NAME: HAYLEY CURTIS

UNIVERSITY NUMBER: 06002198

CARDIFF SCHOOL OF SPORT

UNIVERSITY OF WALES INSTITUTE CARDIFF

AN IDEOGRAPHIC APPROACH TO THE SOURCES

AND TYPES OF CONFIDENCE IN ELITE AND

NON-ELITE NETBALL PLAYERS

<u>Table of Contents</u>

Pages

Appendices

List of Tables

List of Figures

<u>Acknowledgements</u>

Firstly I would like to thank Doctor Owen Thomas for the time he has taken to help supervise this dissertation and his expert knowledge. I would also like to thank all participants that have given up their time to take part in this study.

Abstract

The purpose of the study was to use an ideographic measurement to investigate sources and types of confidence salient to elite and non-elite netballers. Fifteen athletes' (seven elite and eight non-elite) completed confidence profiles, an ideographic applied instrument designed to assess sport confidence from an athletes' perspective and five athletes' were interviewed for an in-depth and accurate account of the athletes' confidence. The athletes' in this study identified seven sources: preparation, performance accomplishments, coaching, social support, innate factors, experience and trust. Performance accomplishments emerged as a source of confidence to only the elite athletes. Skill execution, achievement, physical and psychological factors emerged as the four types of confidence. The findings suggest elite athletes' derive their confidence from more sources and are confident about more aspects. The confidence profiles support Hays *et al.* (2009) study that this measurement can be used by any athlete regardless of demographics and organisational factors and can provide a basis for which interventions can be developed. Coaches and sports psychologists designing interventions to enhance an athletes' confidence should take into account the specific need of the individual. Further research is required for a larger sample size. Also, future research is needed in individual differences such as a variety of sports and people from difference cultural backgrounds using confidence profiling as an assessment.

CHAPTER I

INTRODUCTION

1.0 Introduction

If you listen to an interview with an athlete or a coach following a match or competition, it is inevitable that you will hear them discuss the critical role of self-confidence (or lack of self-confidence) played in their mental success (or failure) in Weinberg and Gould (2003). Athletes may have all the ability in the world to perform well and achieve their goals, but if they do not believe they have that ability, then they won't fully use that ability (Taylor & Wilson, 2005). Ronnie Lott, an American footballer stated "If you can believe it, the mind can achieve it" (http://www.allgreatquotes.com/sports_quotes.shtml).

Defining self-confidence has not been easy for researchers within sport psychology, there are various terms that offer considerable overlap and are often used interchangeably, such as self-efficacy, self-confidence and sport confidence. Despite, having multiple definitions of self-confidence, all refer to individuals' beliefs about their abilities or their expectations about achieving success based on those abilities (Horn, 2008). During sport a confident athlete enters competition certain in the knowledge that they will achieve their goal.

Sport confidence is thought to be a crucial psychological requisite that can be developed and enhanced for optimal performance (Horn, 2008). Even the most successful athletes are still prone to varying levels of self-confidence. Athletes often describe peak performances as strong and almost "shatterproof"; however, two

psychobehavioral occurrences in sport that can attribute to an athletes loss in confidence are choking under performance and sudden performance slumps (Vealey, 2001). Thus, self-confidence is deemed a fragile requisite and for many athletes increasing self-confidence levels can be an enduring process which can be lost instantly. Roger Staubach, an American Football Player said "Confidence doesn't come out of nowhere. It's a result of something… hours, days, weeks and years of constant work and dedication." (Darconte, 2001). Thus, fluctuations in confidence have accounted for differences in best and worst performances in sport competition (Eklund, 1994, 1996; Greenleaf *et al.,* 2001) and can vary substantially from one competition to the next depending on past results (Durand-Bush, 1995). Athletes' should concentrate on what their strengths are and what is important rather than the uncontrollables (i.e., opponents, playing conditions, social support) in order for a peak performance to occur.

The importance of having a high level of self-confidence for a successful performance has been a consistent and predominant finding within psychological research (e.g., Jones *et al.,* 1994; Edwards & Hardy, 1996; Vealey, 2001; Zinsser *et al.,* 2006). It is a simple fact that athletes at the highest standard are of similar skills levels, but the factor that makes a kicker successfully convert a try, or a golfer sink a putt to win the Ryder Cup, is high levels of self-confidence. Gould *et al.* (1999) investigation of sixty three highest achievers from a variety of sports found that ninety percent of these athletes possessed high levels of self-confidence. Hence, many athletes attribute their success to high levels of self-belief and their failures to

a lack of self-belief. For example, Carl Lewis, one of the greatest Track and Field athletes, demonstrated his belief about confidence as a crucial factor for his success by stating, "If you don't have confidence, you'll always find a way not to win" (Top End Sport, n.d.).

Benefits of self-confidence described by Weinberg and Gould (2003) includes helping an individual arouse positive emotions, facilitate concentration, set goals, increase effort, focus game strategies and maintain momentum. Self-confidence has been found to be related to frequent use of imagery efficient coping skills (Cresswell & Hodge, 2004), lower cognitive and somatic anxiety (Vealey, *et al.,* 1998), intrinsic motivation (Vealey *et al.,* 1998) and better performance (Craft *et al.,* 2003; Gould, 2002). How self-confidence is related to excellence in sports, what factors affect the level of self-confidence, and how self-confidence can be enhanced have been intriguing questions for numerous researchers.

Much of the research within the self-confidence literature has been based on Bandura's (1977) self-efficacy theory. However, as this theory is not sport specific Vealey (1986) proposed a conceptual model of sport confidence which ten years later was revised to the integrative model of sport confidence due to limitations with the original model. Both the models proposed by Vealey (1986, 1998) were validated using nomothetic tools including: Trait Sport-Confidence Inventory (TSCI), the State Sport-Confidence Inventory (SSCI), Competition Orientation Inventory and the Sources of Sport Confidence Questionnaire (SSCQ). Research using these

measurements is limited and although the SSCQ is the only questionnaire to measure athletes' sources (e.g., where an athlete derives their confidence from), Wilson *et al.* (2004) failed to replicate these findings suggesting that more research is needed for other athletic groups and performance levels. Further, these previous studies did not take into account other variables in self-confidence and so more recently, studies have been conducted supporting self-confidence as a multi-dimensional construct. Hays *et al.* (2007) used qualitative measurements of interviews to explore sources and types of self-confidence salient to world class performers. It discovered what athletes' are confident about (their types of self-confidence) and where they derive their confidence from (athletes' sources of confidence). The latest study by Hays *et al.* (2009) forwarded the use of an ideographic measurement know as confidence profiling to elicit world class athletes sources and types of confidence within their sports, a development of Butlers (1992) performance profile. This measurement has provided evidence that performance profiling can be used on athletes' regardless of their demographics, sport type or their organisation culture. Sports psychologists and coaches can use this method to help understand what athletes regard as important and to consider appropriate strategies that can enhance the athletes' confidence levels or increase the number of sources used.

The purpose of this investigation is to extend the work of Hays *et al.* (2009) and to use ideographic measures of sport confidence in elite and non-elite netball players to identify their sources and types of confidence. This investigation, also, aims to

establish if there are any similarities and/or differences in these groups in relation to the athletes' sources and types of confidence.

The next chapter provides a critical review of literature, discussing previous research and the developments that have been made in recent years. This is followed by how the study was carried out and the methods that were adopted. The results and discussion chapter aims to explain the findings of this study and the final chapter concludes with implications, limitations and any further research that is warranted from this study.

CHAPTER III

METHODOLOGY

3.0 Method

3.1 Participants

With ethical approval, 15 female netball players aged between 18 and 21 years (19.4 ± 0.91), students from the University of Wales Institute of Cardiff (UWIC) participated in this investigation. For the purpose of this study participants were split into two groups "elite and "non-elite". Criteria for "elite" status were based upon previous classification that stated participants had to be currently competing or have compete in national and international competition (Hanton *et al.,* 2002). The remaining thirteen participants (non-elite) competed at a social level.

All participants completed a profile based on their sources and types of confidence, five of these participants also completed an interview (two elite and three non-elite) during the competitive season. Prior to taking part in the study, all participants provided informed written consent (see appendix A), and those being interviewed, also, gave written consent for the interview to be audio taped so that a typed transcription could be reviewed at a later date.

3.2 Instrumentation

The investigation employed qualitative procedure when extracting data from the sample population; these were chosen due to the nature of the components used and the limited sample size. Qualitative research provides detailed information in regards to the topic being investigated and is seen to be valuable in furthering knowledge of conceptual areas (Hanton & Jones, 1999).

3.2.1 Interview Guide and Questions

From the review of literature on confidence and profiling, questions relating to sources and type of confidence were based on Hays *et al.* (2007) Confidence Profiling for Sport interview guide.

The interview commenced with background information (see appendix B) questions to allow the participant to feel at ease and generate a good rapport. This was followed by a section on Types and Sources of Confidence. Questions included (a) qualities they believe made a confident performer (b) how they compare to previous question (c) situations on type of performance they are confident on and (d) where their sources of confidence are derived from. Once responses were exhausted, they were able to evaluate their profiles. At the end of each section participants were able to add any other information they perceived as relevant. This was completed with concluding remarks about the interview (see appendix B for whole interview guide).

The use of open questions such as 'Where do you think your confidence comes from?' would be followed up by 'Why do you believe that?' and or 'Do some of these factors have a greater impact than others?' This is to allow the interviewer to feel they had exhausted the interviewee's responses before moving on. To ensure that an accurate and in-depth understanding and increase the richness of responses from participants are achieved clarification and elaboration probes were used.

3.2.2. Pilot Study

To measure validity a netball player from Cardiff was profiled (see appendix C) and asked questions using a similar interview guide as described above. This was to ensure that the interviewee was able to understand the questions asked and interpret them in the desired way. It was also used to confirm that the questions used were relevant.

On completion, the participant evaluated the interview guide and any issues resulted in the interview questions being modified to enhance clarity.

3.3 Procedures

Following ethical approval from the institutional review board, UWIC netball club were approached at a training session; and were asked to volunteer. All participants completed their profile on their own with the interview and without discussing with other athletes for a more accurate response.

The profiles and interviews were conducted in a quiet room and were face to face as opposed to over the phone which Miles and Huberaman (1994) suggested increased validity.

The investigator explained the three main stages of performance profiling by Butler and Hardy (1992); introducing the idea, eliciting constructs and assessment. Introductory comments included the influence sport confidence has on sport performance which allowed the athlete to gain knowledge on the importance of assessing their sport performance confidence. Sport confidence profiling was described to the athlete as a way of identifying their sources, types and levels of confidence. This measurement tool is useful in raising the athletes' own awareness and a starting basis for implementing an intervention to improve their own sport confidence.

The second stage; comprises of using responses from the first section of the interview guide to be placed onto a visual sport confidence profile (see appendix C). The participant's sources and types of confidence, and any other information provided by the participant were added.

At the assessment stage, participants were asked to assess their current sport confidence levels to complete their generated comprehensive profile of their sport confidence. All athletes rated themselves on a scale of 1-10 (MI scaling not the traditional Likert where 1 equalled 'not at all confident' and 10 meaning 'extremely'

confident) on where they currently perceived their sources and types of confidence, this was added to the profiles.

Once completing the profile motivational interviewing style of questioning was selected rather than the more traditional Likert rating used by Butler and Hardy (1992) to assess why they feel they are at a certain level, and what can be done to improve their confidence levels i.e. From here, athletes were encouraged to make an accurate evaluation of their current confidence levels and to try and identify intervention strategies that could increase their confidence levels for the future.

An open-ended, semi-structured interview (Patton, 2002) was carried out on five athletes to gain a more in-depth understanding of their sport confidence. An interview guide was used to determine the same basic topics of inquiry were perused for all the participations and to find consistent responses to the main questions; however the interviewer did allow a flow in conversation to occur (Patton, 2002). All interviews were conducted by the same person, providing consistency throughout.

At the start of each interview, comments regarding confidentiality, anonymity and the purpose of the study were given. Participants were told that any information they gave would remain anonymous and if they wanted to take no further part in the interview they could stop at any time with no questions asked. To control made up and guessed responses i.e. questions involving previous and personal experiences,

participants were reminded by the interviewer that there are no right or wrong answer, to take there time responding to questions and say when they cannot remember rather than guess. The interviewer also explained how important honest answers were for a more accurate result (Hindley, 1979; Moss, 1979). To help speed the process participants were asked to come to the interview prepared and having already thought about times in their career when they had been confident.

Interviews ranged in duration and lasted about fifteen minutes. All interviews were tape-recorded and transcribed using Microsoft Word '97.

3.4 Data analysis

It was decided that analysis of the transcribed interviews and the raw data responses for the elite and non-elite groups were to be kept separate at first, to allow a comparison to be made to determine if there are any similarities, conflicting ideas and or if there is an overall pattern within the groups before comparing them as groups.   Inductive content analysis, as recommended by Patton (1980) and successfully adapted to sport by Scanlan *et al.* (1989) was adopted for this study. The procedure of content analysis involves the organisation of raw data into interpretable and meanings themes and categories and allows these to emerge from the quotations within the interviews. This is achieved by clustering quotes around common trends that then become emergent themes. Only sub-themes and higher order themes dimensions are included to avoid any repeated raw data themes and

are completed by including relevant raw data themes into the narrative surrounding analysis. This procedure is similar to Hanton and Jones (1999) study and comprised of five stages:

1. Transcripts were read and reread by author to ensure familiarity with the content,
2. Raw data themes(i.e. quotes) from the transcripts were also reread to ensure they made sense,
3. These themes were complied in list form, combining responses from each group separately,
4. Inductive content analysis was completed to identify common themes from the list of sub sectioned raw data. First level themes were labelled sub themes, the second level were labelled higher order themes and the highest themes were labelled general dimensions.
5. Finishing with a deductive analysis to provide a validity check in verifying themes and dimensions were present in the transcripts.

CHAPTER V

CONCLUSION

5.0 Conclusion

In summary the present study aimed to investigate one of the most important influences on sporting performance from a female elite and non-elite team players perspective. Seven sources and four types of confidence emerged from the participants. The elite group were generally more confident and found it easier to speak about their confidence than the non-elite group. This group also derived their confidence from more sources and highlighted a wider variety of types. The sources and types of confidence identified and the variations within them are unique to female netballers. Using an ideographic measurement provided a visual display for athletes' to observe what they were confident about and where this confidence came from. The use of in-depth interviews enables the exploration of meanings of sport confidence for a limited sample and contributes to the literature that has not previously been addressed. The results have theoretical and practical implications.

5.1 Practical Implications

Theoretically, the present findings emphasise the multidimensional nature of sport confidence (Bandura, 1977; Vealey *et al.,* 1998; Hays *et al.,* 2007, 2009) that derives confidence from not only Bandura's (1997) principle sources of self-efficacy but from multiple sources and types. Practically, this study provides further evidence that demographics and organisational factors influence sources of sport confidence and therefore coaches and sports psychologists should take into account individual

needs when implementing interventions to enhance confidence. As the participants in this study spoke of many sources and types of confidence focus for coaches, sport psychologists and athletes' should not be on one particular source or type but many.

When the participants were first asked to compare themselves to an elite player in their sport the elite group were able to respond with ease, compared to the non-elite group who, at times, struggled. This is due to the elite group training every day to reach their full potential and most of them having experienced what it is like to represent their country as an elite performer. As this study looked at elite and non-elite groups a coach or sports psychologist must be aware of the potential differences in these groups and only imply strategies to optimise confidence suitable to the individual level of competence. Furthermore, teammates provided a fundamental part to the athletes' sources and types of confidence, especially for the elite athletes', therefore, coaches should encourage teams to work together to achieve goals in training to increase group cohesion and confidence prior to competition.

Constructing the confidence profiles was a straight forward process. Each athlete's types of confidence were entered onto the profile as they were identified and once exhausted, their sources were added. It is important to note that each profile is specific to the individual athlete, thus allowing individual differences to emerge. This implies that interventions used by coaches and sports psychologists to help increase

the range of sources and types of confidence, to enhance confidence and or introduce more controllable sources would need to reflect the individual need of the athlete.

Scaling rulers were a helpful tool which allowed individuals to assess their current level of confidence and help them to consider possible strategies they could incorporate to enhance their sport confidence. By asking individuals to engage in a reflective thought process, athletes were able to explain why they had given themselves a certain rating and or provide an input in the strategies they could imply. By allowing the individual to be part of the decision making is similar to central the tenets of the PCT (Kelly, 1955).

5.2 Future Research

Further research in confidence profiling is needed to explore sources and types of confidence in other individual differences such as team sports other than netball to distinguish if there are similarities or discrepancies. Further research is also needed to explore sources and types of confidence in athletes' from other areas as all participants in this study were from the same club. Due to the sampling size of this study being small, additional research is required in elite and non-elite athletes' to increase the generalisability of the findings. This study did not examine the relationship between sources and types of confidence, which Hays *et al.* (2007) has already suggested needs investigating. Also, as mentioned by Hays *et al.* (2009)

the completed profiles serves as a basis from where athletes' derive their confidence, now confidence enhancing interventions needs to be researched.

5.3 Limitations and Strengths

The present study has discussed some important aspects relating to confidence in a sporting context. The benefits of adopting the methodologies used in this investigation are, as follows:

i) Qualitative research provides detailed information in regards to the topic being investigated (which may not be found in generic questionnaires) and is seen to be valuable in furthering knowledge of conceptual areas (Hanton & Jones, 1999). The interview guide was based on similar studies by Hays *et al.* (2007, 2009) and was therefore relevant to the topic. The same person conducted all the interviews too ensure consistency. By asking all participants to reflect on their confidence prior to interviews, it helped the speed of the interviews and ensured the athletes were able to provide detailed accurate answers that may not have occurred if questions were asked on the day. This method was also useful in identifying the additional sources similar to Hays *et al.* (2007) study that were not found in previous studies Vealey *et al.*'s (1998).

ii) Validity of this study was achieved by conducting the interviews face to face as opposed to over the phone (Miles & Huberaman, 1994) and

trustworthiness of the study was accomplished by building previous rapport with the participants and gaining their trust in confidentiality that they may not have with other interviewers.

iii) Research in the area of sport confidence is recent and still being developed and so this study is relevant for current sport psychologists, coaches and athletes.

Even though, the present study reports advantages in the methods employed several limitations were evident. To help advance future research, it's important to address these issues.

i) The size of the sample was small due to the qualitative nature and time constraints of this study (i.e., interviews are time-consuming in conducting and transcribing) and decreases the generalisability of the findings, and thus cannot be valid for all populations.

ii) As the interviewer was inexperienced, data collection in the early interviews was not as strong and can also reduce the validity. Patton (1990) stated that data collection depends upon the skill, competence and rigor of the researcher. The author of this study, also, had limited knowledge regarding data analysis; however, advice from a more experienced researcher countered this problem.

iii)   As participants had to think back to times in their career they were most confident, some athletes may have recalled inaccurate details. The use of probes during this stage aided the athlete's memory.

iv)   Most of the athletes also mentioned that their confidence changed depending on the time of the season and how they were feeling after a previous match, for example one athlete stated:

I think my confidence increases over the season especially with the team at the moment; it's just in we seem to have got better and better. We knew we had a good team but I think that it, but after a while, its when you sort of get the wins under your belt…

Therefore, depending on the time of the season or if the athletes' confidence had decreased from the previous match or training session the athlete may not have completed the profile with the same answers as they might have had their confidence been high.

The aim of this study was to complete confidence profiles on elite and non-elite female netball players of their sources and types of confidence. The author then sought to establish similarities and/or differences amongst these groups relating to their sources and types of confidence. The athletes' in this study identified seven sources: preparation, performance accomplishments, coaching, social support, innate factors, experience and trust. Performance accomplishments emerged as a

source of confidence to only the elite athletes. Skill execution, achievement, physical and psychological factors emerged as the four types of confidence. The findings suggest elite athletes' derive their confidence from more sources and are confident about more aspects. The confidence profiles support Hays *et al.* (2009) study that this measurement can be used by any athlete regardless of demographics and organisational factors. Coaches and sports psychologists designing interventions to enhance an athletes' confidence should take into account the specific need of the individual.

REFERENCES

References:

Allport, 1937. In A.M. Lane. (2008). Sport and Exercise Psychology: Topics in applied Psychology. London: Hodder.

Bandura, A. (1977). Self-efficacy: Towards a unifying theory of behaviour change. *Psychological Review* **84**, (2), 191-215.

Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory,* Prentice-Hall: Englewood Cliffs. NJ.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: Freeman.

Boutcher, S.H. (1990). The role of performance routines in sport. In: *Stress and Performance in Sport.* (edited by J.G. Jones and L. Hardy), (pp. 231-245), Chichester: John Wiiley.

Boutcher, S.H., and Rotella, R.J. (1987). A psychological skills education programme for closed-skilled performance enhancement. *The Sport Psychologist, 1,* 127-137.

Burton, D. (1988). Do anxious swimmers swim slower? Reexamining the elusive anxiety-performance relationship. *Journal of Sport & Exercise Psychology, 10*, 45-61.

Butler, R.J. (1989). Psychological preparation of Olympic boxers. In R.J. Butler, M. Smith and I. Irwin. (1993). The performance profile in practice. *Journal of Applied Sport Psychology,* **5**, 48-63.

Butler, R.J., and Hardy, L. (1992). The performance profile: Theory and application. *The Sport Psychologist.* **6**, 253-264.

Butler, R.J., Smith, M., and Irwin, I. (1993). The performance profile in practice. *Journal of Applied Sport Psychology,* **5**, 48-63.

Cashmore, E. (2008). *Sport and Exercise Psychology: the key concepts.* (2nd Ed.) London: Routledge.

Cleary, T.J., and Zimmerman, B.J. (2001). Self-regulation differences during athletic practice by experts, non-experts, and novices. *Journal of Applied Sport Psychology,* **13,** 185-206.

Clifton, R.T., and Gill, D.L. (1994). Gender differences in self-confidence on a feminine-typed task. *Journal of Sport & Exercise Psychology,* **16**, 150-162.

Cohn, P.J. (1990). Pre-performance routines in sport: Theoretical support and practical applications. *The Sport Psychologist, 4,* 301-312.

Courneya, K.S., and Carron, A.V. (1992). The home advantage in sport competition: A literature review. *Journal of Sport & Exercise Psychology, 14*, 13-27.

Cox, A.E., and Whaley, D.E. (2004). The influence of task value, expectancies for success, and identity on athletes' achievement behaviors. *Journal of Applied Sport Psychology, 16,* 103-117.

Craft, L.L., Magyar, T.M., Becker, B.J, & Feltz, D.L. (2003). Differences in imagery content and imagery ability between high and low confident track and field athletes. *Journal of Sport and Exercise Psychology*, *25,* 44-65.

Cresswell, S., and Hodge, K. (2004). Coping Skills: Role of Trait Sport Confidence and Trait Anxiety. *Perceptual and Motor Skills*, **2**, 433-438.

Darconte, L.A. (2001). Pride Matters: Quotes to Inspire Your Personal Best. Kanas City: Andrews McMeel Publishing,

Demaine, C.J., and Short, S.E. (2007). Sources of sport confidence and their relationship with sport confidence in college in college basketball players. *Journal of Sport and Exercise Psychology,* **29**, S157.

Durand-Bush, N. (1995). Validity & reliability of the Ottawa Mental Skills Assessment Tool (OMSAT-3). Unpublished master's thesis, University of Ottawa, Ottawa, ON. Canada.

Durand-Bush, N., and Salmela, J.H. (2002). The development and maintenance of expert and performance: Perceptions of World and Olympic champions. *Journal of Applied Sport Psychology, 14,* 154-171.

Edwards, T., and Hardy, L. (1996). The interactive effects of intensity and direction of cognitive and somatic anxiety and self-confidence upon performance. *Journal of Sport and Exercise Psychology, 18,* 296-312.

Eklund, R.C. (1994). A season-long investigation of competitive cognition in collegiate wrestlers. *Research Quarterly for Exercise and Sport, 65,* 169-183.

Eklund, R.C. (1996). Preparing to compete: A season-long investigation with collegiate wrestlers. *The Sport Psychologist, 10,* 111-131.

Feltz, D.L., Short, S.E., and Sullivan, P.J. (2008). *Self-efficacy in sport.* Champaign, IL: Human Kinetics.

Gayton, W.F., and Nickless, C.J. (1987). An investigation of the validity of the trait and state sport-confidence inventories in predicting marathon performance. *Perceptual and Motor Skills, 65,* 481-482.

Gayton, W.F., Mutrie, S.A., and Hearns, J.F. (1987). Home advantage: Does it exist in women's sports. *Perceptual & Motor Skills*, *65,* 653-654.

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

George, T.R., and Feltz, D.L. (1995). Motivation in sport from a collective efficacy perspective. *International Journal of Sport Psychology*, **26**, 98-116.

Gill, D.L. (1988). Gender differences in competitive orientation and sport participation. *International Journal of Sport Psychology, 19,* 145-159.

Gill, D.L. (1992). Gender and sport behaviour. In T.S. Horn (Ed.), *Advances in sport psychology* (pp.143-161). Champaign. IL: Human Kinetics.

Gould, D., Petlichkoff, L., Simons, J., and Verera. M. (1987). Relationship between Competitive State Anxiety Inventory-2 subscale scores and pistol shooting performance. *Journal of Sport Psychology,* **9**, 33-42.

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

Gould, D., Guinan, D., Greenleaf, C, Medbery, R., and Peterson, K. (1999). Factors affecting Olmpic erformance: Perceptions of athletes and oaches from more or les successful teams. *The Sport Psychologist, 13,* 371-394.

Gould, D., Dieffenbach, K., and Moffett, A. (2002). Psychological characteristics and their development in Olympic champions. *Journal of Applied Sport Psychology, 14*, 172-204.

Greenleaf, C., Gould, D., and Dieffenbach, K. (2001). Factors influencing Olympic performance: Interviews with Atlanta and Nagano U.S. Olmpians. *Jounal of Applied Sport Psychology, 13,* 154-184.

Hanton, S., and Jones. (1999). The acquisition and development of cognitive skills and strategies: I Making the butterflies fly in formation. *The Sport Psychologist, 13,* 1-21.

Hanton, S., Mellalieu, S.D, and Young, S. (2002). A qualitative investigation into the temporal pattening of the precompetitive anxiety response. *Journal of Sport Sciences, 20,* 911-928.

Hays, K., Maynard, I., Thomas, O., and Bawden, M. (2007). Sources and types of confidence identified by world class sport performers. *Journal of Applied Sport Psychology,* **19**, 434-456.

Hays, K. (2008). Self-confidence in a sporting context. In: A, Lane. (Ed.). Sport and Exercise Psychology. (pp. 53-69). London: Hodder.

Hays, K., Thomas, O., Butt, J., and Maynard, I. (2009). The Development of Confidence Profiling for Sport. The Sport Psychologist. (Under review).

Hindley, C.B. (1979). Problems of interviewing in obtaining retrospective information. In L. Moss and H. Goldstein (Eds.), *The Recall Method in Social Surveys* (pp.100-108). London: University of London Institute of Education.

Horn, T.S. (2008). Advances in Sport Psycholgoy. (3rd ed). United States of America: Human Kinetics.

Jones, G., Swain, A.B.J., and Cale, A. (1990). Antecedents of multidimensional competitive state anxiety and self-confidence in elite intercollegiate middle distance runners. *The Sport Psychologist, 4,* 107-118.

Jones, G., Swain, A.B.J., and Cale, A. (1991). Gender differences in pre-competition temporal patterning and antecedents of anxiety and self-confidence. *Journal of Sport and Exercise Psychology,* **13,** 1-15.

Jones, G., Hanton, S., and Swain, A.B.J. (1994). Intensity and interception of anxiety symptoms in the elite and the non-elite sports performers. *Personal Individual Differences, 17,* 657-663.

Jones, G., Hanton, S., and Connaughton, D. (2002). What is this thing called mental toughness? An investigation of elite sport performers. *Personality and Individual Differences, 17, I657-663.*

Kelly, G.A. (1955). *The psychology of personal constructs.* In R.J. Butler., Smith, M., and Irwin, I. (1993). The Performance Profile in Practice. *Journal of Applied Sport Psychology,* **5**, 48-63.

Lane, A.M. (2008). Sport and Exercise Psychology: Topics in applied Psychology. London: Hodder.

Lenney, E. (1977). Women's self-confidence in achievement situations. In T.S. Horn. (2008). Advances in Sport Psychology. (3rd ed). United States of America: Human Kinetics.

Lirgg, C.D. (1991). Gender differences in self-confidence in physical activity: A meta-analysis of recent studies. *Journal of Sport and Exercise Psychology,* **8**, 294-310.

Lirgg., C. D., George., T. R., Chase., M. A., and 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.

Lott, R. (n.d.). http://www.allgreatquotes.com/sports_quotes.shtml [accessed on 6 March, 2009].

Maddux, J.E. (1995). Self-efficacy theory: an introduction. In J.E. Maddux (ed.), *Self-efficacy, adaptation, and adjustment: theory, research, and application* (pp.37-68). New York: Plenum Press.

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

Maehr, M.L., and Nicholls, J.G. (1989). Culture and achievement motivation: A second look. In: *Studies in Cross-Cultural Psychology (edited by,* N. Warren), pp. 221 – 267. New York: Academic Press.

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

Martens, R., Vealey, R.S., and Burton, D. (1990). *Competitive Anxiety in Sport.* Campaign, IL: Human Kinetics.

Mellalieu, S.D., and Hanton, S. (2009). Advances in Applied Sport Psychology: A review. New York: Routledge London.

McPherson, S. L. (2000). Expert-novice differences in planning strategies during collegiate singles tennis competition. *Journal of Sport & Exercise Psychology,* **22**, 39-62.

Meyers, M., and LeUnes, A. (1996). Psychological skills assessment and athletic performance in collegiate rodeo athletes. *Journal of Sport Behavior*, **19**, 132-145.

Miles, M.B., and Huberman, A.M. (1994). Qualitative Data Anaylsis: An Expanded Sourcebook (2nd Ed.). Thousand Oaks. C.A: Sage.

Moran, A.P. (2004). *Sport and exercise psychology: A critical introduction.* New York: Routledge.

Moritz, S. E., Feltz, D. L., Fahrbach, K. R., and 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.

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.

Orlick, T., and Parlington, J. (1988). Mental links to excellence. *The Sports Psychologist, 2,* 105-130.
Patton, M.Q. (1980). Qualitative evaluation methods. Beverly Hills: Sage.

Patton, M.Q. (1990). Qualitative Evaluation and Research Methods. (2nd Ed.). Newbury Park, C.A: Sage Publications.

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (2nd Ed.). London: Sage.

Perry, J. D., and Williams, J. M. (1998). Relationship of intensity and direction of competitive trait anxiety to skill level and gender in tennis. *The Sport Psychologist,* **12**, 169-179.

Roberts, W., and Vealey, R.S. (1992, October). *Attention in sport: Measurement issues, psychological concomitants, and the prediction of performance.* Paper presented at the association for the Advancement of Applied Sport Psychology conference. Colorado Springs, CO.

Scanlan, T.K., Ravizza, K., and Stein, G.L (1989). An in-depth study of former elite figure skates: 3. Sources of stress, *Journal of Sport and Exercise Psychology, 11,* 54-64.

Schunk, D.H. (1995). Self-efficacy, motivation, and performance. *Journal of Applied Sport Psychology, 7,* 112-137.

Short, S., and Stewart, L.R. (2009). A review of self-efficacy based interventions. In S.D. Mellalieu and S. Hanton. Advances in Applied Sport Psychology: A review. (pp.66-97). New York: Routledge London.

Singer, R.N., Hausenblas, H.A., and Janelle, C.M. (2001). *Handbook of sport psychology* (Eds.). (pp. 550-565). New York: John Wiley & Sons, Inc.

Taylor, J., and Wilson, G. (2005). Applied Sport Psychology. Four Perspectives. Champaign, Ill. ; Leeds ::Human Kinetics.

Terry, P. (1984). The coaching preferences of elite athletes competing at Universiade '83. *Canadian Journal of Applied Sport Sciences, 9,* 201-208.

Terry, P.C., Walrond, N., and Carron, A.V. (1998). The Influence of Game Location on Athletes' Psychological States. *Journal of Science and Medicine in Sport, 1*, 29-37.

Trafton, T. A., and Meyers, M. C. (1997). Psychological characteristics of the telemark skier. *Journal of Sport Behavior*, 20, 465-476.

Top End Sport (n.d.). Motivational Quotes. In Sport Psychology.
http://www.topendsports.com/psychology/quotes-motivate.htm#top
[accessed March 5, 2009].

Vealey, R.S. (1986). Conceptualization of sport confidence and competitive orientation: Preliminary investigation and instrument development. *Journal of Sport Psychology, 2*, 318-336.

Vealey, R.S. (2001). Understanding and enhancing self-confidence in athletes. In R.N. Singer, H.A. Hausenblas and C.M. Janelle. (Eds.), *Handbook of sport psychology* (pp. 550-565). New York: John Wiley & Sons, Inc.

Vealey, R. S., and 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., and Chase, M.A. (2008). Self-confidence in sport: Conceptual and research Advances. In T. S. Horn (Ed.), Advances in Sport Psychology (3rd ed.). Champaign, IL: Human Kinetics.

Vealey, R. S., and Knight, B. J. (2002, September). Multidimensional sport-confidence: A conceptual and psychometric extension. Paper presented at the Association for the Advancement of Applied Sport Psychology Conference, Tucson, AZ.

Vealey, R. S., and Sinclair, D. A. (1987, September). The analysis and prediction of stability in sport-confidence. Paper presented at the Association for the Advancement of Applied Sport Psychology Conference, Newport Beach, CA.

Vealey, R.S., Hayashi, S.W., Garner-Holman, M., and Giacobbi, P. (1998). Sources of sport-confidence: Conceptualization and instrument development. *Journal of Sport and Exercise Psychology, 21*, 54-80.

Weinberg, R. S., Yukelson, D. and Jackson, A. (1980). Effect of public and private efficacy expectations on competitive performance. *Journal of Sport Psychology, 2*, 340-349.

Weinberg, R.S., and Gould, D. (2003). Foundations of Sport & Exercise Psychology. Champaign, IL. ; Leeds :: Human Kinetics

Wilson, R.C., Sullivan, P.J., Myers., N.D., and Feltz, D.L. (2004). Sources of Sport Confidence of Master Athletes. *Journal of Sport and Exercise Psychology,***26**, 369-384.

Zinnsser, N., Bunker, L., and Williams, J.M. (2006). Cognitive Techniques for building Confidence and Enhancing Performance. In J.M. Williams (Ed.). Applied sport psychology: Personal growth to peak performance (5th Ed.) (pp.284-311). Boston, MA: McGraw-Hall.

APPENDICES

APPENDIX A

Appendix A

Dear Subject,

Why have I been chosen? I am a Level 3 undergraduate student at Cardiff School of Sport, the University of Wales Institute Cardiff. I am doing a dissertation in the discipline of psychology and wonder if you would be kind enough to help with my research. The research aims to explore sport-confidence levels in female 'elite' and 'non-elite' netball players. As a member of one such team you have been chosen because you are an athlete. There are no risks involved in this study as the data collection will be carried out in a secure environment during the competitive season.

Do I have to take part? You are under no obligation to take part in this study. If you choose not to take part, no questions will be asked nor will you need to provide a reason for your withdrawal. Should you have any further questions or queries contact details follow this information.

What do I have to do? Attached to this sheet you will find a consent form and an interview guide. When you have finished reading this information and understand the details of this study, should you decide you would like to take part you will need to sign the consent form. You will then need to read through the interview guide, which will allow you to prepare yourself for the interview and what will be asked of you. Once completing the consent form, hand it back to the principle investigator.

Will my taking part be kept confidential? The results of your completed profile sheets, which will be formulated from the answers you give and will be kept strictly confidential in accordance with the provisions of the Data Protection Act (1998). Only the principle investigator and supervisors will have access to the profiling sheets and interview transcriptions. Your name or any such identifiable data will not appear in any academic papers resulting from the research.

I would like to express my deep appreciation for your assistance in this investigation. Your part in this research would be significant and influential.
Contact details:
Principle investigator: Hayley Curtis
Tel: 07986127887
E-mail: H.M.Curtis@uwic.ac.uk
Your Contact Details:
Name:
Telephone number:
Email Address:
Address:

Consent Form
I have read and fully understood the request to be a subject of Ms Curtis research. I understand there are no risks involved and what is expected of me. I understand that participation is entirely voluntary, and that withdrawal is possible at any time. I understand the measures that will be taken to uphold confidentiality as far as possible.

I agree/disagree to participate (delete as appropriate).
Signature   **Date**

APPENDIX B

Appendix B

Interview guide

Group: *Name:*   *Age:*
Date:
Time Commenced:
Time Concluded:

SECTION ONE:
INTRODUCTION (not recorded)

Hello my name is Hayley Curtis from the Department of Sport at the University of Wales Institute Cardiff. Thank you for agreeing to participate in this interview study as part of my B.Sc. Sport and PE Dissertation. In this study I am looking to find where you get your confidence from (sources) and what you are particularly confident about (types) within your game of netball.

The purpose of this study is to produce sport confidence profiles for individuals and to gain a deeper understanding of types of confidence a netball player has and where they derive this confidence from in order to help suggest implement an intervention to improve on their own sport confidence for the future. This measurement tool is useful in raising the athletes' own awareness of their current confidence levels. I, also, want to learn if 'elite' and 'non-elite' netball player possess the same types and sources of confidence and or have similar attributes within the groups.

The idea for this study came from a personal interest in self-confidence, as well as extending previous research of sport confidence and profiling.

I would like to take this opportunity to emphasise that your interview will remain confidential. It may be necessary to use selected quotes from the interviews in order to illustrate any ideas and important findings, but these will be anonymous, and will ensure that your identity is kept protected. A tape recorder will be used during this interview; this is so information is accurate ready to be transcribed at a later date.

Your participation in this study is completely voluntary and I would like to remind you that if you wish to stop this interview at any point you can with no further questions, or if you would like to decline a question simply say 'no comment' and I will move onto the next question rather than to comment on something you think I will wish to here and no further questions asked. There are no right or wrong answers to the questions I will be asking so I hope that you answer them as honestly as possible so that I can gain a better understanding of your thoughts and feelings to your confidence. If you do not understand a question please say so I may clarify the question for you.

Before we start I would like to explain some important points that I need you to remember throughout. I will be asking you questions relating to your experiences before and during competitive performances and about your thoughts and feelings during successful and less successful performances. Please take your time when recalling times from the past; pauses are fine. If you are still unable to recall the events, please do not guess we can come back to the question at a later time when you do remember.

I am interested in all your experiences from netball this includes training, match play, and anything influencing your thoughts and feelings during competition such as team mates, injuries or playing on home ground. At the end of each section there will be an opportunity for you to add anything you feel is relevant and important that may have been missed out from the questions asked.

Do you have any questions before commencing the interview about anything I have talked about so far? Ok, then let's begin.

Section One: Types and Sources of Confidence

1) Can you identify an elite netballer player you knowCan you describe what you believe makes a confident netballer? (Allows the participant to start by evaluating someone else, making it easier to assess themselves later)
    Probe questions:
        ● What qualities do you feel they possess are important in order to be confident?
        ● What demands are there in competing internationally that require confidence?

2) In terms of confidence, how would you compare yourself to the athlete you have just described? (This question makes the participant aware of where there confidence level currently is and to give them encouragement of how they might go about improving it)
    Probe questions:
        ● What do you need to be confident about to perform successfully in your sport?
        ● Has this been the same during your career?

3) Can you give me a situation on the type of things you think you are confident about?
    Probe questions:
        ● Do some of these factors have a greater impact than others?
        ● Can you give an example of your game, which you are confident about? (explores there types of confidence)
        ● Did anything happen on the day of a match that influenced how you felt or behaved?

- Think about a time when you were most confident, what were the factors that influenced how you felt
- How did others around you opposition/team mates effect or aid you during this time?
- Does this change throughout the season/match? Why?

4) Where do you think your confidence comes from, on the type of confidence you gave previously?
 Probe questions:
- What makes you confident? (important in identifying sources of confidence)
- Why do you believe that?
- Is there one particular source you find most important? Or many?

5) Can you give another example/situation in your performance that you are confident about?

Is there anything else you would like to add?
Continue to all sources and types are exhausted.

Section Two: Evaluating your Sport Confidence profile

Looking at your profile, you scored a …(number) on …(type of confidence).
- Why do you feel that you are a … instead of a 0?(hopefully able to identify one source)
- What changes do you think you would do to make this a … (higher number)?
- How might you go about these changes? (this question makes them aware of there confidence levels and strategies in which they can improve there performance for the future.)

Section Three: Concluding Remarks

This almost brings us to the end of the interview, but just before there are a couple more questions I would like to ask.

1) Are there any areas you think we failed to discuss that are important relating to your confidence in sport?
2) Do you think I influenced your response in anyway? I.e. change the way you would have answered the question?
3) Could this interview be improved in anyway? And if so, how?

That covers everything I would like to add, is there anything you would like to add or ask me?

Many thanks for taking part and for your time in this study.

Clarification/elaboration questions?

- Would you elaborate on that please?
- Could you say any more about that?
- You said "… what do you mean by..?"
- I'm not sure I understand. Would you elaborate please?

APPENDIX C

Pilot Study – Profile of confidence

Sources of Sport Confidence	**Types of Sport Confidence**

Experience of playing different positions

Different coaches feedback

1 2 3 4 5 6 7 8 9 10
Ability to play a variety of positions

Previous tests and training

Above average in group - increased confidence

1 2 3 4 5 6 7 8 9 10
Ability in her jumping and height

gained

Motivated to prove people wrong

1 2 3 4 5 6 7 8 9 10
Confident at playing against strong opposition

Played with different people at school, club, county

1 2 3 4 5 6 7 8 9 10

Being able to play with variety of people and styles

Feedback from coach

From training drills

Game play/experience

1 2 3 4 5 6 7 8 9 10
Reading interceptions in game

Personal experience in life

Captained for different teams

An ex-coach had a democratic approach with the team

1 2 3 4 5 6 7 8 9 10
Ability to communicate with team-mates and coaches

Sources of Sport Confidence   **Types of Sport Confidence**

| Family - bought up with 3 brothers |

1 2 3 4 5 6 7 8 9 10
Competitive

| Training |

| Coach |

| Experience |

1 2 3 4 5 6 7 8 9 10
Strong to hold ground

| Experience |

| Zoning people out |

| Focussed |

1 2 3 4 5 6 7 8 9 10
Play home and away with no
negative effect on confidence
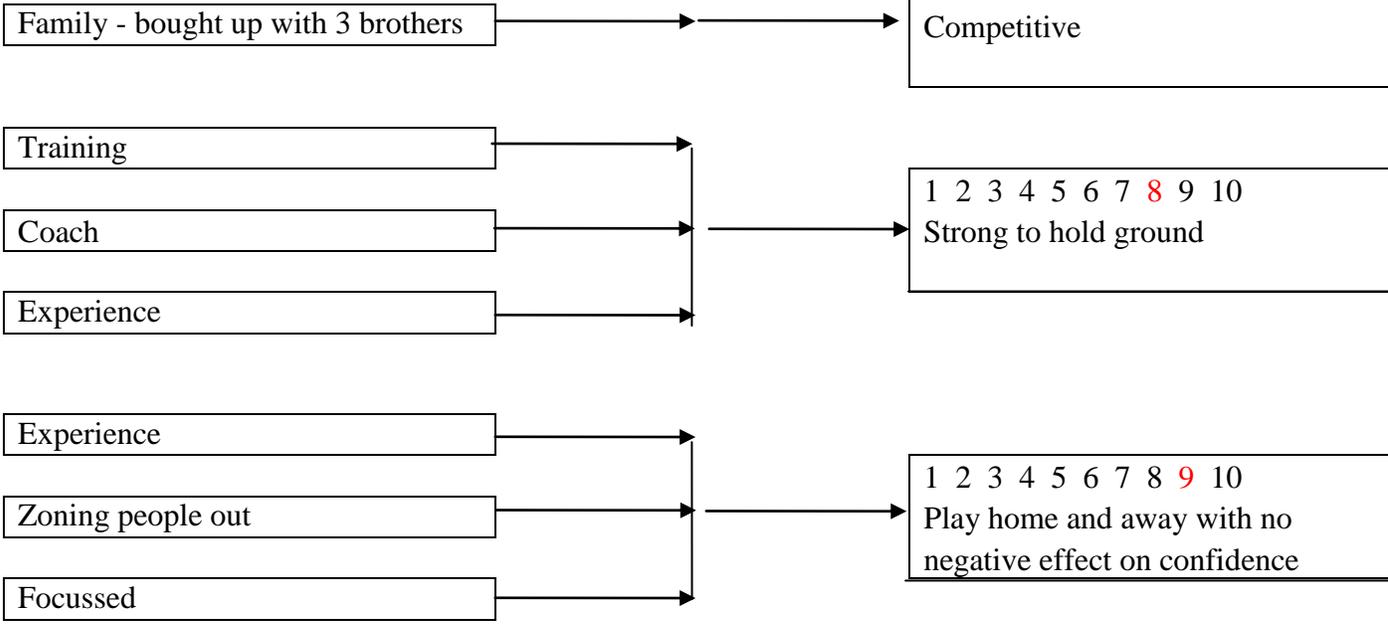
APPENDIX D

Background information

Name: _____   Age: _____

How long have you participated in netball? _____

What is your main position in netball? _____

How often do you train? _____

How many matches do you play a week? _____

What level do you currently play? (circle as appropriate)

Social   Club   County   National   International

How long have you been playing at this level? _____

What is the highest standard you played at? _____

When was this? _____

APPENDIX E

Appendix E

Subject	Main Sport	Main position	How often train (per week)	Matches per week	Years participated	Highest level	Year	Level at present
Pilot	Netball	GD/WD	4	2	11	County & South England camp	2005	Club
1	Netball	WA	once	0	10	County	2006	Social
2	Netball	C	once	1	12	County	2004	Club
3	Netball	C	twice	1	11	County	2006	Social
4	Netball	WA	2 hours	1	9	County	2007	Club
5	Netball	C/WA	3hours	1	14	County	2006	Club
6	Netball	GA	once	1/2	9	Club	always	Social/club
7	Netball	WA	twice	1	5	County	2008	Club
8	Netball	WD	once	1	7	Club	always	Club
9	Netball	C	Everyday	3	9	Wales U17, U19, U21 Welsh Universities	For 4years	International
10	Netball	GK	everyday	2	12	Superleague	2006-	National
11	Netball	GA/GS	8-10	2	14	Wales squad	2004-	International
12	Netball	WA	everyday	2	11	Welsh academy –full time, Wales U21	present	National
13	Netball	GD	everyday	1	6	Welsh academy – full time	2006-	International
14	Netball	GD/GK	everyday	2	11	Wales U17, U19, Welsh Universities	2005-	National
15	Netball	GA	everyday	2	8	Wales U17, U21	2007-	International