." Thus, training logs were an integral part of preparation:

I think the biggest thing is that most athletes keep training diaries, and to build your confidence you look at the training diaries, see the weeks and weeks and weeks of training you've done, so then when you stand on the start line you believe that you couldn't have done anymore.

Five male athletes and three female athletes also described a holistic approach to their preparation which enabled them to approach competition with maximum confidence. In addition to physical and mental training, a holistic approach included video analysis, vision training, nutritional advice, arranging hotels and transport, and getting treatment (i.e., massages) when needed. As the rugby World Cup winner recalled:

If you fully prepare to the best of your abilities and you leave no stone unturned, you have ultimate confidence when you go into a game that you've done everything you can possibly do to win...once you've got no excuses then you do go out there onto the pitch knowing that you're gonna win.

3.5.1.2 PERFORMANCE ACCOMPLISHMENTS

Performing successfully in competition was a source of confidence for all athletes. All male athletes (one team player, and six individual sports participants) highlighted competition outcomes as a source of confidence, as one Olympic silver medallist explained:

At this moment in my career I'm extremely confident. So far this year I've had the best season I've had, and once you do start getting successful results and everything, that builds your confidence and makes it more robust.

It was evident from the male athletes' responses that successful results strengthened their feelings of confidence and contributed to future successful performances; one World Cup winner highlighted "The confidence boost for us was the fact that Australia hadn't beaten us in four years. We knew that we could play Australia week in week out and we could beat them." In contrast, only three males derived confidence from competition performances. The results were reversed for the female athletes with three of the athletes citing competition

outcomes as a source of confidence, and all seven citing competition performances, such as starting a competition well, or achieving a personal best time.

Training accomplishments, such as performing better than training partners, or achieving 'personal bests' with regard to times, weights, and/or repetitions were also identified as a source of confidence by seven of the athletes (5 male, 2 female), one female swimmer highlighted:

We'd just done a pretty hard session and my coach said at the end of the session "100 max from a push"...I was only a second off my British record, from a push, so now going into next week I'm gonna remember that when I'm standing behind the block...So for me training is a major issue in my confidence.

3.5.1.3 COACHING

The coach was identified as a source of confidence by 13 of the athletes interviewed (7 male, 6 female). Three of the female athletes identified coaching advice as a source of confidence, whereas all six derived confidence from the social support of their coach. Raw data responses related to encouragement, positive feedback/reinforcement and compliments. One of the female swimmer's stated:

My coach is a very big source of confidence. He doesn't praise very much so when he does you know it means something, but I think he's on to the fact now that I'm not that confident so he blows a bit of air up my backside every now and again.

In contrast, five of the male athletes derived confidence from a belief in their coach to establish an appropriate training programme and were seemingly less reliant on their coach for social support, as one Olympic silver medallist explained:

I think I had a very good relationship with my coach at the time and he gave me confidence...I didn't question what we were doing, I just bought into the programme, I bought into my coach's ability to make me perform.

Nevertheless, the male athletes recognised that their coach was influential to their athletic success and four of the male athletes cited sources of confidence relating to the way in which they were handled by their coach. For example, one track athlete stated; "Your coach is instrumental in your success, from setting the right training, to motivating you, everything is about how he or she handles that person." Three of the male athletes also identified support staff as a source of confidence in terms of "providing treatment when necessary," "handling pressure," and "working towards a common goal."

3.5.1.4 SOCIAL SUPPORT

Eight of the 14 athletes (4 male, 4 female) derived confidence from the social support of their family, partners and/or friends, both during competition and preparatory training phases. This was characterised by phrases such as:

I think your social life, your relationships and your family situation has a massive impact...I think if you're in a very volatile relationship that's very up and down, very exciting, then that will ultimately affect your performance because there's no stability there, whereas if you're in a more solid relationship you're gonna get the support that you need...I've always taken that for granted until about three years ago when I had a bad relationship because that was the start of my situation with being unconfident.

3.5.1.5 INNATE FACTORS

Five male athletes and two females believed that they were born with some innate ability (i.e., an analytical personality, innate natural competitiveness, innate confidence, innate mental strength, innate natural ability, and innate natural skill/speed) that facilitated their sporting success. As one judo World Champion stated:

I think I had the ability to block things out and that's important. I would be more nervous two to three weeks before a major event than I was the day before or the day of, something used to click in and I could cope with it. There's not many people who can do it...I think it's something you can train, I think it's something you can develop and improve, but I think it's something that you are born with, I think it's a gift, I really believe that...some people have just got that mindset to be stronger, mentally.

3.5.1.6 COMPETITIVE ADVANTAGE

Five of the female athletes' derived confidence from a perceived competitive advantage such as seeing their competitors perform badly, or crack under the pressure of competition. One of these athletes indicated, "It's all in the face and the confidence comes with that, seeing your opponent crack."

3.5.1.7 EXPERIENCE

Six of the participants (3 male, 3 female) generated confidence from their athletic experiences and the increased understanding and self-awareness they developed as a result. For example, four athletes (3 male, 1 female) spoke about the confidence they gained from building back up from a career low, as one athlete highlighted:

I'd been so low so everywhere I looked it was just positive; everywhere I looked it was just better than it was before. I was just climbing that hill, or mountain, whatever you wanna think of it as, and I was just going up and up and up...what pushes you back makes you stronger and that made me so much more confident and so much stronger as an athlete mentally.

3.5.1.8 TRUST

Two of the male athletes (one team player, one individual sport participant) identified trust as a source of confidence. One of these athletes referred to trust within the support team, whilst the other referred to "the belief you have in your teammates to perform to the same standard as you want to achieve."

3.5.1.9 SELF-AWARENESS

Two of the female athletes identified factors associated to self-awareness as a source of their confidence. For example, one of the athletes stated, "I think I'm much more secure in myself, I know where I'm going, what I'm doing, and I know what I want, and I think you develop a level of confidence from that."

3.5.1.10 ATHELETE SPECIFIC FACTORS

Finally, 6 of the 14 athletes identified sources of confidence that were unique to them and not described by the global dimensions aforementioned. For the female athletes these additional sources of confidence were: enjoyment (taekwondo), self-presentation (e.g., weight loss) (swimmer), and consistency as a result of having the same management team at major tournaments (hockey player). For the male athletes, these additional sources of confidence included: enjoyment (diver), omens (e.g., being upgraded to first class during travel) (track athlete), commitment of other team members (rugby player), feeling deserving of a place on the team (rugby player), and going into competition as the underdogs with no support team⁴.

3.5.2 TYPES OF SPORT CONFIDENCE

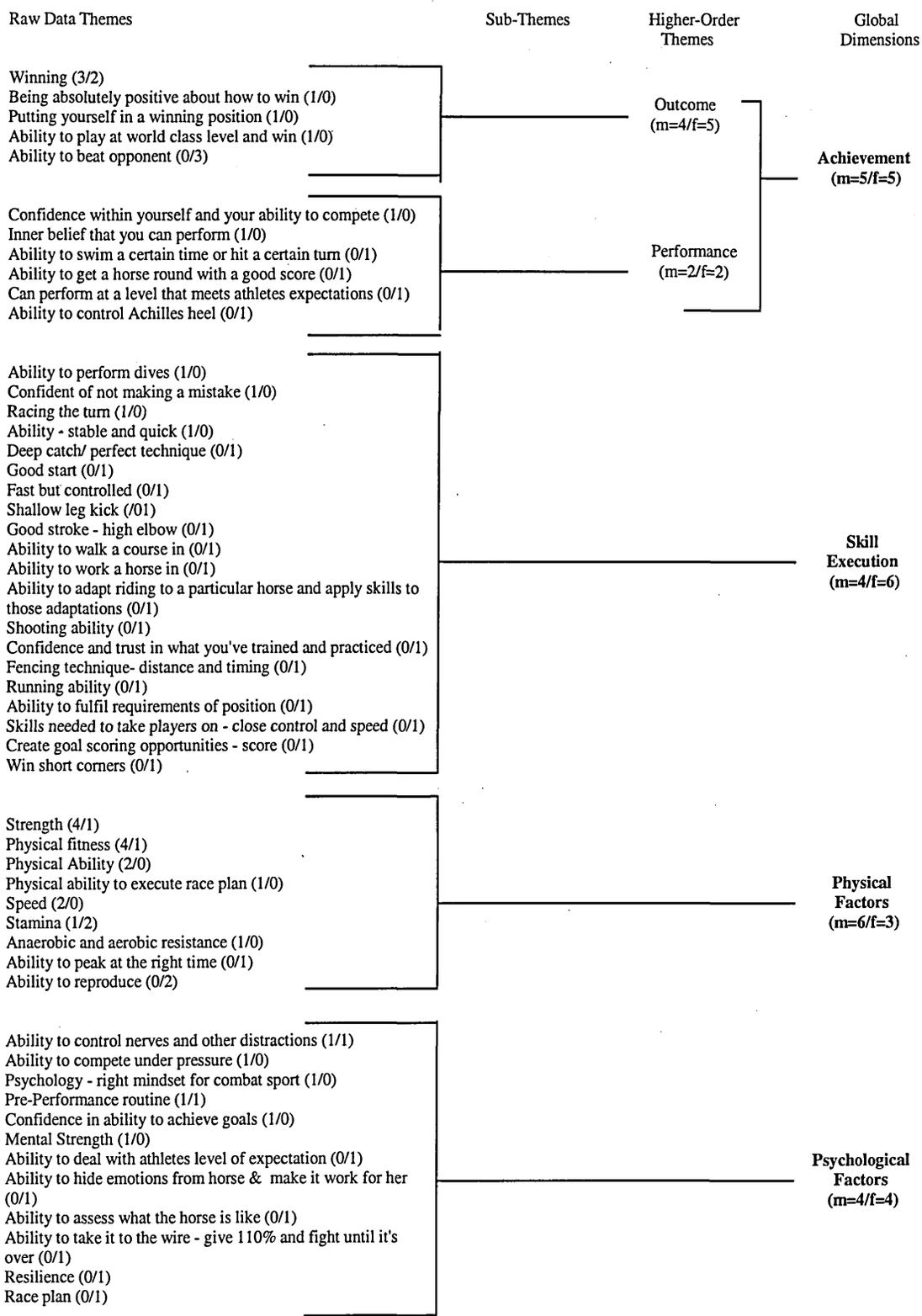
Four salient types of sport confidence were identified by male and female athletes: Skill execution; achievement; physical factors; and psychological factors (see Figure 3.2). Superiority to opposition and tactical awareness emerged as types of confidence identified by the male athletes only.

3.5.2.1 SKILL EXECUTION

Ten of the 14 athletes (4 male, 6 female) identified skill execution as a type of confidence. This type of confidence related to an athletes belief in their ability to execute sport specific skills technically correctly, and fulfil the requirements of their sport or position. For example, one of the swimmers highlighted:

I'd say that with regards to my race I've got a good start, I've got a good stroke, I've got the ability of easy speed so I'm quite fast but it's controlled so that when the last 50 comes I've still got quite a lot of energy left, I've got a shallow leg kick so I don't use my legs too much and zap oxygen...I've got a nice stroke, I'd say that was my biggest asset, I've got a nice freestyle with a nice high elbow and all that jazz.

⁴ Sport omitted at participant's request to protect anonymity



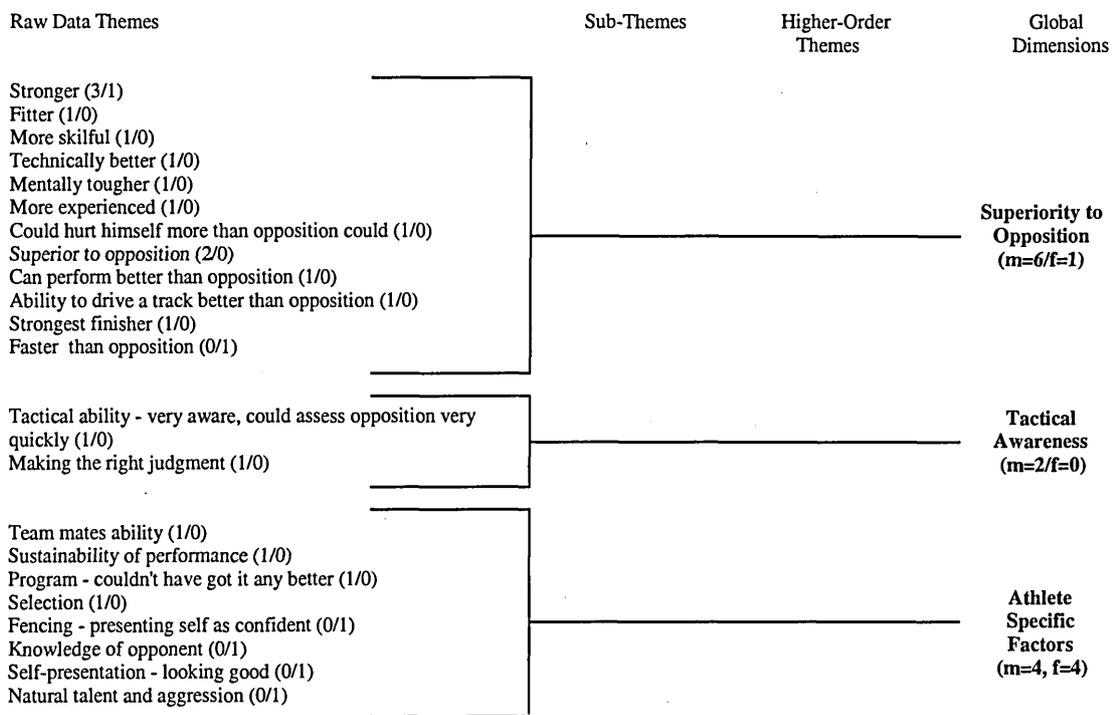


Figure 3.2 Themes and categories for types of sport confidence identified by World Class sport performers

3.5.2.2 ACHIEVEMENT

Achievement referred to the athletes' belief in their ability to achieve certain outcomes, or performance targets. Nine of the athletes (4 male, 5 female) were confident about outcomes, such as "winning" or "beating their opponent," for example:

I just felt like this strong person and even if someone was fighting me down the last length there was no way they were gonna beat me, when I went out onto the blocks all I felt was excitement and wanting to get out there and race, I had no fear whatsoever.

Four of the athletes referred to their belief in their ability to attain performance targets such as achieving a certain time, score or distance. As one swimmer highlighted; "how confident I am to swim a certain time or hit a certain turn, but it's more about swimming a certain time for me so how much I believe that I can do that."

3.5.2.3 PHYSICAL AND PSYCHOLOGICAL FACTORS

Nine of the 14 athletes (6 male, 3 female) were confident about physical attributes such as strength, speed, stamina, and peak fitness, and eight of the fourteen athletes (4 male, 4 female) were confident about psychological factors such as goal achievement, pre-performance routines and ability to deal with nerves and expectations. For example, one athlete talked about the ability to remain in control when competing under the pressure of World Class competition:

Because the pressure's on in competition you need confidence in the training you've done and the dives that you're gonna perform, and confidence in your ability to control your nerves and the other things that you get distracted by.

3.5.2.4 SUPERIORITY TO OPPOSITION

Superiority to opposition was identified as a type of confidence by six of the male athletes. In contrast, only one female athlete reported believing that she was "faster and stronger" than her opposition. This type of confidence related to the athletes' belief that they

were better than their opposition and included technical, physical and psychological factors, as one rugby World Cup winner stated:

South Africa was a massive crunch game and we knew it was going to be physical but we knew we'd done the work, we knew we were stronger, we knew we were fitter, and we knew we were smarter just through everything we'd done, from vision training to the nutritional side of it, we were ready for that competition and more ready than we'd ever been.

It was evident that this athlete's source of confidence (i.e., holistic preparation) influenced the type of confidence he possessed (i.e., superiority to opposition). Indeed, confidence based on preparation was conducive to a strong sense of superiority over opposition in athletes who identified this type of confidence. For example, one Olympic gold medallist (track athlete) highlighted the benefits of training alone:

If I was confident it was because I knew that actually there's nobody out there that can really make me hurt...I knew that I had the mental and the physical ability to actually commit on a training park in the middle of nowhere at 4.00 in the afternoon, and if I can do it there I can sure as hell do it in an Olympic stadium.

In contrast, another Olympic medallist developed a strong sense of superiority from being faster and able to lift more weight than his training partners:

There was very little that I felt someone could beat me at and therefore I did feel superior to the rest of our team and that set me apart...I never once doubted that I would qualify for the World Championships, I never once doubted that I'd qualify for a World Cup or an Olympic Games, I just always felt that I was better than anyone else in our country and that I would qualify.

It is important to highlight, however, that despite having training partners, this athlete followed an individualised training programme to which his training partners were compliant.

3.5.2.5 TACTICAL AWARENESS

Two of the male athletes were also confident about their tactical ability. For example, "being tactically very aware" and "making the right judgement."

3.5.2.6 ATHLETE SPECIFIC FACTORS

Finally, eight of the 14 athletes identified types of confidence that were unique to them and not described by the global dimensions aforementioned. For the female athletes, these additional raw data themes were; natural talent and aggression (taekwondoe), confident self-presentation (modern pentathlon), knowledge of opponent (judo), and self-presentation (e.g., looking good) (swimmer). For the male athletes, these additional raw data themes were: teammates ability (rugby), sustainability of performance⁵, programme and selection (speed-skater).

From the interviews it was evident that the athletes' types of confidence were derived from several sources. This would seem important in terms of developing robust sport confidence, as one of the athletes highlighted:

As I grew up I was told that I was naturally a great athlete. That gave me confidence but when I lost why couldn't I just turn it around? Because that bubble had burst, I hadn't won...So the confidence has obviously got to be coming from lots of places otherwise it's very easily broken just by not winning once.

3.6 DISCUSSION

The purpose of study one was to identify the sources and types of confidence salient to successful World Class athletes. Nine sources of confidence were identified: Preparation, performance accomplishments, coaching, innate factors, social support, experience, competitive advantage, self-awareness and trust. With regard to types of confidence, skill execution, achievement, physical factors, and psychological factors were identified by both the male and female athletes. Superiority to opposition and tactical awareness emerged as additional types of confidence identified by the males.

The findings provide some support for the self-efficacy predictors identified by Bandura (1997); specifically, verbal persuasion and performance accomplishment. Verbal persuasion was important to the female athletes who identified coach feedback and positive

⁵ Sport omitted at participant's request to protect anonymity

reinforcement as a source of their confidence, whereas performance accomplishment, thought to represent the most powerful effects upon self-efficacy (Bandura, 1997), was identified as a source of confidence by all of the athletes interviewed. Previous research utilising World Class athletes (e.g. Durand-Bush & Salmela, 2002; Greenleaf et al., 2001) has suggested that focusing on performance, rather than outcome, is conducive to successful Olympic performances. However, these studies have not made gender comparisons. Results of the present study seemed to suggest that more males focused on competition outcomes whereas the majority of female athletes identified good personal performances as a source of their confidence. These findings are in accordance with research which has identified that different antecedents predict self-confidence in males and females (e.g., Gill, 1988; Jones et al., 1991). The results of the present study certainly draw attention to possible gender differences in the goal orientation of those competing on the World Class stage, and might inform goal-setting interventions. For example, World Class athletes might be encouraged to identify and focus on the aspects of their competition which facilitate their confidence (i.e., performance for females and outcome for males). However, more research in this area is warranted before more definitive conclusions can be drawn. In addition to competition accomplishments, several athletes identified training accomplishments as important to their feelings of confidence, highlighting the importance of structuring goal-setting programmes towards achieving both training and competition targets. Indeed, goals have been consistently identified as a crucial component of World class athletes' training schedules (Durand-Bush & Salmela, 2002).

Mental preparation, rather than imaginal experiences per se, was identified by the World Class athletes as conducive to their confidence. Although two of the athletes did make reference to some form of mental rehearsal, several additional mental skills were also identified (e.g., pre-performance routines, anxiety control, self-talk). Structured goal-setting and identifying and rectifying weaknesses were also highlighted by the athletes as important

to their levels of confidence. Thus, whilst the positive role of imagery on athletes' feelings of confidence is well documented, the present study highlights the importance of drawing on a variety of mental skills.

The remaining efficacy predictors, vicarious experience and emotional and physiological states, were not identified as sources of confidence by this elite group. Although several studies have demonstrated that vicarious experience is an important means of enhancing confidence (e.g. Hardy et al., 2000; Jones et al., 2002), it is possible that the athletes World Class status made them less likely to derive confidence from observing other athletes performing successfully. It is also possible that the positive affective responses, and facilitative interpretations of physiological arousal thought to accompany high levels of confidence (Jones et al., 1994; Vealey, 2001), might have been viewed as a consequence, rather than as a source of sport confidence, by the athletes interviewed. These suggestions need to be investigated empirically.

In accordance with Vealey et al.'s (1998) contentions, the athletes in the present study did identify additional sources of confidence to Bandura's (1997) self-efficacy predictors. For example, consistent with the findings of Vealey et al. (1998), all of the athletes in the present study highlighted preparation as an important source of their sport confidence. Research with World Class athletes has consistently identified preparation as conducive to high levels of confidence (e.g. Jones & Hardy, 1990) and multifaceted preparation has been identified as a positive factor influencing the performance of Olympic athletes (Greenleaf et al., 2001). In the present study, preparation was also cited as a confidence source multiple times in a multitude of ways. Consequently, responses were categorised into three distinct higher order themes; physical, mental and holistic preparation. A holistic approach to competition included the use of additional resources, such as video analysis, which facilitated feelings of confidence. Such resources are likely to be more readily available to successful World Class athletes, which might elucidate why such factors have not been identified by the high school,

collegiate and masters athletes previously examined (e.g., Vealey et al., 1998; Wilson et al., 2004). Nonetheless, since World Class athletes derive confidence from multifaceted preparation, a multidisciplinary approach to athlete support would seem necessary.

The credibility, enthusiasm, and knowledge of Olympic-level coaches have been identified as critical to their athletes' success (Durand-Bush & Salmela, 2002; Gould et al., 1999). Furthermore, verbal persuasion has been consistently identified as an important technique used by coaches to facilitate self-efficacy in athletes (e.g., Orlick & Partington, 1988; Weinberg et al., 1992). Thus, it is perhaps unsurprising that the coach was identified as another fundamental source of confidence for the athletes interviewed. However, gender variations were seemingly evident. Females derived confidence primarily from their coach's encouragement, positive feedback/reinforcement and compliments, akin to the 'social support' source of sport confidence identified by Vealey et al. (1998). In contrast, male athletes tended to derive confidence from a belief in their coach to establish an appropriate training programme, comparable to Vealey et al.'s (1998) 'coach's leadership' source of sport confidence. Social support per se, was identified by an equal number of male and female athletes, suggesting that males do derive sport confidence from this area. However, this source of confidence referred to the social support of family, partners and/or friends, rather than coaching staff.

Whilst the current research base supports the notion that coaches' behaviour significantly affects athletes psychosocial growth and development (Horn, 2002), considerably less information is available concerning the coaching styles, behaviours and feedback patterns that might affect athletes confidence (Horn, 2002). The findings of the present study highlight that the relationship between coach behaviour and sport confidence per se warrants further examination, particularly with reference to the observed gender variations. For example, the results have obvious but important implications for coaching practice and it might be that a prescriptive or autocratic style of coaching is more facilitative

to the confidence of male athletes, whereas female athletes would benefit more from a socially supportive coaching role. These findings would seem congruent with research examining gender differences in regard to preferred coaching behaviours. For example, male athletes have been found to favour an autocratic coaching style more so than female athletes who exhibited greater preference than males for a democratic coaching style (e.g., Chelladurai & Saleh, 1978; Terry, 1984). Thus, coaches should be aware of these possible gender differences, and be encouraged to interact with their athletes in a way that is facilitative to their sport confidence.

Although parallels can be drawn between the findings of the present study and previous research, the findings highlighted within this investigation seem to provide further evidence that organisational factors influence the sources of sport confidence utilised by athletes. For example, physical self-presentation, identified as an important source of confidence by the collegiate athletes in Vealey et al.'s (1998) study, was acknowledged by only one of the World Class athletes interviewed. Vealey et al. (1998) proposed that either the elite nature of collegiate sport, or the greater emphasis placed on body type and presentation in individual sport, might explain the importance collegiate athletes placed upon this confidence source. Given that 86% of the World Class athletes in the present study also participated in individual sports, these contentions seem unlikely. Comparisons between the findings of the present study and Vealey's research are cautionary, given the two different types of analyses and the large difference in the numbers of participants. Thus, further research is required to examine causal explanations for the importance collegiate athletes place upon their physical self-presentation, and would seem necessary given the potential implications for sport professionals working with collegiate athletes.

The qualitative interviews employed by the present study resulted in the identification of additional sources of sport confidence not highlighted by previous research (e.g., Vealey, 1998). For example, five male and two female athletes, believed that they were born with

some 'innate ability' that facilitated their sporting success. These abilities ranged from psychological factors such as competitiveness, confidence and analytical skill, to physical factors such as natural skill and speed. The foundation for such beliefs cannot be inferred from the present study, but given the robust nature of such a confidence source, this area is certainly worthy of further exploration.

Perceived competitive advantage was a confidence source identified by the female athletes only. This suggests that synonymous with previous research (e.g., Lirgg et al., 1996), female athletes tended to derive confidence from the competitive situation at times, rather than from internal factors. As such, these athletes might be more susceptible to external confidence debilitating factors such as the organisational stressors associated with World Class sports performance. Previous research has suggested that male athletes demonstrate higher levels of confidence than female athletes (e.g., Krane & Williams, 1994; Lirgg, 1991; Vargus-Tonsing & Bartholomew, 2006), and are less susceptible to changes in self-confidence during the precompetition period (Jones & Cale, 1989; Jones et al., 1991). The present findings would seem to suggest that gender differences might also be evident at the World Class level. Although research has shown that at the Olympic Games athlete confidence levels can be susceptible to instability (Gould et al., 1999), gender variations have not been examined. Thus, further research is required to explore the relationship between gender and levels of sport confidence in World Class athletes and identify possible confidence debilitating factors. This is particularly important given that even the most skilled performers have been found to perform poorly under circumstances that undermine their belief in themselves (e.g. Bandura & Jourden, 1991; Wood & Bandura, 1989). Such research is likely to influence the development of interventions targeted at specific confidence needs.

An equal number of male and female athletes also derived confidence from their athletic 'experience', another positive performance factor cited by athletes and coaches from successful Olympic teams (Gould et al. 1999). The athletes in the present study made

reference to the increased understanding they developed through their athletic experiences, which is perhaps unsurprising given the length of time they had spent competing at the highest sporting level. Indeed, the less experienced high-school and collegiate athletes in Vealey et al.'s (1998) study did not identify this as a source of their confidence. In addition to experience, two of the female athletes also identified factors associated with 'self-awareness' and maintained that when they felt happy and confident in their life outside sport, these feelings transferred to how they felt within sport. Related to this, both the male and female athletes derived sport confidence from the social support of their family, partners and/or friends.

Two of the male athletes identified 'trust' as a source of confidence, in terms of trust within the support team (individual sport participant), and trust in team-mates to "perform to the same standard as you want to achieve" (team player). Given that in team sports an athlete's performance is influenced by that of their team-mates, team players are likely to have additional sources of sport confidence available to them when compared to individual sports participants. Since only two team players were interviewed in the present study, sport type comparisons could not be made. This area warrants further exploration.

With regard to types of confidence, the findings of the present study indicated that the sources of confidence identified by World Class athletes might influence the types of confidence they possess. For example, all of the athletes interviewed identified preparation as a source of their confidence. The majority of these athletes were also confident about 'skill execution,' their ability to perform sport-specific skills technically correctly and fulfil the requirements of their sport or position. It would seem logical then to view types of sport confidence as evidence-based belief systems grounded in athletes' sources of sport confidence. Further research specifically examining the relationship between sources and types of sport confidence is needed before this level of causality can be assumed.

Gender was found to influence the types of confidence identified by the athletes. For example, superiority to opposition was identified as a type of confidence by six of the seven male athletes, as opposed to only one of the female athletes. Whereas the female athletes derived confidence from the feeling that they had a competitive advantage over their opposition, the male athletes just believed they were superior. Again, causality cannot be inferred from the present study and further research is necessary to identify the reasons for such observed gender differences.

3.7 SUMMARY

In summary, the purpose of study one was to investigate one of the most important influences on sporting performance from the perspective of successful World Class sports performers. The sources of confidence identified, and the variations within them, are unique to sport and do not neatly fit existing models and literature on confidence. Thus, the use of in-depth interviews enabled the exploration of meanings of sport confidence for a limited sample, and resulted in contributions to the literature that haven't been previously addressed. In addition to psychological factors, physical, social, organisational and environmental factors were discussed in relation to confidence. Consequently, this study has provided a broad holistic view of the sources and types of sport confidence used by World Class athletes, and how these might interact with non-psychological factors. Nonetheless, several areas for future research in the study of confidence and sport have been identified.

The findings of study one have both theoretical and practical applications. From a theoretical standpoint, the findings are testament to the multidimensional nature of sport confidence and the importance of utilising a sport-specific framework to aid future research. Although self-efficacy theory has been successfully applied to many disciplines of psychology, it would seem that athletes specifically utilise additional sources of confidence that are not associated with Bandura's (1997) self-efficacy predictors. These sources appear to

form the basis of an athlete's sport confidence beliefs and would therefore seem critical to their confidence levels. The results of this study also indicated possible gender differences in the goal orientation of those competing on the World Class stage. Furthermore, the findings identified that female athletes might be more susceptible to external confidence debilitating factors such as the organisational stressors associated with World Class sports performance. The integrative model of sport confidence (Vealey, 2001) was designed to provide a framework from which meaningful extensions to the literature could be generated. Thus, gender variations in goal-setting strategies, and the factors responsible for debilitating sport confidence, need to be explored within this sport specific context. Future goal-setting research utilising World Class athletes specifically, is likely to inform goal-setting interventions with this population group.

From a practical perspective, the findings have implications for sport psychologists providing support to athletes competing on the World Class stage. Evidently, the development of interventions targeted towards protecting and enhancing an athlete's sources and types of confidence is warranted. However, the present investigation provides further evidence that demographic and organisational factors influence the sources of sport confidence utilised by athletes. These factors need to be considered when assessing the confidence levels of performers. Consequently, the development of applied instruments designed to assess an individual's particular confidence needs (i.e., sources and types of confidence), regardless of their gender, sport level or sport type is merited. Furthermore, all athletes cited multiple sources and types of confidence which would suggest that it's unwise to focus on any particular source or type of confidence in practice. Rather, encouraging athletes to derive confidence from a multitude of sources, and develop an understanding of how and why they perform successfully, might enable them to develop a more robust sport confidence.

CHAPTER IV

STUDY TWO

THE ROLE OF SPORT CONFIDENCE IN WORLD CLASS SPORT PERFORMANCE: A GENDER BASED COMPARISON

4.1 INTRODUCTION

Study one examined the sources and types of confidence used by World Class sport performers. Although parallels between the findings of study one and previous research were discussed, the findings provided further evidence for the importance of utilising a sport-specific framework to aid future research. The integrative model of sport confidence (Vealey, 2001) was designed to do just that, provide a framework from which meaningful extensions to the literature could be generated, and from which interventions designed to enhance confidence in athletes could be developed. However, little research has been conducted to test the predictions of Vealey's work and despite numerous studies advocating self-confidence as being beneficial to performance; the processes and mechanisms underlying confidence effects have been largely ignored. Important issues arising from study one indicate the necessity of examining the role of sport confidence in World Class sport performance.

The core constructs and processes that Vealey (2001) predicted to most directly influence sport performance were the sport confidence construct, the three domains representing sources of confidence (achievement, self-regulation, and social climate), and the ABC's of sport psychology (affect, behaviour, and cognition). As highlighted in chapter two, confidence has been consistently associated with positive emotions, productive achievement behaviours, and skilful and efficient use of the cognitive resources necessary for sporting success. At present, no research has been conducted to investigate these processes in World Class athletes. Although Bandura (1977) demonstrated that emotional and physiological arousal were important means of enhancing self-efficacy, emotional and physiological states

were not identified as sources of confidence by the elite sample group interviewed in study one. It was concluded that the positive affective responses, and facilitative interpretations of physiological arousal thought to accompany high levels of confidence (Jones et al., 1994; Vealey, 2001) might have been viewed as a consequence, rather than as a source of sport confidence, by the athletes interviewed. These suggestions need to be investigated empirically in World Class athletes to enhance understanding of the way in which confidence might moderate the affective responses of those competing at the highest level. Indeed, information pertaining to the affective, behavioural and cognitive responses of athletes who have been successful on the World Class stage would likely inform the coaching practice and psychological support of less successful coaches and athletes.

Organisational culture was included in the integrative model of sport confidence (Vealey, 2001) to represent the influence of competitive level, motivational climate, and the goals and structural expectations of sport programmes on the sources and levels of sport confidence experienced by athletes. In accordance with this research, the findings of study one highlighted the influence of demographic and organisational factors on athletes sport confidence. For example, more males focused on competition outcomes whereas the majority of female athletes identified good personal performances as a source of their confidence.

Substantial research that has shown outcome goals can create anxiety and interrupt psychological functioning (e.g., Burton, 1992) and previous research utilising World Class athletes (e.g. Durand-Bush & Salmela, 2002; Greenleaf et al., 2001) has suggested that focusing on performance, rather than outcome, is conducive to successful Olympic performances. Consequently, sports performers are usually encouraged to set performance, rather than, or at least in conjunction with outcome goals (Gould, 2006). Limited information is available regarding gender differences in competitive orientation, and despite male athletes consistently demonstrating higher levels of confidence than female athletes, Vealey (1988) provides the only study designed to examine gender differences in sport confidence and

competitive orientation specifically. Vealey (1988) found that gender differences in confidence did not exist at the elite level. Furthermore, both male and female elite athletes based their feelings of competence and satisfaction on how well they performed, rather than on outcomes. These findings have not been supported by research using university athletes (e.g., Gill, 1988; Jones et al., 1991), and would also seem contradictory to the findings of study one. Since the findings of study one would seem to have important implications for goal-setting interventions with World Class sport performers, research specifically designed to identify the preferred competition goals of male and female World Class athletes is warranted. Hardy et al. (2001) proposed that although elite athletes hold outcome goals, they do not focus on them in the heat of competition, preferring instead to focus only on what they can control such as their performance and process objectives. These contentions need to be investigated empirically. An exploration of the relationship between goal orientation and consequent levels of sport confidence in World Class athletes is also required.

Gender differences in sources of sport confidence were apparent throughout the World Class sample examined in study one. For example, female athletes derived confidence from the encouragement, positive feedback/reinforcement and compliments of their coach, whereas the majority of the male athletes derived confidence from a belief in their coach to establish an appropriate training programme. These findings are congruent with research that has identified social support as a more important source of confidence for female athletes than males (e.g. Vealey et al., 1998). Furthermore, the female athletes seemed to derive confidence from the competitive situation at times, rather than from internal factors. Vealey et al. (1998) suggested that by deriving confidence from less controllable sources athletes may develop less stable and weaker perceptions of control and competence. Thus, female World Class athletes might be expected to be more susceptible to external confidence debilitating factors such as the organisational stressors associated with World Class sports performance. Research within the sport psychology domain (e.g., Fletcher & Hanton, 2003; Woodman & Hardy,

2001) has identified four main organisational stress issues contiguous with major international competitions such as the World Championships and/or the Olympic Games; environmental issues, personal issues, leadership issues, and team issues. Furthermore, Olympic athletes have reported that the pressure and distractions of World Class competition can render their confidence level atypically 'fragile' (Gould et al., 1999). Thus, research is required to investigate the relationship between gender and confidence at the World Class level, and identify the factors responsible for unstable confidence levels within the organisational subculture of World Class sport.

Although there were important differences in the sources and types of confidence utilised by the male and female athletes in study one, there were several sources and types of confidence common to the collective group. For example, 11 athletes highlighted the important role of mental preparation in the development and protection of their confidence. Imaginal experiences have been identified as an important means of enhancing self-efficacy (Maddux, 1995) and although two of the athletes in study one did make reference to some form of mental rehearsal, several additional mental skills were also identified (e.g., pre-performance routines, anxiety control, self-talk). Structured goal-setting and identifying and rectifying weaknesses were also highlighted by the athletes as important to their levels of confidence. Thus, whilst the positive role of imagery on athletes feelings of confidence is well documented, study one highlighted the importance of drawing on a variety of mental skills. Since the purpose of study one was to identify all the sources and types of confidence used by World Class athletes, an exploration of the strategies employed by successful World Class athletes to protect and maintain their confidence was not presented. Such investigation would likely inform intervention work with less experienced athletes, providing another fruitful line for further enquiry.

4.2 AIMS OF STUDY TWO

Study two was designed to build upon, modify and extend the findings of Vealey (1988; 2001) to World Class sports performers, and based upon the findings of study one, further explore the relationship between gender and confidence at the World Class level. Given the exploratory nature of the topic, the method used was qualitative interviews and the integrated model of sport confidence (Vealey, 2001) formed the broad base of the interview guide. The purpose of the interview study was to: 1) identify the types of competition goals set by World Class athletes; 2) identify the factors responsible for unstable confidence levels within the organisational subculture of World Class sport; and 3) examine the role of confidence in World Class sport performance. Specifically, confidence was examined in relation to the affective, cognitive and behavioural responses it elicits.

4.3 METHOD

4.3.1 PARTICIPANTS

With Institutional ethics approval, 14 athletes (7 males, 7 females) aged between 21 and 48 years (31.2 ± 8.4 years) were interviewed. Thirteen of the athletes had medalled in at least one major championship (i.e., Olympic Games, World Championship and/or World Cup), and the remaining athlete was the current world record holder in their discipline. The athletes had competed at their highest level (Olympic and/or World Class) for between 5 and 16 years (10.4 ± 3.6 years) and included two team sport participants (rugby and hockey) and twelve further participants who competed in eight different individual sports: (diving, $n=1$; athletics, $n=2$; taekwondo, $n=1$; judo, $n=2$; bob-skeleton, $n=1$; speed-skating, $n=1$; modern pentathlon, $n=2$; and swimming, $n=2$). The athletes were initially contacted through e-mail or by telephone and sent a formal letter of information. To maximise the retrieval of accurate and in-depth data, the participants were asked to reflect upon their most and least confident career moments prior to the interview taking place. Participants gave their written consent for the interview to be audio taped so that a typed transcript could be made for later review.

4.3.2 THE SEMI-STRUCTURED INTERVIEW

The full interview schedule comprised five sections. The first section was designed to establish rapport with the participant and included standardised introductory comments pertaining to the purpose of the study, the use of data, and issues regarding confidentiality and anonymity. The second and third sections of the interview schedule formed the main body of the interview. Section two asked the athletes to describe the time that they had felt least confident going into an important competition, and section three asked the athletes to describe the time that they had felt most confident going into an important competition. These sections included questions pertaining to the affective, behavioural, and cognitive responses to competition, factors debilitating sport confidence, goal-orientation, and strategies used to facilitate confidence. In the fourth section, and if not already covered as a consequence of section one and two, the athletes were asked about the causal attributions they made to appraise their most successful and unsuccessful performances. The fifth and final section of the interview discussed the interview experience and any other important information that might have been overlooked during the interview process. The interview schedule was pilot tested by the author on a sample of three retired international performers, and minor refinements were made.

4.3.3 ETHICAL CONSIDERATIONS

A risk assessment pro-forma was completed prior to the commencement of this study, resulting in an application for ethical clearance. Whilst the participants were interviewed about their most confidence experiences in sport, they were also asked about times when they had underperformed or were not feeling confident. It was possible that participants might experience a degree of discomfort in answering these questions. Consequently, the interview was structured to ensure that it concluded with the athletes discussing their positive experiences in sport. Since the author completed the interviews alone with the participants in off-campus environments, she ensured that both she and the participant had easy access to

leave the interview environment at any point, and that a third party was always informed of the author's location. Finally, all participants were fully informed of the risks associated with the research and were required to complete an informed consent form. It was made clear to the participants that they were free to withdraw consent or participation from the study at any time, that they were free to refuse to answer any of the questions put to them, and that no disadvantage would arise from a decision not to participate. Ethical approval for study one and two was granted by the Sheffield Hallam University Ethics Committee (see Appendix 1 for full details of the application).

4.3.4 PROCEDURES

An open-ended, semi-structured interview¹ (Patton, 2002) was conducted by the author with each athlete. Consequently, the interviewer followed an interview guide, but allowed the natural flow of the conversation to dictate the direction of questioning. Consistent with the research aims, it was intended from the beginning of data collection to produce causal explanations pertaining to the most important processes and mechanisms by which self-confidence facilitates performance, and the relationship between them. Therefore, in line with recent research, a causal questioning technique was adopted (e.g., Hanton & Connaughton, 2002).

To control for guessed responses participants were reminded that there were no right or wrong answers, to take their time responding to questions, and to tell the interviewer if they could not remember something rather than guess (Hindley, 1979; Moss, 1979). Clarification and elaboration probes were used throughout the interview to ensure an accurate and in-depth understanding of what the participants were describing, and to create a consistent level of depth across the interviews (Patton, 2002). The interviews lasted between 45 and 135 minutes and were tape recorded in their entirety.

¹ View Appendix 2 for a copy of the interview guide

4.3.5 ANALYSIS

As in study one, all interviews were transcribed verbatim by the author, and then content analysed by the author and the three members of her PhD supervisory team. The four investigators followed procedures recommended by Miles and Huberman (1994) and successfully applied to sport psychology research (e.g., Gould et al., 2002; Greenleaf, Gould & Dieffenbach, 2001). Each investigator independently read and re-read the 14 interview transcripts and deductively identified the types of competition goals set by each athlete and coded them according to their goal-type (i.e., outcome, performance, process and/or any combination). All the raw data responses representing factors identified as debilitating to sport confidence (e.g., negative comments from coach about weight) were also manually identified. These raw data responses were then organised into patterns of like responses in the data to create more meaningful higher-order themes (e.g., coaching). Although these dimensions were allowed to emerge from the data inductively, they were subsequently verified through deductive methods ensuring they existed in the raw transcripts (e.g., Hanton & Jones, 1999).

The competition goal-type assigned to each athlete, and the higher-order themes representing factors debilitating to confidence, were validated during a focus group meeting. The author presented her findings to the remaining three investigators and where inconsistencies or differences arose between them, a discussion ensued until consensus was reached. As advocated by Greenleaf et al. (2001), no inter-rater reliability statistics were computed as the goal of the analysis was to identify the competition goals set by World Class athletes and establish an understanding of the factors responsible for debilitating their sport confidence, not to test the four investigators ability to identify common themes.

To date, the most prominent method of qualitative data analysis applied to sport psychology research has been some form of 'inductive content analysis' (cf. Biddle et al., 2001). This method enables dimensions, theories and relationships to emerge from the raw interview transcript without prior specification of what these important areas might be. In

contrast, deductive content analysis requires the researcher to specify in advance of data collection a statement of specific research hypotheses, and the variables to be investigated (Patton, 2002). Recent research within the sport psychology domain has tended to adopt a more combined approach whereby dimensions, theories and relationships are allowed to emerge from the data inductively, but are then verified using deductive methods to ensure they exist in the raw transcripts (e.g. Hanton & Jones, 1999). However, several researchers have highlighted the descriptive nature of content analysis which does not allow for causal linkages between processes and outcomes to be elucidated (e.g., Hanton & Jones, 1999; Miles & Huberman, 1994). Consequently, 'causal networks' (Miles & Huberman, 1994) were adopted as the analysis technique used to examine the processes by which sport confidence influences performance in World Class athletes.

When defining a causal network, Miles and Huberman (1994) indicated that they should:

...display the most important independent and dependant variables in the field of study (shown by boxes) and the relationship amongst them (shown by arrows). The plot of these relationships is directional, rather than solely correlational. It is assumed that some factors exert an influence on others: X brings Y into being or makes Y larger or smaller. A causal network to be useful, must have associated analytical text describing the meaning of the connections among factors. (pp. 153).

Thus, the network diagram provides a visual representation of the relationship between variables under investigation and the accompanying descriptive text helps communicate the variables, and the relationship between them, more effectively than each could independently do on their own. Causal networks have been successfully applied to the analysis of qualitative data within the sport psychology research literature, and procedures employed by Hanton and Connaughton (2002) were adapted to the present study. Specifically, all interviews were read by the four investigators to ensure content familiarity. Causal streams in the form of raw quotations were then identified and encoded from each transcript and

separate causal networks were developed from the data for both high and low confidence, with the frequency of each stream (percentage of respondents) being recorded. Finally, deductive analyses were performed to ensure that all themes were present in the raw transcripts. Again, the causal streams were validated during a focus group meeting in which the author presented her findings to the remaining three investigators and the final networks were discussed until agreement was reached.

4.4 RESULTS

4.4.1 COMPETITIVE GOAL ORIENTATION

As shown in Table 4.1, gender differences in competitive orientation were evident in the data. Generally, the male athletes set outcome goals, or a combination of outcome and process goals for competition, whereas the female athletes set a combination of performance and process goals. For example, one male World Champion highlighted: "I wanted to be the only one to be in three Olympic finals for one thing. I wanted to win the Olympic gold medal which was the only competition that alluded me out of everything.....So that was the only thing on my mind really just to do that...". Another Olympic gold medallist described his focus immediately before his Olympic final on "Winning, nothing else mattered that day". Thus, not only did the male athletes set outcome goals, but there was also evidence to suggest that they were focused on them immediately prior to competing.

In addition to their competition goals, four of the seven male athletes also made reference to long-term outcome goals, as highlighted by two of the male athletes:

I always used to think a long way down the track, I knew when I was 17 or 18 that I wanted to win the Olympic title, I wanted to win the European title, and if I could a commonwealth title, and basically win all my major races.

I think with anything, realistic goals are imperative...My realistic goals were nothing less than being world or Olympic champion...and I knew that that was always what I was capable of from a very early age.

Table 4.1 Gender Differences in Competitive Orientation

	Number of Male Athletes Citing Goal-Type (N=7)	Number of Female Athletes Citing Goal-Type (N=7)	Number of Athletes Citing Goal-Type (N=14)
Outcome	3 (43%)	0	3 (21%)
Performance	0	0	0
Process	1 (14%)	1 (14%)	2 (14%)
Combination (Outcome & Performance)	0	1 (14%)	1 (7%)
Combination (Outcome & Process)	2 (29%)	1 (14%)	3 (21%)
Combination (Performance & Process)	0	3 (43%)	3 (21%)
Outcome or Process (Depending upon Expectations)	1 (14%)	1 (14%)	2 (14%)

Conversely, more female athletes set a combination of performance and process goals

for competition. A good first touch on the ball was an example of a process goal set by one of the athletes. This athlete believed that if her "first touch was good then everything else happened naturally".

I think the first thing that I used to do was to try and get a good touch on the ball...so whether it was me passing the ball or someone passing the ball to me, I'd try and execute that well rather than think too much about 'if we win this, if we lose this, if I score, if I don't score, if I don't play well'.

The performance goals set by the female athletes related to personal times or scores.

For example, one female athlete highlighted:

If I focus on the time, I know what I have to do to get that time, and it's a lot simpler than thinking 'yeah, I could win the Olympics' and to me this summer's very much about doing a time and Olympic gold or silver or bronze is bullshit at the minute.

One of the modern heptathlon Olympic medallists highlighted the importance of setting zones of scores to keep expectations in check and avoid getting "bogged down" by trying to achieve very specific scores throughout the five event competition:

Goal-setting for competition, I've sort of got zones of scores that I want to achieve, because if you get very specific then you get bogged down by trying to achieve that... sometimes if I've fenced very very well I'm happy to drop two seconds in my swim time because you've worked quite hard in the fencing event and so sometimes you need to adjust your expectation as the day goes on.... at the beginning of the week, you might have been in the shape to run a 10.30 3k, but you might have had a really hard semi, you might have screwed something up in the semi, you might have had to run really hard, you might have had to swim really hard. You've got to be able to adjust your expectation, 'perhaps I won't run 10.30 maybe I'll run 10.40', that's why I feel zones work better because you can still justify that 10.40 is good, even though it's 10 seconds down on what you thought you could do. So yeah, I work in zones for outcome, but sort of how I achieve it is much more important... I know that if I do this, this and this, then generally I end up with this. And so it's more process orientated rather than score orientated, it's how I do it rather than what I do, if that makes sense?

The female athletes seemed to employ process goals for competition as a means of protecting them from the anxiety they associated with outcome goals, as one of these athletes highlighted: "Fear of failure is just, you're worried about the outcome before you've even started. I very much focus on the process and the outcome takes care of itself".

The competition goals set by two of the athletes (1 male, 1 female) were influenced by their expectations. High expectations were associated with an outcome focus which then caused these athletes to doubt in their ability to perform successfully. Conversely, low expectations were synonymous with a process focus and successful performance outcomes, for example:

When you're expectation is lower, so your goals are lower, you then have more of a confidence that you will achieve that goal...when the goals are much higher maybe then there starts to creep in a little bit of doubt that you can achieve that goal so you start to become more tense.

4.4.2 FACTORS RESPONSIBLE FOR DEBILITATING SPORT CONFIDENCE

As shown in Figure 4.1, poor performance and injury/illness were the primary factors responsible for reducing pre-competition confidence in male athletes competing on the World Class stage. As shown in Figure 4.2, four additional factors were identified by the females; poor preparation, coaching, pressure and expectations, and psychological factors. The number of athletes citing each raw data and higher order theme are shown in brackets.

4.4.2.1 POOR PERFORMANCES

Poor performances were responsible for reduced confidence in ten of the fourteen athletes interviewed (3 male, 7 female). In addition to responses pertaining to unsuccessful results, five of the female athletes also highlighted that starting a competition badly reduced their feelings of confidence for the remainder of the competition, as one of these athletes stated:

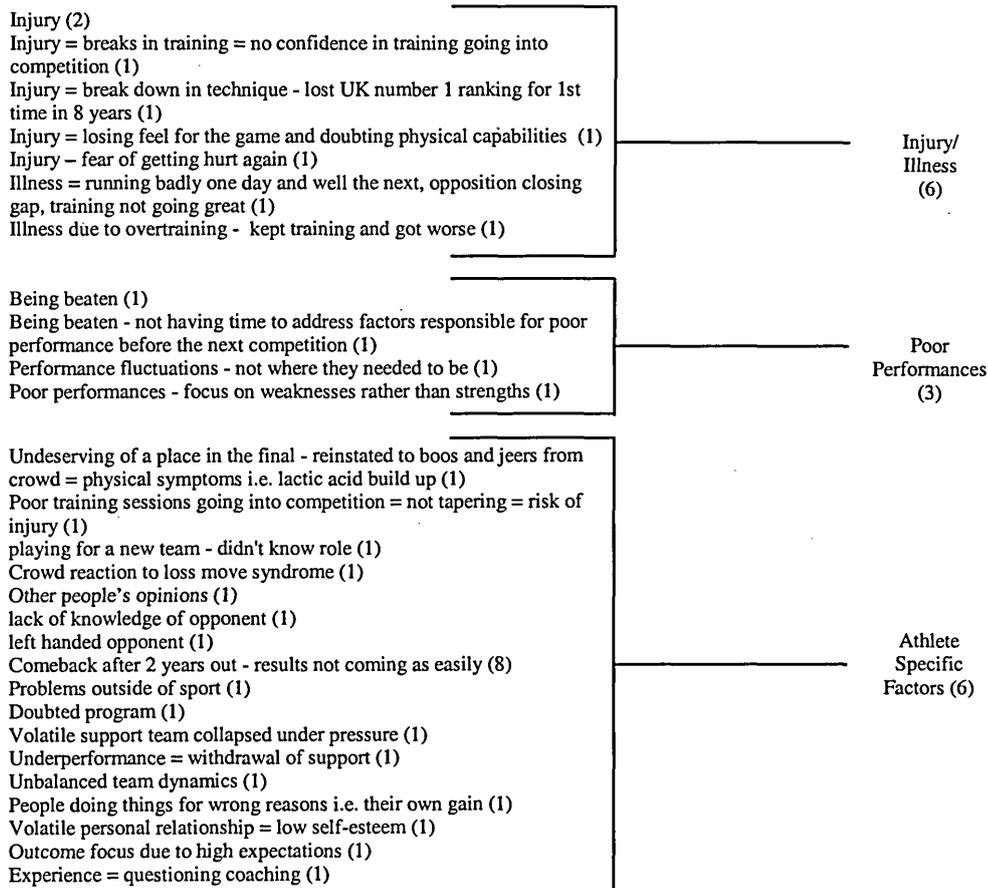


Figure 4.1 Themes and categories for factors responsible for debilitating male athletes sport confidence

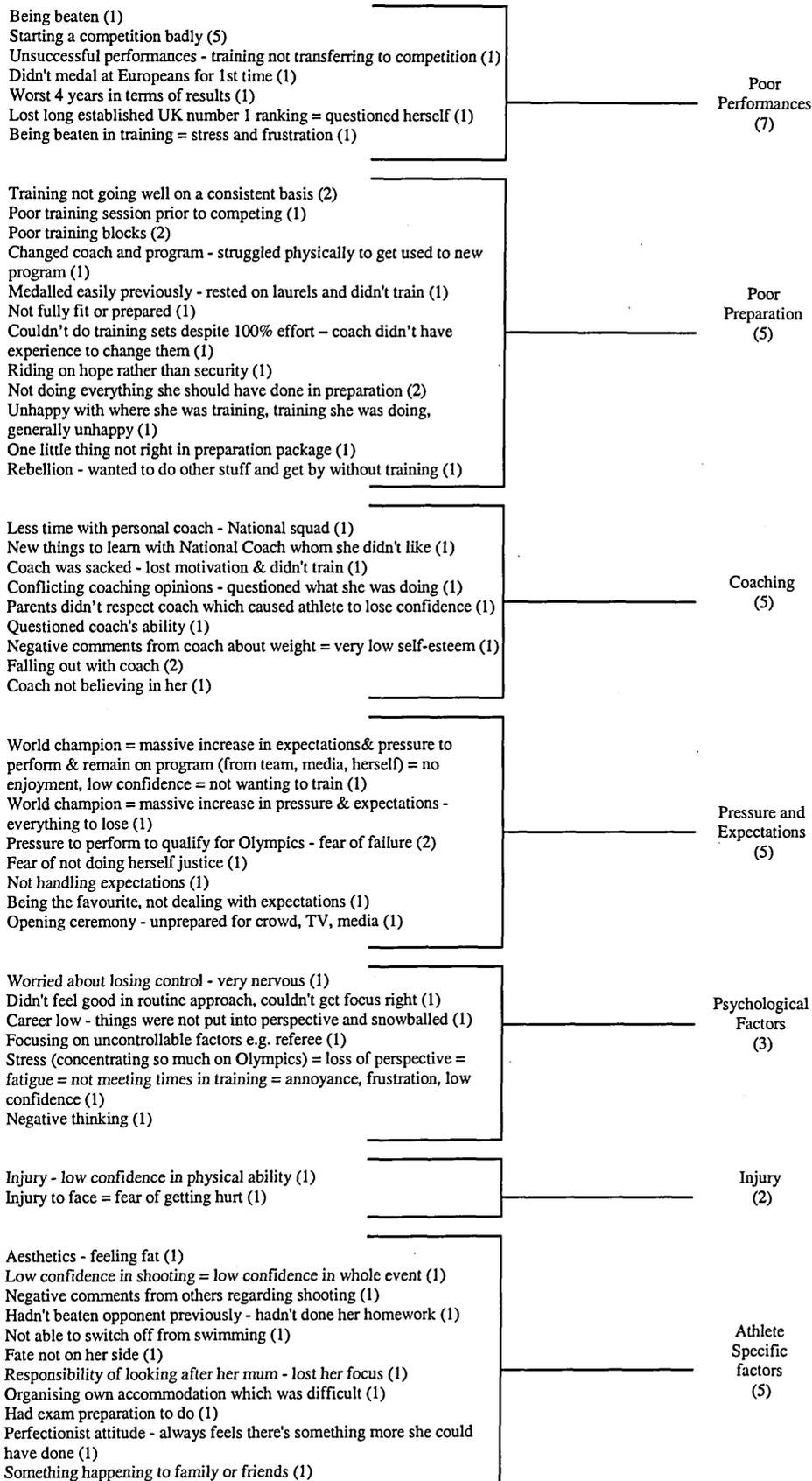


Figure 4.2. Themes and categories for factors responsible for debilitating female athletes sport confidence

We were playing America in the first game who weren't a particularly good team and we should have beaten them quite easily but we lost 1-0, so that knocked quite a few people's confidence because that was one of the teams that you sort of earmark as three points.

4.4.2.2 INJURY/ILLNESS

Eight athletes (6 male, 2 female) identified injury or illness as a factor responsible for debilitating their feelings of sport confidence going into an important competition. These athletes described a reduced confidence in their physical ability to perform, which ultimately affected their performance, as one World Cup winner highlighted:

It was not the lack of confidence in my own ability, it was the lack of confidence in my ankle performing to the level that I needed it to in the game situation that it was going to be presented with. So if I was going into contact I'd go in a bit slower, or I'd try and get into a position where I knew that my ankle was going to be alright, and I'd do a job but not at the standard that it needed to be.

4.4.2.3 POOR PREPARATION

Five of the female athletes identified poor preparation as a factor responsible for reducing their feelings of sport confidence, as one World Champion highlighted:

There have been times where I know that I'm on a roll; therefore I know I'm going to win the championship. But there have also been times when I've gone in there not fully fit or fully prepared, I haven't done enough, and therefore you're at a 5-10% disadvantage straight away because you're thinking that in your head.

Inadequate competition preparation also seemed to influence the athletes' interpretations of cognitive anxiety symptoms, as one athlete stated:

If I know that everything's gone right in training it's easy to turn any negative nerves around, if I feel happy about who I am standing behind the block then it's easy to do that. If I know that things haven't gone well in preparation then it's very very hard to try and think of anything positive when the nerves are overtaking me.

4.4.2.4 COACHING

Five of the seven female athletes also identified factors relating to coaching as debilitating to their confidence. One athlete spoke about a coach who had been detrimental to her self-esteem by calling her "fat". This athlete explained how her coach "knocked every insecurity I had and kept knocking me down thinking that he'd make me tough and he didn't". Another athlete also described how her confidence was reduced by her coach's lack of belief in her:

My coach never believed in me, I always said I'm going to win the Olympics and he laughed me off so that's been hard to overcome....To start with it motivated me but the higher the levels I went up, the more I needed him.

Additional factors identified as debilitating to sport confidence included spending less time with personal coach due to national squad training, falling out with coach and doubting coach ability, as one athlete highlighted: "I had a lot of confidence issues with how good he was, I figured if he didn't know what he was doing then how on earth was I supposed to swim fast".

4.4.2.5 PRESSURE AND EXPECTATIONS

The pressure and expectations associated with successful World Class performance were also identified as being debilitating to sport confidence by five of the female athletes. As one World Champion highlighted:

As a kid I had nothing to lose, I was just going in there fresh faced trying to win whereas now reputation comes before me, probably a bit of pressure I've put on myself more than other people but there is that expectancy that I'm on the mat and I'm going to win this and in your head you're always thinking 'what if I don't?'. You start questioning yourself.

Self-doubt as a consequence of expectations was a common theme among these athletes and was related to qualifying for major championships in addition to championship outcomes, as described by another athlete:

People just presumed, or expected me to qualify and when it actually came round to the start of Olympic qualification...suddenly I was like 'oh my god can I actually do this...when it really matters am I gonna be able to pull it out'?

Thus, reaching the pinnacle of their sporting career actually served to reduce the female athletes feelings of sport confidence, as another athlete highlighted "I'm not very good in the position where people are coming at me, which is the position that I've put myself in now. I like to be the underdog where nobody really knows who I am".

To enable these athletes to approach competition feeling confident, they had to feel able to cope with the expectations placed upon them, both by themselves and others. As clearly stated by another female athlete:

When you've got a chance with standing on the podium or winning a medal you've got to live with that expectation and you've got to be able to deal with that expectation....being confident going into an event is when you feel confident that you can deal with your level of expectation.

Conversely, the pressure and expectations associated with World Class competition did not seem to affect the males' feelings of sport confidence. Rather, expectations motivated these athletes to succeed, as the rugby World Cup winner highlighted:

We'd always gone out there with the expectation that we were going to win this competition, it wasn't just said for the sake of saying it, it was the fact that we weren't going to lose...And we didn't want to win it by losing one game and having to go through a different route, we were going to win all our games and when you set yourself something like that, it's a massive motivation for you every time you play.

These athletes trained to compete at the highest level and enjoyed the pressures associated with doing so, as another male athlete highlighted: "I trained to compete and you

have to enjoy putting that pressure on yourself to keep lining up and doing the races". One Olympic Gold medallist also talked about the enjoyment associated with 'performing' on the World Class stage:

I like the process of walking out into a big stadium, I like the idea that there are a hundred thousand people there waiting for a performance and I like the idea that they had probably all been sitting for a few, well certainly for an hour before, discussing how you might do it, and I quite like being able to go out there and do it differently sometimes...but I was just quirky.

4.4.2.6 PSYCHOLOGICAL FACTORS

Three of the female athletes identified psychological factors as debilitating to their confidence. Responses included focusing on uncontrollable factors, worry about losing control, negative thinking, and stress. As one athlete highlighted:

Stress is a big factor for me and I think that would probably stamp on my confidence and you kind of lose perspective...you're concentrating so much on the Olympics that it just sets you back, because then fatigue especially comes along, you'll go further back in training, not hit the times, and then for me I'd get annoyed, frustrated, and then my confidence would be a lot lower.

4.4.2.7 ATHLETE SPECIFIC FACTORS

Finally, eleven of the fourteen athletes (6 male, 5 female) identified confidence debilitating factors that were specific to them not described by the higher-order themes aforementioned. For example, negative comments from others, fate, exam preparation, a left handed opponent and a volatile crowd.

4.4.3 THE ROLE OF CONFIDENCE IN SPORT PERFORMANCE

Two causal networks were constructed from the transcripts to represent the athletes affective, behavioural and cognitive responses to competition when both high (Figure 4.3) and low (Figure 4.4) in sport confidence. The causal networks consist of two major elements: 1) a set of variables linked together by arrows depicting the direction of the relationship; and 2)

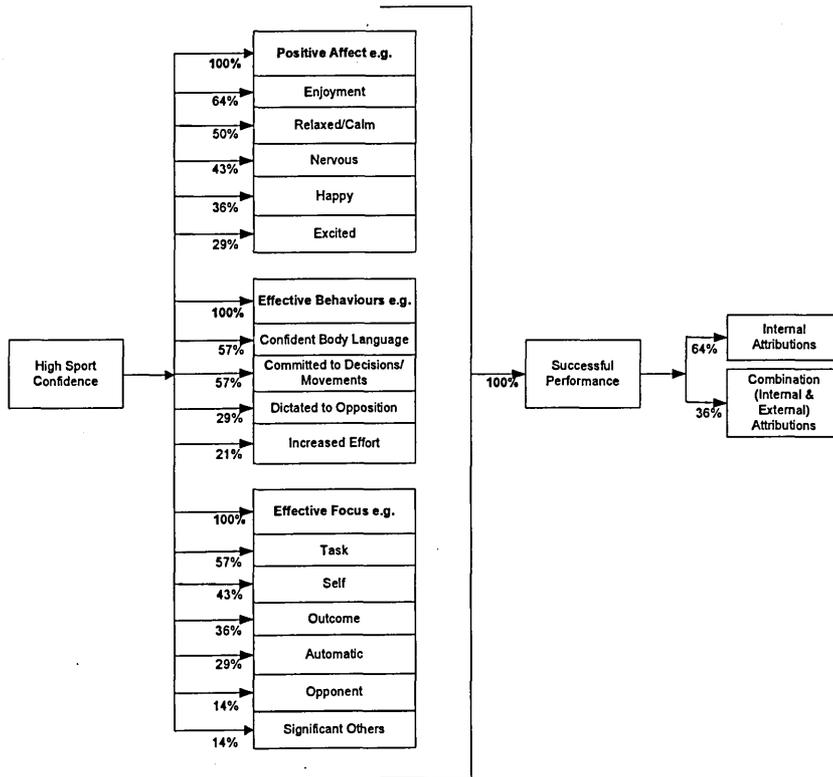


Figure 4.3 Causal network representing affective, behavioural, and cognitive responses to competition when sport confidence is high

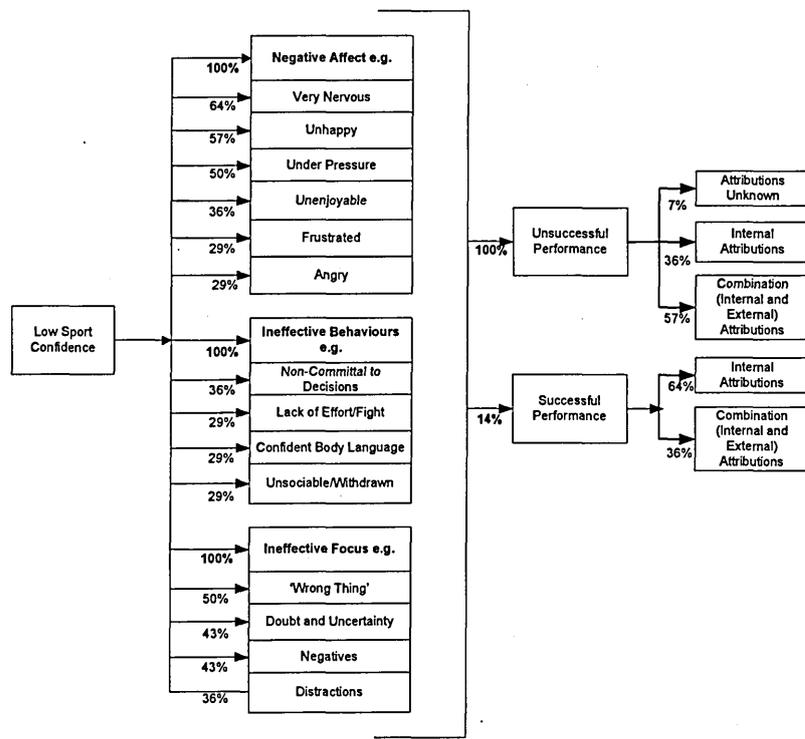


Figure 4.4 Causal network representing affective, behavioural, and cognitive responses to competition when sport confidence is low

the number of participants who identified the responses and their perceived effect on performance (presented as a percentage). Where two or more different responses led to an identical experience, the percentage is presented in bold text illustrating that it emanated from more than one possible response.

4.4.3.1 AFFECT

All fourteen of the athletes interviewed associated high confidence with positive affective responses and low confidence with negative affect. For example, when the athletes' felt confident going into an important competition they were able to enjoy the experience (64%), as one athlete highlighted: "I was focused, happy, enjoying myself, enjoying the experience". Conversely, the negative emotions experienced when sport confidence was low, resulted in an unpleasant competitive environment for the athletes interviewed: "(I felt) nervous, more so than normal, and unhappy really because I was going through something that I didn't enjoy...I normally love competing but I just wanted it to be over and be done with...I just couldn't wait to get through it".

The athletes experienced 'nerves' when they were both high in confidence (43%) and when they were experiencing low confidence levels (64%). However, when confidence levels were low these 'nerves' were perceived as negative and responses pertained to "fear", "panic", "worry" and "anxiety". One female athlete highlighted:

The nerves had just built and I hadn't really slept for a couple of nights and the night before the competition I was just a wreck, I had to go for a walk with my coach and I was just in floods of tears just saying " I can't do it... I'm so scared". And it's like this thing I told you about, this fear of failure, I was scared of not qualifying (for the Olympics)...I was just so unconfident in everything, in my ability and everything.

Another athlete talked about 'good nerves' which she experienced when confidence levels were high, and 'bad nerves' which were associated with low confidence levels. As this athlete highlighted:

I find I get good nerves and bad nerves...Bad nerves is like I say the panic, the anxiety, the worry, and once that door's open then all the other stuff fly's in...And then the good nerves is the stuff where you feel indestructible...And it's like they're in there and they're making you go to the toilet all the time but they're just good, just feel good...it's just enjoyment, excitement, and belief.

Thus, when sport confidence was high, the nerves experienced were "very minimal really and didn't affect my performance at all", or were interpreted positively. Indeed, when reliving their most confident career moments, some athletes did not refer to nerves at all, only the positive affective responses associated with high confidence, for example:

I just felt like I was just this strong person and that even if someone was fighting me down the last length there was no way they were gonna beat me, and when I went out onto the blocks all I felt was excitement and wanting to get out there and race, I had no fear whatsoever.

Further, the athletes pertained to feeling relaxed and calm (50%) when high in confidence, as one World Cup gold medallist highlighted:

I just feel very relaxed, very happy with myself, and happy with how my preparations gone...And it makes you more relaxed and you just, you never know what's gonna happen the next day but you're confident that you can perform at a level that meets your expectation.

Conversely, the athletes felt unhappy (57%) and under pressure (43%) when confidence levels were low. For example:

Well this would have been the first world stage competition that I would have been at since my injuries and everything so the pressure was on and the pressures of funding as well were in the back of my mind so I was nervous because of those, and normally the pressures of funding and being on the world stage isn't a problem but because I wasn't very confident in my ability to perform...I felt pretty crap mentally going into the competition.

4.4.3.2 BEHAVIOUR

High sport confidence was demonstrated through the athletes' behaviours, in terms of both their body language (57%) and commitment to performance decisions (50%). For example:

When you're confident on the piste you get your distances much better...When you're not confident in what you're doing you tend to be more timid in your movement and the thing with fencing is, once you go for a move you've just gotta go for it....as soon as you hesitate it's too late, they've hit you.

Such decisive movement behaviours were influenced by the athletes' cognitions, as highlighted by an Olympic gold medallist: "Confidence allows you to make the right decisions at the right time because if you're physically confident it means you're well trained and if you're well trained then there's nothing in a race that's going to shock you".

The negative influence of low confidence on sporting performance was also evident throughout the sample, although the responses given were sport specific. For example:

Tackling is all about confidence going into a tackle, if you know that your technique's right then you're confident that you can tackle anybody, whereas if you haven't spent your time on your technique and your tackling a big guy, you know there's a chance that you're gonna miss. Because you're not confident when you're going into the hit, then he'll be confident he can break your tackle and he'll run over the top of you.

When the athletes were high in sport confidence, this was also demonstrated in their behaviour prior to competing, as one World Champion highlighted:

I always look at the person, and then if they look away straight away that's one up for me, it's a psychological boost, they've fallen, they can't handle it sort of thing so it's one up. If you walk out with your head down then you just know that that person's not up for it.

These athletes were aware of the impact of their behaviour on their opposition as an Olympic gold medallist highlighted whilst talking about his Olympic experience:

When you are a favourite for something people tend to watch you, I was always aware that there would be a few people out there who thought they had a real chance, who would be watching me to see psychologically how I was coping with issues, even queuing up for my tea in the morning in the village, sitting down, whether you were confident, whether you were relaxed. And I think you have to fill the room, you have to dominate your space, you have to dominate the track, you have to walk out there onto a track and really basically what you want to get people to think when you walk out there is 'actually today I'm running for second, I can't beat him', 'I can't beat her'.

Indeed, dictating to the opposition was a behaviour identified by 29% of the athletes when recalling their most confident career moments, for example:

I do quite a lot of walking around my piste when I'm really really up for it and in the zone or whatever, and it's almost like this is my piste and when I'm on it the person I'm fighting is actually coming into my territory...rather than me go to them and be in an unknown, it's my territory.

Thus, when experiencing low levels of sport confidence, 29% of the athletes still presented themselves as confident to try and gain a competitive advantage over their opposition. Consequently, their own feelings of sport confidence were also enhanced:

I think even if you're not confident inside, you need to present yourself as confident on the outside because that's half the battle won, firstly with yourself, because if you present yourself as confident then you immediately feel more confident, and also for your opponents, if you look confident then you're obviously a little bit more scary, perhaps they don't feel as confident as you look and might be intimidated by that. So I think how you present yourself is very very important.

For 29% of the athletes, low confidence was also synonymous with lack of effort or fight, for example, as one athlete highlighted: "I should have been going on it, but instead of believing that there was no-one else that can beat me, when a girl was on my shoulder on the last length I just let her pass me". Indeed, one World Champion also talked about the importance of believing you can win when faced with an opponent:

You have to believe that you can do it I think...because if you are standing next to the ring and you think 'I'm not going to win' then you won't win. You've got to think you've at least got a chance to win so you're gonna give it your best shot...you have to believe in some way that you can do it.

Another athlete talked about effort in terms of personal performance, rather than comparison to other competitors. As this athlete highlighted:

If you're standing there feeling confident, you go 100% effort and that's what you need in order to execute the dives to the best of your ability. But if you're a little bit unconfident then the effort isn't quite there and you're not really buying into what you're doing.

However, two of the male athletes said that they performed at maximum effort regardless of their confidence levels, due to their motivation to perform successfully. As one World Cup winner highlighted:

I was only supposed to play 40 minutes but I hadn't done anything in those 40 minutes so I was gutted with myself and I didn't want to go off...It was supposed to be a way of easing me in and I ended up playing a full game.

Finally, the affective responses associated with high and low sport confidence were also evident in the athletes' behaviour, with 29% of the athletes reportedly feeling increasingly withdrawn and unsociable when their confidence levels were low, as one of these athletes highlighted:

Instead of sitting down and relaxing or having a chat I was sitting on my own, I was being unsociable...and that's different to normal, normally in a competition I'll chat to other athletes while we're lying about waiting for the next go, other team mates, but I was very much withdrawn.

4.4.3.3 COGNITIONS

All fourteen of the athletes interviewed identified high confidence as synonymous with an effective competition focus and low confidence with an ineffective competition focus. For example, when talking about his least confident career moment one athlete highlighted:

I was a lot more negative than I would normally be, I was a lot more distracted by other athletes and what they were doing. Normally I follow a routine and I just stick to that and concentrate on it, but this time I was following my routine but I wasn't buying into it as I normally do, I was a little bit 'oh I wonder how everyone else is doing and I wonder what they're scoring' and as soon as I start thinking like that it's very difficult to maintain my focus on my competition.

Conversely, when describing his competition focus during his most confident career moment, this same athlete stated:

Me! And that was it. I ignored everyone else, I was just following my routines, being aware of the crowd but not being distracted by it, not thinking "oh who's doing what? Where am I? What's the scoreboard saying?" All the kind of distractions which I was distracted by before. Just focusing on me and what I was doing.

This athlete described confidence as his "shield", which protected him from the distractions associated with low sport confidence i.e. nerves, crowd and other athletes. Indeed, the athletes interviewed consistently identified confidence as a protection against focusing on the 'wrong things', as one World Cup winner highlighted:

We knew that we could play Australia week in week out and we could beat them...And having a confidence like that when you go into a game makes a game so much simpler, you're not worried about things, you're not worried about your opposite number, you're not worried about what they're going to throw at you, you're just completely worried about your performance and your teams performance, as long as we get that right we're going to win, and so from that side of it was just confidence and the fact that we knew we weren't going to lose that game.

Another athlete described how she became internalised when she was low in confidence, and was unable to focus on the task at hand:

When you're nervous and you're not confident, you very much centre around yourself... I'd be very much like 'oh my god I'm nervous, I can feel my heart beat, my arm feels weak, I can feel butterflies, my legs are tense, my arm's really shaky', all those kind of elements, so you move internally, instead of looking outwards to the task in hand.

Of the 14 athletes interviewed, 29% said that during their most confident career

moment they entered into a state of "automaticity" where "everything just came together":

I got into this what we call a flow state and I think with probably anyone you speak to who's been in a flow state, it's quite difficult to describe the feeling, or describe what was going on when it was happening, because the whole point is that it's so automatic that you don't think about anything, it just happens. I just felt really confident in what I was doing and whenever I'm confident I get this like really warm feeling in my stomach, like I was like really strong and just warm and just at the same time really relaxed about it...

Another athlete described this automatic state as dreamlike:

You can't explain it but when everything clicks it's just like you're not even there, it's just like a dream and that's what it felt like, whatever I did worked... it's hard to explain, everything just clicked on that day and I just knew in my head there's no one gonna beat me.

4.4.4 STRATEGIES TO ENHANCE SPORT CONFIDENCE

Thirteen of the fourteen athletes interviewed implemented a strategy to try and enhance their feelings of sport confidence when they were low (see Table 4.2). However, during their least confident career moments, these athletes were unsuccessful in doing so. For example, five of the athletes identified positive-self talk as a strategy implemented to enhance sport confidence. As one athlete described: "If I have a negative thought I literally just say out loud, or to myself if people are around, 'stop', so I say 'stop' and then change it round, think of something positive". However, this strategy seemed to break down when confidence levels were at an all time low, as one athlete described:

When you're in the lead up you can be quite logical and you can be quite positive about things, it's just literally like in the hour leading into the race you can't control the logic, nerves have overtaken and I didn't want to race on the Sunday, I did not wanna race, but I knew I had to and I didn't want to race because I knew that I probably wouldn't perform as well as I should do, and I was right. It's easy to say "oh well I should have thought positive thoughts", and I did in the days leading up to it, but in the last hour I just couldn't control anything.

Table 4.2 Strategies to enhance sport confidence

Strategy	Number of Athletes Citing Strategy
Positive Self-Talk	5 (36%)
Body Language - Presenting self as confident	4 (29%)
Distraction	4 (29%)
Rationalisation - Putting Things in Perspective	4 (29%)
Imagery	3 (21%)
Confident Reminders	3 (21%)
Relaxation/Hypnosis	3 (21%)
Consistent Routines	3 (21%)
Positive Reinforcement from Coach	3 (21%)
Controlling the Controllables	2 (14%)
Process Focus	2 (14%)
Focus on the 'Here and Now'	1 (7%)
Team Confidence Building - Small Units of Play	1 (7%)
Converse with Opposition - Reduce Anxiety	1 (7%)
Normalise Feelings	1 (7%)
Contingency Plans	1 (7%)
Refer to Training Diary	1 (7%)

It seemed that when the athletes' confidence levels were low, they had difficulty in believing anything positive:

I was just like "oh my God, have I done enough work"? But then I did try and turn it around and said 'you're as good as anyone here, if anything you should be better, blah, blah, blah'. But it's very hard, you can say all the positive things to yourself but unless you actually believe them, they're irrelevant.

Thus, the confidence reminders utilised by three of the athletes also failed to enhance confidence levels, as one athlete highlighted:

I've got a sports psychologist that I'm working with and we've got what we call this brick wall...on the wall we write down all of my achievements and what I'm proud of, whether it's inside swimming or outside swimming, whether it's about me or about me helping someone or whatever, we've put it all down on that wall and I read it the night before my races, but it's very hard when nerves overtake you, all your logic, thinking, just goes out the window...

Four of the athletes identified rationalisation as a strategy implemented to enhance their feelings of confidence, as one World Champion highlighted: "I always say to myself if I'm scared then they must be twice as bad because of who I am. It's what gets me through it really, thinking 'if I'm scared then they must be scared as well". Another athlete was experiencing a performance slump at the time of the interview but stated:

It's going really shit at the minute but when that passes I'll forget about that small little patch and I'll remember that you don't lose fitness in two weeks, you don't lose talent overnight, and it's all logical if you just give yourself time to think about it.

However, when talking about their least confident career moments these athletes found it difficult to remain logical as one athlete highlighted: "I'm not very rational, that's one of my weaknesses, I'm not very rational at all". The relationship between low confidence and irrational thinking was also highlighted by another athlete:

It's really important to put things in perspective because I think unconfident athletes very much dramatise things, they make a mountain out of a molehill which is what I used to do, if something goes wrong then it's 'oh my god', you know, but as soon as someone puts it into perspective, and quickly...it doesn't knock the confidence that you've got.

The athletes' inability to maintain an effective competition focus when low in confidence also influenced the effectiveness of their confidence enhancing strategies (i.e. distraction techniques and relaxation strategies). For example:

I was trying to use my psychological techniques...I use self-hypnosis just to take myself off into sort of a trance type state, but none of them were working, I just couldn't concentrate. I find a spot that I stare at in my line of sight and eventually as my eyes relax I get two pictures of each, two spots, and I just couldn't concentrate on that spot long enough to get my eyes to relax and everything was going wrong and it was just horrible.

For one athlete, just implementing a confidence-enhancing strategy i.e. positive self-talk, served to reduce confidence levels further:

When I skated well, I just skated well, I didn't have to think about it, obviously I was confident and that's why I didn't have to think about it...So, positive self-talk was almost a bad thing for me, not a bad thing cos obviously you've got to try and be positive, but the fact that I was having to use positive self-talk told me I wasn't in the right place.

All of the athletes interviewed performed successfully when their feelings of sport confidence were high, and unsuccessfully when they were experiencing low levels of sport confidence. However, two of the athletes also managed to perform successfully on occasion when their confidence levels were low. For one athlete, this was due to effective tactics:

You'll go down there you'll ask the pacemaker to run through in 54. Now the others will think 'I can't handle 54' but you go with the pacemaker...and they sit back running their own race, you're not in that shape but you've already got the lead and they've left it too late to get that lead back. That's sometimes just playing the game.

For the other athlete, this was due to pure exhaustion:

I woke up on the morning of the Europeans and I hadn't slept, and to be honest with you I couldn't eat, and when I get nervous I can always eat...So I knew then that I was in all sorts of trouble...But basically what happened next was that I shot a P.B...I was just so exhausted that I don't think my body or my mind could focus on many things...the thing that you get in flow state is just automatic and I think I went into that state anyway because I was so exhausted.

4.4.5 ATTRIBUTION

Of all the athletes interviewed, 64% attributed their successful performances to internal factors such as "confidence", "ultimate preparation", "commitment", and "determination". The remaining 36% attributed their successful performances to a combination of internal and external factors such as "team support", "perfect set-up", "consistent management team" and "team dynamics". Following an unsuccessful performance 36% of the athletes made internal attributions and 57% attributed their unsuccessful performance to a combination of internal and external factors (the remaining 7% failed to discuss their attributions). It was evident from the responses given that the athletes were as objective as possible when appraising their performances, for example:

What I want is my questions answered, why aren't I performing? Why didn't I do well on that day? What is it? Is it my physical side? Is it my mental side? Is it my equipment? All these things have a part in performance and I've got to know which it is because if we don't identify the right culprit of underperformance then we'll be focusing all our energy in the wrong way...I've gotta know which bit is breaking down and why I'm underperforming and then I can readdress it and in that way you keep your confidence level going because you understand and you know why.

Thus, rather than protect their confidence by attributing unsuccessful performances externally, they maintained their confidence levels by identifying and then addressing the factors responsible for under-performance. Another athlete highlighted:

If I'd got beaten at a competition I would always relate it to the fact I wasn't strong enough and then I'd go away and work hard to fix it, because what made me confident was that I was strong and had good aerobic capabilities...so I've gone away and I'm able to address it, work hard on it and improve, so then it becomes my strength again and I still have confidence.

Thus, objective attributions were contingent upon optimal preparation. If the athletes felt that they had got every element of their preparation right, they were able to take responsibility for their own performance, as one athlete stated:

When you've prepared really well and have no excuses by getting everything right, then you can actually look at yourself and blame yourself for not performing when you're on the field. And then you'll go back and you'll assess why that's happened...and then you can go away and work on it again and make sure it's right for next week.

4.5 DISCUSSION

The purpose of the present study was to: 1) identify the types of competition goals set by World Class athletes; 2) identify the factors responsible for unstable confidence levels within the organisational subculture of World Class sport; and 3) examine the role of confidence in relation to the affective, cognitive and behavioural responses it elicits.

In contrast to Vealey's (1988) findings, gender differences in competitive orientation were evident in the data. Generally, the male athletes set outcome goals, or a combination of outcome and process goals for competition, whereas the female athletes set a combination of performance and process goals. These findings are in accord with those of study one and support the contention that female World Class athletes derive confidence from good personal performances, whereas male World Class athletes derive confidence from winning. Since all athletes in the present study were successful on the World Class stage, Vealey's (1986) proposal that performance-oriented athletes perform better than outcome oriented athletes was also not supported.

The male athletes in the present study not only set outcome goals, but they also seemed to be focused on them immediately prior to competing, contrary to the contentions of Hardy et al. (2001). In contrast, the female athletes employed process and/or performance goals as a strategy to reduce the anxiety they associated with outcome goals, a finding consistent with substantial research (e.g., Burton, 1992). Consequently, outcome competition goals would seem to possess great motivational value for male World Class athletes. Conversely, female World Class athletes might be encouraged to set process, or a combination of process and performance goals, to protect them from the pressure and expectations that they identified as debilitating to their confidence levels. The nature of expectancy in relation to confidence and performance has not been examined in the research literature (Vealey, 2001). Given that pressure and expectations was a factor identified by 71% of the female athletes as debilitating to their feelings of sport confidence, this would seem a fruitful line for further research.

Indeed, gender also seemed to influence the stability of the athletes sport confidence. For example, injury/illness was the primary factor identified by the male athletes as debilitating to their confidence, and poor performance was the only other factor identified. In contrast, the female athletes identified poor performances, poor preparation, coaching, and pressure and expectations as the primary factors responsible for reducing their feelings of confidence, although psychological factors and injury were also highlighted. It is not possible to infer the cause of these gender differences from the present study. However, the findings of study one suggested that female World Class athletes might be more likely to derive confidence from less controllable sources than male athletes, which Vealey et al. (1998) proposed might cause athletes to develop less stable and weaker perceptions of control and competence.

The perceived pressure and expectations associated with successful World Class performance were such that at the height of their sporting success, the female athletes actually

described lower confidence levels than when they began their career. To enable them to approach competition feeling confident they had to feel able to cope with the expectations placed upon them. Performance and process goals were used to this effect. Consequently, Vealey et al.'s (1998) proposal that higher levels of confidence were associated with performance orientation whilst low levels of confidence were associated with outcome orientation was not supported.

The pressure and expectations associated with World Class competition did not have an adverse affect on the confidence levels of the male athletes. Rather, expectations motivated these athletes to succeed. The cause of these gender differences cannot be inferred from the present study, although there was evidence to suggest that the male athletes had identified long-term outcome goals from an early age and had prepared throughout their career to realise these goals. This process was often aided by the athletes' coach, as one Olympic gold medallist highlighted:

he [coach] said to me when I was at the age of 14 "I don't want this to come as a shock to you but you're going to go to the Olympic Games and I've seen people who when they get to an Olympic Games get really unnecessarily nervous about the whole process, so I don't want it to come as a surprise to you, I know you will go". Well I didn't go for another eight years so he was thinking that way down the line...so at various stages in an athlete's development, the coach is actually sometimes painting the pictures that you can't possibly see.

Perhaps the male athletes in the present study had spent longer desensitising themselves to the expectations placed upon them by themselves and others, and as such were not unduly affected by them in the pressurised environment of major sport competition. Indeed, the findings of the present study suggest that the male athletes relished the big occasions. Alternatively, it is possible that sport confidence overrides the negative effects often associated with a competitive outcome orientation i.e., anxiety (Burton, 1992). Thus athletes high in confidence might be encouraged to set outcome goals, whereas athletes who

are susceptible to unstable levels of sport confidence might be encouraged to set process goals as a strategy to cope with anxiety, and protect or enhance their levels of confidence.

Although male athletes have been consistently found to demonstrate higher levels of confidence than females (e.g., Lirgg, 1991), Vealey (1988) found that gender differences in sport confidence were no longer evident at the elite level. However, whereas Vealey (1988) measured trait sport confidence, the World Class athletes in the present study described their sport confidence at specific career moments when they had felt least and most confident going into an important competition. Thus, it is possible that male and female World Class athletes experience similar levels of trait sport confidence, but females are more susceptible to confidence debilitating factors than males. Some support for this contention was found within the interview transcripts. For example, one female athlete highlighted: "I always actually felt confident going into the tournaments, and then it was things that might have happened in the tournament that knocked my confidence". Further research is required to objectively measure the confidence levels of athletes competing on the World Class stage, and investigate the temporal patterning of self-confidence during the period preceding competition. Research employing university athletes (e.g., Jones et al., 1991) showed a reduction in self-confidence as competition neared in both genders, but a greater decrease in females than in males. These findings need to be investigated in World Class athletes.

Since study one identified preparation, performance accomplishments and coaching as the primary sources of sport confidence used by World Class athletes, it is perhaps unsurprising that poor performances, poor preparation, coaching, and illness/injury emerged as factors responsible for debilitating sport confidence. The sources of confidence identified in study one, and the confidence debilitating factors highlighted in the present study are influenced by gender and organisational factors. For example, whereas the female athletes in study one derived confidence from the encouragement, positive feedback/reinforcement and compliments of their coach, the majority of the male athletes derived confidence from a belief

in their coach to set the right training. These findings might explain why only the female athletes in the present study suffered confidence decrements if they had to spend less time with their personal coach due to national team training, or if the coach-athlete relationship had broken down prior to the athlete competing.

Associations can also be made between some of the confidence debilitating factors identified, and the potential sources of organisational stress identified by Woodman and Hardy (2001) and Fletcher and Hanton (2003). For example, poor preparation is contingent with 'environmental issues', coaching is contingent with 'leadership issues', and injury and goals and expectations are contingent with 'personal issues'. Thus, a relationship between organisational stress and sport confidence would seem evident, supported by Gould et al.'s (1999) finding that the pressure and distractions in World-Class competition can render Olympic athletes confidence atypically 'fragile' and vulnerable to instability. This is an important notion that has not been studied by investigators (Gould et al, 1999), and provides a new dimension to the concept of confidence in World Class sport performance. As evident in the present study, gender is likely to mediate this relationship

All of the athletes interviewed performed successfully when their feelings of sport confidence were high, and unsuccessfully when they were experiencing low levels of sport confidence. On examination of the processes and mechanisms underlying confidence effects, high sport confidence was found to be synonymous with positive affect, effective competition behaviours and effective competition focus. In contrast, low sport confidence was synonymous with negative affect, ineffective competition behaviours and an inability to maintain an effective competition focus.

With regard to affective responses associated with high and low sport confidence, the findings were consistent with previous research (e.g., Martens et al., 1990; Vealey, 2001). For example, all of the athletes interviewed associated high confidence with positive affective

responses and low confidence with negative affect. Some support was also found for Jones and Hanton's (2001) findings that self-confidence moderates the interpretation of pre-competition symptoms, such as anxiety. For example, when confidence levels were low 'nerves' were perceived as negative and were interpreted as fear, panic, worry and/or anxiety. In contrast, when sport confidence was high the athletes interpreted their nerves positively and did not feel that they had an adverse effect on performance. In times of high confidence, some athletes did not refer to nerves at all, only the positive affective responses associated with high confidence such as excitement.

The athletes' affective responses were also evident in their behaviour, with some of the athletes becoming increasingly withdrawn and unsociable when their confidence levels were low. In contrast, when the athletes felt confident they not only presented themselves as such prior to competing, but their confidence also showed in their performance. For example, they made bold or decisive movements because they believed in their ability to perform successfully. Conversely, when the athletes were experiencing low levels of sport confidence they doubted in their ability to execute their skills and thought they could be beaten. As such, four of the fourteen athletes reduced their effort expenditure resulting in performance decrements. Taken collectively, these findings not only indicate an interactional relationship between affect, behaviour and cognitions, but they also lend some support for Eysenck and Calvo's (1992) propositions that decreases in performance efficiency as a result of anxiety manifest in higher levels of subjective effort only when participants feel they have a reasonable chance of success. Nonetheless, two of the athletes performed at maximum effort regardless of their confidence levels due to their motivation to perform successfully. Although a strong sense of confidence has been associated with challenging goals being set and the expenditure of maximal effort and persistence in the achievement of those goals (Bandura, 1986), to the authors knowledge, similar findings have not been reported when confidence levels are low. Interpretations cannot be based upon the findings of only two participants, thus

the relationship between low confidence and goal attainment needs to be investigated more thoroughly.

In support of Vealey's (2001) contentions, the athletes in the present study were more efficient in using the cognitive resources necessary for sporting success when their confidence levels were high. All fourteen of the athletes interviewed identified high confidence as synonymous with an effective competition focus and low confidence with an ineffective competition focus. Support was also found for Bandura and Wood's (1989) contentions that confident individuals remain task-diagnostic when faced with obstacles, whereas less confident individuals become self-diagnostic and tend to focus on their inadequacies. Indeed, 57% of the athletes interviewed maintained a task focus when their confidence levels were high. In contrast, when the athletes were experiencing low sport confidence they were irrational, and unable to control their nerves, think positively, or maintain focus on their relaxation or distraction techniques. Thus, despite thirteen of the fourteen athletes implementing a strategy to try and enhance their feelings of sport confidence when they were low, none of the athletes were successful in doing so.

With regard to attributional patterns, the athletes were found to attribute both success and failure to internal and external factors, although more athletes attributed successful performances solely to internal factors and unsuccessful performances to a combination of internal and external factors. These results provide some support for the self-serving bias (Bradley, 1978) in that the athletes did have a tendency to attribute successes internally; however, they did not try and protect their confidence by attributing failures externally. Instead, they protected their confidence levels by assessing their performance objectively and then identifying and addressing the true factors responsible for under-performance. Related to this was the importance of preparing optimally for competition, thus, eliminating external 'excuses' for under-performance and enabling the athletes to assess their own performances without bias. Research within the sport psychology literature (e.g., Gernigon & Delloye,

2003) has suggested that attributing success and failures to personally controllable and changeable causes would seem conducive to both confidence and the expenditure of future effort. However, since the athletes in the present study were not asked about their perceptions of control, these could not be inferred.

4.6 SUMMARY

In summary, all of the athletes interviewed performed successfully when their feelings of sport confidence were high, and unsuccessfully when they were experiencing low levels of sport confidence. This is consistent with substantial anecdotal evidence and empirical research. However, the present study also examined the processes and mechanisms underlying confidence effects in World Class sport performance. Consistent with Vealey's (2001) contentions, high sport confidence was found to facilitate sport performance through its positive effect on athletes' thoughts, feelings and behaviours. These findings highlight the importance of protecting and maintaining high sport confidence levels in the lead-up to competition, and are particularly pertinent given that strategies designed to enhance sport confidence were ineffective in the pressurised environment of World Class sport competition. Thus it would seem in this instance, prevention is certainly better than cure. The factors responsible for debilitating an athlete's sport confidence would seem to be associated with the sources from which they derive their confidence. Since research (i.e., Hanton & Jones, 1995; Vealey et al., 1998; Wilson et al., 2004) has consistently shown that the sources of confidence utilised by athletes are influenced by gender and organisational factors, research designed to assess sport confidence at the individual level and develop interventions targeted towards an athlete's individual confidence needs is urgently required. Study one provides evidence that athletes hold certain confidence beliefs (types of sport confidence) which are evidence based (i.e., derived from sources of sport confidence). Consequently, perhaps the most successful interventions would likely involve identifying an athlete's particular sources and types of confidence, and ensuring that these are intact during competition preparation phases.

CHAPTER V

STUDY THREE

PROFILING CONFIDENCE FOR SPORT

5.1 INTRODUCTION

Study one and two provided a detailed exploration of the construct of sport confidence from the perspective of successful World Class sports performers. The findings of study one emphasised the multidimensional nature of sport confidence, and the importance of utilising a sport-specific framework to aid future research. For example, the areas from which the athletes derived their confidence, and their confidence beliefs, were associated specifically with the sporting context. The athletes were able to make the distinction between where they derived their confidence from (i.e., sources of sport confidence) and what they were confident about (i.e., types of sport confidence) without difficulty. Furthermore, the findings of study one indicated that an athlete's sources of sport confidence appeared to form the basis of their confidence beliefs and as such, would seem critical to their levels of sport confidence.

The findings of study two highlighted that all of the athletes interviewed performed successfully when their feelings of sport confidence were high, and unsuccessfully when they were experiencing lower levels of sport confidence. On examination of the processes and mechanisms underlying confidence effects, high sport confidence was found to be synonymous with positive affect, effective competition behaviours and effective competition focus. In contrast, low sport confidence was synonymous with negative affect, ineffective competition behaviours and an insufficient competition focus. Furthermore, strategies employed by the athletes to enhance low feelings of sport confidence were found to be ineffective in the context of World Class sport competition.

Taken collectively, the findings of study one and two highlight the importance of protecting and maintaining high sport confidence levels in the lead-up to competition. It

would seem that once sport confidence is shattered, it is virtually impossible to put the pieces back together again in the pressurised environment of competitive World Class sport. Thus, in this instance, prevention is certainly better than cure. Since the findings of study two would seem to suggest that the factors responsible for debilitating an athlete's sport confidence are associated with the sources from which they derive their confidence, perhaps the most successful interventions would involve identifying an athlete's particular sources and types of confidence, and ensuring that these are intact during competition preparation phases.

Evidently, the development of interventions targeted towards protecting and enhancing an athlete's sources and types of confidence is warranted. However, synonymous with previous research findings (i.e., Vealey, 2001; Wilson et al., 2004) the results of study one and two provide evidence that demographic and organisational factors influence the sources and types of sport confidence utilised by athletes, and the factors responsible for debilitating their confidence levels. These factors need to be considered when assessing the confidence of sport performers. The SSCQ (Vealey et al., 1998) is at present the only questionnaire designed specifically to assess athletes' sources of sport confidence. However, validation of the SSCQ is based upon high school and collegiate athletes and as highlighted by previous research (i.e., Wilson et al., 2004), and the findings of this thesis, cannot be generalised to any other demographic, social or organisational group. Furthermore, since study one is the first of its kind to provide a solid conceptual foundation for the existence of different types of sport confidence, there is at present no available method of assessing athletes' types of sport confidence.

5.2 REVIEW OF LITERATURE

5.2.1 CRITICAL ISSUES IN APPLIED SPORT PSYCHOLOGY MEASUREMENT

Measurement in applied sport psychology has remained a dominant issue throughout the evolution of the field. In the context of this chapter, applied sport psychology is defined as

“the application of psychological knowledge to enhance the personal development and performance of individuals in sport” (Vealey & Garner-Holman, 1998). Most available confidence assessment inventories were designed and validated as research instruments (Vealey, 2001) and as such, their usefulness in applied intervention work has been questioned (Vealey & Garner-Holman, 1998). Some sport psychologists deem the use of inventories unnecessary and even detrimental to their style of intervention work (e.g., Dorfman, 1990; Halliwell, 1990; Orlick, 1989; Ravizza, 1990; Rotella, 1990), whereas others agree that psychological inventories can be facilitative when used in conjunction with other methods (e.g., Gardner, 1995; Gordin & Henschen, 1989; May & Brown, 1989; Nideffer, 1981, 1989; Perna, Neyer, Murphy, Ogilvie, & Murphy, 1995). Whilst deciding whether or not to implement psychological inventories in intervention work is the choice of the sport psychologist, some consultants feel that interviews and observation are more facilitative to their assessment of athletes (Vealey & Garner-Holman, 1998). Indeed, several measurement issues have been identified in research designed to examine the effects of various sport psychology interventions on psychological change.

Typically, studies designed to assess psychological change establish a baseline measure of a particular psychological construct, and then assess its transformation over time in response to some type of treatment (i.e., a mental skills training package). However, often these types of studies fail to show changes in psychological processes, despite social validation data reports from participants indicating that they felt the intervention was helpful (Vealey & Garner-Holman, 1998). Whilst it is possible that such reports are biased, it might also be that psychological changes resulting from sport psychology interventions are not easily detected using measurement instruments designed for research purposes. For example, the Competitive State Anxiety Inventory-2 (Martens et al., 1990), developed via nomothetic research principles, has been used to assess changes in cognitive and somatic state anxiety, and self-confidence, over the course of an intervention. Like most inventories developed in

this way, the CSAI-2 contains several items representing different expressions of cognitive and somatic anxiety, and self-confidence. However, one criticism that can be levelled toward the CSAI-2, and indeed other inventories that have been developed nomothetically, is its inability to measure the idiographic nature of an athlete's responses. Vealey and Garner-Holman (1998) provide the example of a gymnast who obtains a low score on all of the CSAI-2 items except one item, 'my body feels tense'. Her CSAI-2 score would indicate, related to group norms, that this athlete is not anxious. However, she could be extremely anxious based upon her anxiety response of tension, which would be particularly problematic to the performance of a gymnast.

Adopting a simple Likert rating scale is commonplace for assessment purposes in sport psychology inventories, primarily used for research. For example, the Trait Sport-Confidence Inventory (TSCI; Vealey, 1986), and the State Sport Confidence Inventory (SSCI; Vealey, 1986) utilise a Likert scale with responses ranging from 1 (low feelings of confidence) to 9 (high feelings of confidence). Whilst these particular inventories, and indeed most confidence assessment tools, have proved useful in research settings, they are less useful for intervention work in sport psychology since they provide limited information. Indeed, in clinical domains (i.e., substance abuse), a variety of methods are used to explore patients' confidence and temptation in the clinical encounter (Velasquez, Von Sternberg, Dodrill, Kan & Parsons, 2005). For example, 'confidence rulers' have been used to address concerns about self-efficacy and explore potential barriers to change at-risk behaviours (Velasquez et al., 2005). Originally developed within the applied context of motivational interviewing (MI; Miller & Rollnick, 2002), confidence, or scaling rulers, have advanced the use of Likert scales to provide an accurate understanding of the client's viewpoint, in addition to an assessment of their readiness to change certain health behaviours (Miller & Rollnick, 1999).

Whilst Rollnick, Mason and Butler (1999) first suggested the use of scaling rulers for clinicians in medical practices, the rulers are applicable in a wide range of settings (Velasquez

et al., 2005) and can help determine a client's level of motivation and confidence. For example, a non-exerciser might be asked on a scale of 1-10 (1 being 'not at all confident' and 10 being 'extremely confident'), 'how confident are you that you could start exercising?' Follow up questions then emphasise the positive element of the response where the client would be asked 'why 3 and not 2 or 1?' However low the patient's ratings of importance and confidence, when compared to 0, they will be able to identify at least one reason that warrants change, or makes them feel able to change. Motivational strategies are used along with the ruler to identify reasons that confidence might be low and to help problem-solve to increase confidence. For example, the client might be asked to identify confidence debilitating factors and strategies that they could utilise in order to change their current behaviour i.e. 'what do you think it would take for you to move from a 3 to a 7 or 8?' 'How would you go about making these changes?' 'What would be a good first step?' These questions encourage the client to accurately assess their current situation and provide a means of developing a client centred intervention. Indeed, allowing the client to identify his/her intrinsic values, and goals to stimulate behaviour change, has been shown to strengthen intrinsic motivation for change and subsequent adherence to intervention programmes (Rollnick & Miller, 1995). Thus, by enabling practitioners to understand the client's viewpoint accurately, and allowing the client to assume an active role in the decision making process, scaling rulers are applicable to more idiographic approaches to measurement in sport psychology consultancy. This would seem particularly pertinent to the measurement of sport confidence, since the personality characteristics, attitudes, and values of individual athletes have been shown to influence the development and manifestation of this important construct. Indeed, as discussed in section 2.4.4, adopting an individualised approach to measuring sport confidence would likely provide a promising method for assessing an athlete's specific confidence needs in an applied setting.

5.2.2 TOWARD PRACTICAL MEASUREMENT

To overcome some of the limitations associated with adopting nomothetic measures in applied sport psychology practice, Vealey and Garner-Holman (1998) proposed that more idiographic approaches to measurement should be adopted. Furthermore, they suggested that applied measurement instruments should be validated based upon their effectiveness in practical settings. A move toward a more idiographic approach to the measurement of sport confidence would allow an individual's particular confidence needs to be assessed (i.e., sources and types of confidence), regardless of their gender, sport level or sport type. Eliciting information which is important to the performer, in contrast to tests or questionnaires that plot the performer against predetermined axes, is in accordance with Personal Construct Theory (PCT; Kelly, 1955). Originally developed within the realm of clinical psychology, the central tenet of PCT is that individuals strive to make sense of themselves and their environment by devising theories about their world, testing these theories against reality, and then retaining or revising their theories depending upon their predictive accuracy (Fransella, 1981). Thus, the theory emphasises that each individual differs in how situations are perceived and interpreted, what is considered important, and what is implied by his or her particular construing of the event (Kelly, 1955). Consequently, the psychologist must seek to understand the ways in which a particular individual sees the World, rather than trying to impose a single set of scientific constructs.

The repertory grid (Fransella & Bannister, 1977), designed to present the mathematical relationships between an individual's constructions of events, provided the original method of facilitating a person's construct system. Since repertory grids rely upon correlational and principle component analysis they produce a mass of information that is difficult and time consuming to interpret. Furthermore, the sheer volume of information generated encourages the interpretation of data rather than an understanding of the athlete (Butler & Hardy, 1992). This is in direct conflict with the central tenets of PCT which

emphasises the uniqueness of each individual (Kelly, 1925). The performance profile (Butler, 1989) was developed to overcome some of these deficiencies and provide an adaptation of the repertory grid for use within the sporting arena.

The performance profile (Butler, 1989) is a natural application of Kelly's (1955) PCT and enables the performer to construct a picture of him or herself rather than forcing him or her to respond to fixed measures. Consequently, performance profiling enhances an athlete's self-awareness with regards to their performance preparation. The performance profile also enables both the coach and the sport psychologist to gain an understanding of how the athlete perceives his or her preparation and performance, providing a basis for coaching and psychological interventions. Since it is athlete driven, performance profiling is in accordance with the empowering ideologies of many psychological skills training programmes (e.g., Gauron, 1984; Orlick, 1990), and can be used to monitor perceived changes in the various constructs over time via repeated administration of the completed profile, particularly during and post psychological interventions (Jones, 1993).

Originally developed within the sport of amateur boxing, the performance profile has become vehemently popular among British sport psychologists and has been employed as the basis for the successful delivery of sport psychology services across a variety of sports including; archery, association football, field hockey, cycling, gymnastics, ice skating, judo, modern pentathlon, rowing, speed skating, swimming, track and field and weight lifting (Butler, Smith & Irwin, 1993). Indeed, performance profiling has been successfully utilised to identify appropriate athlete-centred interventions, to maximise athletes self-motivation to partake in and adhere to psychological interventions, and to monitor any changes during psychological interventions (e.g., Jones, 1993). Either individually, or in small groups, the process first involves eliciting the qualities that the athlete views as important for optimal performance. Following the identification of these qualities, the performer is invited to rate

him or herself on each using a ten point Likert rating scale. The scores are then transferred onto a profile for visual display.

5.2.3 APPLIED RESEARCH AND REFLECTIVE PRACTICE

Whilst the development of an applied instrument to assess an individuals confidence needs is evidently required, critical feedback pertaining to applied sport psychology consultancy is imperative to the effective professional development of the field (Vealey & Garner-Holman, 1998). Indeed, researchers within applied sport psychology consultancy have become increasingly interested in the process of sport psychology practice (e.g., Andersen, 2000). More recently, the value of reflective practice as a framework for professional development in sport psychology has become noted. Reflective practice can be defined as “an approach to training and practice that can help practitioners explore their decisions and experiences in order to increase their understanding of and manage themselves and their practice” (Anderson, Knowles & Gilbourne, 2004, p. 189). However, it has been recognised that the output of reflective practice may also be of interest to a wider audience. For example, Schön (1987) discussed the use of knowledge-in-action as key to the artistry of professional practice. He suggested that by examining research-based knowledge that influences our practice, in addition to hands on knowledge-in-action, we will be in a better position to identify good practice and take steps to learn from it. Thus, Anderson et al., (2004) proposed that through reflective practice, sport psychology practitioners can access, make sense of, and learn from the relevant knowledge-in-action that contributes to actually ‘doing sport psychology’ (Andersen, 2000). It is likely that one’s reflection from their applied sport psychology consultancy, might provide knowledge that is useful to other sport practitioners (Anderson et al., 2004). As such, reflective knowledge-in-action would seem an important form of knowledge which should be used to properly facilitate the development of a practice discipline.

The benefits of reflective practice on the learning and professional and personal development of practitioners (Anderson et al., 2004) have been demonstrated in nursing (e.g., Johns, 1994; 2000), education (e.g., Osterman & Kottkamp, 1993) and more recently in sports coaching (e.g., Knowles, Gilbourne, Borrie, & Neville, 2001) and sports psychology (e.g., Anderson, 1999a, 1999b; Holt & Streat, 2001; Lindsay, Breckon, Thomas & Maynard, in press). Within nursing, Johns (1994) developed a structured reflection procedure which incorporates 21 questions designed to guide practitioners to examine their thoughts, feelings and action in an attempt to develop a deeper understanding of their practice, and consider whether alternative action may have been more appropriate. However, Johns (1994) warned practitioners against blindly following this approach. Instead, he suggested that users should adapt the model to fit their purposes. Consequently, Anderson (1999a) made several changes to the structured procedure for use in sport psychology practice. More specifically, she adapted some questions to clarify their meaning and increase their relevance to sport psychology, and reorganised the structure of the questions to avoid repetition of reflection. These revised structured reflection questions provide a guided approach to reflective practice that sport psychologists might adopt to assist them in making sense of their experiences and ultimately improving their effectiveness.

5.3 AIMS OF STUDY THREE

As advocated by Vealey (2001) and derived from the findings of study one and two, the main aim of study three was to develop an applied measurement instrument that could be used to assess and monitor athletes sport confidence and factors related to their sport confidence, regardless of their age, gender, sport level or sport type. Consequently, this chapter describes the reflections of three sport psychology consultants who adapted performance profiling to sport confidence specifically, and implemented the use of scaling rulers within a sporting context. Part one provides an overview of the development and

refinement of the sport confidence profiling process, and presents the reflections of the author.

Part two provides the reflections of two additional sport psychology consultants.

Based upon the findings of study one, it would seem logical to view types of sport confidence as evidence-based belief systems grounded in athletes sources of sport confidence. However, further research specifically examining the relationship between sources and types of sport confidence is needed before this level of causality can be assumed. Therefore, a secondary aim of the present study was to extend the findings of study one and confirm whether the sources of confidence utilised by athletes do indeed influence the types of confidence they possess.

5.4 METHOD PART 1: DEVELOPMENT & REFINEMENT OF SPORT CONFIDENCE PROFILING

5.4.1 PARTICIPANTS

The participants included seven athletes (4 males, 3 females) aged between 15 and 21 years (18.43 ± 2.15 years). Four of the athletes competed internationally and the remaining three athletes competed at a national level. The athletes had competed at their highest performance level (national or international) for between 1 and 5 years (2 ± 1.41 years) and included 2 team sport participants (volleyball and cricket) and 5 athletes who participated in four different individual sports (diving, $n=1$; athletics, $n=1$; climbing $n=1$; and swimming, $n=2$). As depicted in figure 5.1, the data collection for this study commenced in December 2005 with the first consultancy, and concluded in March 2006 with consultancy seven.

5.4.2 PROCEDURES

Prior to data collection, participants were sent an information pack containing an informed consent form and a participant information document (see Appendix 3). A consultancy time was then arranged with each athlete via telephone. Participants were met at the arranged time and following the basic method of performance profiling advocated by

DECEMBER 2006

Participant 1
Female: Javelin
15/12/2006

JANUARY 2006

Participant 2
Male: Volleyball
09/01/2006

Participant 3
Male: Cricket
10/01/2006

Participant 4
Female: Climbing
19/01/2007

Participant 5
Male: Swimming
06/03/2006

MARCH 2006

Participant 6
Female: Swimming
07/03/2006

Participant 7
Male: Diving
08/03/2006

Figure 5.1 Overall Time Scale for the Data Collection Phase of Study Three

Butler and Hardy (1992), the author, a British Psychological Society Chartered Psychologist, conducted an individual consultancy with each athlete that adhered to three main stages: 1) Introducing the idea, 2) eliciting constructs and 3) assessment. At the onset of each consultancy standardised introductory comments were provided pertaining to the purpose of the study, the use of data, and issues regarding confidentiality and anonymity.

5.4.2.1 STAGE 1: INTRODUCING THE IDEA

Introductory comments pertaining to sport confidence and the influence of sport confidence on sport performance provided the athlete with an understanding of the importance of effectively assessing their sport confidence levels (see Appendix 4 for a copy of the consultancy schedule). Sport confidence profiling was then introduced to the athlete as a means of identifying his or her types, sources and levels of sport confidence. It was emphasised that there were no right or wrong answers, and that the purpose of the technique was to identify what the athlete considered as important in relation to their sport confidence. It was also highlighted that the information provided may enhance the athlete's self-awareness and provide the foundation for an intervention targeted at the athlete's specific sport confidence needs. Indeed, each participant was offered the opportunity of continued sport psychology support on completion of the profiling consultancy. This was accessible free of charge to those participants who wished to pursue it.

5.4.2.2 STAGE 2: ELICITING CONSTRUCTS

Each athlete's sources and types of sport confidence were elicited by adopting the questions used in study one to identify sources and types of sport confidence in World Class sport performers. First, the athlete was asked to identify the constructs which they perceived a confident athlete possessed. For example, they were asked "what do you need to be confident about to perform successfully in your sport?" Next, the focus of the consultancy turned to the athlete's own types of confidence, and the sources from which they were derived. Essentially, each athlete was asked "what are you confident about?" to elicit confidence types. These types

of sport confidence were entered onto a visual sport confidence profile. Once all types of confidence had been exhausted, the athlete was asked to identify the source from which the type of confidence was derived i.e. "where do you think that type of confidence in yourself as an athlete comes from"? These sources of confidence were then added to their profile. This order of questioning was important to determine the existence of a relationship between sources and types of sport confidence, indicated in the findings of study one.

To provide assistance in generating a broad range of sport confidence sources and types, and to create a consistent level of depth across the participants, each athlete was asked to recall the time that they had been most confident going into an important competition and was further questioned about their sources and types of sport confidence in that situation. Each athlete was also asked to recall the time that they had felt least confident going into an important competition and highlight the factors responsible for debilitating their sport confidence. Finally, each athlete was given the opportunity to add any other important information that might have been overlooked during the process. Any additional sources and/or types of confidence generated from this discussion were also entered into the athlete's sport confidence profile.

5.4.2.3 STAGE 3: ASSESSMENT

Once the athlete had been encouraged to produce a comprehensive profile of their sport confidence, they were asked to assess their current sport confidence levels. Each athlete was asked to rate himself or herself on each of their types of sport confidence and these ratings were also recorded on their sport confidence profile. For each type of confidence, the athlete was asked to rate how confident he or she currently perceived him/herself. However, rather than use the traditional likert rating scale adopted by Butler and Hardy (1992), the questioning style commonly adopted during motivational interviewing (MI) was incorporated into the process. Each athlete was asked on a scale of 1-10, with 1 being 'not at all confident' and 10 being 'extremely confident', "how confident are you about your skill execution (for

example)?” If the participant indicated a low level of confidence, a 4 for example, this question was followed with; ‘Why do you feel that you are a 4 on that rather than a 0’? Regardless of how low the participant’s ratings of confidence, when compared with 0, they would likely be able to identify at least one source of their identified confidence type, supplementing the in-depth exploration of their current confidence profile. Further motivational strategies were utilised along with the scaling ruler to identify reasons that confidence might be low and to help problem solve to increase confidence (Valesquez et al., 2005). For example, a participant with a confidence rating of 4 for a particular confidence type was asked; “What changes do you think you would have to make in order to be a 6 or a 7?”, “How might you go about making these changes”? and “What would be a good first step?” Thus, each athlete was prompted to make an accurate evaluation of their current confidence levels and identify possible strategies using a client-centred approach to change.

5.4.3 ETHICAL CONSIDERATIONS

Since two of the athletes participating in this study were under the age of 18, ethical clearance was applied for and approved by the Sheffield Hallam University Ethics Committee, and Criminal Records Bureau (CRB) disclosure was obtained by the author (see Appendix 3 for full details of the application and associated documentation). During the consultancy session participants were asked to reflect upon their least confident career moments, thus, the consultancy was structured to ensure that it concluded with the athletes discussing positive sporting experiences. Furthermore, since the author completed the interviews alone with the participants in off-campus environments, she ensured that both she and the participant had easy access to leave the interview environment at any point, and that a third party was always informed of the author’s location. When completing the confidence profiling process with a participant under the age of 18, the consultancy took place in a public setting where both the athlete and author were in full view of a third party at all times. Finally, all participants were fully informed of the risks associated with the research and were required

to complete an informed consent form. It was made clear to the participants that they were free to withdraw consent or participation from the study at any time, that they were free to refuse to answer any of the questions put to them, and that no disadvantage would arise from a decision not to participate.

5.4.4 REFLECTIVE PRACTICE

The following results section provides a narrative account of the development and refinement of sport confidence profiling. Reflective writing, in contrast to the positivist methods traditionally employed within sport psychology (Krane & Baird, 2005), utilises an 'author involved' text (Gilbourne, 2002). Whilst this form of writing is relatively uncommon in traditional applied sport psychology research, recent publications have utilised this approach to explore issues relating to professional practice in sport psychology (e.g., Gilbourne, 2002; Gilbourne & Richardson, 2006; Holt & Streat, 2001; Lindsay et al., in press; Tonn & Harmison, 2004). Indeed, Andersen (2000) has highlighted the need for more accounts of real-life consultancy issues faced by practitioners working in the field, since it is assumed that this will help current and future sport psychologists become more effective in their work.

The reflective writing that ensues provides a highly personalised account, drawing upon the experiences of the author. The author's experiences were narrated via the process of 'emotional recall' (Ellis & Bochner, 2000) which involved the author 'revisiting' the consultancies and reflecting upon them, as guided by John's (1994) structured reflection procedures, adapted by Anderson (1999) for use in sport psychology practice. Thus, the author was encouraged to reflect upon certain aspects of the consultancy in order to access the information necessary to learn through the consulting experience (Anderson, 1999). More specifically, the following narrative includes some description of the consulting experience, and the authors reflections of the process, including; consequences of actions, suggestions for future alternative action, and lessons learned (Anderson, 1999).

Since the product of reflections have the potential to offer a rich resource highlighting the knowledge-in-action required to do sport psychology (Anderson et al., 2004), the purpose of this account is to enhance the reader's understanding of the confidence profiling process and alert them to the strengths and potential limitations in adopting this method of assessment in applied practice.

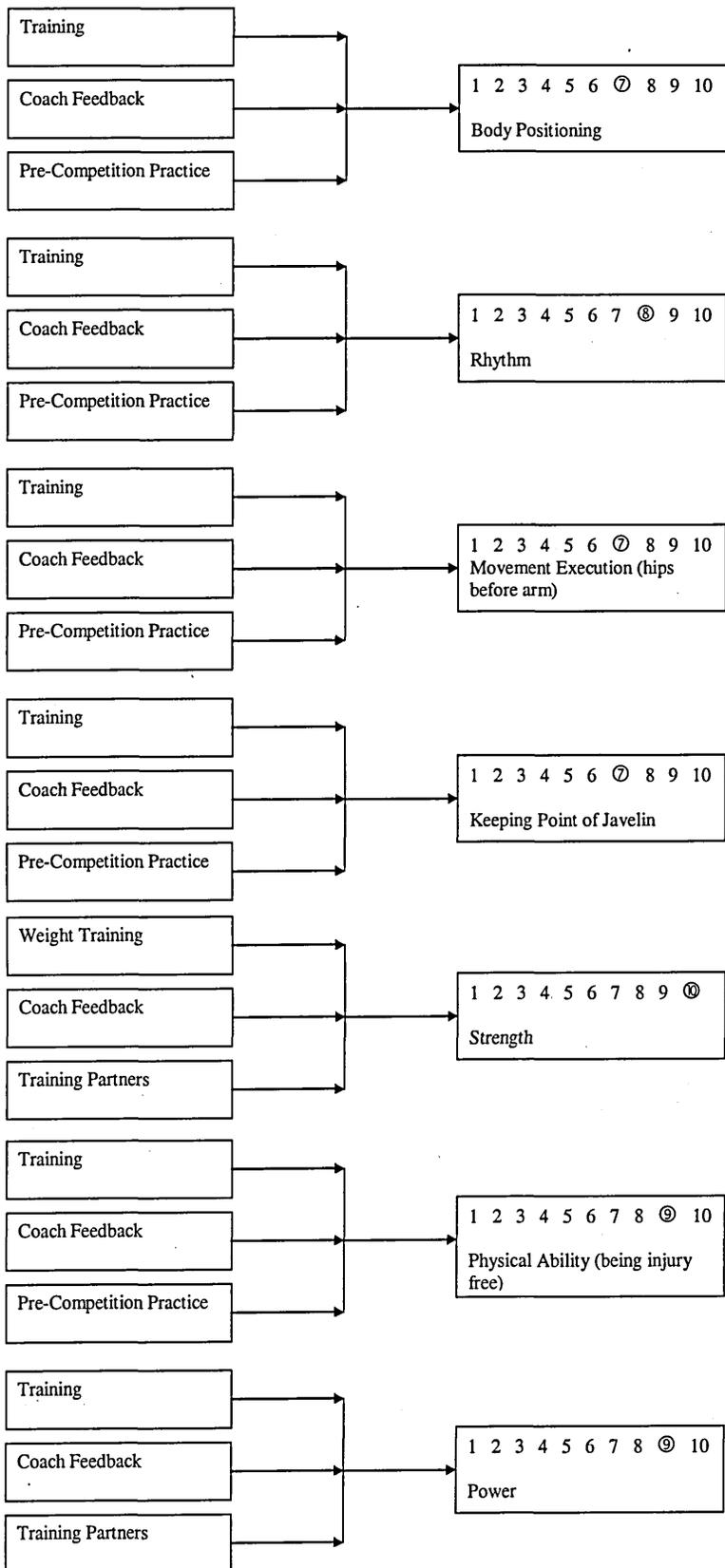
5.5 RESULTS PART 1: SECTION 1

5.5.1 PARTICIPANT ONE

Participant one was a female international javelin thrower who had been competing nationally for six years and internationally for the previous one year. I began the consultancy by introducing the athlete to the concept of sport confidence and explaining to her that we were going to spend the session profiling her confidence in sport. Using the questions adopted in study one to identify sources and types of sport confidence in World Class sport performers, I first asked the athlete to identify the constructs which she believed a confident athlete possessed, before asking her to generate her own types of confidence, and the sources from which they were derived. This athlete seemed to find this process relatively straightforward. However, I felt that asking the athlete to recall her most confident competition experience was imperative to this process. Whilst the athlete admitted that she had not thought about her sport confidence in any depth before, she found it relatively easy to elicit her confidence types when she could consider her confidence in context. As highlighted in Figure 5.2, this participant identified 12 types of sport confidence which were derived from training performance, competition performance (both pre-competition and during competition), competition experience and positive coach feedback. With the exception of 'ability to achieve performance outcome', 'ability to remain self-focused' and 'competition preparation', all types of sport confidence identified by this athlete could be classified as technical or physical and were derived from only three areas; training and competition performance, competition experience and positive coach feedback.. Asking the athlete to

Sources of Sport Confidence

Types of Sport Confidence



Sources of Sport Confidence

Types of Sport Confidence

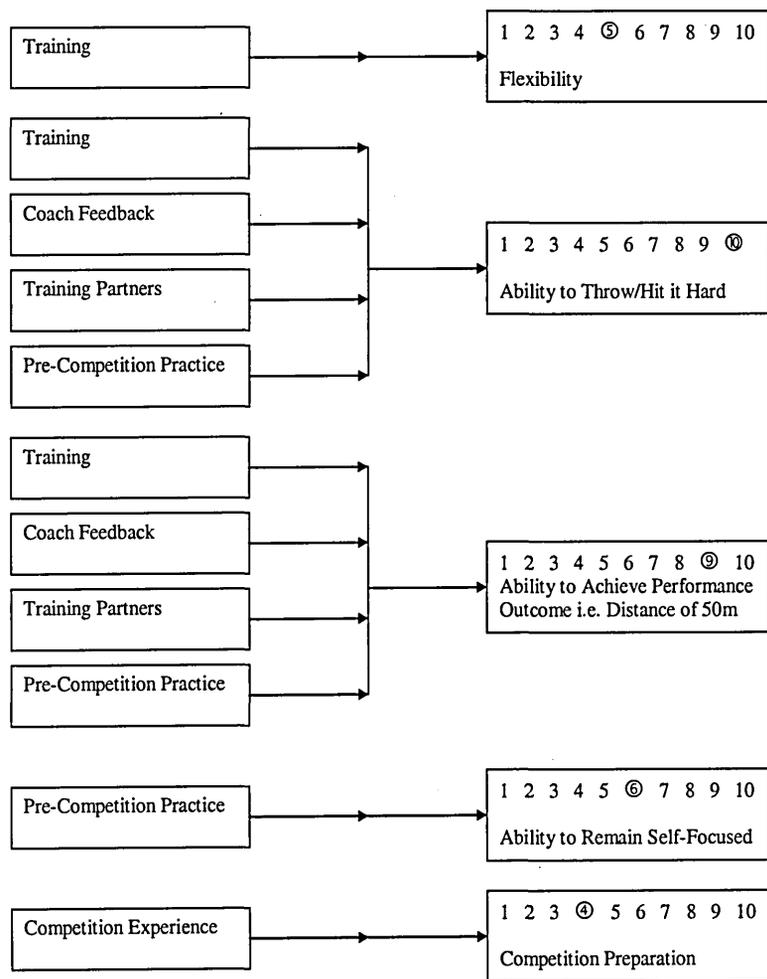


Figure 5.2 Sources and Types of Sport Confidence Identified by Participant One

reflect upon her least confident career experiences also proved to be incredibly informative. Whilst listening to the athlete talk of her experiences I made a note of the factors she identified as debilitating to her sport confidence, offering reflections and questions where appropriate. By the time the athlete had finished telling her story, it was clear to me that the factors responsible for debilitating her sport confidence were directly linked to the sources from which she derived her confidence, or rather, a lack thereof. For example, she was not preparing mentally for competition and was experiencing difficulty remaining self-focused in the competition environment, often finding herself distracted by other competitors. This is of particular relevance given that the athlete identified loss of self-focus as the primary factor responsible for debilitating her sport confidence. The remaining sport confidence debilitators highlighted by this athlete included; 'lack of coach presence for a time period of several months', 'inability to handle nerves', 'injury niggles prior to competing', 'family issues', 'reducing training time due to college exams', and 'lack of motivation' caused by her training partners leaving the training group. Finally, this athlete identified that her levels of sport confidence would often fluctuate during a meet depending upon her performance. For example, she identified that achieving a good throw would often cause her to question how she had managed to achieve the recorded distance, resulting in reduced feelings of sport confidence.

Prompting this athlete about her least confident career moments and confidence debilitators elicited a wealth of information that I believe would have gone undetected if I had simply asked her to identify her confidence sources and types. For example, in recalling her least confident career moment, it became clear that an over-reliance on training as a source of confidence had caused her to over-train during the period prior to competition, and subsequent injury niggles had then reduced her confidence on competition day. Indeed, this was the case with all of the participants and highlights the importance of these additional questions to the process as a whole.

Whilst participant one felt confident about her physical and technical capabilities, reflected by her high ratings in these areas, the confidence profiling process demonstrated that this athlete was not preparing mentally for competition which was detrimental to her levels of sport confidence in the competitive environment. Reflecting in-action, the implementation of scaling rulers enabled this athlete to not only assess her current sport confidence levels, but also begin to generate her own strategies to help enhance her sport confidence. This enabled me to really develop an understanding of the athlete's current situation and begin to think around the potential solutions she offered and how these could be implemented into an effective client-centred intervention strategy. For example, this athlete identified that a first step to improve her sport confidence would be to develop pre-competition routines and a method of controlling the negative thoughts she sometimes experienced during competition. I began thinking about how an intervention programme with this athlete might look, and reasoned that since she seemed confident about her physical and technical capabilities, intervention work with this athlete would likely involve developing a more holistic approach to competition, encouraging the development of additional sources and types of sport confidence, particularly related to psychological attributes.

On conclusion of this first consultancy I felt that not only had I developed an in-depth understanding of the athlete's confidence needs, but that she too had developed a greater awareness of herself as an athlete. Furthermore, I didn't feel at this stage as though the process needed to be refined prior to meeting with the second participant.

5.5.2 PARTICIPANT TWO

Participant two was a male volleyball player who had been competing nationally for two years and had just begun training with the England volleyball team. Consequently, he was yet to compete on the international stage. As highlighted in Figure 5.3, this participant identified five types of sport confidence derived from a range of sources including his coach, competition outcomes and performances, crowd support, team-mates and training with the

Sources of Sport Confidence

Types of Sport Confidence

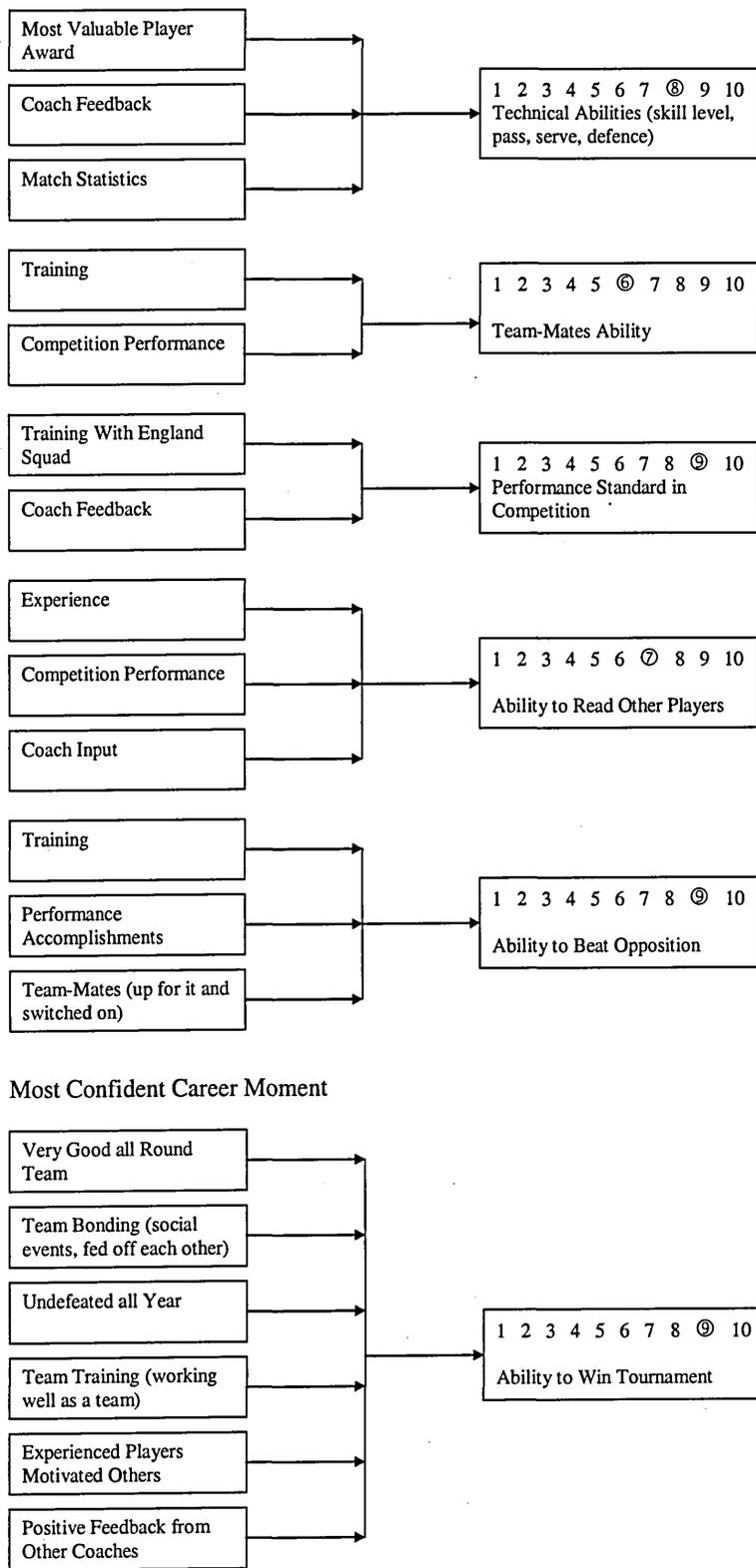


Figure 5.3 Sources and Types of Sport Confidence Identified by Participant Two

England squad. However, similarly to participant one, whilst participant two felt very confident about his technical and tactical capabilities, he failed to identify any psychological attributes as types of sport confidence, suggesting that he too was not preparing mentally for competition.

As with the previous consultancy, I made notes while the athlete was talking of his experiences, and offered reflections and further probes where appropriate. Thus, once the athlete had finished talking of his experiences I used my notes to complete the athlete's visual profile, obtaining clarification from him where required. Reflecting in-action, I questioned whether this was the most effective way of completing the process. Since the athlete had not previously been required to think about his sport confidence in any great depth, I wondered if a better approach might have been to conclude the consultancy at that point, and then draw up the athlete's profile and send it to him to review before meeting a second time to discuss his self-assessment. I concluded that giving the athlete time to reflect upon the initial consultancy might have resulted in an even more accurate and in-depth final profile. Indeed, when given the opportunity to add any other important information that might have been overlooked during the process, this athlete identified six sources of confidence that were specific to his most confident career moment, and had contributed to a belief that his team would win that particular tournament. These sources and subsequent type of confidence were separated from this athlete's general profile (see Figure 5.3) and were of particular interest to me for two reasons. First, where the sources and types of confidence already identified by this athlete were based upon his individual feelings of confidence, these additional sources and types of confidence were all related to the 'team'. This highlighted to me the importance of considering a team athlete as an individual, and as a team player, when assessing his/her sport confidence. Second, whilst this athlete had generated a profile based upon the sources and types of confidence that he 'usually' considered important, he had also identified additional sources of confidence that he had utilised in one specific context. Since these had shown to

enhance his confidence in that situation, I reasoned that intervention work with this athlete might centre on developing these additional sources of sport confidence so that they might contribute to his types of sport confidence on a regular basis.

In addition to his sources and types of confidence, participant two identified several factors which he perceived to be debilitating to his sport confidence including 'lack of experience', 'poor competition results', 'level of opposition and perceived inability to match them', 'lack of team motivation', and 'doubt in his team-mates ability'. Indeed, at the time of the consultancy, this athlete was adversely affected by his perceived team-mates inability to transfer training performance to a match situation. The team had developed a pattern of beginning a match well and then playing poorly once they had established a lead. Since the team were playing inconsistently, this element of the athlete's confidence was low (i.e., confidence in his team-mates ability). Participant two felt responsible for motivating his team as this was not something that their coach took responsibility for. However, he expressed that he was beginning to feel 'drained' as he was not receiving any positive feedback from his team-mates which was also detrimental to his confidence. Consequently, he identified that the entire team needed to develop strategies to improve their ability to transfer training to competition i.e. effectively implementing 'pressure' situations in training. Again, these findings highlight the important role that team-mates play in the sport confidence of individual members of the team. These relationships need to be given due consideration when designing interventions to enhance the sport confidence of team players. For this particular athlete, intervention work might well involve the entire team, whilst also enabling the athlete to develop strategies on an individual level that would enable him to maintain his personal feelings of confidence in the event that his team mates were underperforming.

5.5.3 PARTICIPANT THREE

Participant three was a male cricket player who had played at County level for the previous three years. In contrast to participants one and two, participant three derived

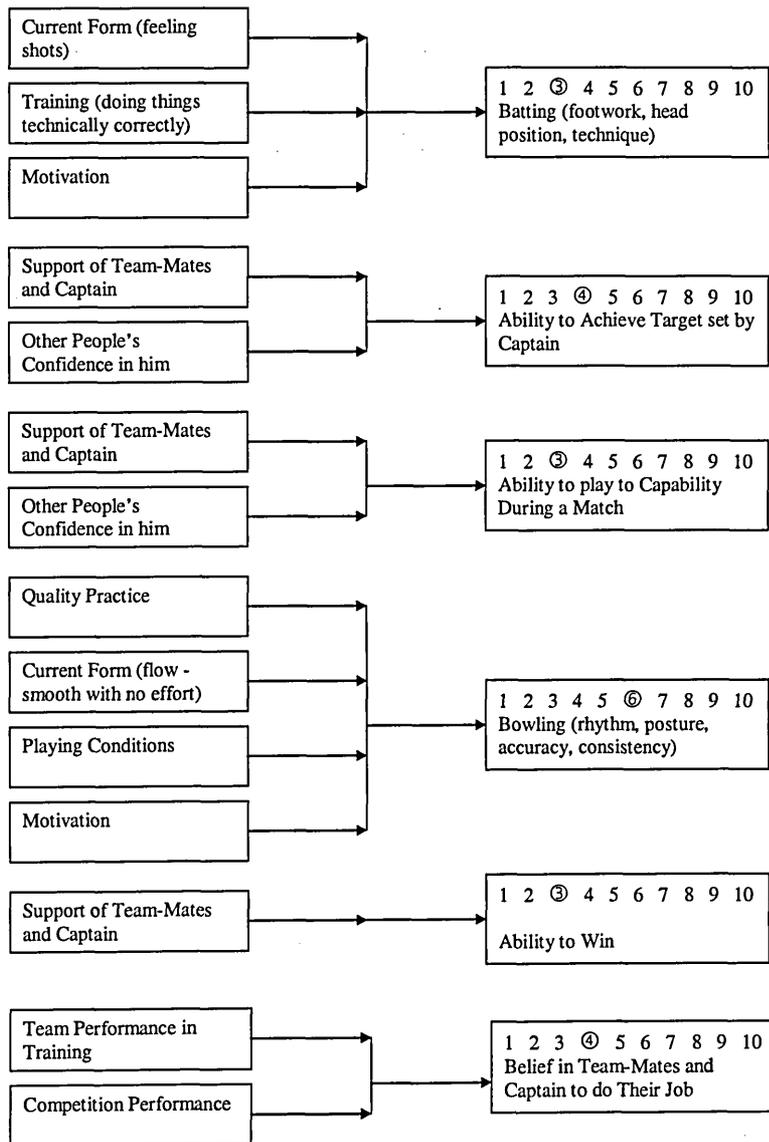
confidence from a range of sources but indicated low levels of the six types of sport confidence he identified (as highlighted in Figure 5.4). Identification of his sources of sport confidence showed that he derived confidence from a range of internal and external factors and like participant two, his team-mates were fundamental to his individual feelings of sport confidence. Indeed, when describing his most confident career moment, this athlete also identified additional sources of sport confidence that were directly related to 'the team'.

When questioned about his least confident career moments, this athlete gave a clear account of the factors responsible for debilitating his sport confidence. For example, he identified that a disagreement with his coach had resulted in him being given limited time in the nets and poor starting positions in matches. Since he perceived the coach to favour certain players, this athlete felt under increasing pressure to prove himself but also felt that he wasn't being given a fair opportunity to do so. Consequently, he began to experience negative thoughts about 'getting out' early on in matches and became increasingly nervous about batting. At the time of the consultancy he was experiencing cognitive (negative thoughts) and somatic (sweating, shaking) anxiety symptoms 40 minutes before a game which he identified as debilitating to his performance. Additional confidence debilitators identified by participant three included poor quality practice or lack of practice, lack of confidence in coach, lack of confidence from coach (i.e., being second choice to play), lifestyle factors, and a shift from a team focus when he was confident, to a focus on himself and concerns about the perceptions of others now his confidence was low. It seemed to me that this athlete had become pre-occupied with trying to prove himself to others and had lost focus on 'the greater good of the team'. Recent to the time of the consultancy, a shoulder injury had also impinged upon the athlete's physical training causing him to lose form, thus, further reducing his levels of sport confidence.

Due to the breadth and depth of information generated, and my reflection in-action when working with participant two, I did not feel as though one consultancy would be

Sources of Sport Confidence

Types of Sport Confidence



Additional Sources of Sport Confidence

- High Team Spirit
- Starting Tournament Well (beating very good teams)
- Easier Semi-Final Draw
- Really Good Team Preparation
- Involved in the Team (important player)

Figure 5.4 Sources and Types of Sport Confidence Identified by Participant Three

sufficient to effectively profile the sport confidence of participant three. Consequently, the process was completed across two consultancy sessions. The first consultancy was spent generating sources and types of confidence, including the athlete's descriptions of his most and least confident sporting experiences. I then entered this information into a confidence profile and sent it to the athlete to review and bring with him to the second consultancy. The second consultancy was spent assessing the athlete's levels of confidence and enabling him to generate strategies to enhance his sport confidence. Whilst completing the confidence profiling process across two consultancy sessions enabled this athlete to reflect upon the initial consultancy, and approach the second consultancy fresh and able to engage in the assessment phase, he did not feel that he needed to modify, or add to, his profile in any way. This suggests that an accurate and in-depth account of an athlete's sport confidence can be generated within one consultancy session.

Identifying his sources and types of confidence, and confidence debilitators, enabled this athlete to propose several methods by which he might improve his sport confidence. For example, he recognised that a team-focus was conducive to high sport confidence, whereas a focus on the perceptions of others was detrimental to his confidence. As a result, he highlighted the importance of employing clearly defined goals for his matches that would help him focus his attention, particularly as he had found specific targets set by his captain to be effective in the past. Participant three also highlighted the importance of developing strategies to control his anxiety and negative thoughts in the competitive environment. He recognised that regaining his physical conditioning was a priority and thought that playing for the second team through his rehabilitation would enable him to regain confidence since he would be less concerned about the expectations of others playing at a lower competitive level. Thus, as I had also felt during my consultancies with participants one and two, this athlete had developed a greater awareness of himself as an athlete, and through the confidence profiling process had

identified strategies that he could immediately implement himself to facilitate his current feelings of sport confidence.

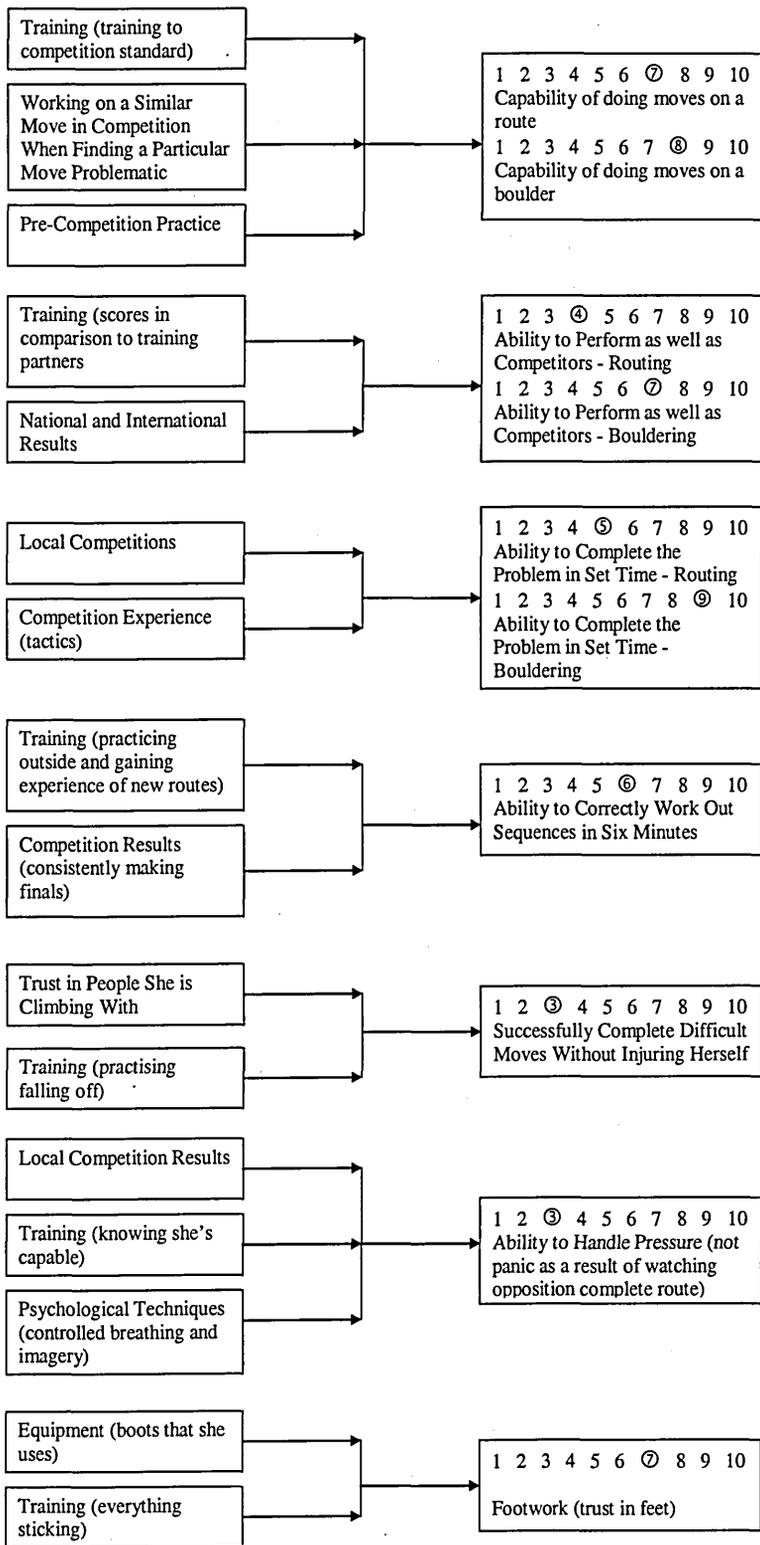
5.5.4 PARTICIPANT FOUR

Participant four was a female climber who had been competing nationally for seven years and internationally for the previous two years. She was part of the British Climbing team in two events; bouldering and routing. Consequently, the format of her completed confidence profile was different again from the previous participants (to reflect her levels of confidence in two events). As highlighted in Figure 5.5, this athlete identified seven types of confidence derived from several sources including training and competition performances, experience, competition results and psychological techniques. Like participant two and three, when given the opportunity to add any other important information that might have been overlooked during the process, this athlete identified an additional three sources of sport confidence that were not specifically related to any one confidence type. Consequently, these sources of sport confidence are situated below her completed profile.

This participant demonstrated varied ratings in terms of her sport confidence. For example, the profiling process highlighted that whilst she did feel confident in her physical and technical capabilities in training, this confidence did not transfer to competition. On reflection, it would probably have been useful for this athlete to complete two profiles, one to reflect her sport confidence in training, and one to reflect her sport confidence surrounding competition, since her confidence seemed to be dependant upon the sporting context. Instead, her completed profile represents several types of confidence that are either competition or training specific, or relate to both contexts. Facilitating this athlete through the confidence profiling process provided me with yet another reminder of the importance of identifying confidence debilitators alongside sources and types of confidence. If I had not asked this athlete to reflect upon her least confident sporting experiences, I would not have learnt about

Sources of Sport Confidence

Types of Sport Confidence



Additional Sources of Sport Confidence

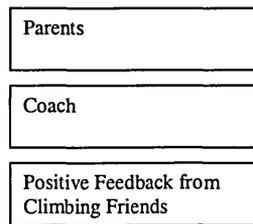


Figure 5.5 Sources and Types of Sport Confidence Identified by Participant Four

her shakeable sense of confidence in the context of competitive sport, or the factors responsible for debilitating her confidence in this environment.

The primary factor that this athlete identified as debilitating to her sport confidence was expectations, both her own and those of others. As a result, she identified feeling nervous in the competition environment, particularly during qualifying rounds as she expected to qualify. Typical thoughts identified by the athlete were: 'what if I mess up'? 'that looks hard' and/or 'she made that look easy'. This athlete highlighted that she felt more confident for the final as she couldn't then finish any lower than sixth which was acceptable to her. Additional confidence debilitators identified by this athlete included watching her opposition compete well, injury, and comments from the crowd.

Participant four had developed her own breathing and imagery techniques to aid her competition preparation, however, on completion of the profiling process she had identified several additional strategies which she believed would help her increase her sport confidence. Again, I felt she was able to generate these strategies as a direct result of the enhanced self-awareness she had developed throughout the confidence profiling process. For example, the athlete identified that she hesitated on difficult moves in competition because she doubted in her ability to successfully complete them without becoming injured. Thus, the low sport confidence levels displayed by this athlete were having a detrimental effect on her competition performance. This awareness led the athlete to conclude that she needed to improve her falling technique in training so that she could commit 100% to difficult moves in competition, without worrying about the consequences of falling. Furthermore, she identified that she could increase confidence in her ability to complete a problem in a set-time by developing a tactical competition plan for bouldering.

5.5.5 PARTICIPANT FIVE

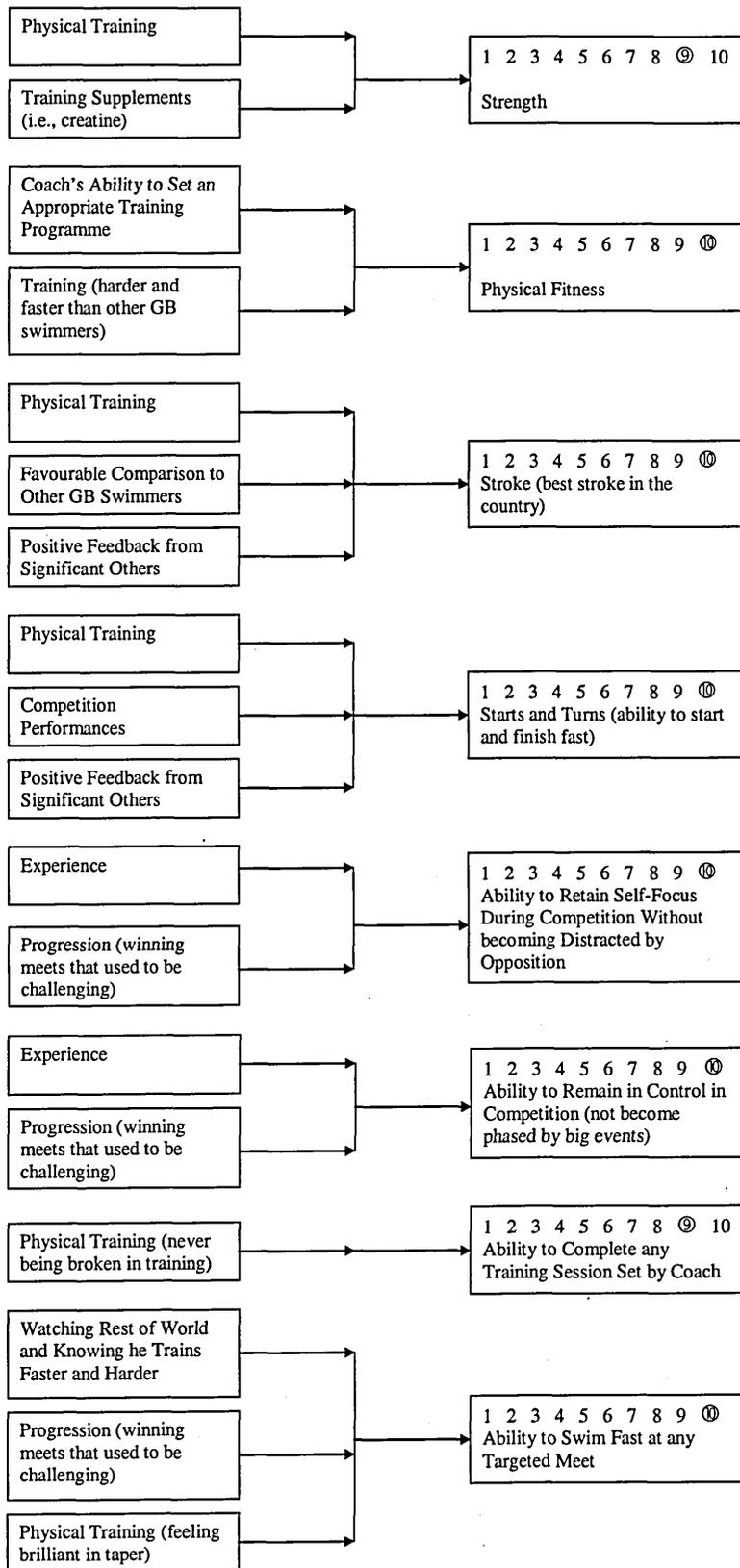
Participant five was a male breaststroke swimmer who had been competing nationally for four years and internationally for the previous one year. As depicted in Figure 5.6, he was a supremely confident athlete who identified 10 types of sport confidence and rated himself highly on each. Consequently, this was the only athlete with whom I did not utilise the MI style questions when asking him to rate his types of sport confidence. Furthermore, this was also the only athlete who did not wish to pursue continued sport psychology support. Reflecting in-action, the feel of this consultancy was very different to those previously described. This athlete was very positive in his description of his experiences, and his entire demeanour reflected this. It was clear from my interaction with this athlete that he had already given some consideration to his sources and types of confidence, and also the factors that could potentially debilitate his confidence. Furthermore, he already had strategies in place to maintain his confidence levels.

In contrast to the other participants, the types of confidence identified by this athlete were related to a range of abilities including technical, tactical, physical and psychological factors. Indeed, reflection on-action confirmed that this athlete had identified five of the six types of sport confidence identified by the World Class athletes in study one (i.e., achievement, skill execution, physical factors, psychological factors, superiority to opposition) derived from a full range of sources including physical preparation, positive feedback from significant others, competition and training performances, training supplements (i.e., creatine), experience, innate ability, coach's ability to establish an effective training programme, training harder and faster than the best in the World and team-mates. This highlighted to me the importance of encouraging athletes to utilise a wide range of confidence sources, in order to develop high levels of sport confidence in a variety of areas.

Whilst this participant demonstrated very high levels of sport confidence, he was able to identify some factors which had in the past proved to be detrimental to his confidence.

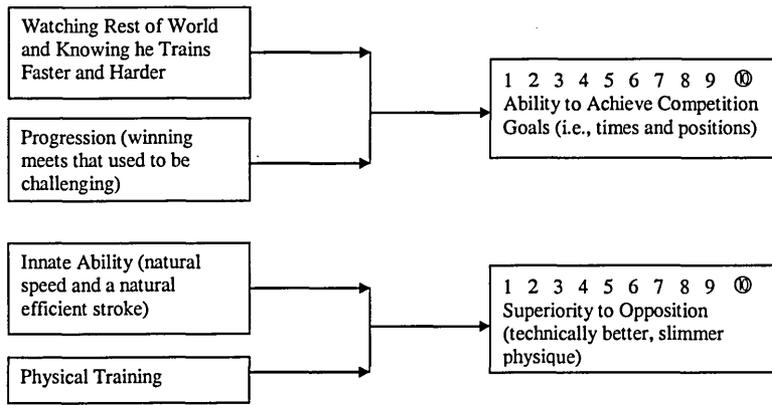
Sources of Sport Confidence

Types of Sport Confidence



Sources of Sport Confidence

Types of Sport Confidence



Additional Sources of Sport Confidence

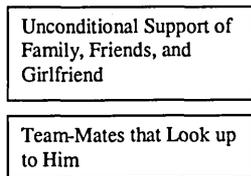


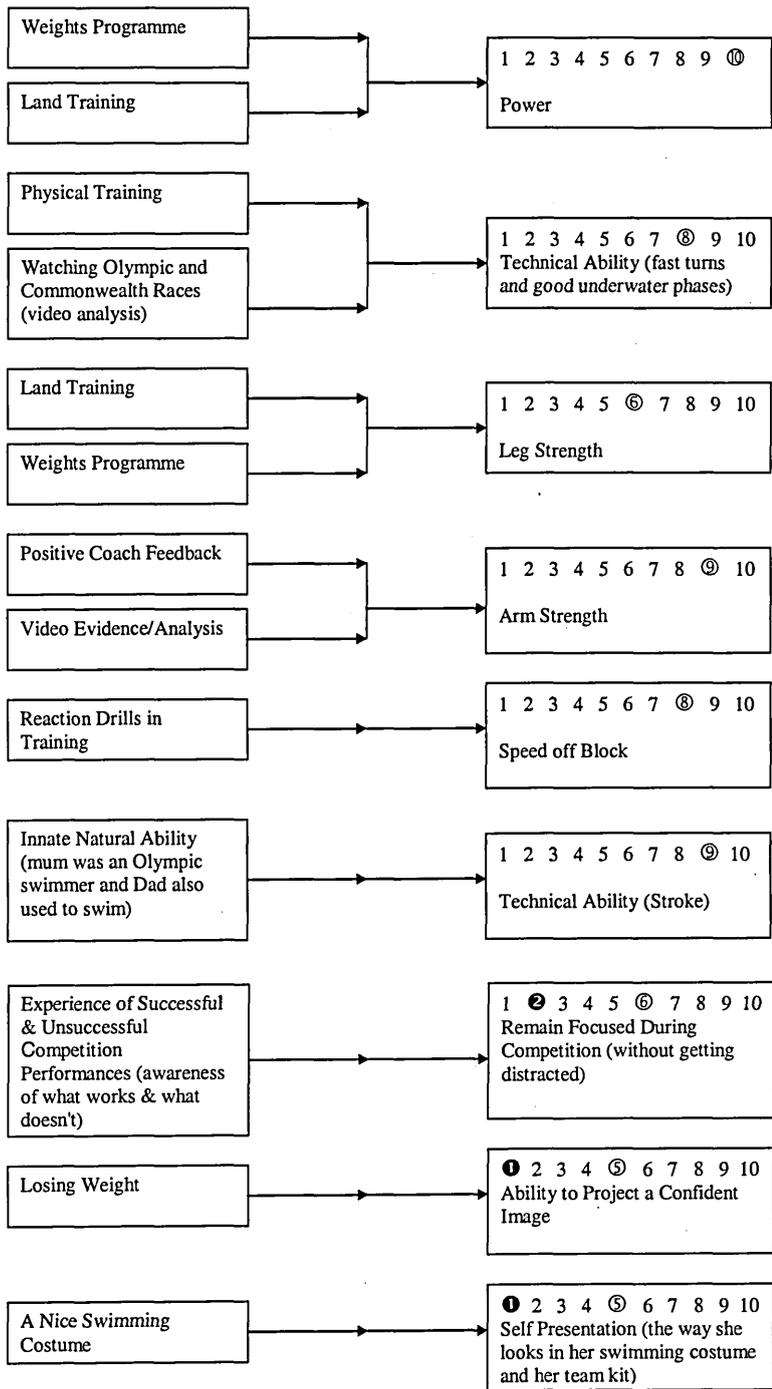
Figure 5.6 Sources and Types of Sport Confidence Identified by Participant Five

These factors included injury, money issues, his training cycle being focused on endurance at the detriment of his speed, and performing poorly in low key competitions. However, his training programme had been modified accordingly and the athlete had already restructured his appraisal of these factors to view them as motivational rather than debilitating to his sport confidence.

5.5.6 PARTICIPANT SIX

Participant six was a female breaststroke swimmer who had been competing nationally for five years and internationally for the previous one year. As highlighted in Figure 5.7, she identified nine types of sport confidence which were derived from a range of sources. Of these six types of sport confidence only three were related to non-physical factors including competition focus and self-presentation factors. Questioning participant six about her least confident career moments prompted her to provide me with an in-depth account of the previous four years, during which time she had experienced varying levels of sport confidence. This athlete had been a very successful junior swimmer and had consistently won national titles. Consequently, she had enjoyed high levels of sport confidence derived primarily from her competition results. However, her first loss in a major meet caused her to question her swimming ability for the first time. This athlete then developed a medical condition which had a negative impact upon her swimming training and she was dropped from the junior British Swimming programme. Additional problems at school and family difficulties also contributed to low sport confidence levels which were further debilitated when the athlete failed to win a national title in the British championships. Consequently, the athlete decided with her coach to drop one of her distance swimming events and to re-evaluate her training programme so that it was focused towards sprint distances.

At the time of this study, participant six revealed that she felt more confident than she had felt the previous year, indicated by her types of sport confidence ratings. Indeed, although I did not ask her to make a comparison, when the athlete felt there had been a change in her



Additional Sources of Sport Confidence

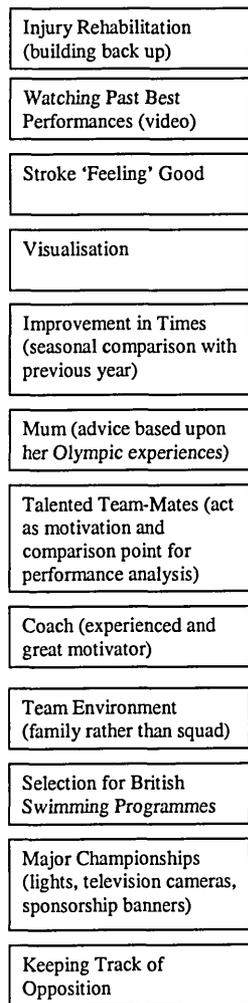


Figure 5.7 Sources and Types of Sport Confidence Identified by Participant Six

confidence levels, she indicated a score for the previous year (marked in bold on Figure 5.7) and a present score. Thus, on reflection, asking athletes to complete a 'current' confidence profile, in addition to a 'comparison' profile might prove to be a useful exercise. I believe that this would depend upon the needs of the athlete. For example, an athlete who generally presents with low levels of sport confidence might be encouraged to create an 'ideal' confidence profile detailing where he/she would like to be. Alternatively, an athlete who is suffering from reduced confidence levels might be encouraged to complete a profile detailing his/her most confident career moment as a point of comparison and a basis for intervention development.

The confidence profiling process identified that whilst this athlete felt confident about her physical and technical abilities, she did not feel confident about her ability to mentally prepare for competition and had self-presentation concerns when in the competitive environment. This was highlighted both by the athlete's sport confidence ratings and by the additional confidence debilitators she identified. For example, the athlete reported that even if competition preparation had gone well, she would still focus on negative thoughts during competition (i.e., what if I don't swim well? what if I don't make a time?) which reduced her confidence levels. This athlete also identified that since she was not confident about her weight or the way that she looked, she would compare herself unfavourably to other athletes in the competitive environment and this would further debilitate her confidence. Consequently, she found it very difficult to portray a confident image, even though she believed this to be important.

Whilst participant six identified several sources of confidence that were specifically related to her specified types of sport confidence, when prompted, she also identified several additional sources of sport confidence which were not related to any specific confidence type (see Figure 5.7). These additional confidence sources comprised of a range of internal and external factors, including reference to psychological preparation. For example, watching

videos of past best performances, visualisation, keeping track of her opposition, and identification of her perceived strengths and weaknesses, based upon analysis of her own and her team-mates performance.

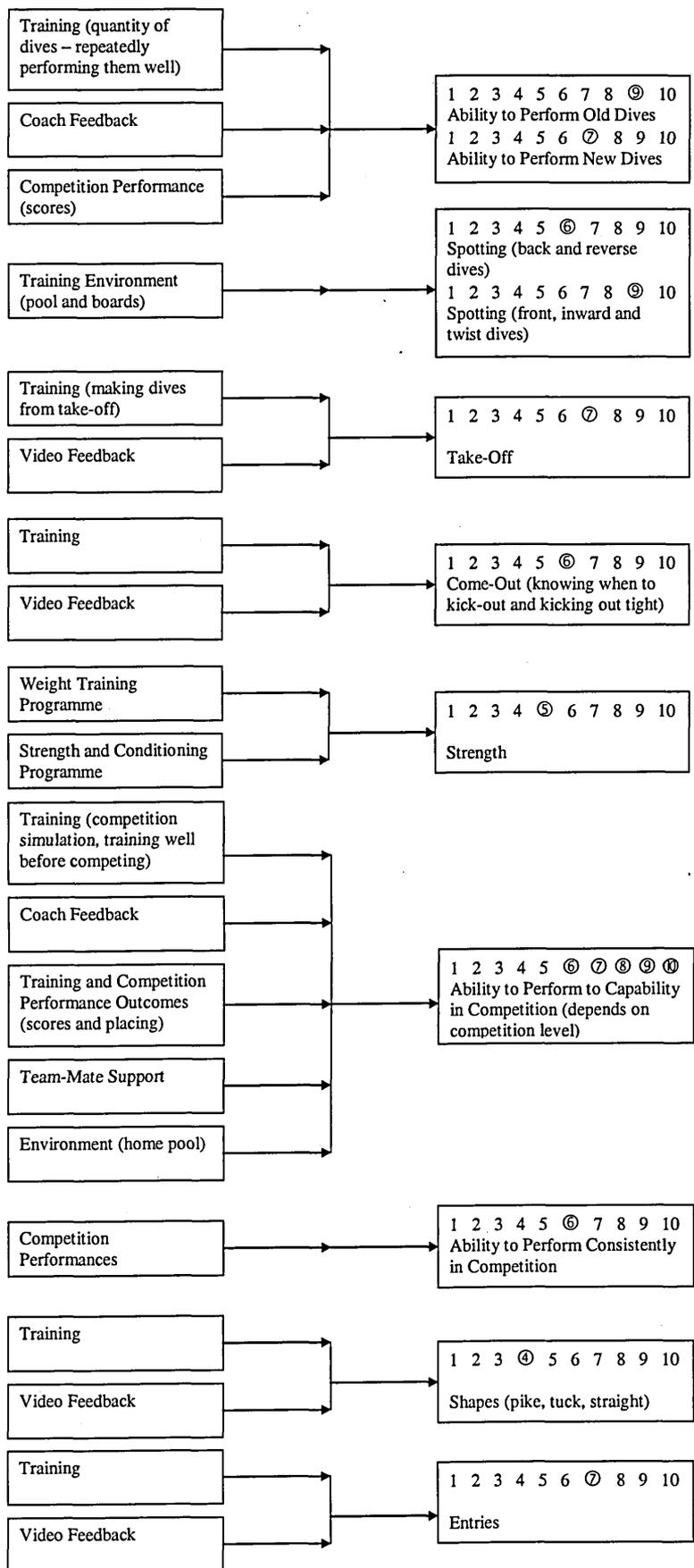
Adopting the MI style questioning whilst asking this athlete to rate her types of sport confidence enabled her to identify several strategies that she thought would enhance her confidence levels, based upon her sources and types of sport confidence. For example, she identified that nutritional support would aid weight loss and improve her self-presentation confidence. Furthermore, she identified that she had stopped using some of the techniques she had adopted whilst she was on the British swimming programmes, for example, goal-setting, pre-performance routines (with music) and keeping a training log. The athlete concluded that goal-setting and pre-performance routines would assist in her ability to remain focused in the competition environment, and a training log would facilitate her feelings of confidence through observed improvement. As with some of the other participants, I found it particularly encouraging that through completing a sport confidence profile, the athlete had identified strategies that she could immediately implement to try and enhance her confidence in sport.

5.5.7 PARTICIPANT SEVEN

Participant seven was a male springboard and platform diver who had been competing at a national level for five years. As highlighted in Figure 5.8, he identified nine types of sport confidence derived primarily from training and competition performances. As with participant four, the confidence profiling process illuminated that this athlete was more confident in training than in competition. Furthermore, his confidence in his ability to perform to capability in competition was dependant upon the level of competition. The higher the competition level, the less this athlete believed in his ability to perform to capability. Indeed, participant seven identified that competing against strong opposition increased the perceived pressure of competition, and high pressure situations were debilitating to his feelings of sport confidence. Additional confidence debilitators identified by this athlete included poor

Sources of Sport Confidence

Types of Sport Confidence



Additional Sources of Sport Confidence

Parents (Positive
Feedback)

Performance
Improvements

Figure 5.8 Sources and Types of Sport Confidence Identified by Participant Seven

performances in training and competition, negative comments from others, the mood state of his coach (negative coach mood reduced the athlete's confidence) and injury. These factors could provide a strong basis for intervention development, which for this athlete would likely include process goal-setting to reduce an opposition focus in competition, anxiety management techniques, and cognitive restructuring. Indeed, participant seven identified several strategies that he thought would enhance his confidence levels, based upon his sources and types of sport confidence. Since his confidence beliefs were predominantly focused on technical and physical factors, these strategies were technical or physical in nature. For example, the athlete identified that to improve his confidence in his take-off he would need to improve his balance which could be achieved through the use of frame by frame video-analysis techniques. He also identified that improving his flexibility, through a more focused strength and conditioning training programme, would enhance his confidence in his ability to make shapes (i.e., tuck, pike, straight, twist).

On reflection, the consultancy with this athlete (as with all the previous athletes) highlighted to me the necessity of adopting a more idiographic approach to the assessment of sport confidence. Since the identified types and sources of sport confidence were individualised and sport specific, they would not have been identified using more traditional nomothetic inventories.

5.6 SUMMARY OF REFLECTIONS

The confidence profiling process enabled each athlete to give an accurate and in-depth account of their sources and types of confidence, and consider for perhaps the first time how their sources of confidence might influence their levels of confidence and subsequent competition performance. I found that the participants were all readily able to make the distinction between sources and types of confidence, and I believe that the order in which the questions were asked facilitated this process. For example, I found that the athletes were able

to readily identify the sources from which their types of confidence were derived. This obviously involved the athletes identifying their types of confidence prior to their confidence sources.

Whilst all athletes were able to generate the information necessary to complete their confidence profile, some athletes found it more difficult than others to identify what their sources and types of confidence were. This was rectified by asking the athletes to talk about their sporting experiences. Once they could consider their sport confidence in context (i.e. why they had felt confident on a particular day, or what had happened in the lead up to an event that had facilitated/debilitated their confidence) they were able to identify their sources and types of sport confidence with ease. Indeed, enabling the athletes to describe their most and least confident career moments was fundamental to the identification of confidence debilitators. I found this to be a particularly important part of the confidence profiling process, since the factors responsible for debilitating the athletes sport confidence seemed to provide the basis from which intervention strategies might be explored.

Constructing the actual confidence profile and current ratings was a straightforward process. Each athlete's types of confidence were usually entered into the profile as they were identified, and then once these had been exhausted the athletes' sources were added. However, for those athletes that articulated a wealth of information relatively quickly, I found it easier to make notes whilst they were talking and then transfer the information into the profile once they had finished relaying their experiences. The use of MI style questions and scaling rulers also encouraged the athletes to engage in deeper thought and reflection which served two purposes. First, the athletes often identified additional types of confidence whilst explaining why they had chosen a particular rating. For example, an athlete who is asked to explain why they have given themselves a rating of 7 rather than 1, for example, is required to reflect upon their strengths in that area. If additional sources and types of sport confidence were identified by the athletes through consideration of their sporting experiences, or on

reflection of their completed profile, the profile was updated. Second, the athletes were given the opportunity to reflect upon the strategies that they could employ to enhance their confidence. Each athlete seemed able to do this with ease and naturally referred back to the factors that were responsible for debilitating their confidence, demonstrating an enhanced self-awareness and understanding of their confidence needs. Enabling the athletes to provide an accurate account of their viewpoint and have an active role in decision making is in accordance with the central tenets of PCT, and provides the foundation from client-centred interventions might be developed.

The resulting profiles were specific to the individual athlete and also specific to the sport in which they competed. Consequently, the confidence profiling process enabled individual differences in confidence to emerge. For example, some athletes were more confident than others, some athletes were more confident in specific areas, some athletes were over-reliant on specific sources and types of confidence, and some athletes were unable to transfer their confidence in training to competition. Consequently, subsequent interventions might be targeted toward increasing the range of sources and types of confidence utilised, enhancing confidence in the areas already identified, introducing controllable sources of confidence as opposed to a reliance on uncontrollable sources, or facilitating the transfer of confidence from training to competition, depending upon the individual confidence needs of the athlete. I believe that these individual differences would have gone undetected if more traditional nomothetic inventories had been employed.

Through reflective practice I was able to explore my experiences of confidence profiling in an applied setting, and generate information which might be used to improve the process. For example, one athlete (participant six) was feeling more confident at the time of the study than she had the previous year, having overcome some difficult situations. Thus, this athlete automatically made comparisons between her current sport confidence levels and her confidence levels the previous year, in some instances providing a rating for each. This

comparison provided a greater depth to the athlete's responses and also seemed to help her rate her current levels accurately. Thus, incorporating a second rating into the profiling process might prove to be a useful assessment measure, dependent upon the confidence needs of the athlete. For example, it might be helpful for an athlete with low confidence levels to elicit a second rating to demonstrate where they would like to be, or where their confidence levels were during their most successful performance. Alternatively, it might be appropriate to ask an athlete to provide a rating for their confidence in training, and their confidence in competition. The athlete's progress toward their ideal could then be monitored accordingly.

As mentioned previously, the MI style questions required the athlete's to engage in deep thought and reflection. Consequently, one consultancy session might not provide adequate time to complete the confidence profiling session. Indeed, one consultancy was not sufficient to effectively profile the sport confidence of participant three. This athlete was afforded the time to reflect upon the initial consultancy, and whilst he did not make any changes or additions to his completed profile, he was able to approach the second consultancy ready to fully engage in the thought and reflection needed for MI style questioning. I would adopt this approach in future since I believe it reduced the risk of the athlete becoming tired and disengaging from a long consultancy session.

5.7 METHOD PART 2: USABILITY OF CONFIDENCE PROFILING

To help determine the usability of confidence profiling, a description of the process (see Appendix 4) was provided to two British Association of Sport and Exercise Science (BASES) accredited sport psychology consultants. This document also provided a guide to the structured reflection questions presented by Anderson (1999a). Thus, adhering to the procedures outlined in section one, these consultants assessed the confidence levels of one of their own clients and reflected on their practice. The resultant profiles are not included in this section for reasons of confidentiality.

5.8 RESULTS PART 2

5.8.1 CONSULTANT 1

PR is a female field hockey player. She is 26 years old and has 15 years of competitive experience, including county representation throughout her career. The team coach believes that PR is a talented player and one who is motivated to train hard and give 100% during competition. The coach also pointed out that PR is not always happy with her performances and is not fully confident in her abilities/is lacking in self belief. The coach feels that this lack of confidence affects the player in terms of positions on the field. Indeed, the player doesn't feel she can play in certain positions during games because she may not see as much of the ball and this in turn decreases her confidence further.

PR has many strengths but also some areas for improvement. PR's strengths include fitness (she has high level of fitness and is also a marathon runner which she feels facilitates her endurance on the hockey field). She demonstrates high effort during practice and competition and is committed to her team and wants to do her best. Observations of practice and games so far show that PR communicates well during practice at times, but is often quiet during competitive games (as well as drill games during practice sessions).

In terms of psychological areas for improvement, initial needs analysis assessments indicate that PR's major concern is her fluctuating levels of confidence. Indeed, this has been an on-going problem for PR throughout most of her playing career. PR experiences frequent self doubts in relation 'to what team-mates think of her game performance', as well as experiencing negative thoughts with regards to performing and playing in certain positions on the field.

I explained to PR that this session would focus upon her confidence and that we were going to spend some time delving into her hockey confidence so that we could generate a visual profile and discuss in detail what she is confident about and where that confidence

comes from. I could sense 'relief' in her behaviour as her body language changed (e.g., leaning forward and smiling). I could tell she was enthusiastic.

In order to help PR identify and elicit her types and sources of sport confidence, the consultant followed a series of questions that engaged the athlete in conversation regarding her confidence in hockey. Questions included: (1) asking PR to identify the constructs/qualities which she perceived a confident athlete to possess, (2) what are you confident about (types)? (3) Where does that 'type' of confidence in yourself as an athlete come from? In addition, PR was asked to recall a time that she had been most confident surrounding competition. I felt that although PR appeared to struggle when initially thinking about what she is confident about and where that type of confidence comes from, once she had identified a time in which she felt she had been most confident surrounding important competition, she was able to construct her types and sources more readily. Following this line of questioning, PR was also asked to recall the time she felt least confident going into an important competition and she discussed the factors responsible for debilitating her sport confidence.

Constructing the actual profile and current ratings (including confidence regarding skill execution) was a smooth process. I think this was due to the extensive discussions that took place initially (i.e., asking the questions as mentioned above), since it promoted deep thought on behalf of the athlete. Consequently, when it came time to construct the profile with ratings, the athlete had 'exhausted' eliciting her types and sources of confidence, as well as factors responsible for debilitating her sport confidence. I think that the critical question leading to a successful profile was having the athlete recall her types and sources of confidence relating to a most confident time/game in her career. Although we didn't compare ratings when constructing the profile, the athlete automatically made comparisons regarding her current sport confidence levels and the time when she felt most confident (still in keeping with types and sources). This helped the athlete rate her current levels accurately (it seemed to

give her the comparison that she needed). Next time, I think it would help an athlete to include this as part of the visual profile (in addition to current sport confidence levels) and get visual ratings for this time period/important game.

In viewing the profile, MI questioning followed and focused on the lowest confidence ratings. The lowest confidence ratings (out of 10) were; accepting team player comments (1); accepting coach comments (1); receiving the ball from team players (1); involvement in game play (1); passing and distribution (2); positioning on the pitch (3); shooting at goal (4).

Questions included: why do you feel you are a 1 on this construct rather than a 0? What changes do you think you need to make in order to raise your current rating, how might you go about making these changes, and what would be a good first step? I felt these questions were difficult for the athlete, not because the questions were difficult to understand but because it takes a lot of thought and reflection on behalf of the athlete (e.g., asking about changes and steps to be taken is almost engaging in early thought rationalisation techniques that perhaps would later form part of the actual intervention to be implemented). I think when asking PR to 'think about what changes she might need to make in order to raise her rating from 1 to becoming higher', it may be useful to compare the rating from her most confident time/game with her current rating (this should be part of the actual visual profile rather than just pre-profiling questioning/discussion). If I'd have had the comparison ratings for the MI questioning, I think it would have been easier to ask the athlete 'what changes she might need to make in order to raise her rating from 1 to 6 (e.g., if 6 was her comparison rating)'. The MI related questions provided detailed information and explanations/reasoning surrounding the athlete's thoughts about her types and sources of confidence. We were also able to put her types and sources of confidence in context. For example, PR talked about how 'involvement in play' early on in games is a critical source of confidence (PR perceives this to mean that players have confidence in her to pass her the ball). If she doesn't receive much of the ball

then she interprets this as her team-mates thinking it is because she will mess up and consequently don't pass her the ball.

The initial questions asked prior to constructing the profile were extremely helpful and helped the athlete delve deep into thinking about her hockey confidence (and factors debilitating it). Recalling a previous most confident time period/game was crucial in helping the athlete elicit her sources and types of confidence as well as providing current ratings/levels for the visual profile. The method was easy to follow, and the athlete understood the profiling process. I gained an in-depth and thorough understanding of the athlete's types and sources of confidence for hockey. Through MI questioning, PR was able to think about the changes she could begin to make in order to raise her confidence levels and regain the levels she had during her most confident sporting moment.

An action plan to improve the process might include comparison ratings (most confident time/game) into the visual profile which can be revisited during the MI questions. This was also an extremely long session and I'm not sure that I fully engaged the athlete as much as I could have during the MI phase of the profile (it required a lot of deep thought, reflection and problem solving on behalf of the athlete and I think she was a little tired at this point). In addition, from a consulting perspective, I perhaps would have benefited from having the athlete identify her sources and types of confidence during one session, and then creating the visual profile after the session had ended (allowing time to think and thought-process the content in detail). In the follow-up session, the athlete would have been able to view her visual chart/profile and then be ready to fully engage in the thought and reflection needed for MI.

5.8.2 CONSULTANT 2

AB is a male golfer. He is 18 years of age has a competitive experience of 5 years and currently represents England on the international stage in elite junior amateur golf. His

handicap at the time of the session was 0.8. AB's national coach indicated that that he is a talented player who is motivated to practice, has a complete game for his stage of development, and has a steely competitive edge in competitive training and competitive performance. However, discussion with the coach and informal discussions with AB indicate that at present he has a lack of confidence in some areas of his game (e.g., short game) that have been compounded by some recent poor results within the elite junior game.

Initial psychological needs assessments carried out with AB indicated his levels of confidence were a current concern that was affecting him in both practice and tournament play. However, AB did highlight that during previous times within his elite junior golf career, his levels of confidence had been fine and he recognised the importance of feeling confident about his whole game in order to take these feelings into the competitive environment. The fact that he did not feel confident with his current game was creating a concern for him that stimulated negative thoughts and feelings prior to, and during competitive performance and practice.

Prior to the consultation utilising the profiling confidence for sport technique, I explained to AB that the session would focus on his confidence and that we were attempting to produce a visual representation of his confidence through an exploration of what he was confident about (i.e. types) and where he gained his confidence from (i.e., sources), within all aspects of his golf game. In line with the procedures of the study, the first phase of the profiling confidence for sport technique involved the consultant asking a series of questions to stimulate AB's thoughts on confidence in golf. For example, AB was asked to 'describe the qualities of a confident elite level golfer' and 'what attributes do you require to be confident about performing successfully in your sport'. On reflection, AB responded well to these questions and they stimulated a discussion on confidence in golf that could be directed towards his particular ideas on confidence. The next section of the profiling technique involved eliciting AB's sources and types of confidence specific to his golf game. Within this

section of the consultancy AB was asked to draw on times within his competitive career that related to his most and least confident experience as a competitive elite golfer. In line with the conceptual pathway through the profile (i.e., types help form sources) I asked AB to outline to me the areas of his golf game he was confident about (i.e., types of confidence). These types of confidence were used to elicit information about the areas he used to source his confidence (e.g., where does that 'type' of confidence in yourself as a golfer come from). The use of comparisons between AB's most and least successful (or confident) periods within his competitive career helped to facilitate this process. Once AB had identified his types of confidence (i.e., what he was confident about it became an easier process for him to communicate to me where this confidence came from (i.e., was sourced from). The background contextualisation provided by telling me what he was confident about, helped him convey to me where that confidence was sourced from; an important consideration for future consultants using the technique.

Construction of the actual profile and current ratings was a relatively simple process following the initial indecision in the early portion of the consultation. On reflection, this process was facilitated to a great extent by recalling information about AB's most successful or confident time within his career. In relation to rating himself on the types of confidence currently experienced, the natural comparison from 'then to now' assisted him to create a score from 0-10. The use of the MI questions such as 'why have you scored yourself a 4 rather than a 1' for confidence type were extremely beneficial for AB gaining an understanding of his current confidence profile and eliciting information to help foster confidence. On reflection, perhaps the use of a retrospective profile reflecting the time AB was most confident with his game would have further deepened his understanding of his current confidence levels. This comparison would have further enabled AB to think about and foster changes that would be beneficial to his confidence through a client-centred approach.

When reflecting on the whole profiling process, I felt as though some preparation by AB prior to the session would have helped maximise the time within the consultation. The actual consultation turned into a long session for both the client and practitioner, where client engagement was at times lost. Consideration could be given to asking the client to prepare for the session by recalling and documenting the times when they were most and least confident with their game though an approach where they were asked what caused them (i.e., why) to be high or low in confidence during these times. The conceptual flow of the profile requires that types are elicited prior to identifying sources of sport confidence. Reflection in and on action suggested that AB found it much easier to articulate information about sources once he had elicited information about types, thus, outlining information about type helped contextualise information on source. Finally, the creation of a profile from the clients' most confident period within their career, combined with the MI questions used could possibly assist the client driven problem solving process of eliciting information and techniques to help raise their current levels of confidence.

5.9 DISCUSSION

The purpose of study three was to develop an applied method of assessing athletes sport confidence regardless of their age, gender, sport level or sport type. A secondary aim of this study was to determine whether types of sport confidence can indeed be viewed as evidence-based belief systems grounded in athletes sources of sport confidence, as indicated by the findings of study one.

In contrast to traditional nomothetic measures developed to assess athletes sport confidence in research settings, the confidence profiling process adopted within this study fits with the Kellyan view that if we wish to know something about a person, then the best approach is to ask that person (Kelly, 1955). Consequently, each athlete was encouraged to give an accurate account of their sources and types of confidence, and identify the factors that

were debilitating to their confidence levels. This more idiographic approach to the measurement of sport confidence allowed the confidence needs of athletes to be assessed at the individual level, regardless of demographics, sport classification, or competitive status. Indeed, the participant sample employed in this study was deliberately varied and comprised of both male and female athletes, competing in different sports at different levels.

As with the World Class athletes interviewed in study one, none of the participants experienced any difficulty in making the distinction between sources and types of confidence, providing supporting evidence for the multidimensional nature of sport confidence. Furthermore, once the athletes had identified their types of confidence (i.e., what they were confident about) it became easier for them to identify where their confidence came from (i.e., was sourced from), supporting the secondary aim of this study; that types of sport confidence might be viewed as evidence based beliefs grounded in an athlete's sources of sport confidence.

Since the resulting profiles were specific to the individual athlete and also specific to the sport in which they competed, the confidence profiling process enabled individual differences in confidence to emerge. Indeed, the confidence needs of each athlete were different, illuminated by their self assessments and by identification of their confidence debilitators. Thus, in accordance with PCT (Kelly, 1955), the three consultants were afforded the opportunity to understand the athlete's individual perceptions and interpretations about their experiences. By allowing the athlete to identify what they felt to be important, an accurate and in-depth assessment of their sport confidence was produced. Consequently, their sport confidence profiles could provide a solid basis for the design and development of interventions targeted towards their individual confidence needs. The findings of the present study also provided support for the findings of study two. More specifically, the factors responsible for debilitating the athletes sport confidence appeared to be associated with the sources from which they derived their confidence. For example, those athletes that derived

confidence primarily from physical training, suffered confidence decrements when they were unable to train due to injury and/or situational factors (i.e., college). Thus, the most successful sport confidence interventions might indeed involve identifying an athlete's particular sources and types of confidence, and ensuring that these are maintained during competition preparation phases.

As highlighted by Andersen et al., (2004) reflective knowledge-in-action would seem an important form of information which should be used to properly facilitate the development of a practice discipline. The reflections of the three sport psychology consultants provided a knowledge based account of how the confidence profiling process might be utilised most effectively. For example, each of the three consultants identified that asking the athlete to recall their most confident sporting experiences was critical to the identification of their sources and types of confidence, and the development of an in-depth and accurate confidence profile. The athletes seemed more able to elicit the information required when able to draw on specific sporting experiences. Furthermore, the athletes were readily able to identify the factors responsible for debilitating their sport confidence whilst recalling moments in their career that they had not felt confident. As highlighted previously, this information would seem integral to the development of an individualised intervention package designed to enhance sport confidence.

The reflection process also illuminated the usefulness of adopting MI style questioning within a sporting context. For example, the consultants all stated that the use of the MI questions was extremely beneficial for the athletes in terms of them gaining an understanding of their current confidence profile, and eliciting information to help them foster their confidence. However, their reflections also illuminated action which might facilitate the confidence profiling process. For example, although not required to compare ratings when constructing the profile, some athletes automatically made comparisons between their current confidence levels and a period of time when they had experienced either low or high levels of

confidence. This seemed to help these particular athletes rate their current levels accurately. Thus, the use of a retrospective profile reflecting an athlete's most or least confident career moment, or an additional profile highlighting where they would like to be, could be included as part of the process (to supplement current confidence ratings). Based upon the knowledge-in-action derived from this study, this process might deepen an athlete's understanding of their current confidence levels and facilitate the identification and implementation of changes that would be beneficial to their confidence through a client driven approach. Indeed, during the original development of the performance profile (Butler & Hardy, 1992), athletes were asked to provide two ratings for each of the constructs they elicited; the first, 'now', referred to where the athlete regarded him/herself at that moment in time. The second rating related to either 'top performance' (elicited by asking the athlete to consider one of his/her best performances over the past 12 months) or 'ideal' (where the athlete would ideally like to be).

Whilst the MI style questions encouraged the athletes to engage in deeper thought and reflection, at times this process was time consuming. The reflections of the three consultants suggested that the assessment phase might be implemented more effectively if separated from the initial profile development stage. Consequently, the process might be best completed across two consultancy sessions: An initial consultancy to generate the athlete's sources and types of confidence, including the athlete's descriptions of their most and least confident sporting experiences; followed by a second consultancy to assess the athlete's levels of confidence and enable them to generate potential strategies to enhance their sport confidence. This would reduce the risk of the athlete becoming tired and disengaging from the process.

5.9.1 SUGGESTIONS FOR FUTURE RESEARCH

From the information presented in this chapter, several potential lines of enquiry can be identified that warrant further research attention. For example, despite the value of MI style questioning, and the potential use of scaling rulers within a sporting context, no reviews of MI effectiveness have yet been performed in behavioural domains other than substance

abuse (Dunn, Deroo, & Rivara, 2001). The purpose of the present study was to profile an athlete's sources and types of sport confidence, and accurately assess their confidence levels regardless of gender, sport level or sport type. The scaling rulers and motivational questions utilised by MI proved to be an appropriate method by which to assess the athletes' confidence levels and generate confidence enhancing strategies targeted towards their perceived confidence needs. However, the author recognises that MI is an approach, rather than simply the utilisation of a series of skills (Miller & Rollnick, 2002). Since athletes sometimes experience ambivalence, for example, in committing to training schedules or adhering to support work interventions, the effectiveness of MI in sport psychology consultancy might provide a fruitful line for further research.

Another potential avenue for future research relates to talent development. The profiles generated by each of the athletes participating in this study shared some common themes. For example, the majority of athletes derived confidence from their physical training, competition performances, and their coach. These findings are in accordance with the World Class athletes in study one, who derived their confidence primarily from physical and mental preparation, performance accomplishments and coaching. However, only three of the athletes in this study identified psychological preparation as a source of their confidence. This is perhaps due to the lesser experience of these athletes in comparison to those competing on the World Class stage, or because only one of the eight athletes participating in this study had regular access to sport psychology support. Nonetheless, these findings are important given that several of the athletes were evidently unprepared mentally for competition. More research is needed to explore the confidence profiles of World Class athletes and identify the factors that set them apart from less successful elite athletes. This information would likely inform the advancement of interventions targeted toward developing robust confidence in talented young athletes.

Of particular interest to this discussion is the confidence profile of participant five. In contrast to the other participants, the types of confidence identified by this athlete were related to a range of abilities including technical, tactical, physical and psychological factors, and derived from several sources. Indeed, of all the athletes participating in this study, the confidence profile generated by participant five most closely resembled the sources and types of confidence identified by the World Class athletes in study one. Furthermore, this athlete presented the highest levels of sport confidence, and was the only athlete who did not wish to pursue continued sport psychology support. Thus, in support of the findings of study one, it would seem that encouraging athletes to derive confidence from a multitude of sources might enable them to develop a more robust sport confidence.

The primary aim of study three was to develop an applied measure that could be used to assess and monitor athletes sport confidence and factors related to their sport confidence. This study illustrated how performance profiling can be successfully adapted to sport-confidence specifically, providing a measure of sport confidence from the athlete's own perspective. The varied participant sample demonstrated the versatility of this method and provided some support for the usability of confidence profiling regardless of an athlete's demographics, sport type, or the organisational culture to which they belong. Furthermore, by allowing the athlete to reflect upon their experiences, an accurate and in-depth assessment of their sport confidence emerged. Thus, completed confidence profiles could provide a strong foundation from which athlete driven interventions might be developed. As aforementioned, Vealey and Garner-Holman (1998) proposed that more idiographic approaches to measurement should be adopted, and applied assessment measures should be validated based upon their effectiveness in practical settings. Consequently, the applicability of the confidence profiling process to the development of confidence enhancing interventions now needs to be explored.

CHAPTER VI

STUDY FOUR

THE ROLE OF CONFIDENCE PROFILING IN COGNITIVE BEHAVIOURAL INTERVENTIONS IN SPORT

6.1 INTRODUCTION

The purpose of study three was to develop an applied tool to assess athletes sport confidence regardless of their age, gender, sport level or sport type. A secondary aim of this study was to confirm whether the sources of confidence utilised by athletes do indeed influence the types of confidence they possess. Each athlete was encouraged to give an accurate account of their types and sources of confidence and the proposal that types of sport confidence might be viewed as evidence-based beliefs grounded in an athlete's sources of sport confidence was supported.

The profiles generated by each of the athletes participating in study three shared some common themes. However, in accordance with previous research (e.g., Vealey, 2001; Wilson et al., 2004) and the findings of study one and two, individual differences in the confidence needs of the athletes were evident. Thus, enabling each athlete to explore their individual perceptions and interpretations about their own experiences resulted in an accurate and in-depth assessment of their sport confidence. The varied participant sample utilised in study three served to demonstrate the versatility of this method, providing some support for the usability of confidence profiling regardless of an athlete's demographics, sport type, or the organisational culture to which they belong. However, the effectiveness of this applied tool as a basis for confidence-enhancing interventions needs to be explored.

Since the first sport psychology laboratory was established by Coleman Griffith in 1925, the applied sport psychology field has developed substantially. Elite athletes often refer

to the importance they place upon psychological preparation for competition, and research has consistently identified the positive relationship between psychological skills training and Olympic performance outcomes (e.g., Gould et al., 1999; Greenleaf et al., 2001; Orlick & Partington, 1988). Whilst the content and delivery of psychological skills training often varies, the process that underlies delivery seems to remain fairly constant. Indeed, Boucher and Rotella (1987) and Thomas (1990) have identified several common underlying principles and stages in the process: 1) the sport psychologist negotiates the aims and objectives with the athlete, 2) the sport psychologist undertakes a subjective analysis of the requirements of the sport, 3) the sport psychologist conducts an individual assessment of the athlete utilising objective questionnaires and interviews, 4) the sport psychologist develops and implements a brief education programme, 5) the sport psychologist trains the athlete in appropriate mental skills and techniques, and 6) the effectiveness of the programme is evaluated (Butler & Hardy, 1992). Thus, although the performer is involved in the process, they have a relatively passive role to play (Butler & Hardy, 1992). This is at variance with the empowering philosophies professed by most psychological skills training programmes (e.g., Gauron, 1984; Orlick, 1986). Indeed, Butler (1989) devised and developed performance profiling as a means of understanding the way in which an athlete perceives his/her ability and preparation for performance.

Performance profiling generally involves two basic procedures (Butler & Hardy, 1992). First, the identification of constructs which the athlete perceives to constitute the fundamental qualities of elite performance, and second, the athlete's own assessment of his or her present status along each of these constructs, presented on a visual profile. Exploring the athlete's perspective is thought to enhance his or her own awareness, whilst enabling the coach and sport psychologist to discern something of the performer's perspective.

Employed in this manner, or with modifications, performance profiling has proved to be a valuable tool in delivering sport psychology services and has a variety of potential uses

(Jones, 1993). For example, once the athlete has identified the areas in which improvement is required, they can negotiate effective goal-setting strategies with their sport psychologist and/or their coach. Furthermore, a repeated profile can assist in determining progression, particularly during and following psychological interventions. Monitoring the athlete's progress in this way provides a valuable tool for assessing whether the negotiated goals have been achieved. Since the constructs for change are identified by the athlete, performance profiling provides a degree of self-determination not always evident in other approaches to psychological skills training (Jones, 1993). This helps maximise the motivation of the athlete to implement and adhere to psychological skills training programmes. Indeed, a unique feature of the performance profile is its construction of an analysis framed in the athlete's own words and designed by his or her selection of what is considered important (Butler & Hardy, 1992). Thus, the athlete experiences assessment as a process in which they are involved rather than one in which they are passive. This notion of 'collaborative empiricism' is thought to be essential to the consulting process (Perna et al., 1995). Consequently, performance profiling is now employed routinely in many sports.

Encompassing the athlete oriented and athlete specific approach to psychological skills training programmes, Murphy and Murphy (1992) outlined a comprehensive eight-step cognitive-behavioural consultation model which espouses an educational approach with a focus on mental-skills training. This model regards evaluation and assessment of the athlete's functioning in multiple contexts as crucial, and emphasis is placed on viewing the athlete as a person, not just a performer. Consequently, assessments on the athlete's functioning in sport, relationships, and work and academic settings are all part of a comprehensive evaluation. The eight steps of the model are as follows: 1) consultation orientation, 2) sport familiarisation, 3) evaluation and assessment, 4) goal identification, 5) group intervention, 6) individual intervention, 7) outcome evaluation, and 8) reassessment of goals (if necessary). Athletes and

coaches supply the data regarding both baseline and post-intervention functioning, thus, they determine their needs and evaluate the efficacy of interventions.

6.2 AIMS OF STUDY FOUR

Study three has shown how performance profiling can be successfully adapted to sport confidence specifically, providing a measure of sport confidence from the athlete's own perspective. Utilising confidence profiling as a means of eliciting information which is important to the performer is in accordance with the eight step cognitive-behavioural model identified by Murphy and Murphy (1992). Consequently, this chapter reports a case study in which confidence profiling was used as the foundation for the successful delivery of a sport psychology service, adapted from the cognitive-behavioural approach. Confidence profiling was used in this case study for three major purposes: 1) to accurately assess the sport confidence of the athlete, 2) provide a basis for an appropriate psychological intervention to assist the athlete in increasing her levels of sport confidence, and 3) to monitor any changes in the athlete's confidence as a result of the intervention.

6.3 INITIAL CONTACT WITH ATHLETE AND COACH¹

The athlete was a female breaststroke swimmer who had been competing nationally for eight years and internationally for the previous one year. During this time she had won numerous national championships. The athlete had enjoyed a particularly successful 2004 season in which she had made her international debut for Great Britain. However, she had not shown the same form since this time and was comparatively underperforming in training and competition. The athlete had expressed problems with her confidence and was 17 at the time initial contact was made with the author in March 2006.

¹ The procedures adopted in this case study were approved in the 'Pre-Approved' procedures section of the Sheffield Hallam University Ethics Committee guidelines. Consequently, ethical clearance for this study was fulfilled.

It had been suggested to the athlete by her coach that she seek the help and guidance of a sport psychologist. The athlete was keen to explore this option and initial contact was made with the author, a British Psychological Society (BPS) Chartered psychologist, by the athlete's coach. In accordance with Murphy and Murphy's (1992) model, the expectations of the coach were identified and the nature of the consultation relationship was clarified. The confidence profiling process was explained to the coach and it was agreed that another meeting would be arranged with him following the assessment phase with the athlete. A mutually convenient time was then arranged for the first meeting with the athlete at her training venue, Ponds Forge International Sports Centre in Sheffield.

6.4 FIRST MEETING WITH ATHLETE

The first meeting with the athlete satisfied the first two steps of Murphy and Murphy's (1992) model; consultant orientation and sport familiarisation. Murphy and Murphy (1992) advocate the importance of becoming familiar with the athlete's sport to facilitate effective communication and identify key sport-specific factors that might impact upon performance. Thus, during this initial meeting the sport psychologist established a good rapport with the athlete through a general discussion of the psychological aspects of her sport. This was aided by the consultants own experiences of a ten year competitive swimming career.

The athlete discussed her current training and competition performance and identified that she was underperforming in comparison to previous seasons. Since she tended to derive her confidence primarily from her training times, her feelings of sport confidence were very low. She described her current performance situation as a 'downward spiral', and admitted that she 'takes one bad training session to the next session'. Although the athlete expressed that she did still train well on occasion, rather than serve to enhance her confidence, the athlete would compare all subsequent training sessions to the one good session and her confidence would be further reduced when they did not compare favourably. Consequently,

the athlete was not enjoying her training but highlighted that she was unaware how to break out of the performance slump that she was currently experiencing. Thus, in accordance with the consultant orientation step of Murphy and Murphy's (1992) model, the athlete's wants and needs were identified. More specifically, the athlete expressed a wish to increase her feelings of confidence and begin to enjoy training once again.

The first meeting concluded with a description by the sport psychologist of how the delivery service would proceed. If the athlete decided to continue with the programme, the next meeting would involve constructing a confidence profile which would form the basis of the psychological intervention. Based upon the reflections of the sport psychology consultants in study three, the athlete was asked to prepare for the second meeting by recalling her most confident and least confident career moments. It was hoped that this would maximise time within the next consultation and avoid athlete disengagement. The athlete expressed feeling at ease and glad of the opportunity to discuss her experiences, she was therefore keen to continue with the sport psychology support and a second meeting was arranged.

6.5 SECOND MEETING WITH ATHLETE

The objective of the third stage of Murphy and Murphy's (1992) model, evaluation and assessment, is to obtain all information necessary to identify key mental skills for sport, reasons for performance blocks, and potential intervention targets. Through the process of confidence profiling successfully adopted during study three, each of these objectives was achieved. Following introductory comments pertaining to sport confidence and the influence of sport confidence on sport performance, sport confidence profiling was introduced to the athlete as a means of identifying her sources, types and levels of sport confidence. It was emphasised that there were no right or wrong answers and that the purpose of the profiling process was to identify what the athlete considered as important in relation to her sport confidence. The athlete was asked to identify the types of confidence that she believed a

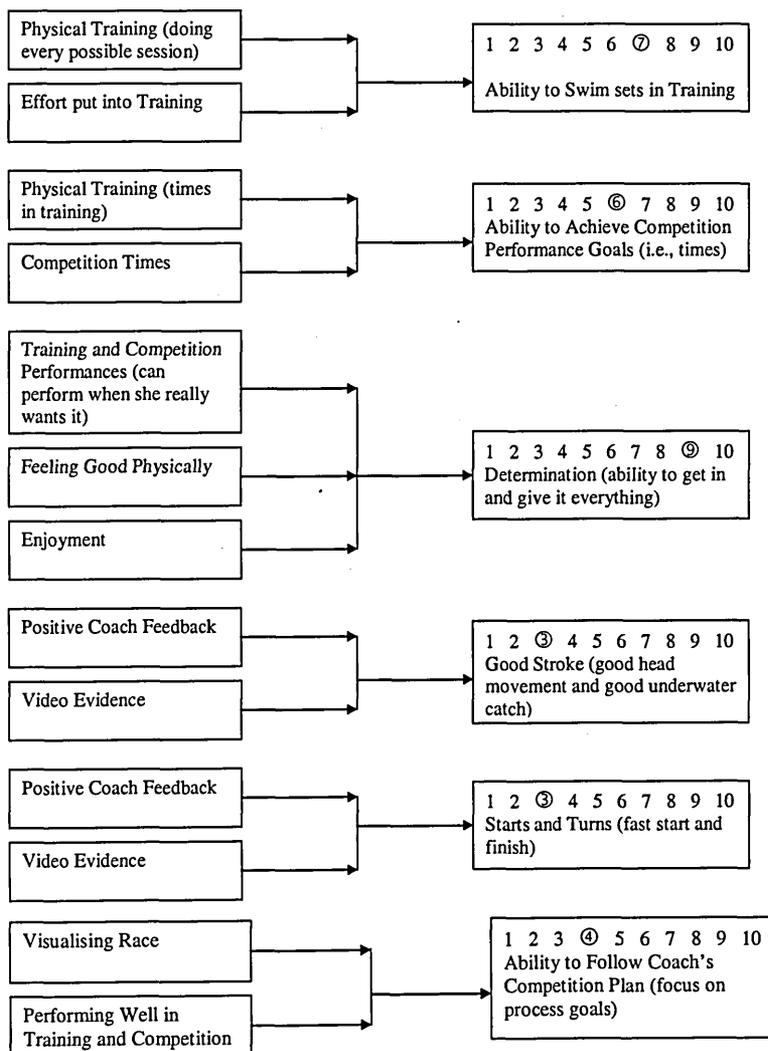
confident athlete might possess, before eliciting her own types of sport confidence which were entered onto a visual sport confidence profile. Once all types of confidence had been exhausted, the athlete was asked to identify the source from which each type of confidence was derived. These sources of confidence were then also added to her profile.

In accordance with the findings of study three, asking the athlete to recall her most confident sporting experiences was critical to the identification of her sources and types of confidence, and the development of an in-depth and accurate confidence profile. Furthermore, she was readily able to identify the factors responsible for debilitating her sport confidence whilst recalling moments in her career that she had not felt confident. Once the athlete had elicited all of her types and sources of confidence she was given the opportunity to add any other important information that might have been overlooked during the process. Additional sources of sport confidence generated from this further discussion were added to the athlete's sport confidence profile. As highlighted in Figure 6.1, the athlete identified six types of sport confidence which were derived primarily from her training and competition performances and positive feedback from her coach. Of the six types of sport confidence identified by this athlete, only two were related to non-physical factors: 'Determination', and 'ability to follow coach's competition plan' (focus on process goals).

The confidence profiling process enabled this athlete to communicate a wealth of information that she had not previously considered. For example, she identified that her confidence in her technical ability was very low and as a result she relied heavily on her training times to source her sport confidence. Consequently, her confidence was debilitated when she underperformed in training. Furthermore, since her feelings of sport confidence were so dependant upon her performances in training, the athlete admitted to training when injured or ill with negative effects on her health and sporting performance.

Sources of Sport Confidence

Types of Sport Confidence



Additional Sources of Sport Confidence

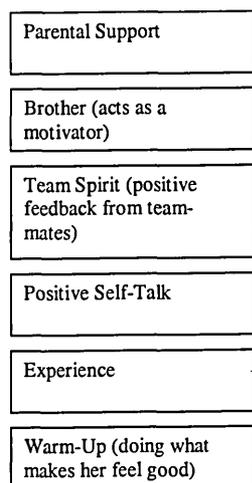


Figure 6.1. Sources and Types of Sport Confidence Identified by the athlete

In addition to poor training sessions and poor times in training, several other factors were identified by the athlete as debilitating to her sport confidence. These included; lack of experience, low self-esteem, self-presentation concerns, negative comments from team-mates, feeling poor in her taper, comparing herself unfavourably to other members of the British team, and feeling undeserving of a place on the team.

The athlete highlighted that she didn't have any confidence in herself as a person and felt that this had a negative impact upon her sport confidence. She explained that she had suffered from bullying in the past and as a result tended to put herself down before other people could. Indeed, her opening comment in the first meeting with the sport psychologist was an apology to pre-empt her perceived inability to explain herself due to a 'lack of understanding about most things'. On the contrary, the athlete was actually very good at articulating herself and had a thorough understanding of herself and her sport. Her tendency to self-deprecate was linked to the bullying she had endured and a resultant expectation that people will say negative things to her. Furthermore, the athlete expressed difficulty in accepting positive comments from others.

In a sporting context, the athlete identified that she felt uncomfortable standing next to other athletes when she was in her swimming costume because she believed that she 'doesn't look as good' as them. Indeed, the athlete made several references to self-presentation concerns and low self-esteem and identified that other people's perceptions were more important to her than her own. Whilst the athlete was keeping a training log, she only recorded the content of her training session schedule and attributed poor training performances to a lack of ability rather than considering additional factors that might be having an impact i.e., poor nutrition, college demands and physical developmental change.

The meeting concluded with the sport psychologist explaining that the next session would be spent assessing the athlete's levels of confidence and beginning the process of generating strategies to help her enhance her sport confidence.

6.6 THIRD MEETING WITH ATHLETE

The athlete was asked to assess her current sport confidence levels by rating herself on each of the types of sport confidence she had identified during the preceding meeting. For each type of confidence the athlete was asked to rate how confident she currently perceived herself. In accordance with the method successfully employed in study three, the questioning style commonly adopted during motivational interviewing (MI) was incorporated into the process. Consequently, the athlete was asked on a scale of 1-10, with 1 being 'not at all confident' and 10 being 'extremely confident', "how confident are you about your 'starts and turns' (for example)?" If the athlete indicated a low level of confidence, a 3 in this instance, the question was followed with; 'Why do you feel that you are a 3 on that rather than a 0?' Regardless of how low the athlete's ratings of confidence, when compared with 0, she was able to identify at least one source of her identified confidence type, supplementing the in-depth exploration of her current confidence profile.

Further motivational strategies were utilised along with the scaling ruler to identify reasons that confidence might be low and to help problem solve to increase confidence (Valesquez et al., 2005). For example, when the athlete gave herself a low confidence rating she was asked; "What changes do you think you would have to make in order to be a 6 or a 7?" "How might you go about making these changes?" "What would be a good first step?" Thus, not only was the athlete prompted to make an accurate evaluation of her current confidence levels, but she was also asked to identify possible intervention strategies.

As alluded to previously, the confidence profiling process enabled this athlete to recognise that she was over-reliant on her training times to source her sport confidence and

was therefore unable to maintain her confidence beliefs when she performed poorly in training. Consequently, she identified that one way to improve her sport confidence would be to develop training goals that were not focused entirely on performance outcomes. However, she highlighted that because her confidence in her technical ability was so low, she had avoided setting process goals in the past for fear of not being able to achieve them. The athlete also identified that her sport confidence was related to her more general feelings of self-esteem. She was pre-occupied with other people's perceptions of her and spent much of her time trying to please others rather than focusing on herself and her swimming performance. Consequently, she believed that her sport confidence would increase if she could develop a method of developing her feelings of self-esteem. The meeting concluded with the sport psychologist explaining that the intervention would commence in the next meeting and would continue across several sessions.

On completion of the evaluation and assessment phase (Murphy & Murphy, 1992), and with the athlete's informed consent, the sport psychologist met with the coach to discuss the athlete's perceived confidence needs. In accordance with the athlete's self-assessment, the coach confirmed that she exhibited very low levels of self-esteem and was uncomfortable to be seen in her swimming costume. Furthermore, he highlighted that he perceived the athlete to be scared of failing and letting him down by swimming poorly, which was creating pressure in the competitive environment. The coach expressed that both he and the athlete were still learning how to behave around each other, for example, the coach had only recently identified that the athlete should be given space after a poor performance and would then approach him to debrief when she was ready. The coach was unaware of the athlete's unwillingness to set process goals for training through fear of non-achievement, and suggested that this was something he could work to improve on in partnership with her.

6.7 COGNITIVE BEHAVIORAL INTERVENTION

In collaboration with the athlete, the next step was to decide upon an appropriate cognitive-behavioural intervention that would serve to meet the needs of the athlete and enhance her feelings of sport confidence. As advocated by the goal identification phase of Murphy and Murphy's (1992) model; this included summarising the athlete's current strengths and weaknesses, identifying the critical areas appropriate for intervention, and devising plans for improving the athlete's coping skills in weak areas. Based upon the athlete's completed confidence profile, and the discussion that had ensued, the athlete was asked to summarise her main weaknesses in areas previously identified by her as requiring improvement e.g., self-perception, interpersonal relationships, and sport-related symptoms. Synonymous with the premise of Murphy and Murphy (1992) this ensured that the athlete continued to view herself, and continued to be viewed by the sport psychologist, as a person rather than just as a sports performer.

With regard to her self-perception, the athlete concluded that she was too critical about her appearance, heightened by her constant unfavourable comparison to others. She expressed a wish to be invisible and again admitted that the perceptions of others were more important than her own self-perceptions. When identifying problem areas in her interpersonal relationships, the athlete identified that she was over-reliant on others to make decisions for her, that she was often adversely affected by negative comments from others e.g., team-mates and other competitors, and that she found it difficult to communicate with her parents and her coach about her sport. Sport-specific problem areas identified by the athlete related to her inability to set specific process-focused training goals, and her own negative perceptions of her swimming ability and performance. In addition to negative self-talk and self doubt, the athlete also provided several examples of distorted and/or irrational thinking.

Having identified her main problem areas, the athlete was asked to think about changes she would like to make in each and reformulate these as aims, forming the basis of her intervention. In accordance with performance profiling (Butler, 1989), and Murphy and Murphy's (1992) cognitive-behavioural consultation model, enabling the athlete to identify the constructs for change provided a degree of self-determination and ensured that the preceding intervention strategy was both athlete oriented and athlete specific. The athlete's primary goal was to improve her self-esteem, based upon her belief that her confidence in swimming would improve if she could increase her confidence in herself as a person. More specifically, the athlete identified that she wanted to focus less on the perceptions of others, to change her negative thought processes to become more positive, and to improve communication between herself and her parents and coach. A secondary goal identified by the athlete was to begin to set specific process goals for training so that she could start to concentrate on improving the technical aspects of her sport and become less reliant on training times as a source of her sport-confidence.

The principles involved in a cognitive-behavioural approach are based upon a mediation model in which cognitions play a vital role in behavioural response (Mace, 1990). On the basis of the two main areas identified by the athlete as requiring improvement (i.e., self-esteem and goal-setting) the sport psychologist proposed a combination of different cognitive-behavioural techniques that were appropriate for the athlete's individual circumstances (i.e., techniques for controlling self-talk and modifying irrational and distorted thinking, techniques for developing self-esteem, and goal-setting strategies). As advocated by Murphy and Murphy (1992), during the intervention phase the sport psychologist provided an extensive rationale regarding the use of each of the techniques, and taught the athlete how to apply these techniques in relevant contexts.

The use of negative self-talk by athletes affects not only their immediate performance but also their overall self-esteem and, in extreme cases, can lead to acute depression (Zinsser

et al., 2001). Indeed, irrational beliefs and distorted thinking often underlie much of the stress and consequential negative thoughts and feelings athletes experience during sporting performance and in life in general (Zinsser et al., 2001). As identified during the assessment phase, the thought patterns of the athlete were characterised by the acceptance and endorsement of self-defeating, irrational beliefs. More specifically, she showed evidence of several irrational thoughts and cognitive distortions that Gauron (1984) identified as being common among athletes: perfection is essential (i.e., the athlete believed that she should be able to swim fast all of the time), catastrophising (i.e., the athlete often expected the worst to happen and prior to competition was plagued by what-if scenarios, for example, 'what if I don't swim well?'), worth depends on achievement (i.e., the athlete believed that swimming was the only thing that she was good at and therefore wanted to be the best), personalisation (i.e., the athlete believed that she was the cause and focus of actions around her and if her team-mates were laughing, for example, she believed that they were laughing at her), polarised thinking (i.e., the athlete tended to view things and people in absolute terms, either good or bad, successful or unsuccessful), and one-trial generalisations (i.e., if the athlete had one poor training session she believed that she was a poor swimmer). Consequently, cognitive restructuring (Davis, Eschelman & McKay, 1988) was a central focus of the intervention with this athlete.

Cognitive restructuring is based upon the assumption that emotional problems result from maladaptive thought patterns (Ellis, 1975), thus, the task of the intervention was to alter the athlete's faulty cognitions (Wilson, 1984). A supposition of cognitive restructuring is that reorganising and restructuring verbal statements about oneself and one's world, will result in corresponding reorganisation of behaviour with respect to one's world (Risley & Hart, 1986). However, since athletes are often unaware that the culprit is maladaptive thinking, the first step in enabling the athlete to gain control of her self-talk and behaviour was to encourage her to monitor her thinking patterns in relation to training and her life in general, and record her

thoughts in her training diary. More specifically, the athlete was asked to review her self-talk and identify the kind of thinking that she found helpful, any thoughts that appeared to be harmful, her consequential feelings and behaviours, and the situations or events that were associated with her self-talk. This record of often irrational and distorted thinking provided the basis for subsequent meetings with the sport psychologist.

Dysfunctional thought patterns will reoccur if they have strong underlying bases that are not identified and refuted (Zinsser et al., 2001). Thus, once the athlete had become aware of her maladaptive thoughts, she was shown how to modify them through a process of countering. Countering is an internal dialogue that uses facts and reasons to refute the underlying beliefs and assumptions that lead to negative thinking (Zinsser et al., 2001). With the help of the sport psychologist, and through a process of self-reflection, the athlete was able to identify and dispute her irrational assumptions. For example, the athlete learnt to objectively evaluate the quality of her pool sessions by considering additional factors such as nutrition, content of land training, lifestyle factors and her mood state. Consequently, she was less likely to make one-trial generalisations i.e., equate poor training times with the belief that she had lost her talent. Furthermore, through identifying and describing the evidence necessary to change her attitudes and beliefs, the athlete was able to develop a list of positive, coping self-statements to replace her negative cognitions. For example, 'I am good at making my own decisions', 'I am strong', 'I can stand up to compete'. Indeed, through the countering process the athlete recognised that 'I can't change the way I am, but I can change the way I think about the way that I am'. This became one of her key self-reminders whenever she recognised that she was using negative self-talk.

Indeed, feelings of confidence, efficacy and personal control can be enhanced through the construction of personal affirmation statements (Zinsser et al., 2001). Affirmations are statements that reflect positive thoughts about one's self and are both believable and vivid. One way to build affirmations is to encourage athletes to make a self-esteem list containing all

of their positive attributes (Gauron, 1984). While the self-image is essentially descriptive, self-esteem is essentially evaluative (Gross, 1999). It refers to the extent to which we like and accept or approve of ourselves and is based in part on the opinions of others, and in part on how we perceive specific experiences (Baron & Byrne, 1997). When you compare yourself to others, your esteem goes up when you perceive some inadequacy in them. This kind of comparison arouses positive feelings and raises self-esteem (Reis, Gerrard & Gibbons, 1993). In contrast, the athlete regularly compared herself unfavourably to in-group members' which has been shown to lower self-esteem (Major, Sciacchitano, & Crocker, 1993). This was one of the primary factors identified by the athlete as being debilitating to her sport confidence. Consequently, the athlete was provided with an activity developed by Painter and Adams (2002) to support emotional development and build self esteem. Essentially, the athlete was asked to make a list of all her perceived strengths, assets and positive qualities in several areas: social relationships, self-image, relationship with self, spirituality, political factors, and feelings. Whilst this activity encouraged the athlete to identify and reflect upon her strengths, in accordance with the sentiments of Murphy and Murphy (1992) and Gauron (1984), it also encouraged her once again to consider herself in multiple contexts. Consequently, additional evidence was provided to refute the athlete's previous self-defeating belief that swimming was the only thing that she was good at.

As proposed by Rushall (1979), once the athlete had identified her positive qualities she developed positive action-oriented self-statements affirming her capabilities. These affirmations were in the present tense and examples included: 'I am creative', 'I feel good in the clothes that I wear', 'I am intelligent', 'I can solve problems', 'I can turn negative thoughts around to be positive'. As suggested by Zinsser et al. (2001), to foster confidence and the desired goal of the affirmation, the athlete's affirmation statements were positioned around her house so that she would see them on a regular basis.

The final intervention step as identified by the athlete was the development of an effective goal-setting strategy for training and competition. The confidence profiling process had enabled the athlete to identify that her confidence in her technical ability was very low and that she derived her sport confidence primarily from her training times. This was problematic for several reasons. Firstly, her sport confidence was completely debilitated by not meeting her performance goals in training. Secondly, continually trying to swim fast times in training was detrimental to the execution of her swimming stroke and further debilitated her confidence in her technical ability. Thirdly, an over-reliance on training as a source of sport confidence resulted in the athlete training when ill and/or injured.

In the sport and exercise psychology literature, three types of goals have been identified; outcome, performance, and process goals (Burton, Naylor & Holliday, 2001; Hardy et al., 1996). Outcome goals typically focus on a competitive result of an event (i.e., winning a race), performance goals focus on achieving standards or performance objectives independently of other competitors (i.e., a personal best time), and process goals focus on the actions an individual must engage in during performance to execute skill or perform well (Weinberg & Gould, 2007). During the assessment phase of the confidence profiling process, the athlete identified that to improve her sport confidence she would need to develop training goals that were not focused on performance outcomes. However, fear-of-failure had prevented her from setting process goals in the past. Since the athlete had now developed techniques to control her self-talk and modify her irrational and distorted thinking, she felt able to focus on the more technical aspects of her stroke.

During the meetings that ensued the athlete was introduced to goal-setting and its everyday applications, in addition to its use as a tool to improve sporting performance. These sessions addressed the following principles of goal-setting adapted from research and practice (e.g., Gould, 2006; Murphy, 1996) and were based upon the athlete's specific needs: set specific goals, set moderately but realistic goals, set long-term and short-term goals, set

training and competition goals, record goals, develop goal achievement strategies, and evaluate goals. The athlete then developed her own goal-setting schedule which was closely tied to the critical areas appropriate for intervention as identified by the confidence profiling process. Consequently, the athlete's specific needs determined her goals which were set in a variety of areas including technical skills, enjoyment, interpersonal relationships, and psychological skills. The athlete agreed daily process goals with her coach, which facilitated coach-athlete communication, and also enabled her to improve upon the more technical aspects of her sport. For example, since she was arm dominant, she set training goals to improve her kicking speed. The athlete correctly anticipated that this would initially reduce her swimming speed. However, rather than allow this to debilitate her sport confidence, she derived confidence from making the technical changes necessary for long-term performance gains, thus, keeping her sport confidence intact. Furthermore, her coach utilised video analysis during her training sessions so that she could observe improvements in her technique. This further facilitated her sport confidence.

On completion of the intervention, and in accordance with the principles of the cognitive behavioural approach, it was evident that the athlete's changed cognitions had resulted in a consequential change in her behavioural response. For example, she had started to take recovery time when needed; she was completing her training diary after every session, and recording the positive aspects of her performance; she was setting realistic performance goals for training and competition based upon her current performance level; and she was communicating effectively with her coach, parents, and her team-mates. On conclusion of the athlete's individual sport psychology support, and at her request, the sport psychologist conducted an educational session for the entire swimming squad (athlete's and coaches). A major swimming championship was approaching and the athlete felt it would be beneficial for

the team to develop contingency plans for competition and identify ways in which they could best support each other in the competitive environment².

6.8 INTERVENTION EVALUATION

In accordance with Murphy and Murphy's (1992) model, and the aims of this study, a final stage of the process was to evaluate the effectiveness of confidence profiling as a basis for developing an appropriate psychological intervention to increase an athlete's levels of sport confidence. The primary means by which to monitor the athlete's progress, and simultaneously assess the effectiveness of the intervention, was through administration of the confidence profiling procedure on completion of the intervention. Again, the athlete was asked to assess her current sport confidence levels by rating herself on each of the types of sport confidence that she had previously identified. For each type of confidence the athlete was asked to rate how confident she currently perceived herself. The athlete's progress is depicted in figure 6.2. With the exception of the athlete's confidence in her 'ability to achieve competition performance goals', the athlete showed an increase in her confidence levels across all types of her sport confidence.

Consistent with the empowering philosophy of PCT (Kelly, 1955), and the outcome evaluation stage of Murphy and Murphy's (1992) cognitive-behavioural consultation model, feedback from the athlete regarding her satisfaction with the profiling and intervention process was also deemed fundamental. In terms of measurement, subjective outcomes are most easily assessed using client satisfaction questionnaires (Beal & Duckro, 2003). Indeed, in a sporting context, social validation questionnaires have been administered to participants on completion of an intervention study (e.g., Pates, Maynard & Westbury, 2001; Thelwell & Greenlees, 2003) to assess their reactions to treatment procedures and experimental outcomes (Pates et al., 2001). Post-experimental interviews have also been successfully adopted to gain more in-depth information about the athlete's views on an intervention (e.g., Callow, Hardy

² See Appendix 5 for the outcome of this session which was disseminated to all team members'

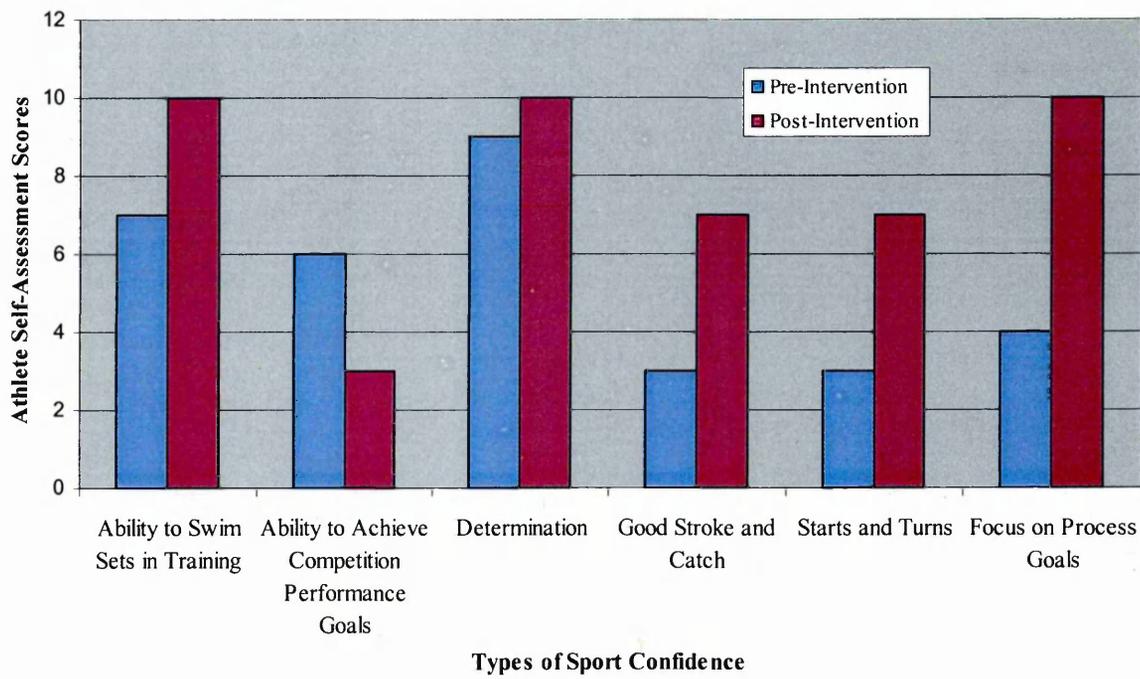


Figure 6.2. Changes in Athlete's Sport Confidence Assessment Scores Pre-Post Intervention

& Hall, 2001). Thus, to assess the athlete's experience of the confidence profiling process, and her views on the intervention designed to enhance her levels of sport confidence, the author conducted a structured post-intervention interview with the athlete³. The interview schedule was constructed using a deductive approach (Patton, 2002) to create a predetermined set of themes and categories about the intervention (Callow et al., 2001). The themes and categories were used to organise questions for the interview in the following areas: usability and usefulness of the confidence profiling process, intervention satisfaction and effectiveness, and areas for improvement regarding both the confidence profiling process and the sport psychology support. The interview was conducted with the athlete two weeks after the last consultation and one week after she had competed in the Amateur Swimming Association (ASA) Youth and National Swimming Championships. The interview was recorded in its entirety and transcribed verbatim.

The interview data reflected that the athlete had initially found it difficult to identify her types and sources of confidence. As depicted in the following quote, she attributed this to the low levels of sport confidence she was experiencing prior to the intervention, and her over-reliance on training and competition times as a source of sport confidence.

I didn't have much confidence when I first saw you and I couldn't really define how to get it and what gave it to me. I just knew that swimming fast gave me confidence and then when I hit that bad part ... I didn't know how to get confidence from other things. But then you helped me to work out how to do that so things have been better.

Indeed, the athlete considered the confidence profiling process to be very useful as it encouraged her to examine her sources and types of confidence in-depth for the first time and actually served to facilitate her feelings of confidence, as highlighted by the following quote:

³ See Appendix 6 for a copy of the interview guide

I think it was useful because I had to break things down; I had to look into it, whereas I was just used to saying okay, just kind of blank it all out and get on with it. When I had to really think about things, I got a lot better at having more confidence in the water.

Furthermore, the athlete appreciated the opportunity to present her own perspective, which served to encourage independence and demonstrate to the athlete that she could be self-reliant:

No, I think that way you did it was really good because... I think you made me think of it myself, rather than telling me. I'm used to just being told but I actually had to come up with something, so you had to prise something out of me.

With regard to the intervention, the athlete reported that she was very satisfied with the support that she had received, particularly in relation to the National Championships in which she had recently competed:

It's been a very positive thing for me I think...Especially with the nationals because I think if I hadn't had you to vent everything out on and to talk to, then I would have probably bottled it up and then I don't think I'd have coped as well with things.

She felt that her confidence had improved both in terms of herself as an athlete and herself as a person. For example, the athlete had recently been interviewed live on a local radio station which was not something that she would previously have agreed to do. Furthermore, she expressed being less concerned about the perceptions of others.

I'm a lot more confident than I was at the beginning...and I'm more confident in myself... I feel a lot easier around people and I don't really care what people think about me as much as I did before. Before it was like 'oh what's that person thinking?' or 'what's that person thinking?' And now like I don't really care as much...I've also done a lot of stuff that I probably wouldn't have done before, like when I had to go on the radio....And it has helped me a lot with being able to perform and things...it helped me at the nationals... I had more confidence and I felt good that I'd been able to achieve what I did.

More specifically, the athlete had found positive self-talk, goal-setting and recording

her progress to be particularly useful:

I try not to focus on the negatives and try and focus on the positives more now. I probably wouldn't have thought about doing that if I hadn't have been talking to you about it. I probably wouldn't have set goals for myself either. I think the goals that I set for the nationals as well, and other things that I was going to achieve, it made me think about them instead of other things. And then when I managed to keep them, I felt really good about that, even when my times weren't as good. And I think having to write down the things that I was going to do and the processes that I was going to help myself with really helped.

The changes identified by the athlete in terms of her sport confidence and the coping strategies that she had learned to develop were evident in her performance in the ASA National Championships which took place one week prior to the post-intervention interview. She won a gold medal in the 16/17 years 100m breaststroke, and the open 200m breaststroke; a silver medal in the open 100m breaststroke, the 16/17 years 200m breaststroke and the 16/17 years IM event; and a bronze medal in the 16/17 years 200m breaststroke. Furthermore, the athlete achieved three personal best times.

A post-intervention debrief with the athlete's coach also confirmed the positive changes identified by the athlete. He expressed a noticeable change in her general self-esteem, her sport confidence, and her ability to take a more independent role in her sport-related decision making.

6.9 CONCLUSIONS

This case study illustrates the potential uses and benefits of confidence profiling when developing an athlete centred intervention to enhance sport confidence. More specifically, it shows how confidence profiling can be used as an applied tool to accurately measure sport confidence from the athlete's own perspective, and provide the basis of an intervention targeted towards the athlete's individual confidence needs. In addition, this study has shown

how the confidence profiling process can be used to provide vital feedback to the sport psychologist concerning the effectiveness of the intervention.

The athlete had a proactive role in all phases of the sport psychology support, which facilitated her own understanding of the way in which she perceived her sporting ability. However, in accordance with the findings of study three, the construction of an accurate and in-depth confidence profile was time consuming, particularly as the athlete experienced low confidence levels and tended to derive her confidence primarily from one source (her competition and training times). Consequently, as suggested by the findings of study three, this process was completed across two consultancy sessions; an initial consultancy to generate the athlete's sources and types of confidence, followed by a second consultancy to assess her levels of sport confidence. Whilst the athlete found the process difficult initially, utilising the questions successfully adopted during study one and three, she was encouraged to develop an in-depth and accurate profile by recollecting her most confident sporting experiences. Furthermore, she was able to identify the factors responsible for debilitating her sport confidence whilst recalling moments in her career that she had not felt confident. Awareness of the factors that debilitated her sport confidence enabled the athlete to identify her main problem areas and reformulate these as aims, forming the basis of her intervention. Consequently, not only was the construction of the confidence profile framed in the athlete's own words and designed by her own selection of what she considered important, but in accordance with Murphy and Murphy's (1992) cognitive-behavioural model, the content of the consequent intervention was determined by the needs of the athlete and thus both athlete oriented and athlete specific.

Evaluation of the intervention showed that with the exception of the athlete's confidence in her 'ability to achieve competition performance goals', the athlete had increased her confidence levels across all types of her sport confidence. Since she had shifted her attentional focus in training to process rather than performance goals, and experienced an

initial decrease in her training times, it was perhaps unsurprising that her confidence in her ability to achieve performance goals had decreased. However, since the athlete was now more reliant on additional factors to source her sport confidence, this did not adversely affect her other confidence types or affect her performance. Indeed, the athlete was now more confident about her technical ability, derived from her process-focused training goals and facilitated by video analysis. Furthermore, she was communicating effectively with her coach, team-mates and parents, and had worked hard towards eradicating the irrational beliefs and distorted thinking that had underpinned her pre-intervention negative thoughts and feelings.

Although a large part of the success of this particular programme was undoubtedly the confidence profiling process adopted in the initial stages, the contribution of the cognitive-behavioural intervention was also clearly crucial to the athlete's development. Thus, this study demonstrates the importance of tailoring the intervention to meet the specific demands of the athlete. In this case study, the athlete identified specific areas for change which led to an increase in her levels of sport confidence and eradicated over-reliance on one confidence source. However, there are several potential uses of confidence profiling and additional research needs to be conducted to assess its effectiveness in a variety of contexts. For example, Vealey et al. (1998) suggested that by deriving confidence from less controllable sources athletes may develop less stable and weaker perceptions of control and competence. Consequently, confidence profiling might be used to assess athletes sources of sport confidence and help them to become less reliant on sources that they cannot control. Alternatively, interventions might focus on broadening the range of sources and types of confidence utilised by athletes, given that the successful World Class athletes in study one cited multiple sources and types of confidence. Future research might also be directed towards helping athletes develop the sources and types of confidence salient for World Class performance. The findings of study one indicated that successful World Class athletes generate confidence primarily from preparation, performance accomplishments and coaching;

and identify skill execution, achievement, physical factors, and psychological factors as their primary types of confidence. Given that the most consistent finding in peak performance literature is the direct correlation between confidence and success (Zinsser et al., 2001), it would seem appropriate to explore the confidence profiles of junior elite athletes to ensure that they are utilising the sources and types of confidence necessary to develop the robust sport confidence essential to successful World Class competition.

In summary, the case study reported here illustrates how confidence profiling can serve to enhance the development and delivery of a sport psychology intervention targeted at enhancing sport confidence. A particular advantage of utilising this applied tool is the consequential design and implementation of athlete driven mental training programmes that meet the very specific needs of individual athlete's regardless of their age, gender, performance level, or sport type. Furthermore, when administered post-intervention, confidence profiling provides the athlete, sport psychologist, and coach, with a valuable source of feedback regarding the athlete's progression.

CHAPTER VII

SUMMARY, DISCUSSION AND CONCLUSIONS

7.1 INTRODUCTION

The final chapter of this thesis is divided into three sections. First, a summary provides an overview of the main aims of this thesis, and outlines the key findings from each of the four studies. Second, the discussion section addresses both the theoretical and practical implications of these findings. The strengths and limitations of the research programme, and potential areas for future research, are also identified within this section. Finally, a conclusion section completes the chapter.

7.2 SUMMARY

The central purpose of this thesis was to examine confidence within the unique organisational subculture of World Class sport. This aim was underpinned by the conceptualisation of confidence in relation to competitive sport. More specifically, the integrative model of sport confidence (Vealey, 2001) provided the framework for this research programme. This model was designed to stimulate further research directed toward the plethora of constructs and processes that influence the complex relationship between confidence and sport, providing a foundation from which interventions designed to enhance confidence in athletes could be developed. However, a lack of research attention has been directed toward the predictions of Vealey's work, as such, several lines of enquiry were identified that warranted further investigation.

The aim of study one was to identify the sources and types of confidence utilised by World Class athletes. Nine sources of sport confidence and six types of sport confidence were identified, providing support for the multidimensional nature of sport confidence and the importance of utilising a sport-specific framework to aid future research. Furthermore, this study provided additional evidence that demographic and organisational factors influence the

sources and types of sport confidence utilised by athletes. Consequently, it was proposed that further research should examine gender variations in goal-setting strategies, and confidence debilitators, in World Class athletes specifically.

Using Vealey's (2001) integrative model as a framework, the purpose of study two was to examine confidence in relation to the affective, cognitive and behavioural responses it elicits, and based upon the findings of study one, further explore the relationship between gender and confidence at the World Class level. Consistent with Vealey's (2001) contentions, high sport confidence was found to facilitate sport performance through its positive effect on athletes thoughts, feelings and behaviours. Furthermore, in accordance with the findings of study one, gender differences in competitive orientation were evident in the data. The findings supported the contention that female World Class athletes derive confidence from good personal performances, whereas male World Class athletes derive confidence from winning.

Gender also seemed to influence the stability of the athletes sport confidence. For example, injury/illness and poor performance were the only factors identified by the male athletes as debilitating to their confidence. In contrast, the female athletes identified six factors; poor performances, poor preparation, coaching, pressure and expectations, psychological factors and injury. These potential confidence debilitators seemed to be associated with the sources from which sport confidence was derived, suggesting that the most effective interventions might involve identifying an athlete's sources and types of confidence, and ensuring that these are intact during competition preparation phases. These findings raised questions regarding the available methods of confidence assessment, and their usefulness in applied settings. Since previous research (i.e., Hanton & Jones, 1995; Vealey et al., 1998; Wilson et al., 2004) has consistently shown that the sources of confidence utilised by athletes are influenced by demographic and organisational factors, an applied instrument designed to assess sport confidence at the individual level was evidently required. Thus, the main aim of study three was to develop a sport confidence measure that could be used to

assess and monitor athletes sport confidence, and factors related to their sport confidence, regardless of their age, gender, competitive level or sport type.

The idiographic approach to sport confidence assessment (confidence profiling) employed in study three allowed the confidence needs of athletes to be assessed at the individual level. Consequently, each athlete was encouraged to give an accurate account of their sources and types of confidence and identify the factors that were debilitating to their confidence levels. Furthermore, once the athletes had identified their types of confidence (i.e., what they were confident about) it became easier for them to identify where their confidence came from, supporting the view that types of sport confidence might be viewed as evidence based beliefs grounded in an athlete's sources of sport confidence.

Synonymous with the findings of study two, the findings of study three suggested that the factors responsible for debilitating the athletes sport confidence were associated with the sources from which they derived their confidence. Thus, it was concluded that the most successful sport confidence interventions might indeed involve identifying an athlete's particular sources and types of confidence, and ensuring that these are maintained during competition preparation. Particularly given that strategies designed to enhance sport confidence were found to be ineffective in the pressurised environment of competitive World Class sport. Consequently, the final study of the thesis examined the applicability of the confidence profiling process to the development of an individualised intervention designed in accordance with the eight step cognitive-behavioural model identified by Murphy and Murphy (1992).

The case study design employed in study four illustrated the potential uses and benefits of confidence profiling when developing an athlete centred intervention to enhance sport confidence. More specifically, it showed how confidence profiling can be used as an applied tool to accurately measure sport confidence from the athlete's own perspective,

provide the basis of an intervention targeted towards the athlete's individual confidence needs, and provide vital feedback to the sport psychologist concerning the effectiveness of the intervention.

7.3 DISCUSSION

The following discussion section provides an overview of the main theoretical and practical applications emanating from the four studies. Consideration of the strengths and weaknesses associated with this thesis, and future research directions, draw this section to a close.

7.3.1 CONCEPTUALISATION OF SPORT CONFIDENCE

Whilst multiple definitions of self-confidence exist in the sport psychology research literature (Hardy et al., 2001), self-efficacy theory has provided the theoretical basis for the majority of this research. However, the findings of this thesis support the necessity of utilising sport-specific frameworks to direct research and enhance understanding in sport psychology. For example, the findings of this thesis provided mixed support for the self-efficacy predictors identified by Bandura (1997), whilst in accordance with Vealey et al.'s (1998) contentions, evidenced the existence of sport-specific sources of confidence i.e., preparation, coach, innate ability, perceived competitive advantage, experience, self-awareness, and trust. However, whilst the preliminary sources of sport confidence identified by Vealey et al. (1998) were based upon a review of literature and deductions by the investigators, the qualitative interviews employed in the present thesis resulted in a richness of data that made new and unique contributions to the research literature. For example, study one was the first of its kind to consider the multidimensional nature of sport confidence and identify the types of sport confidence salient to World Class athletes. Indeed, the findings of this thesis suggest that sport confidence is developed and manifested in several different forms. Furthermore, as demonstrated by the athletes' who participated in study three and four, high levels of one type

of sport confidence is not necessarily accompanied by high levels of another type of sport confidence. Bandura (1997) viewed personal efficacy as a multifaceted phenomenon rather than as a global disposition which can be assessed by an omnibus test, and the findings of this thesis provide evidence that sport confidence should also be measured in terms of capability judgements that may vary according to personal (i.e., demographic) and organisational factors (i.e., competitive level).

Limited previous research has been conducted to investigate the sources of confidence utilised by athletes specifically. That which is available has focused on high school, collegiate, and masters athletes (Vealey et al., 1998; Wilson et al., 2004), and variations have been observed between these groups. Further variations were evident in the sources of sport confidence identified by the World Class, international, and national athletes participating in the present thesis, at both a group and individual level. Thus, whilst supporting Vealey's (2001) contentions that demographic and organisational factors can influence the development and maintenance of confidence in athletes, these findings are testament to the importance of adopting an individualised approach to the study and assessment of confidence in competitive sport. Indeed, the factors identified throughout this thesis as debilitating to sport confidence were linked to an athlete's sources of sport confidence and thus, whilst there were some factors that were generic to the athletes regardless of demographic or organisational factors, some confidence debilitators were specific to the individual.

The factors responsible for debilitating an athlete's sport confidence have received little research attention. This is surprising given the fundamental role of sport confidence in successful sporting performance. Indeed, all of the World Class athletes reported that they had performed successfully when their feelings of sport confidence were high, and unsuccessfully when they were experiencing low levels of sport confidence. On examination of the processes and mechanisms underlying confidence effects, the findings were consistent with previous research. For example, high sport confidence was found to be synonymous with positive

affect (e.g., Martens et al., 1990; Vealey, 2001), effective competition behaviours (Bandura, 1986; Eysenck & Calvo's, 1992) and effective competition focus (Bandura & Wood, 1989; Vealey, 2001). In contrast, low sport confidence was synonymous with negative affect, ineffective competition behaviours and an inability to maintain an effective competition focus.

The integrative model of sport confidence (Vealey, 2001) provided a solid base from which meaningful extensions to the literature were generated throughout the course of this thesis. Organisational culture was included in this model to represent the influence of competitive level, motivational climate, and the goals and structural expectations of sport programmes on the sources and levels of sport confidence experienced by athletes.

Furthermore, the physical skill and characteristics of the athlete (e.g., competitive orientation and demographic characteristics such as age, experience, gender and ethnicity) were included as additional characteristics thought to influence performance. The present thesis confirmed organisational culture to be a key consideration in the study of sport confidence and provided some support for Vealey's (2001) predictions that the personality characteristics, attitudes, and values of individual athletes would influence their development and manifestation of confidence, as well as the sources they use to gain confidence. For example, the male World Class athletes generally set outcome goals, or a combination of outcome and process goals for competition, whereas the female athletes set a combination of performance and process goals. These findings support the contention that female World Class athletes derive confidence from good personal performances, whereas male World Class athletes derive confidence from winning. However, the sport confidence of the males also seemed to be more stable than the females. Indeed, performance and process goals were used by the female athletes to enable them to approach competition feeling confident that they were able to cope with the expectations placed upon them. Thus, it would seem likely that competitive orientation may in fact be determined by confidence levels. Indeed, the relationship between competitive orientation and the development of confidence sources and types would seem to be dynamical

in nature, and raises questions about the implementation of goal-setting programmes for confident versus less confident athletes. Indeed, athletes high in confidence might be encouraged to set outcome goals as a motivational strategy, whereas athletes who are susceptible to unstable levels of sport confidence might be encouraged to set process goals as a strategy to cope with anxiety, and protect or enhance their levels of confidence.

7.3.2 PRACTICAL IMPLICATIONS

As mentioned elsewhere in this thesis, a considerable amount of work has been devoted to examining the antecedents of self-efficacy; enactive mastery experiences (e.g., Bandura, 1982; 1997), vicarious experience (Bandura, 1977; 1982; 1997; Brown & Inouye, 1978; Moritz et al., 1996), verbal persuasion (e.g., Feltz & Riessinger, 1990; Orlick & Partington, 1988), physiological and emotional states (Bandura, 1997), and imaginal experiences (Maddux, 1995). Several strategies to enhance self-confidence have been developed on the basis of these efficacy sources, and are employed routinely by sport psychologists and athletes alike. For example, elite performers report using imagery extensively and to great effect (Jones & Hardy, 1990; Orlick & Partington, 1988), and self-talk has been consistently shown to predict sport success through its influence on confidence (e.g., Feltz & Riessinger, 1990; Gould, Medberry, Damarjian, & Lauer, 1999; Hanton & Jones, 1999). However, the findings of the present thesis uncovered that despite 13 of the 14 athletes implementing a strategy to try and enhance their feelings of sport confidence when they were low; none of them were successful in doing so when in the competitive World Class sporting environment.

These findings have important implications for the design and development of sport confidence interventions. Indeed, the present thesis highlights the importance of developing and maintaining confidence during preparation phases, so that athletes can approach competition with their confidence intact. As identified by this thesis, the factors responsible for debilitating an athlete's sport confidence would seem to be associated with the sources

from which they derive their confidence. However, since an athlete's sources and types of confidence would seem to be influenced by gender and organisational factors, sports psychologists must assess the specific confidence needs of the individual athlete when working with them in an applied setting. Based upon the findings generated throughout this thesis, this would require utilising an idiographic approach to identify an athlete's sources and types of confidence, assess their levels of sport confidence (i.e., rate their types of sport confidence) and finally, identify potential confidence debilitators. Indeed, this research programme has demonstrated the effectiveness and usability of confidence profiling as a measurement of athletes sport confidence in an applied setting. As highlighted by the case-study presented in study four, a completed confidence profile can then be used to provide the basis of an individualised confidence intervention, determined by the athlete's specific confidence requirements.

In accordance with the athlete-centred approach, sport confidence interventions might take several different forms depending upon the specific needs of the athlete. For example, the completed profiles of those athletes participating in study three demonstrated that some athletes were more confident than others, some athletes were more confident in specific areas, some athletes were over-reliant on specific sources and types of confidence, and some athletes were unable to transfer their confidence in training to competition. Consequently, subsequent interventions might be targeted toward increasing the range of sources and types of confidence utilised, enhancing confidence in the areas already identified, introducing controllable sources of confidence as opposed to a reliance on uncontrollable sources, or facilitating the transfer of confidence from training to competition.

In addition to impacting upon the design and development of potential sport confidence interventions, individual differences were also found to impact upon the confidence profiling process. For example, some athletes were more/less confident at the time of participation in study three, than at previous moments in their competitive sporting careers.

These athletes automatically made comparisons between their current sport confidence levels and their ideal or previous confidence ratings. Thus, incorporating a second rating into the profiling process might prove to be a useful assessment measure, dependent upon the confidence needs of the athlete. For example, it might be helpful for an athlete with low confidence levels to elicit a second rating to demonstrate their 'ideal' confidence ratings or 'previous best'. Alternatively, it might be appropriate to ask an athlete to provide a rating for their confidence in training, and their confidence in competition. The athlete's progress toward their ideal could then be monitored accordingly. These findings highlight the versatility of confidence profiling and provide further justification for adopting an individualised approach to the assessment of sport confidence in athletes.

7.3.3 STRENGTHS OF THE RESEARCH PROGRAMME

One of the strengths that can be identified with the present thesis is the participant sample employed. Unique from previous research conducted to study the concept of sport confidence, studies one and two utilised athletes that had reached the pinnacle of successful sporting performance. The rationale in this instance was based upon the premise that the organisational culture of World Class sport is likely to differ significantly from that of the high school, college and master athletes previously examined. Indeed, this thesis identified several important differences between the World Class sample employed, and the athletes studied in previous research, highlighting the importance of investigating athletes of this calibre.

Furthermore, the utilisation of several methodologies enabled an in-depth exploration of the role of confidence in World Class sport performance, and underpinned the transition of research to practice. More specifically, three types of research methods were adopted. Studies one and two adopted a qualitative approach utilising semi-structured interviews. Study three adopted a more idiographic approach where confidence profiling was used as the primary means of data collection and reflective narratives were undertaken to report the findings.

Finally, study four utilised a case-study approach. This mixed-method approach addresses the preponderance of deductive-based and positivist research in this area, as well as providing a holistic study of the way in which the unique subculture of competitive sport influences self-confidence in athletes.

An overriding goal of this thesis was to make the transition from theory into practice, and here lies perhaps the greatest strength that can be associated with this programme of research. The four studies adopted an integrated approach in which research informed best practice, culminating in the design and development of a successful sport confidence intervention. More specifically, the findings of study one and two extended the integrative model of sport confidence (Vealey, 2001) to World Class sport performers, thus advancing our understanding of this unique athlete group. This enhanced understanding then informed the development of an applied measure and subsequent intervention, informing the practice of psychological preparation for high level sport performance. Indeed, the development of confidence profiling as an applied sport confidence assessment measure has overcome some of the limitations associated with existing confidence assessment inventories, originally designed and validated as research instruments.

As mentioned previously, nomothetic approaches to the study of confidence in sport assume that all people can be characterised by the same set of descriptors or dimensions, and that group results represent general tendencies that can be applied to all people. However, as highlighted by this thesis, and previous research (e.g., Vealey et al., 1998; Wilson et al., 2004), the sources and types of confidence utilised by athletes are influenced by organisational (e.g., competitive level, sport classification), social (e.g., social support of family/friends/coaching staff) and demographic factors (e.g., age and gender). The SSCQ (Vealey et al., 1998) is at present the only questionnaire designed specifically to assess athletes' sources of sport confidence. However, since validation of the SSCQ is based upon high school and collegiate athletes, it cannot be generalised to any other demographic, social

or organisational group. Furthermore, since the findings of this thesis provide the first research evidence for the multidimensionality of sport confidence, there is at present no available method of assessing athletes' types of sport confidence.

Confidence profiling provides an alternative confidence assessment measure specifically developed for use within an applied context. This move toward a more idiographic and practical measurement approach provides an accurate and in-depth assessment of an individual athlete's specific confidence needs. Furthermore, the use of scaling rulers, originally developed within the context of MI (Miller & Rollnick, 2002), was shown to facilitate this process and provide an accurate understanding of the athlete's viewpoint. Indeed, the use of scaling rulers highlights another strength associated with the present thesis. Whilst Velasquez et al. (2005) suggested that scaling rulers might be applicable in a wide range of settings, to the author's knowledge, this thesis provides the first example of their utilisation in a sporting context. However, given that the scaling rulers and motivational questions utilised by MI proved to be an appropriate method by which to assess the athletes' confidence levels, and generate confidence enhancing strategies targeted towards their perceived confidence needs, the author advocates their use in future sport psychology consultancy.

As advocated by Andersen (2000) accounts of real-life consultancy practice might help current and future sport psychology practitioners become more effective in their work. Indeed, study three provides a starting point to help practitioners identify the confidence needs of the individuals with whom they work, and develop intervention strategies that can be utilised throughout competition preparation phases. A further strength associated with this study was the assessment of the usability of confidence profiling. Two additional sport psychology consultants were able to follow the approach, and found it to be effective in their consultancy work, suggesting that this method of sport confidence assessment is likely to be useful to others working in an applied sport psychology setting.

7.3.4 LIMITATIONS OF THE RESEARCH PROGRAMME

The primary limitation associated with the present thesis was the under representation of team sport participants. Consequently, the findings cannot be readily generalised to athletes participating in team sports. Indeed, the team players participating in studies one, two and three identified additional sources and types of sport confidence, and confidence debilitators, not cited by the individual sport participants. These findings have implications for both research and practice and highlight the importance of considering a team athlete as an individual, and as a team player, when assessing his/her sport confidence, and designing subsequent sport confidence interventions.

Another important limitation associated with the present study were the time constraints associated with the World Class sample interviewed for study one and two. These athletes were amongst the most successful in the United Kingdom and at the time of the study, many were preparing to leave the country to compete in the 2004 Olympic Games in Athens. Consequently, whilst they agreed to the initial interview, some of the participants were not available to check their raw transcripts and verify that they represented a true account of their experiences.

7.4.5 FUTURE RESEARCH DIRECTIONS

The findings presented throughout the course of this thesis have generated several practical and theoretical connotations that warrant future research attention. From a theoretical perspective, more research is needed to further examine the attributions made by World Class athletes to appraise success and failure. Research within the sport psychology literature has indicated that athletes protect their self-esteem by attributing success to internal, stable and controllable factors, and failure to external factors (e.g., Morgan et al., 1996). However, these studies have not focused on the attributional patterns of those athletes competing at an Olympic or World Class level. In contrast, the findings of study two

suggested that World Class athletes attribute both success and failure to internal and external factors. Thus, they did not try and protect their confidence by attributing failures externally. Rather, they protected their confidence levels by assessing their performance objectively and then identifying and addressing the true factors responsible for under-performance, supporting Bandura's (1997) proposal that attributing failure to poor strategies, rather than inability, can actually serve to enhance self-efficacy through the belief that improved strategies will result in future success. Recent research within the sport psychology literature (e.g., Gernigon & Delloye, 2003) has suggested that attributing success and failures to personally controllable and changeable causes would seem conducive to both confidence and the expenditure of future effort. However, since the purpose of study two was to explore the role of confidence in World Class performance, rather than attributional patterns per se, the athletes were not asked about their perceptions of control. Additional exploration of this area is required since in contrast to previous research, it might be that attributing failure to internal yet personally controllable and changeable sources actually serves to protect sport confidence and promote the expenditure of future effort. Such research would likely have implications for attribution retraining.

Another area that has not been examined in the research literature is the nature of expectancy in relation to confidence and performance. Despite sometimes being considered as synonymous to confidence, expectancy, as it relates to sport confidence, has not been examined from a conceptual standpoint (Vealey, 2001). This is surprising given the anecdotal evidence which seems to suggest that expectancy can often become a burden, especially when high and often unrealistic expectations are placed onto athletes. Indeed, as identified in the findings of study two, the perceived pressure and expectations associated with successful World Class performance were such that at the height of their sporting success, the female athletes actually described lower confidence levels than when they began their career. To enable them to approach competition feeling confident they had to feel able to cope with the

expectations placed upon them. Performance and process goals were used to this effect. As aforementioned, the male athletes were not adversely affected by pressure and expectations and generally set outcome goals, or a combination of outcome and process goals for competition. The cause of these gender differences cannot be inferred from the present study, and warrant further research attention, particularly given the implication for goal-setting strategies utilised by World Class athletes. Furthermore, a common belief in the sport psychology research literature is that flow, or peak performance, occurs best when athletes are in a state of automaticity with an absence of any expectations (Moore, 1998). Thus, the relationship between sport confidence and expectancy requires further research attention to enhance understanding of this phenomenon.

The temporal patterning of sport confidence is also worthy of future research. As aforementioned, the findings of the present thesis support Vealey's (2001) contentions that demographic and organisational factors can influence the development and maintenance of confidence in athletes. These findings highlight the importance of considering demographic and organisational factors in the assessment of sport confidence and have implications for intervention development. For example, an athlete's sport confidence levels before a relatively low-key competitive event might be very different to their confidence levels prior to a highly pressurised competitive event in which they are expected to meet certain performance standards.

Previous research conducted in this area has shown that that self-confidence remained relatively constant in males, whilst female athletes reported a progressive reduction as competition neared (Jones & Cale, 1989; Jones et al. 1991). Indeed, the findings of study two suggested that female World Class athletes might also be more susceptible to confidence debilitating factors than males. More recently, Swain and Jones (1992) have shown that highly competitive athletes report higher confidence than low competitive athletes throughout the whole of the pre-competition period. Additional research in this area has made sport type

comparisons. For example, Krane and Williams (1987) found that as competition approached, self-confidence decreased in a sample of performers from a subjectively-scored sport (gymnastics) but increased in performers from an objectively-scored sport (golf). However, the lesser experience and skill level of the gymnasts in the sample may have been important factors in the differential temporal patterning. Indeed, as with previous sport confidence research per se, very little research attention has focused upon the temporal patterning of confidence in World Class sport performers. The stability or fluctuation of confidence across time should be examined to better understand the factors that influence stability and change in different types of sport confidence. This is particularly pertinent given that Olympic athletes have identified that the pressure and distractions associated with World Class sport competition render their confidence level atypically 'fragile' and vulnerable to instability (Gould et al., 1999).

From a practical perspective, whilst several strategies to enhance self-confidence have been developed on the basis of self-efficacy antecedents, limited research has been directed toward the development of interventions targeted toward the sources of sport confidence. This is warranted given that previous research (i.e., Vealey et al., 1998; Wilson et al., 2001) and the findings of this thesis have shown that athletes rely on additional sources of sport confidence influenced by social, organisational and/or demographic factors. Study three demonstrated how confidence profiling can provide a measure of sport confidence from the athlete's own perspective, thus, allowing individual differences in confidence to emerge. For example, the athletes participating in study three and four showed variations in the confidence types and sources identified, the importance they placed upon some confidence sources at the detriment of others, and their confidence ratings. Consequently, future research is needed to develop interventions that might be targeted toward increasing the range of sources and types of sport confidence utilised, enhancing confidence in the areas already identified, introducing controllable sources of confidence as opposed to a reliance on uncontrollable sources,

depending upon the individual confidence needs of the athlete. Indeed, synonymous with the recommendations of Vealey and Garner-Holman (1998) additional research is needed to validate the effectiveness of confidence profiling in an applied setting and apply the results to the development of sport-specific confidence interventions.

Additional research is also needed to explore how the confidence needs of team athletes might differ from individual sport participants. This is particularly pertinent given that the team players participating in studies one and two identified sources and types of confidence based upon their individual feelings of confidence, and additional sources and types of confidence related to the 'team'. Furthermore, factors related to 'team-mates' were identified as debilitating to sport confidence in certain situations. Thus, it would seem that the factors related specifically to the context of team sport are fundamental to the sport confidence of team players, and have implications both for sport confidence measurement and intervention development. From a measurement perspective, there are at present, no available methods of assessing team sport confidence. Consequently, it would seem necessary to extend confidence profiling research to team athletes specifically, developing an effective method of team confidence assessment in addition to due consideration of a team athlete as an individual. Such research would likely inform the development of sport confidence interventions designed specifically in response to the needs of a sport team.

Finally, the findings of this thesis bring us one step closer to understanding the confidence needs of athletes competing successfully on the World Class stage. In accordance with the sentiments of Coleman Griffith (1925), future research should consider how we can use the knowledge generated from these athletes to inform practice with less experienced or less successful athletes. As aforementioned, this might involve further exploration of the confidence profiles of World Class athletes and identification of the factors that set them apart from less successful elite, or junior athletes. This information could be used to facilitate talent development i.e., provide the basis for interventions targeted toward developing robust

confidence in talented young athletes. Indeed, it would seem from the findings of the present thesis that encouraging athletes to derive confidence from a multitude of sources, including psychological preparation, might enable them to develop a more robust sport confidence. In accordance with the 'prevention is better than cure maxim', this presents a strong argument for the provision of sport psychology support to talented junior athletes who might one day become the next generation of World championship and Olympic medallists.

7.4 CONCLUDING REMARKS

The purpose of this thesis was to examine the role of sport confidence in World Class sport performance. Results identified the sources and types of confidence salient to World Class sports performers and examined the mechanisms underlying confidence effects. Furthermore, the development of an applied measure of sport confidence provided the basis for a successful cognitive-behavioural intervention designed to enhance the sport confidence of an elite female swimmer. Whilst this programme of research has generated several additional areas worthy of further research attention, the author believes that it has also enhanced the conceptual and practical understanding of sport confidence for researchers and practitioners. Furthermore, and equally as important, it adopted an integrated approach in which research informed best practice, and which has in turn provided a basis for further research in the study of sport confidence.

REFERENCES

- Allport, G. W. (1937). *Personality: A psychological interpretation*. New York: Holt.
- Andersen, M. B. (2000). Some basic questions about service. In M. B. Andersen (Ed.). *Doing sport psychology* (pp. xii-xvii). Leeds: Human Kinetics.
- Anderson, A. G. (1999a). In A. Anderson., Z. Knowles., & D. Gilbourne. (2004). Reflective practice for sport psychologists: Concepts, models, practical implications, and thoughts on dissemination. *The Sport Psychologist*, 188-203.
- Anderson, A. G., (1999b). Reflections of a budding sport psychologist: First meetings. In H. Steinberg, & I. Cockerill (Eds.). *Sport psychology in practice: The early stages* (pp. 30-37). Leicester, UK: British Psychological Society.
- Anderson, A., Knowles, Z., & Gilbourne, D. (2004). Reflective practice for sport psychologists: Concepts, models, practical implications, and thoughts on dissemination. *The Sport Psychologist*, 188-203.
- Ashmore, R. D., (1990). Sex, gender, and the individual. In L. A. Pervin, (Ed.). *Handbook of personality, theory and research* (pp. 486-526). New York: Guilford.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behaviour change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37, 122-147.
- Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice Hall.
- Bandura, A. (1990). Perceived self-efficacy in the exercise of personal agency. *Journal of Applied Sport Psychology*, 2, 128-163.

- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A., & Jourden, F. J. (1991). Self-regulatory mechanisms governing the impact of social comparison on complex decision making. *Journal of Personality and Social Psychology*, 60, 941-951.
- Bandura, A., & Wood, R. E. (1989). Effect of perceived controllability and performance standards on self-regulation of complex decision making. *Journal of Personality and Social Psychology*, 56, 805-814.
- Barker, J. B., & Jones, M. V. (2006). Using hypnosis, technique refinement, and self-modeling to enhance self-efficacy: A case study in cricket. *The Sport Psychologist*, 20, 94-110.
- Baron, R. A., & Byrne, D. (1997). *Social psychology* (8th Ed.). Allyn & Bacon: USA.
- Beal, D., & Duckroo, P. (2003). Empirically documenting clinically significant change in rational emotive behaviour therapy. *Journal of Rational-Emotive & Cognitive-Behaviour Therapy*, 21, 75-88.
- Beals, K. A. (2000). Subclinical eating disorders in female athletes. *Journal of Physical Education, Recreation and Dance*, 71, 3-29.
- Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42, 155-162.
- Bem, S. L. (1975). Sex role adaptability: One consequence of psychological androgyny. *Journal of Personality and Social Psychology*, 31, 634-643.
- Biddle, S. J. H., Markland, D., Gilbourne, D., Chatzisarantis, N. L. D., & Sparkes, A. C. (2001). Research methods in sport and exercise psychology: Quantitative and qualitative issues. *Journal of Sports Sciences*, 19, 777-809.

- Black, S. J., & Weiss, M. R. (1992). The relationship among perceived coaching behaviours, perceptions of ability, and motivation in competitive age-group swimmers. *Journal of Sport and Exercise Psychology*, 14, 309-325.
- Boutcher, S. H., & Rotella, R. J. (1987). A psychological skills educational programme for closed-skill performance enhancement. *The Sport Psychologist*, 127-137.
- Bradley, G. W. (1978). Self-serving biases in the attribution process: A re-examination of the fact or fiction question. *Journal of Personality and Social Psychology*, 36, 56-71.
- Brown, I., Jr., & Inouye, D. K. (1978). Learned helplessness through modeling: The role of perceived similarity in competence. *Journal of Personality and Social Psychology*, 36, 900-908.
- Bull, S. J., Shambrook, C. J., James, W., & Brooks, J. E. (2005). Towards an understanding of mental toughness in elite English cricketers. *Journal of Applied Sport Psychology*, 17, 209-227.
- Burton, D. (1992). The Jekyll/Hyde nature of goals: Reconceptualising goal setting in sport. In T. Horn (Ed.), *Advances in sport psychology* (pp. 267-297). Champaign IL: Human Kinetics.
- Burton, D. Naylor, S., & Holliday, B. (2001). Goal setting in sport: Investigating the goal effectiveness paradigm. In R. Singer, H. Hauseblas, & C. Janelle (Eds.). *Handbook of Sport Psychology* (2nd Ed., pp. 497-528). New York: Wiley & Sons.
- Butler, R. J. (1989). Psychological preparation of Olympic boxers. In J. Kremer, & W. Crawford (Eds.). *The psychology of sport: Theory and practice* (pp. 74-84). Belfast: BPS Northern Ireland Branch, occasional paper.
- Butler, R. J., & Hardy, L. (1992). The performance profile: Theory and application. *The Sport Psychologist*, 6, 253-264.

- Butler, R. J., Smith, M., & Irwin, I. (1993). The performance profile in practice. *Journal of Applied Sport Psychology*, 5, 48-63.
- Callow, N., Hardy, L., & Hall, C. (2001). The effects of a motivational general-mastery imagery intervention on the sport confidence of high level badminton players. *Research Quarterly for Exercise and Sport*, 72, 389-400.
- Carver, C. S., & Scheier, M. F. (1981). *Attention and self-regulation: A control theory approach to human behaviour*. New York: Springer-Verlag.
- Chelladurai, P., & Saleh, S. (1978). Preferred leadership in sports. *Canadian Journal of Applied Sport Sciences*, 3, 85-92.
- Coakley, J. (2007). *Sports in society: Issues and controversies* (9th Ed.). New York: McGraw Hill.
- Corbin, C. B. (1981). Sex of subject, sex of opponent and opponent ability as factors affecting self-confidence in a competitive situation. *Journal of Sport Psychology*, 4, 265-270.
- Corbin, C. B., Landers, D. M., Feltz, D. L., & Senior, K. (1983). Sex differences in performance estimates: Female lack of confidence vs. male boastfulness. *Research Quarterly for Exercise and Sport*, 54, 407-410.
- Corbin, C. B., & Nix, C. (1979). Sex-typing of physical activities and success predictions of children before and after cross-sex competition. *Journal of Sport Psychology*, 1, 43-52.
- Cox, A. E., & Whaley, D. E., (2004). The influence of task value, expectancies for success, and identity on athlete's achievement behaviours. *Journal of Applied Sport Psychology*, 16, 103-117.

- Crawford, M. E., & Griffin, N. S. (1986). Testing the validity of the Griffin/Keogh model for movement confidence by analyzing the self-report playground involvement decisions of elementary school children. *Research Quarterly for Exercise and Sport*, 57, 8-15.
- Crocker, P. R. E., & Leclerc, D. R. (1992). Testing the validity of the movement confidence model in a high-risk dive by novices. *Journal of Sport & Exercise Psychology*, 14, 159-168.
- Crundall, I., & Foddy, M. (1981). Vicarious exposure to a task as a basis of evaluative competence. *Social Psychology Quarterly*, 44, 331-338.
- Davis, M., Eschelman, E. R., & McKay, M. (1988). *The relaxation and stress reduction workbook* (3rd Ed.). Oakland, CA: New Harbinger.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum Press.
- Dorfman, H. A. (1990). Reflections on providing personal and performance enhancement consulting services in professional baseball. *The Sport Psychologist*, 4, 341-346.
- Dunn, C., Deroo, L., & Rivara, F. P. (2001). The use of brief interventions adapted from motivational interviewing across behavioral domains: A systematic review. *Addiction*, 96, 1724-1742.
- Durand-Bush, N., & Salmela, J. H. (2002). The development and maintenance of expert athletic performance: Perceptions of world and Olympic champions. *Journal of Applied Sport Psychology*, 14, 154-171.
- Dworkin, S. L. (2001). Holding back: Negotiating a glass ceiling on women's muscular strength. *Sociological Perspectives*, 44, 333-351.

- Edwards, T., Kingston, K., Hardy, Lew., & Gould, D. (2002). A qualitative analysis of catastrophic performances and the associated thoughts, feelings, and emotions. *The Sport Psychologist*, 16, 1-19.
- Ellis, A. (1975). *Humanistic psychotherapy: The rational-emotive approach*. New York: McGraw-Hill.
- Ellis, C., & Bochner, A. P. (2000). Autoethnography, personal narrative, reflexivity: Researcher as subject. In N. K. Denzin & Y. S. Lincoln (Eds.). *Handbook of qualitative research* (2nd Ed., pp. 733-802). London: Sage Publications.
- Eysenck, M. W., & Calvo, M. G. (1992). Anxiety and performance: The processing efficiency theory. *Cognition and Emotion*, 6, 409-434.
- Feather, N. T. (1982). *Expectation and actions: Expectancy-value models in psychology*. Hillsdale, NJ: Erlbaum.
- Feltz, D. L. (1988). Self-confidence and sports performance. In K. B. Pandolf (Ed.). *Exercise and sport sciences reviews* (pp. 423-457). New York: MacMillan.
- Feltz, D. L. (1992). Understanding motivation in sport: A self-efficacy perspective. In G. C. Roberts (Ed.), *Motivation in sport and exercise* (pp. 107-128). Champaign, IL: Human Kinetics.
- Feltz, D. L., & Chase, M. A. (1998). The measurement of self-efficacy and confidence in sport. In J. L. Duda (Ed.) *Advances in sport and exercise psychology measurement* (pp. 65-80). Morgantown, USA: Fitness Information Technology, Inc.
- Feltz, D. L., & Lirgg, C. D. (1998). Perceived team and player efficacy in hockey. *Journal of Applied Psychology*, 83, 557-564.

- Feltz, D. L., & Lirgg, C. D. (2001). Self-efficacy beliefs of athletes, teams and coaches. In R. N. Singer, H. A. Hausenblas, C. M. Janelle (Eds.), *Handbook of sport psychology* (pp. 304-361). New York: John Wiley & Sons.
- Feltz, D. L. & Riessinger, C. A., (1990). Effects of in vivo emotive imagery and performance feedback on self-efficacy and muscular endurance, *Journal of Sport and Exercise Psychology*, 12, 132-143.
- Fletcher, D., & Hanton, S. (2003). Sources of organizational stress in elite sports performers. *The Sport Psychologist*, 17, 175-185.
- Fransella, F. (1981). Personal construct psychology and repertory grid technique. In F. Fransella (Ed.). *Personality: Theory, measurement and research*. London: Methuen.
- Fransella, F., & Bannister, D., (1977). *A manual for repertory grid technique*. London: Academic Press.
- Gardner, F. (1995). The coach and team psychologist: An integrated organizational model. In S. M. Murphy (Ed.). *Sport psychology interventions* (pp. 147-175). Champaign, IL: Human Kinetics.
- Garrett, R. (2004). Negotiating a physical identity: Girls, bodies and physical education. *Sport, Education and Society*, 9, 223-237.
- Gauron, E. F. (1984). *Mental training for peak performance*. Lansing, NY: Sport Science Associates.
- Gernigon, C., & Delloye, J. B. (2003). Self-efficacy, causal attribution, and track athletic performance following unexpected success or failure among elite sprinters. *The Sport Psychologist*, 17, 55-76.
- Gilbourne, D. (2002). Sports participation, sports injury, and altered images of self: An autobiographical narrative of a lifelong legacy. *Reflective Practice*, 3, 71-88.

- Gilbourne, D., & Richardson, D. (2006). Tales from the field: Personal reflections on the provision of psychological support in professional soccer. *Psychology of Sport and Exercise*, 7, 325-337.
- Gill, D. L. (1988). Gender differences in competitive orientation and sport participation. *International Journal of Sport Psychology*, 19, 145-159.
- Gill, D. L. (2000). *Psychological dynamics of sport and exercise* (2nd Ed. pp. 255-268). USA: Human Kinetics.
- Gordin, R. D., & Henschen, K. P. (1989). Preparing the USA women's artistic gymnastics team for the 1988 Olympics: A multi-modal approach. *The Sport Psychologist*, 5, 111-127.
- Gould, D. (2006). Goal setting for peak performance. In J. Williams (Ed.). *Applied sport psychology: Personal growth to peak performance* (5th Ed., pp. 240-259). Palo Alto, CA: Mayfield.
- Gould, D., Dieffenbach, K., & Moffett, A. (2002). Psychological characteristics and their development in Olympic champions. *Journal of Applied Sport Psychology*, 14, 172-204.
- Gould, D., Guinan, D., Greenleaf, C., Medberry, R., & Peterson, K. (1999). Factors affecting Olympic performance: Perceptions of athletes and coaches from more and less successful teams. *The Sport Psychologist*, 13, 371-394.
- Gould, D., Medberry, R., Damarjian, N., & Lauer, L., (1999). A survey of mental skills training knowledge, opinions, and practices of junior tennis coaches. *Journal of Applied Sport Psychology*, 11, 128-140.
- Greenleaf, C., Gould, D., & Dieffenbach, K. (2001). Factors influencing Olympic performance: Interviews with Atlanta and Nagano US Olympians. *Journal of Applied Sport Psychology*, 13, 154-184.

- Griffin, N. S., & Crawford, M. (1989). Measurement of movement confidence with a stunt movement confidence inventory. *Journal of Sport & Exercise Psychology*, 11, 26-40.
- Griffin, N. S., & Keogh, J. F. (1982). A model for movement confidence. In J. A. S. Kelso & J. Clark (Eds.), *The development of movement control and coordination* (pp. 213-236). New York: Wiley.
- Griffin, N. S., Keogh, J. F., & Maybee, R. (1984). Performer perceptions of movement confidence. *Journal of Sport Psychology*, 6, 395-407.
- Griffith, C. R. (1925). Psychology and its relation to athletic competition. *American Physical Education Review*, 30, 193-198.
- Gross, R. D. (1999). *Psychology: The science of mind and behaviour* (2nd Ed.). Great Britain: Hodder & Stoughton.
- Hagborg, W. J. (1993). Gender differences on Harter's self-perception profile for adolescents. *Journal of Social Behavior and Personality*, 8, 141-148.
- Halliwell, W. (1990). Providing sport psychology consulting services in professional hockey. *The Sport Psychologist*, 3, 313-319.
- Hanton, S., & Connaughton, D. (2002). Perceived control of anxiety and its relationship to self-confidence and performance: A qualitative enquiry. *Research Quarterly for Exercise and Sport*, 73, 87-97.
- Hanton, S., Mellalieu, S. D., & Hall, R. (2004). Self-confidence and anxiety interpretation: Qualitative investigation. *Psychology of Sport and Exercise*, 5, 477-495.
- Hanton, S., & Jones, G. (1995). Antecedents of anxiety and confidence in elite competitive swimmers. *International Journal of Sport Psychology*.
- Hanton, S., & Jones, G. (1999). The acquisition and development of cognitive skills and strategies: I Making the butterflies fly in formation. *The Sport Psychologist*, 13, 1-21.

- Hardy, L., Jones, G., & Gould, D. (2001). Self-confidence. *Understanding psychological preparation for sport: Theory and practice of elite performers* (pp. 43-71). Chichester: John Wiley & Sons.
- Heinberg, L. J., & Thompson, J. K. (1992). Social comparison: Gender, target importance ratings, and relation to body image disturbance. *Journal of Social Behaviour and Personality*, 7, 335-344.
- Heuzé, J., Raimbault, N., & Fontayne, P. (2006). Relationships between cohesion, collective efficacy, and performance in professional basketball teams: An examination of mediating effects. *Journal of Sports Sciences*, 24, 59-68.
- Heuzé, J., Sarrazin, P., Masiero, M., Raimbault, N., & Thomas, J. (2006). The relationships of perceived motivational climate to cohesion and collective efficacy in elite female teams. *Journal of Applied Sport Psychology*, 18, 201-218.
- Heywood, L., & Dworkin, S. (2003). *Built to win: The female athlete as cultural icon*. Minneapolis: University of Minnesota Press.
- Hindley, C. B. (1979). Problems of interviewing in obtaining retrospective information. In L. Moss, & H. Goldstein (Eds.). *The recall method in social surveys* (pp. 100-108). London: University of London Institute of Education.
- Hodges, L., & Carron, A. (1992). Collective efficacy and group performance. *International Journal of Sport Psychology*, 23, 48-59.
- Hofstetter, C. R., Sallis, J. F., & Hovell, M. F. (1990). Some health dimensions of self-efficacy: Analysis of theoretical specificity. *Social Science Medicine*, 31, 1051-1056.
- Holt, N. L., & Streat, W. B. (2001). Reflecting on initiating sport psychology consultation: A self-narrative of neophyte practice. *The Sport Psychologist*, 15, 188-204.

- Horn, T. S. (2002). Coaching effectiveness in the sport domain. In T. S. Horn (Ed.), *Advances in sport psychology* (pp. 309-354). Champaign, IL: Human Kinetics.
- Johns, C. (1994). Guided reflection. In A. Palmer., S. Burns., & C. Bulman, (Eds.). *Reflective practice in nursing* (pp. 110-130). Oxford, UK: Blackwell Sciences.
- Johns, C. (2000). *Becoming a reflective practitioner: A reflective and holistic approach to clinical nursing, practice development, and clinical supervision*. London: Blackwell Science.
- Johns, D. (1997). Fasting and feasting: Paradoxes in the sport ethic. *Sociology of Sport*, 15, 41-63.
- Jones, G. (1993). The role of performance profiling in cognitive behavioural interventions in sport. *The Sport Psychologist*, 1993, 160-172.
- Jones, G. J., & Cale, A. (1989). Precompetition temporal patterning of anxiety and self-confidence in males and females. *Journal of Sport Behaviour*, 12, 183-195.
- Jones, G., & Hanton, S. (2001). Pre-competitive feeling states and directional anxiety interpretations. *Journal of Sports Sciences*, 19, 385-395.
- Jones, G., Hanton, S., & Connaughton, D. (2002). What is this thing called mental toughness? An investigation of elite sports performers. *Journal of Applied Sport Psychology*, 14, 205-218.
- Jones, G., Hanton, S., & Swain, A. B. J. (1994). Intensity and interpretation of anxiety symptoms in elite and non-elite sports performers. *Personality and Individual Differences*, 17, 657-663.
- Jones, G. J., & Hardy, L. (1990). Stress in elite sport: Experiences of some elite performers. In G. J. Jones, & L. Hardy (Eds.), *Stress and performance in sport* (pp. 247-277). New York: John Wiley & Sons.

- Jones, G., Swain, A. B. J., & Cale, A. (1991). Gender differences in precompetition temporal patterning and antecedents of anxiety and self-confidence. *Journal of Sport and Exercise Psychology*, 13, 1-15.
- Kane, M. J., (1989). The post Title IX female athlete in the media. *Journal of Physical Education, Recreation, and Dance*, 60, 58-62.
- Kane, M. J., & Parks, J. B. (1992). The social construction of gender difference and hierarchy in sport journalism – few new twists on very old themes. *Women in Sport and Physical Activity Journal*, 1, 49-83.
- Kelly, G. A., (1955). *The psychology of personal constructs*. Vols. I & II. New York: Norton.
- Kingston, K. L. & Hardy, L. (1997). Effects of different types of goals on processes that support performance. *The Sport Psychologist*, 11, 277-293.
- Knowles, Z., Gilbourne, D., Borrie, A., & Neville, A. (2001). Developing the reflective sports coach: A study exploring the process within a higher education coaching programme. *Reflective practice*, 185-207.
- Krane, V., & Baird, S. M. (2005). Using ethnography in applied sport psychology. *Journal of Applied Sport Psychology*, 17, 87-107.
- Krane, V., & Williams, J. (1987). Performance and somatic anxiety, cognitive anxiety, and confidence changes prior to competition. *Journal of Sport Behaviour*, 10, 47-56.
- Krane, V., & Williams, J. M. (1994). Cognitive anxiety, somatic anxiety, and confidence in track and field athletes: The impact of gender, competitive level and task characteristics. *International Journal of Sport Psychology*, 25, 203-217.
- Lau, S. (1989). Sex role orientation and domains of self-esteem. *Sex Roles*, 21, 415-422.
- Lenney, E. (1977). Women's self-confidence in achievement settings. *Psychological Bulletin*, 84, 1-13.

Lindsay, P., Breckon, J., Thomas, O., & Maynard, I.W., (in press). In pursuit of congruence:

A personal reflection upon methods and philosophy in applied practice. *The Sport Psychologist*.

Lirgg, C. D. (1991). Gender differences in self-confidence in physical activity: A meta-analysis of recent studies. *Journal of Sport and Exercise Psychology*, 13, 294-310.

Lirgg, C. D., George, T. R., Chase, M. A., & Ferguson, R. H. (1996). Impact of conception of ability and sex-type of task on male and female self-efficacy. *Journal of Sport and Exercise Psychology*, 18, 426-434.

Mace, R. (1990). Cognitive behavioural interventions in sport. In G. Jones & L. Hardy (Eds.), *Stress and performance in sport* (pp. 203-230). Chichester, England: Wiley & Sons.

Maddux, J. E. (1995). Self-efficacy theory: An introduction. In J. E. Maddux (Ed), *Self-efficacy, adaptation and adjustment: Theory, research and application* (pp. 3-33). New York: Plenum Press.

Maddux, J. E., & Lewis, J. (1995). In J. E. Maddux (Ed.), *Self-efficacy, adaptation, and adjustment: Theory, research and application* (pp. 37-68). New York: Plenum Press.

Madison, J. K., & Ruma, S. L. (2003). Exercise and athletic involvement as moderators of severity in adolescents with eating disorders. *Journal of Applied Sport Psychology*, 15, 213-222.

Maehr, M. L., & Nicholls, J. G. (1980). Culture and achievement motivation: A second look. In N. Warren (Ed.), *Studies in cross-cultural psychology*. New York: Academic Press.

Magyar, T. M., Feltz, D. L., & Simpson, I. P. (2004). Individual and crew level determinants of collective efficacy in rowing. *Journal of Sport and Exercise Psychology*, 26, 136-153.

- Mahoney, M. J., & Avenier, M. (1977). Psychology of the elite athlete: An exploratory study. *Cognitive Therapy and Research*, 135-141.
- Major, B., Carnevale, P. J. D., & Deaux, K. (1981). A different perspective on androgyny: Evaluations of masculine and feminine personality characteristics. *Journal of Personality and Social Psychology*, 41, 988-1001.
- Major, B., Sciacchitano, A. M., & Crocker, J. (1993). In-group versus out-group comparisons and self-esteem. *Personality and Social Psychology Bulletin*, 19, 711-721.
- Mamassis, G., & Doganis, G. (2004). The effects of a mental training programme on juniors' precompetitive anxiety, self-confidence, and tennis performance. *Journal of Applied Sport Psychology*, 16, 118-137.
- Manzo, L. G., Silva, J. M., & Mink, R. (2001). The Carolina Sport Confidence Inventory. *Journal of Applied Sport Psychology*, 13, 260-274.
- Markula, P. (1995). Firm but shapely, fit but sexy, strong but thin: The postmodern aerobicizing female bodies. *Sociology of Sport Journal*, 12, 424-453.
- Martens, R., Vealey, R. S., & Burton, D. (1990). *Competitive anxiety in sport*. Champaign, IL: Human Kinetics.
- Martens, R., Burton, D., Vealey, R. S., Bump, L. A., & Smith, D. E. (1990). Development and validation of the Competitive State Anxiety Inventory-2. In R. Martens, R.S Vealey, & D. Burton (Eds.), *Competitive anxiety in sport* (pp. 117-190). Champaign IL: Human Kinetics.
- Martin, K. A., & Mack, D. (1996). Relationships between physical self-presentation and sport competition trait anxiety: A preliminary study. *Journal of Sport & Exercise Psychology*, 18, 75-82.

- Martin, J. J., & Gill, D. L. (1991). The relationship among competitive orientation, sport confidence, self-efficacy, anxiety, and performance. *Journal of Sport and Exercise Psychology*, 13, 149-159.
- May, J. R., & Brown, L. (1989). Delivery of psychological services to the U.S. alpine ski team prior to and during the Olympics in Calgary. *The Sport Psychologist*, 3, 320-329.
- Maynard, I. W., & Cotton, P. C. (1993). An investigation of two stress-management techniques in a field setting. *The Sport Psychologist*, 7, 375-387.
- McAuley, E., & Blissmer, B. (2002). Self-efficacy and attributional processes in physical activity. In T. S. Horne (Ed.), *Advances in sport psychology* (pp. 185-205). Champaign IL: Human Kinetics.
- McAuley, E., & Gill, D. (1983). Reliability and validity of the physical self-efficacy scale in a competitive sport setting. *Journal of Sport Psychology*, 5, 410-418.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). Thousand Oaks, CA: Sage.
- Miller, W. R., & Rollnick, S. (1999). *Teaching motivational interviewing: Materials for trainers*. University of New Mexico, Albuquerque, U.S.A.
- Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change* (2nd Ed.). New York: Guilford.
- Moore, W. E. (1998). Confidence. In M. A. Thompson, R. A. Vernacchia, & W. E. Moore (Eds.), *Case studies in applied sport psychology: An educational approach* (pp. 63-88). Dubuque, IA: Kendall/Hunt.
- Morgan, L. K., Griffin, J., & Heyward, V. H. (1996). Ethnicity, gender and experience effects on attributional dimensions. *The Sport Psychologist*, 10, 4-6.

- Moritz, S. E., Feltz, D. L., & Mack, D. E., (2000). The relation of self-efficacy measures to sport performance: A meta-analytic review. *Research Quarterly for Exercise and Sport*, 71, 280-294.
- Moritz, S. E., Martin, K., Hall, C. R., & Vadocz, E. (1996). What are confident athletes imaging?: An examination of image content. *The Sport Psychologist*, 10, 171-179.
- Morse, J. M., & Richards, L. (2002). *Readme first for a users guide to qualitative methods*. London: Sage Publications.
- Moss, L. (1979). Overview. In L. Moss, & H. Goldstein (Eds.), *The recall method in social surveys* (pp. 159-169). London: University of London Institute of Education.
- Murphy, S. (1996). *The achievement zone*. New York: Putnam's.
- Murphy, S. M., & Murphy, A. I. (1992, August). *Sport psychology: Performance enhancement for athletes*. Workshop presented at the Annual Meeting of the American Psychological Association, Washington, DC.
- Myers, N. D., Feltz, D. L., & Short, S. E. (2004). Collective efficacy and team performance: A longitudinal study of collegiate football teams. *Group Dynamics: Theory, Research, and Practice*, 8, 126-138.
- Myers, N. D., Payment, C. A., & Feltz, D. L. (2004). Reciprocal relationships between collective efficacy and team performance in women's ice hockey. *Group Dynamics: Theory, Research and Practice*, 8, 182-195
- Nicholls, J, G, (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review*, 91, 328-346.
- Nideffer, R. M., (1981). *The ethics and practice of applied sport psychology*. Ithaca, NY: Movement Publications.

- Nideffer, R. M., (1989). Psychological services for the U.S. track and field team. *The Sport Psychologist*, 3, 350-357.
- Orlick, T. (1986). *Psyching for sport: Mental training for athletes*. Champaign, IL: Leisure Press.
- Orlick, T. (1989). Reflections on sportpsych consulting with individual and team sport athletes at summer and winter Olympic Games. *The Sport Psychologist*, 3, 358-365.
- Orlick, T. (1990). *In pursuit of excellence*. Champaign, IL: Human Kinetics.
- Orlick, T., & Partington, J. (1988). Mental links to excellence. *The Sport Psychologist*, 2, 105-130.
- Osterman, K., & Kottkamp, R. (1993). *Reflective practice for educators*. Newbury, CA: Corwin Press.
- Painter, C. & Adams, J. (2002). In J. Adams (Ed.). *Go Girls: Supporting girls emotional development and self esteem*. Sheffield Centre for HIV and Sexual Health: UK.
- Paskevich, D. M., Brawley, L. R., Dorsch, K. D., & Widmeyer, W. N. (1999). Relationship between collective efficacy and team cohesion: Conceptual and measurement issues. *Group Dynamics: Theory, Research, and Practice*, 3, 210-222.
- Pates, J., Maynard, I.W., & Westbury, T. (2001). An investigation into the effects of hypnosis on basketball performance. *Journal of Applied Sport Psychology*, 13, 84-102.
- Patton, M. Q. (2002). *Qualitative research and evaluation methods* (2nd Ed.). London: Sage
- Pensgaard, A. M., & Duda, J. L., (2002). "If we work hard, we can do it." A tale from an Olympic (gold) medallist. *Journal of Applied Sport Psychology*, 14, 219-236
- Perna, F., Neyer, M., Murphy, S. M., Ogilvie, B. C., & Murphy, A. (1995). Consultations with sport organisations: A cognitive-behavioural model. In S. M. Murphy (Ed.). *Sport psychology interventions* (pp. 235-252). Champaign, IL: Human Kinetics.

- Pliner, P., Chaiken, S., & Flett, G. L., (1990). Gender differences in concern with body weight and physical appearance over the life span. *Personality and Social Psychology Bulletin*, 16, 263-273.
- Prager, K. J., & Bailey, J. M., (1985). Androgyny, ego development, and psychosocial crisis. *Sex Roles*, 13, 525-536.
- Ravizza, K. (1990). Sportpsych consultation issues in professional baseball. *The Sport Psychologist*, 4, 330-340.
- Reis, H. T., Gerrard, M., & Gibbons, F. X. (1993). Social comparison and the pill: Reactions to upward and downward comparison of contraceptive behaviour. *Personality and Social Psychology Bulletin*, 19, 13-20.
- Risley, T., & Hart, B. (1986). Developing Correspondence between the non-verbal and verbal behaviour of preschool children. *Journal of Applied Behavior Analysis*, 1, 267-281.
- Rollnick, S., & Miller, W. R. (1995). What is motivational interviewing? *Behavioural and Cognitive Psychology*, 23, 325-334.
- Rollnick, S., Mason, P., & Butler, C. (1999). *Health behaviour change: A guide for practitioners*. London: Churchill Livingstone.
- Ronglan, L. T. (2007). Building and communicating collective efficacy: A season-long in-depth study of an elite sport team. *The Sport Psychologist*, 21, 78-93.
- Rotella, R. J., (1990). Providing sport psychology consulting services to professional athletes. *The Sport Psychologist*, 4, 409-417.
- Rushall, B. S. (1979). *Psyching in sports*. London: Pelham.
- Savoy, C. (1993). A yearly mental training programme for a college basketball player. *The Sport Psychologist*, 7, 173-190.

- Scanlan, T. K., & Passer, M. W. (1981). Determinants of competitive performance expectancies of young male athletes. *Journal of Personality*, 49, 60-74.
- Schön, D. (1987). *Educating the reflective practitioner*. San Francisco: Jossey Bass.
- Schwartz, R. M., & Gottman, J. M. (1976). Toward a task analysis of assertive behaviour. *Journal of Consulting and Clinical Psychology*, 44, 910-920.
- Short, S. E., Apostol, K., Harris, C., Poltavski, D., Young, J., Zostautas, N., Sullivan, P., & Feltz, D. L. (2002a). Assessing collective efficacy: A comparison of two approaches. *Journal of Sport & Exercise Psychology*, 24, S115-S116.
- Short, S. E., Bruggeman, J. M., Engel, S. G., Marback, T. L., Wang, L. J., Willadsen, A., & Short, M. W. (2002b). The effect of imagery function and imagery direction on self-efficacy and performance on a golf-putting task. *The Sport Psychologist*, 16, 48-67.
- Short, S. E., Sullivan, P., & Feltz, D. L. (2005). Development and preliminary validation of the Collective Efficacy Questionnaire for Sports. *Measurement in Physical Education and Exercise Science*, 9, 181-202.
- Sparkes, A. C. (1998). Validity in qualitative enquiry and the problem of criteria: Implications for sport psychology. *The Sport Psychologist*, 12, 363-386.
- Spink, K. S. (1990). Group cohesion and collective efficacy of volleyball teams. *Journal of Sport and Exercise Psychology*, 12, 301-311.
- Swain, A. B. J., & Jones, G. (1992). Relationships between sport achievement orientation and competitive state anxiety. *The Sport Psychologist*, 6, 42-54.
- Terry, P. (1984). The coaching preferences of elite athletes competing at Universiade '83. *Canadian Journal of Applied Sport Sciences*, 9, 201-208.
- Thelwell, R. C., & Greenlees, I. A. (2003). Developing competitive endurance performance using mental skills training. *The Sport Psychologist*, 17, 318-337.

- Thomas, P. R. (1990). *An overview of the performance enhancement process in applied sport psychology*. Colorado Springs: United States Olympic Training Centre.
- Tonn, E., & Harmison, R. J. (2004). Thrown to the wolves: A student's account of her practicum experience. *The Sport Psychologist*, 18, 324-340.
- Treasure, D. C., Monson, J., & Lox, C. L. (1996). Relationship between self-efficacy, wrestling performance, and affect prior to competition. *The Sport Psychologist*, 10, 73-83.
- Valasquez, M. M., Von Sternberg, K., Dodrill, C. L., Kan, L. Y., & Parsons, J. T. (2005). The transtheoretical model as a framework for developing substance abuse interventions. *Journal of Addictions Nursing*, 31-40.
- Vargas-Tonsing, T. M., & Bartholomew, J. B. (2006). An exploratory study of the effects of pregame speeches on team on team efficacy beliefs. *Journal of Applied Sport Psychology*, 36, 918-933.
- Vealey, R. S. (1986). Conceptualization of sport-confidence and competitive orientation: Preliminary investigation and instrument development. *Journal of Sport Psychology*, 8, 221-246.
- Vealey, R. S. (1988). Sport-confidence and competitive orientation: An addendum on scoring procedures and gender differences. *Journal of Sport and Exercise Psychology*, 10, 471-478.
- Vealey, R. S. (2001). Understanding and enhancing self-confidence in athletes. In Robert N. Singer, Heather A. Hausenblas & and Christopher M. Janelle (Eds.), *Handbook of sport psychology* (pp. 550-565). New York: John Wiley & Sons, Inc.
- Vealey, R. S., & Campbell, J. L. (1988). Achievement goals of adolescent figure skaters: Impact on self-confidence, anxiety and performance. *Journal of Adolescent Research*, 3, 227-243.

- Vealey, R. S., & Garner-Holman, M. (1998). Measurement issues in applied sport psychology. In J. L. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 247-268). Morgantown, WV: Fitness Information Technology.
- Vealey, R. S., Hayashi, S. W., Garner-Holman, M., & Giacobbi, P. (1998). Sources of sport-confidence: Conceptualization and instrument development. *Journal of Sport & Exercise Psychology, 21*(1), 54-80.
- Weinberg, R. S. (1988). *The mental advantage: Developing your psychological skills in tennis*. Human Kinetics: Champaign, IL.
- Weinberg, R. S., & Gould, D. (2007). *Foundations of sport and exercise psychology* (4th Ed.). Human Kinetics: USA.
- Weinberg, R. S., Grove, R., & Jackson, A. (1992). Strategies for building self-efficacy in tennis players: A comparative analysis of Australian and American coaches. *The Sport Psychologist, 6*, 3-13.
- Weiner, B. (1979). A theory of motivation for some classroom experiences. *Journal of Educational Psychology, 71*, 3-25.
- White, J. (1982). *Rejection*. Reading, Mass: Addison-Wesley.
- Williams, L. (1994). Goal orientations and athletes' preferences for competence information sources. *Journal of Sport and Exercise Psychology, 16*, 416-430.
- Williams, J. M., & Krane, V. (1992). Coping styles and self-reported measures on state anxiety and self confidence. *Journal of Applied Sport psychology, 4*, 54-59.
- Wilson, R. C., Sullivan, P. J., Myers, N. D. & Feltz, D. (2004). Sources of sport confidence of master athletes. *Journal of Sport and Exercise Psychology, 26*, 369-384.
- Wilson, T. E. (1984). Behaviour Therapy. In R.J. Corsini (Ed.). *Current psychotherapies* (3rd Ed.). Itasca, IL: Peacock.

Wood, R. E., & Bandura, A. (1989). Social cognitive theory of organizational management.

Academy of Management Review, 14, 361-384.

Woodman, T., & Hardy, L. (2001). A case study of organisational stress in elite sport. *Journal of Applied Sport Psychology*, 13, 232-263.

Woodman, T., & Hardy, L. (2003). The relative impact of cognitive anxiety and self-confidence upon sport performance: A meta-analysis. *Journal of Sports Sciences*, 21, 443-457.

Zinsser, N., Bunker, L., & Williams, J. M. (2001). Cognitive Techniques for Building Confidence and Enhancing Performance. In J. M. Williams (Ed.). *Applied sport psychology: Personal growth to peak performance* (pp. 284-311). Mayfield Publishing Company: Mountain View, California.

APPENDICES

APPENDIX 1

 <p><i>Sheffield Hallam University</i></p> <p>School of Sport and Leisure Management</p> <p>Research Ethics Committee</p> <p>APPLICATION FOR APPROVAL OF RESEARCH</p>	
---	--

In designing research involving humans, principal investigators should be able to demonstrate a clear intention of benefit to society and the research should be based on sound principles. These criteria will be considered by the Ethics Committee before approving a project. ALL of the following details must be provided, either typewritten or word-processed preferably at least in 11 point font.

Please either tick the appropriate box or provide the information required.

1. Date of Application	01/03/2004
-------------------------------	------------

2. Anticipated Date of Completion	31/08/2004
--	------------

3. Title of Investigation	How and Why does Self-Confidence Facilitate Elite Sport Performance?
----------------------------------	--

4. Subject Area	Sports Psychology
------------------------	-------------------

5. Principal Investigator	Kate Hays
Email address	kate.hays@student.ac.uk
Telephone/mobile number	Work: 0114 225 3996 Mobile: 0787 664 3466

6. Is this								
6.1 a research project?	<input checked="" type="checkbox"/>							
6.2 an undergraduate project? []		<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">Unit Name</th> <th style="width: 50%;">Unit Number</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Unit Name	Unit Number				
Unit Name	Unit Number							
6.3 a postgraduate project? []								

7. Director of Studies/ Supervisor/Tutor	Professor Ian W Maynard
---	-------------------------

8. Intended duration and timing of project	The project is due to commence once approval of the research programme has been granted by the Research Degrees Sub-Committee (RDSC). The RDSC meeting date is March 10th 2004. The duration of the research from data collection to content analysis is expected to take approximately six months (10/03/04 - 31/08/2004).
---	---

9. Location of project (If parts are external to SHU, provide evidence in support in section 19)	The Centre for Sport and Exercise Science, Sheffield Hallam University.
--	---

10. Is this study	
10.1 Collaborative? []	If yes please include appropriate agreements in section 19
10.2.1 Replication [] of	
10.2.2 New [✓]	

11. Participants	
11.1 Number	Approximately 12
11.2 Rationale for this number: (eg calculations of sample size)	Content analysis procedures as recommended by Patton (1990) and Cote et al. (1993) and successfully adapted to sport by Gould, Dieffenbach and Moffatt (2002), Greenleaf, Gould and Dieffenbach (2001), and Durand-Bush and Salmela (2002), will be used in this research. The number of participants in the research outlined above ranged between 10 and 20 and therefore 12 participants is deemed an appropriate number for the present study.
11.3 Criteria for inclusion and exclusion:	All participants will be elite athletes that have represented their country in a World Championship and/or Olympic Games, and also have a top ten world class ranking.
11.4 Does the study have *minors or †vulnerable adults as participants?	Yes [] No [✓]
11.5 Is CRB disclosure required for the Principal Investigator? (To be determined by risk assessment)	Yes [] No [✓] If yes, is standard [] or enhanced [] disclosure required?
<p>*Minors are participants under the age of 18 years. †Vulnerable adults are participants over the age of 16 years who are likely to exhibit:</p> <ul style="list-style-type: none"> a) learning difficulties b) physical illness/impairment c) mental illness/impairment d) advanced age e) any other condition that might render them vulnerable 	

12. Purpose and benefit of investigation

Statement of the research problem with any necessary background information.

(No more than 1 side of A4)

Traditionally, sports psychologists have adopted three approaches to the study of self-confidence in sport: Bandura's (1977) self-efficacy theory, conceptual models of perceived competence (Harter, 1978) and performance expectancy theories (Corbin, 1981). However, in 1986, Vealey provided the first theoretical model in which self-confidence was conceptually based upon the unique context of sport. Sport confidence was defined as 'the belief or degree of certainty that individuals possess about their ability to be successful in sport' (Vealey, 1986, p 222). Since 1986, Vealey has reconceptualised her earlier model, and in 2001 she developed the first integrative model of sport confidence for research and practice. The function of such a model was twofold; to serve as an organizational framework to elicit meaningful extensions to the research examining confidence in sport, and to serve as a foundation for interventions designed to enhance confidence in athletes.

The core psychosocial constructs and processes in the model include the sport confidence construct itself, three domains representing sources of confidence for athletes (achievement, self-regulation, and social climate) and the ABC triangle, which contains the ABC's of sport psychology; affect, behaviour and cognition (how athletes, think, feel and act). Vealey (2001) suggests that sport confidence can be considered the 'mental modifier' meaning that confidence modifies how athletes think about, feel about and respond to all facets of the competitive environment. The way in which athletes appraise the outcomes of successful and unsuccessful performances is important, as the causes used by individuals to explain success or failure in achievement contexts are considered to be effective determinants of their expectancies and future behaviour. Vealey (2001) also identified organizational culture, which relates to the structural aspects of the sport subculture that influence confidence, and demographic and personality characteristics as important factors in the model.

More recently, Vealey (2003) investigated the demands of competitive sport that require confidence and the types of confidence needed to succeed in sport. Three types of confidence were identified: SC-Physical Skills and Training, SC-Cognitive Efficiency, and SC-Resilience. Significant to the multidimensionality of sport confidence, different types of confidence predicted performance in different competitive situations.

Although self-confidence has been consistently identified as an important, if not the most important, influence on athletic performance, the processes and mechanisms underlying confidence effects have largely been ignored. Identifying the precursors of sport confidence is likely to prove valuable in the search for achieving optimal pre-competition affective, cognitive and behavioural states, and further examination of the possible types of sport confidence could provide useful insight for successful interventions targeted towards specific confidence needs.

Organizational stress in elite sport is also likely to be a fruitful area for further investigation as it is, at present, under-researched and the strategies that successful world class sports performers employ to cope with organizational stress are not clear.

In addition, the notion of sport confidence, the sources of sport confidence and the model of sport confidence, are based on research conducted with high school and collegiate athletes. To produce world class athletes, our theories should be tested and our knowledge base extended, by utilising information generated from elite athletes.

The aim of this PhD research is to explore in detail the construct of 'sport confidence' in world class athletes. The research will endeavour to identify the most important sources and types of confidence utilised by world class athletes, how they think about, feel about and respond to competitive situations, and the strategies they use to help protect and maintain their confidence in high pressure situations such as the Olympic games. Using information derived from these participants, it is hoped that an effective intervention for elite athletes to enhance their levels of sport confidence can be developed.

13. Details of the research design and protocol(s)

Study one will be an interview study to extend and develop the research literature examining sport confidence. Both inductive and deductive methods of data collection will be drawn upon. The interview sections will be broadly based upon Vealeys (2001) integrative model of sport confidence, however, the interview questions will be inductive in nature, ensuring the examination of questions and issues beyond what is suggested by deductively derived theory. This approach also serves the original functions of Vealey's (2001) model.

The participants will be interviewed about their feelings of confidence in sport. The topics covered will include: definitional aspects, sources and types of sport confidence, factors that might influence feelings of confidence in sport, strategies to protect and maintain confidence in sport, and the impact of confidence on sport performance.

The interview is designed to last approximately 60 minutes and will be tape recorded so that the participants responses can be transcribed and accurately reproduced. The material will be used for my PhD research and could be used for future publication. However, all information will be released in a confidential manner and anonymity will be guaranteed.

13.2 Are these "minor" procedures as defined in Appendix I of the ethics guidelines?

Yes []

No []

14. Indicative methods of analysis

All tape-recorded interviews will be transcribed verbatim and analysed using both deductive and inductive methods of content analysis (Ezzy, 2002).

15. Substances to be administered (Refer to Appendix V of the ethics guidelines)

15.1 The protocol does not involve the administration of pharmacologically active substances or nutritional supplements. *(Please tick the box if this statement applies and go to section 16)* []

15.2 Name and state the risk category for each substance. If a COSHH assessment is required state how the risks are to be managed.

16. Degree of discomfort that participants might experience

During the course of the interview the participants will be asked about their most confident and best experiences in sport, however, they will also be asked about times when they haven't performed to their best or were not feeling particularly confident. It is possible therefore, that the participants might experience a degree of psychological discomfort in answering some of the interview questions.

17. Outcomes of Risk Assessment

The principal investigator will be conducting interviews alone with participants, however, measures will be taken to become familiar with off campus environments, ensure both participant and investigator have easy access to leave the interview environment at any point, and ensure that another person is always informed as to the location of the investigator and the participant. In addition, the interview will be tape recorded in it's entirety.

All participants will be fully informed of the risks of the research and will be required to sign an informed consent form. It will also be made clear that they are free to withdraw consent or participation at any time, they are free to refuse to answer any of the questions put to them, and that no disadvantage will arise from a decision not to participate. In addition, the interview will be structured to ensure that the last experiences the participants talk about before they leave the interview are positive experiences.

The principal investigator has completed a BSc (Hons) degree in psychology and an MSc degree in sports psychology, in addition to having gained experience working with athletes in a sports psychologists role. Therefore, the principal investigator is able to deal with possible psychological distress experienced by the participant as a result of the interview questions.

18. Safe System of Work

The well-being of the participant and of the principal investigator will be monitored continuously throughout the duration of the interview by the principal investigator. If at any point the participant does become distressed due to the interview content, the interview will be terminated and the participant will be fully debriefed. The interview will also be terminated if either the participant, or the investigator, feel uncomfortable at any time and do not wish to continue.

19. Attachments

(Place a tick in the appropriate description)

- | | |
|--|-------------------------------------|
| 19.1 Risk Assessment(s)
(Include CRB risk assessment) | <input checked="" type="checkbox"/> |
| 19.2 COSHH Assessment | <input type="checkbox"/> |
| 19.2 Participant Information Sheet | <input checked="" type="checkbox"/> |
| 19.3 Informed Consent Form | <input checked="" type="checkbox"/> |
| 19.4 Pre-Test Medical Questionnaire | <input type="checkbox"/> |
| 19.5 Collaboration evidence/support (see 10) | <input type="checkbox"/> |
| 19.6 Collaboration facilities (see 9) | <input type="checkbox"/> |
| 19.7 Clinical Trials Form (FIN 12) | <input type="checkbox"/> |

20. Signature
Principal Investigator

Once this application is approved, I will undertake the study as approved. If circumstances necessitate that changes are made to the approved protocol, I will discuss these with my Project Supervisor. If the supervisor advises that there should be a resubmission to the Ethics Committee, I agree that no work will be carried out using the changed protocol until approval has been sought and formally received.

.....Principal Investigator

21. Approval
Project Supervisor to sign off **EITHER** box A **OR** box B as applicable.

(refer to Appendix 1 and the flowchart in appendix VI of the ethics guidelines)

Box A:

I confirm that the experimental protocol contained in this proposal is based solely on 'minor' procedures, as outlined in Appendix 1 of the School's Ethics Procedures for the Use of Humans in Research document, and therefore does not need to be submitted to the SLMREC.

In terms of ethics approval, I agree the 'minor' procedures proposed here and confirm that the Principal Investigator may proceed with the study as designed.

Project SupervisorDate

Box B:

I confirm that the experimental protocol contained in this proposal is not based solely on 'minor' procedures, as outlined in Appendix 1 of the School's Ethics Procedures for the Use of Humans in Research document, and therefore must be submitted to the SLMREC for approval.

I confirm that the appropriate preparatory work has been undertaken and that this document is in a fit state for submission to SLMREC.

Project Supervisor..... Date



School of Sport and Leisure Management

Research Ethics Committee

Risk Assessment Pro Forma

Procedure	<p>The participants will be interviewed about their feelings of confidence in sport. The topics covered will include: definitional aspects, sources and types of sport confidence, factors that might influence feelings of confidence in sport, strategies to protect and maintain confidence in sport, and the impact of confidence on sport performance.</p> <p>The interview is designed to last approximately 60 minutes and will be tape recorded so that the participants' responses can be transcribed and accurately reproduced. The material will be used for my PhD research and could be used for future publication. However, all information will be released in a confidential manner and anonymity will be guaranteed.</p>
------------------	--

Assessment Number	
--------------------------	--

Date Assessed	19/02/04
----------------------	----------

Assessed By	Kate Hays
--------------------	-----------

Signed	Position
	Principal Investigator

Hazards	Risks and Specific Control Measures
The participants will be asked about their most confident and best experiences in sport, however, they will also be asked about times when they haven't performed to their best or were not feeling particularly confident.	It is possible that the participants might experience a degree of psychological discomfort in answering these questions. However, the interview will be structured to ensure that the last experiences the participants talk about before they leave the interview are positive experiences.

The principal investigator will be conducting interviews in private and might be required to conduct some interviews off campus, depending upon location of participants.

The principal investigator will be conducting interviews alone with participants, however, measures will be taken to become familiar with off campus environments, ensure that both participant and investigator have easy access to leave the interview environment at any point, and ensure that another person is always informed as to the location of the investigator and the participant. In addition, the interview will be tape recorded in it's entirety.

Risk Evaluation (Overall)

Medium risk

General Control Measures

All participants will be fully informed of the risks of the research and will be required to sign an informed consent form. It will also be made clear that they are free to withdraw consent or participation at any time, they are free to refuse to answer any of the questions put to them, and that no disadvantage will arise from a decision not to participate.

The principal investigator is a qualified sports psychologist and therefore able to deal with possible psychological distress experienced by the participant as a result of the interview questions. However, all participants will be world class athletes and therefore highly likely to have already spoken to their coach or even their own sports psychologist about times when they haven't performed to their best or were not feeling particularly confident.

Emergency Procedures

If the participant does become distressed due to the interview content, the interview will be terminated and the participant will be fully debriefed. The interview will also be terminated if either the participant, or the investigator, feel uncomfortable at any time and do not wish to continue.

Monitoring Procedures

The well-being of the participant and of the principal investigator will be monitored continuously throughout the duration of the interview by the principal investigator. If at any point the investigator becomes concerned about the comfort of the participant, the interview will be terminated.



School of Sport and Leisure Management

Research Ethics Committee

Participant Information Sheet

Project Title	How and Why does Self-Confidence Facilitate Elite Sport Performance?
----------------------	--

Name of Participant	
----------------------------	--

Supervisor/Director of Studies	Professor Ian Maynard
---------------------------------------	-----------------------

Principal Investigator	Kate Hays
-------------------------------	-----------

Purpose of Study and Brief Description of Procedures <i>(Not a legal explanation but a simple statement)</i>
--

My name is Kate Hays from the Centre for Sport and Exercise Science at Sheffield Hallam University. Firstly, I would like to thank you for agreeing to participate in this interview. This interview is the first phase of a research study in which I am seeking to understand more about confidence in sport. It is hoped that the information gained from world class athletes such as yourself, can be used to develop effective interventions to enhance levels of sport confidence in elite athletes.

Some of the topics we may cover today include: definitional aspects, sources and types of sport confidence, factors that might influence feelings of confidence in sport, strategies to protect and maintain confidence in sport, and the impact of confidence on sport performance. The interview is orientated around **your** feelings of confidence in **your** sport.

The interview is designed to last approximately 60 minutes and will be tape recorded so that your responses can be transcribed and accurately reproduced. The material will be used for my PhD research and could be used for future publication. I might want to use your descriptions in order to illustrate important ideas, however, all information will be released in a **confidential** manner and your **anonymity** is guaranteed.

I will be asking you about your most confident and best experiences in sport, however, I will also be asking you about times when you haven't performed to your best or were not feeling particularly confident. You may or may not experience a degree of psychological discomfort in answering these questions, however, you are reminded that you are free to withdraw consent or participation at any time, that you are free to refuse to answer any of the questions put to you, and that no disadvantage will arise from a decision not to participate.

Finally, I would like to stress that there are no right or wrong answers, I am simply interested in learning more about **your** personal feelings/perceptions of confidence in sport. Therefore, please be honest in your answers.

Pauses are fine, so if you need to take some time to gather your thoughts before answering a question, please do so.

If you do have any difficulty in recalling your experiences then please say so. This is more beneficial for me than you telling me a fictitious response, or an answer that you think others, or myself might want to hear. In addition, if you are unsure of the question, please ask for clarification or decline to answer, but please do not guess.

At the end of the interview you will be given the opportunity to add anything that you feel is important, but was not covered during the interview.

IF YOU HAVE ANY QUESTIONS, PLEASE ASK THE INTERVIEWER NOW.

If necessary continue overleaf

It has been made clear to me that, should I feel that these Regulations are being infringed or that my interests are otherwise being ignored, neglected or denied, I should inform Professor Edward Winter, Chair of the School of Sport and Leisure Management Research Ethics Committee (Tel: 0114 225 4333) who will undertake to investigate my complaint.

Participant Details

Name..... Age..... Gender.....

Address.....

.....

E-Mail Address.....

Telephone Number(s).....

Sport.....

Event(s)/position(s).....

Number of years competing.....

Current level of competition.....

Number of years competing at this level.....

Highest performance level.....

Major achievements.....

Most confident going into an important competition.....

Least confident going into an important competition.....

Unsuccessful performance.....

Best ever performance.....

Time spent working with a sports psychologist (if applicable).....

Interview start time:

Interview end time:



School of Sport and Leisure Management

Research Ethics Committee

INFORMED CONSENT FORM

TITLE OF PROJECT: How and Why does Self Confidence Facilitate Elite Sport Performance?

The participant should complete the whole of this sheet himself/herself

Have you read the Participant Information Sheet? YES/NO

Have you had an opportunity to ask questions and discuss this study? YES/NO

Have you received satisfactory answers to all of your questions? YES/NO

Have you received enough information about the study? YES/NO

To whom have you spoken?

KATE HAYS

Do you understand that you are free to withdraw from the study:

- at any time
• without having to give a reason for withdrawing
• and no disadvantage will arise from a decision not to participate

Have you had sufficient time to consider the nature of this project? YES/NO

Do you agree to take part in this study? YES/NO

Signed Date

(NAME IN BLOCK LETTERS).....

Signature of Parent / Guardian in the case of a minor

.....

PTO

FOR USE WHEN STILL OR MOVING IMAGES WILL BE RECORDED

Consent to scientific illustration

I hereby confirm that I give consent for photographic and/or videotape and sound recordings (the 'material') to be made of me. I confirm that the purpose for which the material would be used has been explained to me in terms which I have understood and I agree to the use of the material in such circumstances. I understand that if the material is required for use in any other way than that explained to me then my consent to this will be specifically sought.

1. I understand that the material will form part of my confidential records and has value in scientific assessment and I agree to this use of the material.

Signed..... Date.....

Signature of Parent / Guardian in the case of a minor

.....

2. I understand the material has value in teaching and I consent to the material being shown to appropriate professional staff for the purpose of education, staff training and professional development.

Signed..... Date.....

Signature of Parent / Guardian in the case of a minor

.....

I hereby give consent for the photographic recording made of me on..... to be published in an appropriate journal or textbook. It is understood that I have the right to withdraw consent at any time prior to publication but that once the images are in the public domain there may be no opportunity for the effective withdrawal of consent.

Signed Date

Signature of Parent / Guardian in the case of a minor

.....



Direct dial +44 (0) 114 225 4333
Direct fax +44 (0) 114 225 4341

22 March 2004

FAO Kate Hays

Dear Kate

Title of investigation: How and why does self-confidence facilitate elite sport performance?

Approval Number : SLM/2004/Psychology/03/02/b

Thank you for providing the information requested.

I am pleased to inform you that full approval has now been granted for this study.

Yours sincerely

Professor Edward Winter
Chair, SLM Research Ethics Committee

Note: Approval applies until the anticipated date of completion unless there are changes to the procedures, in which case another application should be made.



APPENDIX 2

SECTION ONE: Definition of Confidence, Sources and Types

1) To start, can you please describe to me what you think makes a confident athlete in your sport.

Specific probe questions:

- What are the demands of your sport that require confidence?
- What are the demands of competing at world class level that require confidence?

2) And in terms of confidence, how would you compare yourself to the athlete you have described?

Specific probe questions:

- Has that always been the case throughout your career?

3) Where do you think your confidence in yourself as an athlete comes from?

Specific probe questions:

- What makes you confident?
- Constant source throughout career phases?
- Multiple sources? - most important?

4) Can you give me some specific examples of the types of things you are confident about?

Specific probe questions:

- Do some factors have a greater impact on performance than others?
- Does this differ across situations in sport/competitive calendar?

Before moving on to the next section, is there anything else you would like to add?

SECTION TWO: Organisational Culture and the ABC's

Part a

Please describe to me the time when you felt most confident going into an important competition? This may not be the time when you produced your best ever performance.

1) Can you tell me about anything that happened or any factors that influenced your feelings of confidence during the lead up to competition?

2) Can you tell me about anything that happened or any factors that influenced your levels of confidence on the day of competition?

Specific probe questions:

- What do you think was the main source of your confidence on that day?
- What do you think were the most important factors fuelling your confidence?

3) How would you describe your behaviour during that competition?

- Before, during, after?
- What do you think were the main factors influencing your behaviour?

4) Please describe for me any thoughts that you remember experiencing on the day of competition?

Specific probe questions:

- Before/during?
- What do you think were the main factors influencing your thoughts?

5) Please describe to me how you were feeling on the day of competition?

Specific probe questions:

- Before/during?
- What do you think were the main factors influencing your emotions?

6) Do you have any strategies in place that you use to protect your confidence levels during high pressure situations?

Specific probe questions:

- Do you find any of the strategies that you use more helpful than others?
- Who formulated them?
- When do you tend to use these strategies?

7) What were you focused on as you stepped onto the track, rink, poolside etc?

Specific probe questions:

- Is this typical of your focus just before you are about to compete?

8) What were you focused on during the event?

Specific probe questions:

- Is this typical of your focus during a competitive situation?

9) To what extent do you think that your pre-competition feelings of confidence affected your performance?

Specific probe questions:

- Did some factors influence your performance more than others?

10) Could you tell me about other people's goals and expectations for this competition?

Probes:

- Coach, parents, sport programme, sport organization etc

11) Can you tell me about your personal goals for this competition?

Specific probe questions:

- Who formulated them?
- Did you expect to achieve them?
- Did the types of goal differ in any way from the types of goal normally set?
- Can you describe to me the typical goals you set yourself for training and competition? Examples.

12) What was the outcome of the competition you have described?

Also most successful performance?

1) Why do you think you performed as well as you did?

Specific probe questions:

- Is that generally the reason you perform well do you think?

2) Did your performance at this competition have any effect on the way you approached your next competition?

Probes:

- Confidence levels
- Future performance expectancies?

Before moving on to the next section, is there anything else you would like to add?

Before concluding the interview, is there anything else you would like to add?

Part b

Now I would like you to describe to me the time when you felt least confident going into an important competition? This may not be a time when you performed unsuccessfully.

1) Can you tell me about anything that happened or any factors that effected your feelings of confidence during the lead up to competition?

2) Can you tell me about anything that happened or any factors that effected your levels of confidence on the day of competition?

Specific probe questions:

- What do you think was the main factor responsible for your low levels of confidence?
- What do you think were the most important factors affecting your confidence

3) Do you have any strategies in place that you use to cope with the influences identified above, or to enhance your confidence levels when they are low?

Specific probe questions:

- Do you find any of the strategies that you use more helpful than others?
- Who formulated them?
- When do you tend to use these strategies

4) Please describe for me any thoughts that you remember experiencing on the day of competition?

Specific probe questions:

- What do you think were the main factors influencing your thoughts?

5) Please describe for me how you were feeling emotionally on the day of competition?

Specific probe questions:

- What do you think were the main factors influencing your feelings?

6) How would you describe your behaviour during that competition?

- Before, during, after?
- What do you think were the main factors influencing your behaviour?

7) What were you focused on as you stepped onto the track, rink, poolside etc?

Specific probe questions:

- Is this typical of your focus in a competitive situation (depends on answer from part a)?

8) What were you focused on during the event?

Specific probe questions:

- Is this typical of your focus during a competitive situation? (depends on answer from part a)

9) To what extent do you think that your low levels of pre-competition confidence affected your performance?

Specific probe questions:

- Did some factors influence your performance more than others?

10) Could you tell me about other people's goals and expectations for this competition?

Probes:

- Coach, parents, sport programme, sport organization etc

11) Can you tell me about your personal goals for this competition?

Specific probe questions:

- Who formulated them?
- Did you expect to achieve them?
- Did the types of goal differ in any way from the types of goal normally set?
- Can you describe to me the typical goals you set yourself for training and competition? Examples.

12) What was the outcome of the competition you have described?

Also least successful performance?

1) What do you think were the factors responsible for your performance?

Specific probe questions:

- Is that generally the reason why you may not perform successfully do you think?

2) Did your performance at this competition have any effect on the way you approached your next competition?

Probes:

- Confidence levels
- Future performance expectancies?

Before concluding this section of the interview, is there anything else you would like to add?

SECTION THREE: Attribution

You have described to me already the times in your career when you have experienced both high and low levels of confidence. To conclude the interview, I would now like to ask you about your best ever performance, and also about the times in your career when you did not perform so successfully.

Part a

1) Please can you describe to me a time when you did not perform successfully?

2) What were your goals for this competition?

Specific probe questions:

- Who formulated them?
- Did you expect to achieve them?

3) What do you think were the factors responsible for your performance?

Specific probe questions:

- Is that generally the reason why you may not perform successfully do you think?

4) Did your performance at this competition have any effect on the way you approached your next competition?

Probes:

- Confidence levels
- Future performance expectancies?

Before moving on to the next section, is there anything else you would like to add?

Part b

1) Please can you describe to me your best ever performance?

2) What were your goals for this competition?

Specific probe questions:

- Who formulated them?
- Did you expect to achieve them?

3) Why do you think you performed as well as you did?

Specific probe questions:

- Is that generally the reason you perform well do you think?

4) Did your performance at this competition have any effect on the way you approached your next competition?

Probes:

- Confidence levels
- Future performance expectancies?

Before concluding this section, is there anything else you would like to add?

SECTION FOUR: Concluding Remarks

Right, that just about brings the interview to an end, however, before we finish there are just a couple more questions I would like to ask.

Questions

- 1) Are there any areas that you think I failed to cover relating to your confidence in sport?
- 2) Do you think I led, or influenced your answers away from the things you wanted to get across?
- 3) Do you think the interview could be improved in any way?

I think that is everything that I would like to ask you, is there anything you would like to ask me or anything else you would like to add?

Many thanks for you time and involvement in this interview

 <p><i>Sheffield Hallam University</i></p> <p>Faculty of Health and Wellbeing Research Ethics Committee</p> <p>Sport and Exercise Research Ethics Operating Group</p> <p>APPLICATION FOR APPROVAL OF RESEARCH</p>	
---	--

In designing research involving humans, principal investigators should be able to demonstrate a clear intention of benefit to society and the research should be based on sound principles. These criteria will be considered by the Ethics Committee before approving a project. ALL of the following details must be provided, either typewritten or word-processed preferably at least in 11 point font.

Please either tick the appropriate box or provide the information required.

1. Date of Application	29/11/2005
-------------------------------	------------

2. Anticipated Date of Completion	31/03/2006
--	------------

3. Title of Investigation	Profiling Confidence for Sport
----------------------------------	--------------------------------

4. Subject Area	Sport Psychology
------------------------	------------------

5. Principal Investigator Name	Kate Hays
Email address	k.hays@shu.ac.uk
Telephone/mobile number	
Student number	0114-225-3996 (work) 07892-263-741 (mobile)

6. Is this	
-------------------	--

6.1 a research project?	<input checked="" type="checkbox"/>
-------------------------	-------------------------------------

	Module Name	Module Number
6.2 an undergraduate project? <input type="checkbox"/>		
6.3 a postgraduate project? <input type="checkbox"/>		

7. Director of Studies/ Supervisor/Tutor	Professor Ian Maynard
---	-----------------------

8. Intended duration and timing of project	Once the study has been pilot tested it will be completed within approximately two months, subject to participant availability. The study simply involves conducting one initial sport psychology consultancy with each athlete to profile their sport confidence. This process will take between one and two hours for each athlete.
---	---

9. Location of project (If parts are external to SHU, provide evidence in support in section 19)	The study will either take place at Sheffield Hallam University, or at a location more convenient for the participants involved.
--	--

10. Is this study	
10.1 Collaborative? []	If yes please include appropriate agreements in section 19
10.2.1 Replication [] of	
10.2.2 New [✓]	

11. Participants	
11.1 Number	4
11.2 Rationale for this number: (eg calculations of sample size)	Following the basic method of performance profiling advocated by Butler and Hardy (1992), the primary researcher will conduct a sport psychology consultancy with each athlete and profile their sport confidence. Butler and Hardy (1992) used four participants to demonstrate this method, and Butler, Smith and Irwin (1993) provided further evidence of the applicability of the performance profile in their study of three athletes.
11.3 Criteria for inclusion and exclusion for example age and gender:	All participants will be elite athletes that have a place on an Olympic Programme (potential or performance).
11.4 Procedures for recruitment for example location and methods:	Participants will be recruited through contacts that the Centre for Sport and Exercise has in place with GB diving, swimming, and sailing.
11.5 Does the study have *minors or †vulnerable adults as participants?	Yes [✓] No []
11.6 Is CRB disclosure required for the Principal Investigator? (To be determined by risk assessment)	Yes [✓] No [] If yes, is standard [✓] or enhanced [] disclosure required?

12. Purpose and benefit of investigation

*Statement of the research problem with any necessary background information.
(No more than 1 side of A4)*

Confidence modifies how athletes feel about, respond to, and think about everything that happens to them in sport (Vealey, 2001). Since sport confidence is seemingly critical to sport performance, it is unsurprising that a wealth of research in sport psychology has been directed towards developing an in-depth understanding of this construct. As Bandura (1990) stated, advances in a field are best achieved when the phenomena of interest are rooted in theories that specify their determinants, thus, Vealey, Hayashi, Garner-Holman, & Giacobbi (1998) were the first to identify sources of confidence salient to athletes specifically within the sporting context. Psychometric evidence obtained from over 500 high school and collegiate athletes from a variety of sports, demonstrated that the Sources of Sport Confidence Questionnaire (SSCQ; Vealey et al., 1998) was a reliable and valid measure of nine sources of confidence in athletes. However, in a study examining the sources of sport confidence in master athletes, Wilson, Sullivan, Myers, and Feltz (2004) failed to replicate the proposed 9-factor structure of the Sources of Sport Confidence Questionnaire (SSCQ; Vealey et al., 1998), suggesting potential inconsistencies between different athlete groups. Indeed, World Class sport performers have identified supplementary sources of confidence to those identified by the high school and collegiate athletes in Vealey et al's (1998) study (Hays, Maynard, Thomas & Bawden, 2005 (*under review*)). Gender variations in the sources of confidence identified by athletes (e.g., Gill, 1988; Jones, Swain & Cale, 1991; Hays et al., 2005 (*under review*); Vealey et al., 1998) provide further evidence that the level of competition and organisational climate might influence the sources of confidence utilised by them.

In addition to identifying sources of sport confidence used by World Class athletes, Hays et al's (2005) study was the first of its kind to identify types of confidence necessary to succeed in sport. Traditional sport confidence research (e.g., Vealey, 1986; Vealey et al., 1998; Vealey, 2001) has conceptualized sport confidence as a uni-dimensional construct, yet the identification of confidence types is testament to the multidimensional nature of sport confidence and Hays et al., (2005) suggested that the types of sport confidence identified by athletes should be viewed as evidence-based belief systems grounded in their sources of sport confidence.

From an intervention perspective, there is evidence to suggest that the factors responsible for debilitating athletes sport confidence are directly related to their sources of sport confidence and influenced by gender (Hays et al., 2005). Furthermore, despite thirteen of the fourteen athletes in Hays et al's., (2005) study implementing a strategy to try and enhance their feelings of sport confidence when they were low, none of the athletes were successful in doing so. Consequently, they suffered performance decrements. These findings highlight the importance of targeting interventions toward protecting and maintaining high sport confidence levels during competition preparation phases, as it would seem that in this instance, prevention is certainly better than cure.

The development of interventions targeted towards protecting and enhancing an athlete's sources and types of confidence is warranted. However, since both are influenced by demographic, social and/or organizational factors, a tool to identify an individual's particular confidence needs (i.e., sources and types of confidence), regardless of their gender, sport level or sport type is urgently required. Eliciting information which is important to the performer, in contrast to tests or questionnaires that plot the performer against predetermined axes, is in accordance with Personal Construct Theory (Kelly, 1955), the general framework on which this study will be based. The performance profile (Butler, 1989) is a natural application of Kelly's (1955) personal construct theory and enables the performer to construct a picture of him or herself rather than forcing him or her to respond to fixed measures. To date, this approach has primarily focused on generic physical, technical, tactical and psychological components, providing a holistic overview of preparation and performance. Sport confidence is a multidimensional construct, comprising several sources and types which all contribute to an athlete's overall feelings of generic sport confidence. Consequently, the present study will provide an adaptation of performance profiling to sport-confidence specifically.

13. Details of the research design and protocol(s)

13.1 provide details.

If a Mode B support project is being proposed please state the protocols under the following headings:

a. needs analysis; b. potential outcome; c proposed interventions.

Following the basic method of performance profiling advocated by Butler and Hardy (1992), the primary researcher will conduct an initial sport psychology consultancy with each athlete and adhere to three main stages: Introducing the idea, eliciting constructs and assessment.

Stage 1: Introducing the idea

Introductory comments pertaining to sport confidence and the influence of sport confidence on sport performance will be provided to the athlete and the potential benefits of effectively assessing their sport confidence levels will be highlighted.

Stage 2: Eliciting Constructs

Each athlete's sources and types of sport confidence will be elicited by adopting questions used by Hays et al., (2005) to identify sources and types of sport confidence in World Class athletes. To provide assistance in generating a broad range of SC sources and types, and to create a consistent level of depth across the participants, each athlete will also be asked to recall the time that they had been most and least confident going into an important competition, and will be further questioned about their sources and types of sport confidence in those situations. Each athlete will also be given the opportunity to add any other important information that might be overlooked during the process.

Stage 3: Assessment

Once the athlete has been encouraged to produce a comprehensive profile of their sport confidence, they will be asked to assess their current sport confidence levels. Each athlete will be asked to rate himself or herself on each of their types of sport confidence and these will be recorded on a visual profile. For each type of confidence, the athlete will be asked to rate how confident he or she currently perceives him/herself.

13.2 Are these "minor" procedures as defined in Appendix I of the ethics guidelines?

Yes []

No [✓]

13.3 If you answered 'No' in Section 13.2, list the procedures that are not minor.

The method follows minor procedures; however, the use of participants under the age of 18 is a major procedure. Unfortunately this is unavoidable as the participant sample needs to comprise of Olympic programme athletes who have not been exposed to sport psychology. Such a sample is likely to include junior athletes.

14. Indicative methods of analysis

14.1 Provide details of the quantitative and qualitative analysis to be used.

Each athlete will be encouraged to produce a comprehensive profile of their sport confidence, and asked to assess their current sport confidence levels. Each athlete will be asked to rate himself or herself on each of their types of sport confidence and these will be recorded on a visual profile. For each type of confidence, the athlete will be asked to rate how confident he or she currently perceives him/herself. The purpose of this paper is to explore the adaptability of performance profiling to the assessment of sport confidence in a consultancy setting. The completed profiles will provide the results and as such, no traditional qualitative or quantitative analysis will be used.

15. Substances to be administered (Refer to Appendix V of the ethics guidelines)

15.1 The protocol does not involve the administration of pharmacologically active substances or nutritional supplements. *(Please tick the box if this statement applies and go to section 16)* [✓]

15.2 Name and state the risk category for each substance. If a COSHH assessment is required state how the risks are to be managed.

16. Degree of discomfort that participants might experience

16.1 To consider the degree of physical or psychological discomfort that will be experienced by the participants. State the details which must be included in the participant information sheet to ensure that the participants are fully informed about any discomfort that they may experience.

During the course of the study the participants will be asked about their most confident and best experiences in sport, however, they will also be asked about times when they haven't performed to their best or were not feeling particularly confident. Therefore, it is possible that the participants might experience a degree of psychological discomfort in identifying their least confident career moments.

17. Outcomes of Risk Assessment

17.1 Provide details of the control measures arising out of the assessment of risk including the nature of supervision and support required during the experimental phase of the project.

The principal investigator will be conducting consultancies alone with participants, however, measures will be taken to become familiar with off campus environments, ensure both participant and investigator have easy access to leave the consultancy environment at any point, and ensure that another person is always informed as to the location of the investigator and the participant. Any consultancy conducted with a participant under the age of 18 will take place in a public environment where both the participant and principal investigator are in the view of a third party at all times. In addition, all consultancies will be tape recorded or video taped in their entirety.

All participants will be fully informed of the risks of the research and will be required to sign an informed consent form. It will also be made clear that they are free to withdraw consent or participation at any time, they are free to refuse to answer any of the questions put to them, and that no disadvantage will arise from a decision not to participate. In addition, the consultancy will be structured to ensure that the last experiences the participants talk about before they leave the consultancy are positive experiences.

The principal investigator has completed a BSc (Hons) degree in psychology and an MSc degree in sports psychology. In addition, she has three years experience working with junior and senior Olympic programme athletes. Thus, the principal investigator is able to deal with possible psychological distress experienced by the participant as a result of the consultancy questions.

18. Safe System of Work

18.1 Indicate how the control measures outlined in section 17.1 will be implemented to minimise the risks in undertaking the research protocol (refer to 13.1). State the technical skills needed by the Principal Investigator to ensure safe working.

The well-being of the participant and of the principal investigator will be monitored continuously throughout the duration of the consultancy by the principal investigator. If at any point the participant does become distressed due to the consultancy content, the consultancy will be terminated and the participant will be fully debriefed. The consultancy will also be terminated if either the participant, or the investigator, feels uncomfortable at any time and does not wish to continue.

19. Attachments*(Place a tick in the appropriate description)*

- | | |
|--|-------------------------------------|
| 19.1 Risk Assessment(s)
(Include CRB risk assessment) | <input checked="" type="checkbox"/> |
| 19.2 COSHH Assessment | <input type="checkbox"/> |
| 19.2 Participant Information Sheet | <input checked="" type="checkbox"/> |
| 19.3 Informed Consent Form | <input checked="" type="checkbox"/> |
| 19.4 Pre-Test Medical Questionnaire | <input type="checkbox"/> |
| 19.5 Collaboration evidence/support (see 10) | <input type="checkbox"/> |
| 19.6 Collaboration facilities (see 9) | <input type="checkbox"/> |
| 19.7 Clinical Trials Form (FIN 12) | <input type="checkbox"/> |

Please note, the principal investigator (Kate Hays) has obtained standard CRB disclosure.

<p>20. Signature Principal Investigator</p>	<p>Once this application is approved, I will undertake the study as approved. If circumstances necessitate that changes are made to the approved protocol, I will discuss these with my Project Supervisor. If the supervisor advises that there should be a resubmission to the Ethics Committee, I agree that no work will be carried out using the changed protocol until approval has been sought and formally received.</p> <p>.....Principal Investigator</p> <p>Name</p>
<p>21. Approval Project Supervisor to sign off <u>EITHER</u> box A <u>OR</u> box B as applicable.</p> <p><i>(refer to Appendix I and the flowchart in appendix VI of the ethics guidelines)</i></p>	<p>Box A: I confirm that the experimental protocol contained in this proposal is based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Operating Group Procedures for the Use of Humans in Research document, and therefore does not need to be submitted to the HWB Sport and Exercise Research Ethics Operating Group.</p> <p>In terms of ethics approval, I agree the 'minor' procedures proposed here and confirm that the Principal Investigator may proceed with the study as designed.</p> <p>Project SupervisorDate</p> <p>Name</p>
	<p>Box B: I confirm that the experimental protocol contained in this proposal is <u>not</u> based solely on 'minor' procedures, as outlined in Appendix 1 of the HWB Sport and Exercise Research Ethics Operating Group Procedures for the Use of Humans in Research document, and therefore <u>must</u> be submitted to the HWB Sport and Exercise Research Ethics Operating Group for approval.</p> <p>I confirm that the appropriate preparatory work has been undertaken and that this document is in a fit state for submission to the HWB Sport and Exercise Research Ethics Operating Group.</p> <p>Project Supervisor..... Date</p> <p>Name</p>
<p>22. Signature Technician</p>	<p>I confirm that I have seen the full and approved application for ethics approval and technical support will be provided.</p> <p>Technician Date</p> <p>Name</p>



**Faculty of Health and Wellbeing Research Ethics Committee
Sport and Exercise Research Ethics Operating Group**

Risk Assessment Pro Forma

Procedure	Following the basic method of performance profiling advocated by Butler and Hardy (1992), the primary researcher will conduct a sport psychology consultancy with each athlete and profile their sport confidence.
------------------	--

Assessment Number	
--------------------------	--

Date Assessed	29/11/2005
----------------------	------------

Assessed By	Kate Hays
--------------------	-----------

Signed	Position
	Principal Investigator

Hazards	Risks and Specific Control Measures
Psychological Discomfort - The participants will be asked about their most confident and best experiences in sport, however, they will also be asked about times when they haven't performed to their best or were not feeling particularly confident.	The consultancy will be structured to ensure that the last experiences the participants talk about before they leave the interview are positive experiences.
Privacy - The principal investigator will be conducting the consultancies alone with the participants and might be required to conduct some consultancies off campus, depending upon location of participants.	Measures will be taken to become familiar with off campus environments, ensure that both participant and investigator have easy access to leave the consultancy environment at any point, and ensure that another person is always informed as to the location of the investigator and the participant. Any consultancy conducted with a participant under the age of 18 will take place in a public environment where both the participant and principal investigator are in the view of a third party at all times. In addition, all consultancies will be tape recorded or video taped in their entirety.

Risk Evaluation (Overall)

Low - All participants will be elite athletes and therefore highly likely to have already spoken to their coach or even their own sports psychologist about times when they haven't performed to their best or were not feeling particularly confident. Furthermore, the questions are taken from the first study of this research programme. None of the athletes in the first phase of this research suffered any discomfort from the questions asked.

General Control Measures

Is a pre-screen medical questionnaire required? Yes [] No []

All participants will be fully informed of the risks of the research and will be required to sign an informed consent form. The signature of a Parent / Guardian will be obtained in the case of a minor. Each participant will also be made aware that they are free to withdraw consent or participation at any time, that they are free to refuse to answer any of the questions put to them, and that no disadvantage will arise from a decision not to participate.

The principal investigator is a qualified sports psychologist and therefore able to deal with possible psychological distress experienced by the participant as a result of the consultancy questions.

Emergency Procedures

If the participant does become distressed the consultancy will be terminated and the participant will be fully debriefed. The consultancy will also be terminated if either the participant, or the investigator, feels uncomfortable at any time and does not wish to continue.

Monitoring Procedures

The well-being of the participant and of the principal investigator will be monitored continuously throughout the duration of the interview by the principal investigator. If at any point the investigator becomes concerned about the comfort of the participant, the consultancy will be terminated.

Review Period**Reviewed By**

Professor Ian Maynard

Date

29/11/2005



**Faculty of Health and Wellbeing Research Ethics Committee
Sport and Exercise Research Ethics Operating Group**

Participant Information Sheet

Project Title	Profiling Confidence for Sport
----------------------	--------------------------------

Supervisor/Director of Studies	Professor Ian Maynard
---------------------------------------	-----------------------

Principal Investigator	Kate Hays
-------------------------------	-----------

Principal Investigator telephone/mobile number	Work: 0114-225-3996 • Mobile: 07832-263-741
---	---

Purpose of Study and Brief Description of Procedures <i>(Not a legal explanation but a simple statement)</i>
--

My name is Kate Hays from the Centre for Sport and Exercise Science at Sheffield Hallam University. Firstly, I would like to thank you for agreeing to participate in this consultancy. This is the second phase of a research study in which I am seeking to develop an effective method of assessing an athlete's sport confidence so that interventions can be targeted towards their individual needs. The design of the profiling tool used during this consultancy is based upon information gained from World Championship and Olympic Games medallists, and it is possible that the information derived from you might form the basis of an intervention targeted towards enhancing or maintaining your sport confidence.

The consultancy will be divided into three main sections. During the first section you will be provided with an explanation of the role of sport confidence in sport performance and the possible benefits of profiling your sources and types of sport confidence to accurately assess your sport confidence levels. You will also be given the opportunity to ask any questions that you might have. During section two, you will be asked to identify your sources and types of sport confidence and then describe the time that you were most and least confident going into an important competition. You will be further questioned about your sources and types of confidence in each of those situations and given the opportunity to add any other important information that you feel might have been overlooked. During the third and final section of the consultancy you will be asked to assess your current sport confidence levels. You will be asked to rate yourself on each of your identified types of sport confidence and these will be recorded on a visual profile. The consultancy will be orientated around **your** feelings of confidence in **your** sport, thus, the completed profile will be specific to you.

The consultancy will last between 60 and 120 minutes and will be video taped so that a second researcher can check your responses against your completed profile to ensure an accurate representation of what you have said. The material will be used for my PhD research and could be used for future publication. I might want to use your descriptions in order to illustrate important ideas, however, all information will be released in a **confidential** manner and your **anonymity** is guaranteed.

I will be asking you about your most confident experiences in sport, however, I will also be asking you about times when you were not feeling particularly confident. You may or may not experience a degree of psychological discomfort in answering these questions, however, you are reminded that you are free to withdraw consent or participation at any time, that you are free to refuse to answer any of the questions put to you, and that no disadvantage will arise from a decision not to participate.

Finally, I would like to stress that there are no right or wrong answers; I am simply interested in learning more about **your** personal feelings/perceptions of confidence in sport. Therefore, please be honest in your answers. Pauses are fine, so if you do need to take some time to gather your thoughts before answering a question then please do so. If you have any difficulty in recalling your experiences then please say so. This is more beneficial for me than you telling me a fictitious response, or an answer that you think I might want to hear. In addition, if you are unsure of the question, please ask for clarification or decline to answer, but please do not guess.

It has been made clear to me that, should I feel that these Regulations are being infringed or that my interests are otherwise being ignored, neglected or denied, I should inform Professor Edward Winter, Chair of the Faculty of Health and Wellbeing Research Ethics Committee (Tel: 0114 225 4333) who will undertake to investigate my complaint.

Participant Details

Name..... Age..... Gender.....

Address.....

E-Mail Address.....

Telephone Number(s).....

Sport.....

Event(s)/position(s).....

Number of years competing.....

Current level of competition.....

Number of years competing at this level.....

Highest performance level.....

Major achievements.....

Most confident going into an important competition.....

Least confident going into an important competition.....

Time spent working with a sports psychologist (if applicable).....

Consultancy start time:

Consultancy end time:



**Faculty of Health and Wellbeing Research Ethics Committee
Sport and Exercise Research Ethics Operating Group**

INFORMED CONSENT FORM

TITLE OF PROJECT: Profiling Confidence for Sport

The participant should complete the whole of this sheet himself/herself

Have you read the Participant Information Sheet? YES/NO

Have you had an opportunity to ask questions and discuss this study? YES/NO

Have you received satisfactory answers to all of your questions? YES/NO

Have you received enough information about the study? YES/NO

To whom have you spoken?
KATE HAYS
Do you understand that you are free to withdraw from the study:
• at any time
• without having to give a reason for withdrawing
• and without affecting your future medical care YES/NO

Have you had sufficient time to consider the nature of this project? YES/NO

Do you agree to take part in this study? YES/NO

Signed Date

(NAME IN BLOCK LETTERS).....

Signature of Parent / Guardian in the case of a minor

.....

PTO

FOR USE WHEN STILL OR MOVING IMAGES WILL BE RECORDED

Consent to scientific illustration

I hereby confirm that I give consent for photographic and/or videotape and sound recordings (the 'material') to be made of me. I confirm that the purpose for which the material would be used has been explained to me in terms which I have understood and I agree to the use of the material in such circumstances. I understand that if the material is required for use in any other way than that explained to me then my consent to this will be specifically sought.

1. I understand that the material will form part of my confidential records and has value in scientific assessment and I agree to this use of the material.

Signed..... Date.....

Signature of Parent / Guardian in the case of a minor

.....

2. I understand the material has value in teaching and I consent to the material being shown to appropriate professional staff for the purpose of education, staff training and professional development.

Signed..... Date.....

Signature of Parent / Guardian in the case of a minor

.....

I hereby give consent for the photographic recording made of me on..... to be published in an appropriate journal or textbook. It is understood that I have the right to withdraw consent at any time prior to publication but that once the images are in the public domain there may be no opportunity for the effective withdrawal of consent.

Signed Date

Signature of Parent / Guardian in the case of a minor

.....



KATE HAYS
74 PEVERIL ROAD
HUNTERS BAR
SHEFFIELD
SOUTH YORKSHIRE
UNITED KINGDOM
S11 7AR

64593701

A copy of this Disclosure has been sent to

CAROLINE PARRY
HUMAN RESOURCES ADVISER
SHEFFIELD HALLAM UNIVERSITY
HOWARD STREET
SHEFFIELD
SOUTH YORKSHIRE
UNITED KINGDOM
S1 1WB

Applicant copy

Standard Disclosure

Page 1 of 2

disclosure

Disclosure Number 001113794137

Date of Issue: 04 NOVEMBER 2005

Applicant Personal Details

Surname: HAYS
Forename(s): KATE
Other Names: NONE DECLARED
Date of Birth: 30 MAY 1980
Place of Birth: CROYDON SURREY
Gender: FEMALE

Employment Details

Position applied for:
SPORT PSYCHOLOGIST

Name of Employer:
CENTRE FOR SPORT AND EX SCIENC

Countersignatory Details

Registered Person/Body:
SHEFFIELD HALLAM UNIVERSITY

Countersignatory:
CAROLINE PARRY

Police Records of Convictions, Cautions, Reprimands and Final Warnings

NONE RECORDED

Information from the list held under Section 142 of the Education Act 2002.

NONE RECORDED

Protection of Children Act List information

NONE RECORDED

Disclosure Number 001113794137

Date of Issue: 04 NOVEMBER 2005

Applicant Personal Details

Surname: HAYS
Forename(s): KATE
Other Names: NONE DECLARED
Date of Birth: 30 MAY 1980
Place of Birth: CROYDON SURREY
Gender: FEMALE

Employment Details

Position applied for:
SPORT PSYCHOLOGIST
Name of Employer:
CENTRE FOR SPORT AND EX SCIENC

Countersignatory Details

Registered Person/Body:
SHEFFIELD HALLAM UNIVERSITY
Countersignatory:
CAROLINE PARRY

Police Records of Convictions, Cautions, Reprimands and Final Warnings

NONE RECORDED

Information from the list held under Section 142 of the Education Act 2002.

NONE RECORDED

Protection of Children Act List information

NONE RECORDED

Protection of Vulnerable Adults List information

NONE RECORDED

Standard Disclosure

This document is a Criminal Record Certificate within the meaning of sections 113 and 114 of the Police Act 1997.

Use of Disclosure information

This Disclosure must be used in accordance with the Code of Practice and any other guidance issued by the Criminal Records Bureau (CRB). Particular attention must be paid to the guidance on the fair use of information in respect of those whose Disclosures reveal a conviction or similar matter.

This Disclosure is issued in accordance with part V of the Police Act 1997, which creates a number of criminal offences. These offences include forgery or alteration of Disclosures, obtaining Disclosures under false pretences and using a Disclosure issued to another person as if it were one's own.

Continued on page 2

THIS DISCLOSURE IS NOT EVIDENCE OF IDENTITY

Criminal Records Bureau, PO Box 165, Liverpool, L69 3JD. Helpline: 0870 90 90 844

© Crown Copyright 2005

Faculty of Health and Wellbeing Research Ethics Committee
Sport and Exercise Research Ethics Operating Group
Report Form

Title: Profiling confidence for sport

Principal Investigator: Kate Hays

Checklist:	Application form	√
	Informed consent form	√
	Risk assessment form(s)	√
	Participant information sheet	√
	Pre-screening form	x
	Pre-screening form (under 18)	x
	Collaboration evidence/support	n/a
	CRB Disclosure form	√

Recommendation:

Acceptable:

Not acceptable, see comments:

Acceptable, but see comments:

Comments:

1. Proposed start date of research unclear. (section 8)
2. Storage/use of video tapes needs clarification. (section 17)
3. Unclear if the participants are required to not have had previous experience of sport psychology. (section 13.3 and risk assessment)
4. Risk assessment requires signatures.

Signature : Edward Winter Date: 20th Dec 2005

Professor Edward Winter, Chair
Faculty of Health and Wellbeing Research Ethics Committee
Sport and Exercise Research Ethics Operating Group

Note: Approval applies until the anticipated date of completion unless there are changes to the procedures, in which case another application should be made.

Comments from the Ethics Committee have been addressed.

Signature of Tutor / Director of Studies / Supervisor :

.....

Date:

Name of Tutor / Director of Studies / Supervisor : Ian Maynard

APPENDIX 4

Stage 1: Introducing the idea

1. Explain the importance of sport confidence on performance - ABC's
2. Explain that sport confidence is a multidimensional construct and athlete specific - to most effectively assess an athlete's sport confidence it is necessary to produce an individual sport confidence profile.
3. Explain that the purpose of the session is to identify the athlete's types and sources of sport confidence and produce an individualised confidence profile that can be used to raise self-awareness and provide an evaluation tool throughout the season.
4. Explain what is meant by a source and type of confidence
5. Show the athlete the profile which will be completed during the consultancy and explain.

Stage 2: Eliciting Constructs

1. To start, can you tell me what you need to be confident about to perform successfully in your sport?

Specific probe questions:

- What are the demands of your sport that require confidence?
- What are the demands of competing at world class level that require confidence?

2. What are you confident about?
3. Where do you think that type of confidence in yourself as an athlete comes from?

Specific probe questions:

- What makes you confident?

4. Can you think of the time that you felt most confident going into an important competition? This may not be the time when you produced your best ever performance.
5. What were you confident about as you stepped onto the track, rink, poolside etc? What were you confident about on that day.
6. Can you tell me about anything that happened or any factors that influenced your feelings of confidence during the lead up to competition?
7. Can you tell me about anything that happened or any factors that influenced your levels of confidence on the day of competition?

Identifying sport confidence debilitators

8. Please could you describe to me the time when you felt least confident going into an important competition? This may not be a time when you performed unsuccessfully.
9. Can you tell me about anything that happened or any factors that affected your feelings of confidence during the lead up to competition?
10. Can you tell me about anything that happened or any factors that affected your levels of confidence on the day of competition?

Specific probe questions:

- What do you think was the main factor responsible for your low levels of confidence?
 - What do you think were the most important factors affecting your confidence
11. Are there any areas that you think we have failed to cover relating to your confidence in sport?

Stage 3: Assessment

Ask the athlete to rate themselves on each of their identified types of sport confidence.

1. On a scale of 1-7, with 1 being not confident at all and 7 being very confident, how confident are you about your _____ (type of confidence i.e., skill execution)?
2. Why do you feel that you are a 3 on that rather than a 7?
3. What changes do you think you would have to make in order to be a 7?
4. How might you go about making these changes?
5. What would be a good first step?
6. Are any of your types of confidence more important than others? Do some factors have a greater impact on performance than others?
7. Debrief the athlete and close the consultancy in your usual manner.

Reflective Practice

Please use Johns' (1994) Structured Reflection Procedures (as revised by Anderson, 1999a) to guide your reflective practice

Core question: What information do I need access to in order to learn through this consulting experience?

Cue Questions

1.0 Description of the Consulting Experience

- 1.1: Phenomenon: Describe the "here and now" of the experience. (*where, when, what*)
- 1.2: Causal: What essential factors contributed to this experience? (*why*)
- 1.3: Context: Who are the significant background actors in this experience? (*who*)
- 1.4: Clarifying: Put it back together and establish what the key issues are in this experience that I need to pay attention to.

2.0 Reflection

- 2.1: What was I trying to achieve?
- 2.2: Why did I intervene as I did?
- 2.3: What internal factors influenced my actions? (*thoughts, feelings, previous experience*)
- 2.4: What external factors influenced my actions? (*other people, organizational factors, time*)
- 2.5: What sources of knowledge did/should have influenced my decision making?

3.0 Consequences of Actions

- 3.1: What were the consequences of my actions for? (*what did I learn/realize -cognitive component: myself, the athlete, the people I work with*)
- 3.2: How did I feel about this experience *when it was happening?* (*affective*)
- 3.3: How did the athlete feel?
- 3.4: How did I know what the athlete felt like?

4.0 Alternative Tactics

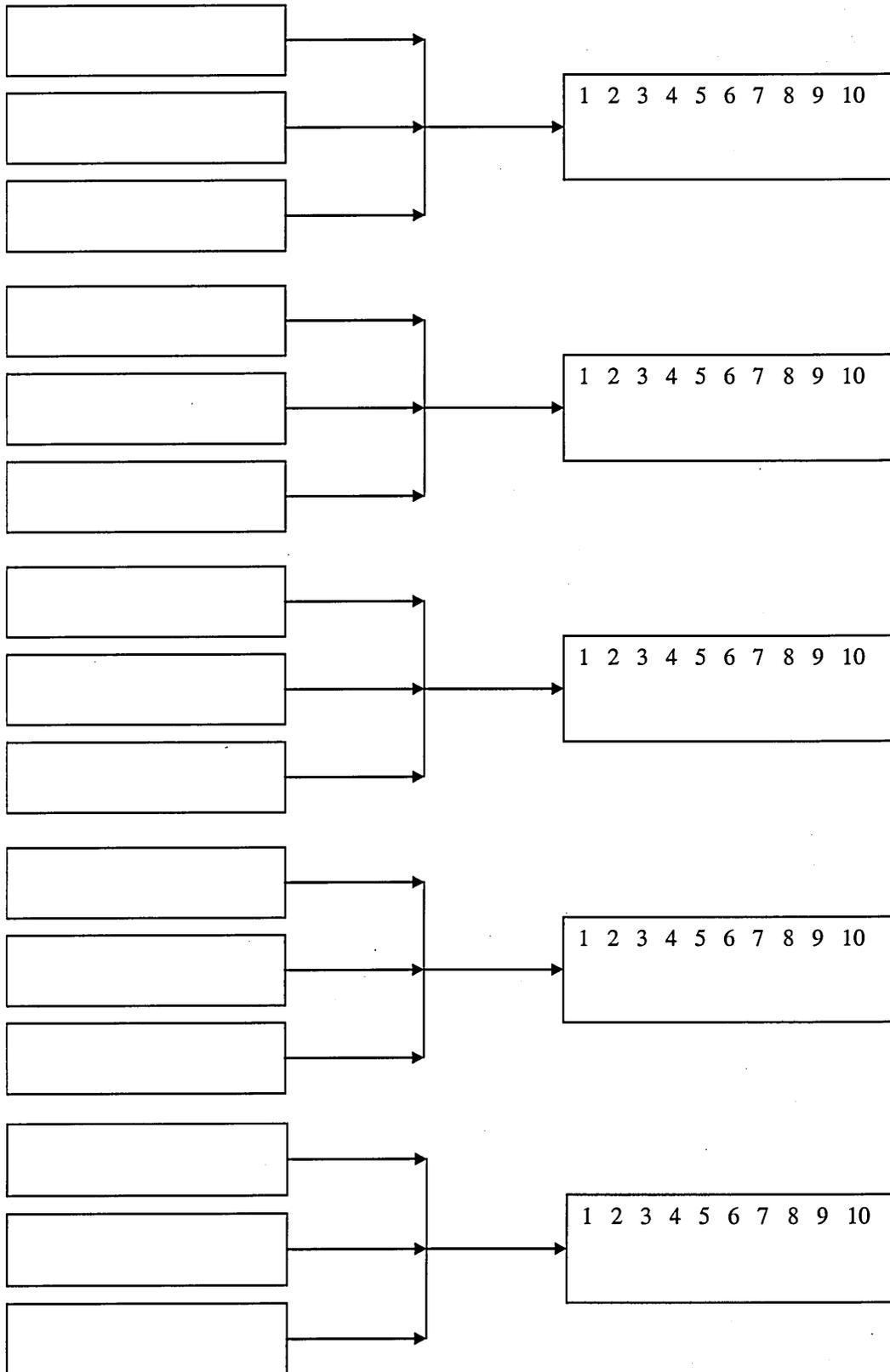
- 4.1: Could I have dealt with the situation better?
- 4.2: What other choices did I have?
- 4.3: What would be the consequences of these choices?

5.0 Learning

- 5.1: How do I now feel about this experience?
- 5.2: How have I made sense of this experience in light of past experiences and future practice?
- 5.3: Action: Write down the key lessons in your notebook.

Sources of Sport Confidence

Type of Sport Confidence



APPENDIX 5

City of Sheffield Swim Squad - Championship Preparation

What if....

I get ill?

- Think long-term
- Make a choice about thought content i.e. I can either focus on illness OR put it out of my mind by focusing on strengths/positives
- Remember that I have competed well when I have been ill in the past
- Maintain team spirit and support

"Even though just before I was about to compete I missed the opening ceremony because I was being sick and I was being quarantined, I still stood on that board really knowing that I was gonna perform really well. Even though it wasn't ideal being sick two days before, I still stood on the board thinking I'm diving the best I've ever dived, I'm gonna enjoy this, and that's what I did"

Olympic Diving Medallist

I have a poor first swim?

- Evaluate race with coach - identify factors responsible for underperformance and generate strategies to counter them
- Identify strengths and focus on positive aspects of performance, confident reminders for following day
- Keep it in perspective - one poor race does not have to equate to a poor championship!
- Turn it around i.e. I've got the poor swim out in the first day, now I can only improve!

"I've written down in the back of my logbook all these contingency plans, like what I'm gonna do if say the heats don't go that well.....and it's stuff like ensure I get to the warm-down within a certain time, ensure that I get the best swim-down, get straight back to the hotel and stuff like that, cos then it makes you feel like you're following a plan and it makes you feel that little bit more 'well it's ok cos I've planned it"

World Championship and Commonwealth medallist (swimming)

I can't get focused?

- Relive previous successful performances and identify what works for me i.e., distraction/time alone etc
- Identify cue words that will get me task focused i.e. easy speed, relaxed and in control etc
- Execute pre-performance routine to maintain familiarity and confidence

I hit adaptation?

- Make a choice about thought content i.e. focus on physical feelings OR put it out of my mind by focusing on strengths/positives
- Knowledge of training - look back on weeks of preparation and remind myself that I can't lose speed/fitness overnight
- Maintain team spirit and support

I am placed in a fast/slow heat? Mrs Rose is timing me? The blocks are wobbly?

- Focus on controllable factors i.e. my race plan, my preparation, my strengths
- Heat draw is not controllable, neither are race outcomes, crowd, opposition, blocks, officials etc.

"Ain't no use worryin bout things beyond your control, cos if there beyond your control, ain't no use worryin. Ain't no use worryin bout things within your control, cos if you've got them under control, ain't no use worryin".

Ed Moses (Olympic gold medallist 400m Hurdles 1976, 1984 and former world record holder)

My goggles snap?

- Make sure I have a spare pair
- Make sure I'm prepared to race without
- Know the rules i.e. can stop to take goggles off

I get injured?

- I have nothing to lose - just go in there and do what I can do
- Long-term thinking
- Be realistic about what I can and can't achieve - adjust goals with coach to reduce pressure

"I was able to focus and tell myself that I'm fine, which a lot of athletes have an ability to do, they can be so strong willed that they can actually almost bypass their problems mentally. I know athletes who've had really niggling long-term injuries who actually just forced themselves to almost bypass the problem mentally. And I think that's probably what I did".

Multiple Olympic and World Championship Gold medallist and World Record Holder

I feel under pressure? I can't control my nerves?

- Ratio breathing
 - psyche up: breathe in for 8, out for 4.
 - Relax: Breathe in for 4 and out for 8.
- Identify what works for me - how have I coped under pressure previously? What techniques have been successful for my team-mates?
 - Talk to team-mates (distraction)
 - Music
 - Imagery
 - Positive self-talk
 - Take self away from others
- Talk to the person that is most likely to make me feel good and help me to enhance my confidence i.e. coach, senior swimmer, team-mate - communicate my thoughts/feelings.

There is a lack of team spirit?

- Get behind team-mates
- Execute team warm-up
- Feed off each other
- Pick each other up
- Support each other
- Show a united front - wear the same kit!

The train/bus is late?

- Check the timetables in advance
- Be aware of the time I need to arrive at the venue - ensure parents are aware if they are taking me.
- Prevention is better than cure - ensure that I have left enough time to arrive at the venue even if there is a problem with the train/bus.

My race plan goes wrong?

- Evaluate race with coach - identify factors responsible for underperformance and make necessary revisions to plan.
- Identify strengths and focus on positive aspects of performance, confident reminders for following day
- Keep it in perspective - one poor race does not have to equate to a poor championship!

I need the toilet before competing?

- This is nothing to worry about, it is simply your body priming itself for competition and indicates that you are ready to go. As soon as the gun goes your body will respond to the physical exertion and retain this fluid which is why you are unlikely to need the toilet when you have finished your race.

I get psyched out by my competitors?

- Focus on my race plan and my preparation
- Watch my body language - presenting myself as confident with my shoulders back and head up gives the right impression to my opposition and will have a positive impact on my own feelings of confidence

"I think even if you're not confident inside, you need to present yourself as confident on the outside because that's half the battle won, firstly with yourself, because if you present yourself as confident then you immediately feel more confident, and also for your opponents, if you look confident then you're obviously a little bit more scary, maybe they don't feel as confident as you look and might be intimidated by that. So I think how you present yourself is very very important".

Olympic Medallist (Modern Pentathlon)

I have doubts about my preparation?

- This is not controllable on competition day!
- Focus on strengths/positives that are meaningful to me.
- Post-competition: Evaluate my training programme, identify strengths and weaknesses and use this information to facilitate future training and competition preparation

I have a lack of sleep?

- Develop pre-competition routines from night before
- Ensure I give myself maximum opportunities to rest i.e. don't go out the night before competition.
- Utilise relaxation techniques to assist with sleep (see Kate for help if necessary)

My coach is in a bad mood?

- Ensure that I do everything that is expected of me with regards to my behaviour, warm-up, preparation etc to avoid annoying him
- Communicate - if he is in a bad mood then talk to him and try to rectify the situation
- Surround myself with people that are in a good mood i.e. other team-mates
- Identify someone else to talk to if required i.e. senior swimmer, team-mate
- Be independent/responsible for my own performance - execute pre-performance routine and race plan in the usual way.

I have negative thoughts? I have a lack of confidence?

- Talk to team-mates (distraction)
- Music
- Imagery
- Positive self-talk - focus on strengths, previous best performances, competitive edge, performance accomplishments, experience etc
- Rationalise i.e. what is the evidence for negative thought, what is the evidence against? Negative thoughts are usually irrational!
- Give myself some space to refocus
- Talk to the person that is most likely to make me feel good and help me to enhance my confidence i.e. coach, senior swimmer, team-mate - communicate my thoughts/feelings.

1. How did you find the process of profiling your sport confidence?
- What, if anything, was particularly difficult/easy?
2. Do you think the process of profiling your sport confidence was useful?
- If so, why/how?
3. Have you learnt anything about yourself as an athlete from the process?
4. Do you think the process enabled you to give an accurate account of your feelings of confidence in sport?
5. Are there any areas that you think I failed to cover relating to your confidence in sport?
6. Do you think the profiling process could be improved in any way?
7. How satisfied were you with the sport psychology support?
8. Has the intervention proved useful to you?
9. Do you consider the changes in your confidence to be significant?
10. I think that is everything that I would like to ask you, is there anything you would like to ask me or anything else you would like to add?