Examining the Nature of Interpersonal Coach-Athlete Dyads between New Zealand National Representative Female Football Players and National Head Coaches

Dwayne Woolliams

A thesis submitted to Auckland University of Technology in partial fulfilment of the requirements for the degree of Masters of Sport and Exercise

Abstract

The purpose of this research is to better understand the nature of the coach-athlete relationships within New Zealand Football's National Female under 17s, Under 20s and the Senior Women's team (the 'Football Ferns'). The coach-athlete relationship plays a pivotal role in the coaching process and both parties form close relationships with a high degree of interdependence. Better Sport Psychology has had less to say about the contexts and significant external determinants within the intrapersonal factors are seen to vary; amongst these is the coach. This study adopts a constructivist approach that draws upon a theoretical framework as proposed by Jowett and colleagues (Jowett, 2009; Jowett & Meek, 2000; Jowett & Cockerill, 2003; Jowett & Ntoumanis, 2004) exploring multiple interdependent relationships with coach- athlete dyads. A mixed-method approach will be facilitated in this study to combine both quantitative and qualitative analysis. The participants consisted of a purposive sample of approximately 67 New Zealand national representative female football players and their respective head coaches.

Quantitative research was facilitated by implementing a 22 item Coach Athlete Questionnaire (CART-Q) to investigate the nature of the inter-relationship constructs of Closeness (emotions), Commitment (cognitions), Complementarity (behaviours) and Co-orientation (perceptual consensus) in the coach-athlete dyad. Descriptive statistics and magnitude based analysis was undertaken to identify key variables which were followed up in qualitative interviews. Qualitative data was gathered by facilitating a small number of semi structured interviews to examine the nature of critical similarities and differences between CART-Q constructs and the performance context of interest in more depth and using thematic analysis.

The findings of this study indicate that there are significant similarities and difference in the perceptions of athlete- coach dyadic relationships and these can be viewed with the premise that the uniqueness of high performance sport in New Zealand shapes the contextual nuance of the athlete- coach relationship.

Abstract i
List of Figures v
List of Tables vi
Terminology vii
Attestation of Authorship viii
Acknowledgements ix
Ethics Approval xi
Chapter 1 Introduction 1
1.1 Background 1
1.2 Need for the study 2
1.3 Choice of Methodology 3
1.4 Contextual Uniqueness 4
1.5 Research Question 4
Chapter 2 Literature Review: 5
2.1 Social Psychology in Sport 5
2.1.1 Interdependence Theory 6
2.1.2 Sport Psychology Summary 6
2.2 Coaching 9
2.2.1 Dyadic research 10
2.3 Coach Education and the Athlete- Coach Relationship 14
2.4 Football Expertise in New Zealand 15
2.5 Gender Difference 18
2.6 Level of Competition 20
2.7 Team versus Individual Performance 21
2.8 Length of Relationship 22
2.9 The Athlete- Coach Relationship 23
2.9.1 Preliminary research (pre- 2000) 23
2.10 The Athlete- Coach Relationship 27
2.10.1 Current research (post 2000). 27
Chapter 3 Methodology 32
3.1 Mixed Methods: 32
3.2 Purpose 32
3.3 Design 33
3.4 – Method - Quantitative Research 36
3.4.1 Participants 36
3.4.2 Instrumentation 36
3.4.3 Ethical Considerations 37
3.4.4 Data Collection 37
3.4.5 Data analysis 38
3.5 Method- Qualitative Research 39
3.5.1 Participants 39

3.5.2 Interviews 41
3.5.3 Procedures 42
3.5.4 Data analysis 42
Chapter 4 Results 46
4.1 Quantitative Research 46
4.2 Qualitative Research 50
4.2.1 Closeness 51
4.2.2 Commitment 53
4.2.3 Complementarity 56
Chapter 5 Discussion 61
5.1 Key Similarities 64
5.2 Key Differences 70
Chapter 6 Limitations 79
Chapter 7 Conclusion 81
References 84
Appendices 95
Appendix A 95
Appendix B 96
Appendix C 97
Appendix D 100
Appendix E 101
Appendix F 104
Appendix G 107
Appendix H 108
Appendix I 109

List of Figures

Figure 1: Mixed Method Sequential Explanatory Design Schematic

Figure 2: Thematic network based on Jowett's 3 Cs model and mixed methods approach to examining the nature of athlete coach relationships within New Zealand Football's national female under 17s, under 20s and the senior women's team (the Football Ferns).

List of Tables

Table 1: The roles of participation and performance coaches (Lyle, 2002, p.54)

Table 2: Phases of thematic analysis (Braun & Clarke, 2006, p. 35)

Table 3: CART-Q data analysis for the under17s

Table 4: CART-Q data analysis for the under 20s and Football Ferns

Table 5: Greatest levels of Similarity and Difference from CART-Q data analysis

Table 6 Potential themes identified from semi-structured interviews

Table 7: Hierarchy of data categories of Closeness

Table 8: Hierarchy data categories of Commitment

Table 9: Hierarchy data categories of Complementarity

Terminology

Dyads- Two individuals (as athlete and coach) maintaining a sociologically significant relationship

Kotahitanga- Maori for unity and oneness

Mana- Maori for prestige, authority, strength, influence, status, spiritual power, and charisma - *mana* is a supernatural force in a person, place or object

Whanau- Maori for family group or extended family

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (expect where explicitly defined in the acknowledgement), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signed Date 26/11/2014

Acknowledgements

This thesis was written with the support of several people whom I would like to acknowledge and thank.

I would like to thank Dr Tony Oldham and Dr Simon Walters for being my academic supervisors. Best described as the Ying and Yang of academia, the pair have challenged, guided and nurtured me through process that I have appreciated and I will value as a one of life's special lessons. Many of our discussions have been somewhat confusing, thought provoking and some full of laughter, leaving me with an insatiable quest for knowledge. If I can be half as intelligent of one gentleman and half as caring as the other I would be a happy man. Crossing the chasm of a Masters degree has led me through a journey that started as being incredibly challenging and has ended up being an absolute joy.

I would like to acknowledge my wife for pretending to be interested in things that I find extremely exciting, it must have been like watching paint dry for her for 12 long months. She has been patient, loving and very accommodating, something I won't forget in a hurry. I need to apologize to my daughter for not always being able to help with her studies in her first year at university. Torn between the challenges, time constraints and volume of work I haven't always been there when needed.

I would also like to thank Dr Lynn Kidman for not giving up on me, for being so very encouraging and supportive over the years.

I must thank Sport Performance Research Institute of New Zealand (SPRINZ), the Coach Development Centre and the Auckland University of Technology as this journey could not have taken place without their support.

Finally to the participants of the study, thank you for listening, reflecting and being honest with me. I hope this goes some way to improve your performance and more importantly enhance your dyadic relationships.

Ethics Approval

The application for ethical approval to Auckland University of Technology's Ethics committee (AUTEC) was completed in November 2013 and approval granted in March 2014. Reference: 14/ 31 (Appendix A).

Chapter 1 Introduction

1.1 Background

The athlete- coach dyad is an interpersonal relationship contextually specific to sports coaching and important to sport psychology (Jowett & Meek, 2000, p. 157). Preliminary research examining social interconnections between athletes and coaches have traditionally involved sport leadership models. The Meditational Model of Leadership proposed by Smith, Smoll and Curtis (1978) and the Multidimensional Model proposed by Chelladurai (1978) have been widely explored by researchers; however, these models do not examine the dyadic nature of the relationships. The athlete- coach relationship is embedded in the dynamic and complex coaching process, the coach and athlete are mutually bound as members of a dyadic relationship (Jowett, 2005a)

Despite a body of theory pointing to the interaction of interpersonal and intrapersonal factors in determining behaviour, evidence based research in the examining of the interpersonal psychological factors of the athlete- coach relationship has been sparse (Lyle, 2002). Bennie and O'Connor (2012) have identified that "there is a considerable gap in the literature with respect to interpersonal relationships in professional sport" (p. 58). Sport is a rich environment to examine interpersonal relationships and athletes and coaches form close relationships with a high degree of interdependence and interaction. The differences between the perceived interpersonal dynamics of the relationship have a direct association with athlete performance, athlete satisfaction and the development and welfare of the athlete (Lorimer & Jowett, 2009). Effectively examining the athlete- coach relationship can inform the pursuit of better sporting experiences. Bennie and O'Connor (2012) state that further research is needed

to determine whether findings within a professional context are similar to those studies that have been facilitated within a college and Olympic/ World Championships contexts (p. 58).

The conceptualisation and operationalisation of a theoretical framework as suggested by Jowett and colleagues (Jowett, 2009; Jowett & Cockerill, 2003; Jowett & Ntoumanis, 2004) has, however, acknowledged the significance of this relationship over the past decade and there has been progress with regards to the value and validity of measuring the coach-athlete relationship (Balduck & Jowett, 2010). Jowett and colleagues conducted a series of qualitative studies in order to determine the nature of the athlete- coach relationship from a relationship perspective (Jowett & Ntoumanis, 2004). Their findings identified that the interpersonal constructs of Closeness, Commitment and Complementarity (3Cs) to address the coaches' and athletes' emotions, cognitions and behaviours respectively (Jowett, 2006). Jowett (2005b) recognised co-orientation as the fourth construct which highlights the extent to which the coaches' and athletes' perceptions are interconnected (Rhind & Jowett, 2010), thereby addressing the importance of capturing the dyadic nature of the two-person relationship (Jowett, 2006; Poczwardowski et al., 2006).

1.2 Need for the study

The research topic has been discussed with New Zealand Football (Appendix B) and is of interest to the organisation, the coaches and the athletes. New Zealand Football understands that such research could add value to their High Performance programme by investigating the nature of athlete- coach relationships thereby potentially minimising the risk of poor performance. This line of inquiry is believed to offer coaches greater insight with regard to the importance of athlete- coach relationships and the benefit that effective athlete- coach relationships add to player satisfaction and

development. This study may also provide a foundation of knowledge to develop coach education material for coaches. Athletes are very rarely afforded the opportunity to discuss relationships in more depth. This type of study gives the athletes an opportunity to have a voice and may potentially shape future social interactions. It may also offer sport administrators with an insight on how to complement current coach education material to aid coaches on how to better establish and maintain interpersonal relationships with their athletes.

1.3 Choice of Methodology

This study adopts a positivist and constructivist approach and draws upon a body of research conducted by Jowett and colleagues (Jowett, 2009; Jowett & Meek, 2000; Jowett & Cockerill, 2003; Jowett & Ntoumanis, 2004) exploring multiple interdependent relationships with athlete and coach dyads. The choice of methodology implemented in this study was chosen by the researcher to reflect the involvedness of the dyadic relationships that takes place within a contextually specific environment. Quantitative research and qualitative research are significant and academically valuable in their own right, however, the researcher has chosen to use a mixed- methods approach to gain another layer of richness and a fuller picture of the research question (Johnson et al., 2007). This may offer the study an elaborated understanding of the constructs and interactions between the athletes and coaches. The methodological approach adopted in this study is discussed in detail in Chapter 3.

1.4 Contextual Uniqueness

Grounded in Jowett's 3 Cs model of interpersonal relationships, this study investigated the uniqueness of high performance sport in New Zealand, specifically examining the nature of athlete- coach relationships. The contextual nuance of geographical isolation, infrastructure, resources and the nature of elite women's football shapes the way in which interpersonal relationships are established and managed. This contextual nuance may help other emerging small nations in their development of high performance programmes. The researcher of this study would expect there to be difference within the three squads ('Football Ferns'- the Senior Women's team, under 20s and under 17s) due to the time spent establishing and maintaining the relationships, the level of experience and level of expertise of the athlete and coach.

1.5 Research Question

What important constructs within dyadic relationships agree with Jowett et al.'s work and what emergent constructs are there to be found unique to high performance female football and specifically New Zealand Football?

Chapter 2 Literature Review:

This review divides the athlete- coach relationships research into two sections: The first section can be considered as 'Preliminary Research (pre- 2000)' which lends itself towards leadership in sport, coach leadership and behaviour. This preliminary research could be viewed as non-dyadic in nature and comprises of;

I. Meditational model of the athlete- coach relationship (Smith, Smoll & Curtis, 1978)
II. Normative model of decision styles in coaching (Chelladurai & Haggerty,1978)
III. Multidimensional model as proposed by Chelladurai (1978) and
IV. Compatibility in coach- athlete dyad (Carron & Bennett, 1977).

The second section entitled 'Current research (post-2000)' could be considered as the most relevant line of thinking investigating the dyadic nature of athlete- coach research.

2.1 Social Psychology in Sport

The plethora of broad frameworks concerning interpersonal and intrapersonal relationship orientated theories such as attachment theory, and interdependence theory have all added value to the cultural specificity of the questions raised in this diverse myriad of relationship research. This has in turn added impetus in amassing knowledge that is generically useful for researchers, to shed light on the interconnections, motivations and reasoning associated with more contextual specific relationship scenarios (Fenton & Jowett, 2013; Hardy & Jones, 1997; Balaguer et al., 2010; Kelley et al., 2003).

2.1.1 Interdependence Theory

Interdependence theory offers a valuable framework for ciphering the multifaceted phenomena of interpersonal transactions and relationships (Jowett & Nezlek, 2011). Rusbult & Van Lange (2003) postulate that the theory seeks to elucidate the complexities of dyadic relationships and provides the concepts and logic, to predict and explain personal and social relationships (p.369). Interdependence theory postulates that dyadic members affect each other's outcomes through a process of their thoughts, emotions and behaviours being mutually and causally interconnected (Kelley et al., 2003) and that each dyadic member gauges the value of the relationship as a series of rewards (positives), and costs (negatives), associated to that relationship (Jowett & Nezlek, 2011). Rewards are considered as the positive attributes akin to happiness, pleasure and satisfaction, and costs are considered the negative attributes like anxiety, conflict and distress. This process of relational evaluation is guided by two intrinsic benchmarks: comparison level (CL) and comparison level of alternatives (CL-alt). Comparison level is the desirability of being involved in the relationship, and the comparison level of alternatives (CL-alt) is the benchmark a member uses in deciding to remain or leave the relationship (Thibaut & Kelley, 2007; Jowett & Nezlek, 2011). Dyadic members are therefore always in an incessant state of evaluation by comparing the outcomes of the rewards and costs of that relationship, using the benchmarks to decide whether to continue with, or terminate the relationship. Rusbult and Van Lange (2003) state that Interdependence theory offers an interpersonal reality that relates to classes of situations to specific motives and types of goals.

2.1.2 Sport Psychology Summary

Although researchers in the field of sport psychology have paid considerable attention to the intrapersonal attributes of individuals participating in sport, research

investigating social relationships, and in particular within the sports domain, have not been so prevalent. Wood and Duck (1995) established that in the mid 1990's there was a severe lack of research investigating sport and exercise psychology, relationship issues and the specificity of relationship research within the sport domain.

Dyadic relationships may exist within romantic, friendship, marital, familial and sport related forms (Jowett & Clark- Carter, 2006) and although these contextual specific dyadic relationships share common characteristics the interpersonal contexts are distinct requiring specific attention from researchers. Jowett and Clark- Cater state "the coach- athlete relationship, like any other type of relationship, has great psychological significance for the development and stability or change of the individuals involved" (p. 68). Sport is an ideal vehicle to study relationship interdependence as there are a number of dyadic relationships that may take place; coach- athlete, coach- parent, coach- significant other (partner/ wife/ husband); coach- sports science support staff, athlete- parent, athlete- significant other, athlete- sport science support staff, athlete- athlete and athlete- coach. These relational partners may influence each other's outcomes (Thibaut & Kelley, 2007) and the athlete- coach relationship, in particular, sets the foundation for satisfying and enjoyable experiences.

The athlete- coach relationship is embedded in the dynamic and complex coaching process and the coach and athlete are mutually bound as members of a dyadic relationship (Jowett, 2005a). In the sports domain the athletes and coaches are expected to establish a relationship that has a significant impact on personal and relational outcomes, performance, satisfaction, self esteem and self efficacy (Jowett & Meek, 2000). The interpersonal nature of the athlete- coach dyad and associated transactions are specific and important to sport psychology (Jowett & Meek, 2000). Kelley et al. (1983), stress that interdependence exists between relationship partners as evident in

their day to day activities. Athletes and coaches within high performance sport have frequent impact on each other, the degree of interactions is high, the interactions are diverse and the interconnections may be evident for extended periods. Kelley et al., (1983), would consider the above characteristics to demonstrate a level of high interdependence.

> *In sports, a coach and an athlete are in a relationship in which the coach is expected to lead, instruct, and provide support, and the athlete is expected to execute, learn, and receive support. Typically athletes form relationships with coaches to learn skills, techniques and tactics, to feel competent and successful, and to gain satisfaction from their sport. In contrast, coaches form relationships with athletes to share knowledge and experience, to support the athlete in reaching his/ her potential, and to achieve personal success and satisfaction*. (Jowett & Nezlek, 2011, p.288).

These bi-reciprocal interconnections, between the athlete and the coach, who work together, to achieve shared outcomes, fit well with Kelley et al.'s Interdependence Theory.

Based on Kelley et al.'s (1983) definition of interpersonal relationships, Jowett and colleagues (Jowett, 2003; Jowett & Meek, 2000; Jowett & Cockerill, 2003) defined the athlete- coach relationship as a situation in which both an athlete's and a coach's interpersonal feelings, thoughts and behaviours are mutually and casually interconnected. Jowett has extended Kelley et al.'s work to conceptualize the 3 Cs model (Jowett, 2007) through the operationalised relationship construct of closeness (Berscheid, Snyder & Omoto, 1989), commitment (Rusbult & Buunk, 1993), complementarity (Keisler, 1997). The 3 Cs model as proposed by Jowett will be facilitated in this study to investigate the nature of athlete coach relationships between the New Zealand under 17s, under 20s and Football Ferns and their associated national coaches. Closeness could be observed in the coaching environment as emotions associated with being liked, cared, valued, trust and respect between the athlete and coach. Commitment could be observed by the cognitive attachment and long term

orientation toward each other and complementarity could be observed through complementary roles tasks and support that coaches and athletes undertake in the coaching process.

2.2 Coaching

Notwithstanding the increased interest and acknowledgment of sport coaching research, there remains a clear lack of cohesion amongst researchers as to what may constitute an agreed coach modelling process. A lack of definitive guidelines and principles has resulted in many coaches working without any reference to an identifiable process and has led coaches to base their coaching practice on intuition, feel and historical experiences (Saury & Durand, 1998; Cushion et al., 2003, 2006; Jones et al., 2004).

Cushion et al. (2006) describe the coaching process as a messy reality that requires clarification before realistic guidelines can be determined. Sport coaching takes place within a social context in the presence of others (Jowett & Ntoumanis, 2004). Lyle (2002) puts forward the view that as sport coaching is a social phenomenon that is formed by "social structures, power relationships and social trends" all of which may influence future developing social patterns (p. 191). Coaches and athletes can establish meaningful relationships and become involved in aspects of each other's lives within and out of the sport context. Despite the complexity of the nature of coaching, a number of researchers have attempted to develop coaching process models.

Franks et al. (1986); Côté et al. (1995); and Lyle (2002) have created a considerable body of knowledge in relation to the coaching process. Franks et al.'s (1986) model is heavily reliant on the use of data on significant performances by the athlete(s) and suggests that coach effectiveness is a direct measure of athletic

performance; it promotes planning and suggests that coaching is primarily teaching orientated and therefore may be considered more of a teaching process than a coaching process. Côté et al.'s (1995) coaching model is derived from empirical data, it is illustrated as a two dimensional diagram, although it can be difficult to determine the process and demonstrates a limited process of progression. Lyle's (2002) coaching process model is detailed, the schematic representation is complicated, and it is based on a set of assumptions and believes that a process should be cyclical in nature.

Lyle (2002) is a committed advocate for advancing the awareness of effective athlete-coach relationships. However, Lyle's model does not clearly illustrate how a coach may need to modify his or her behaviour as a direct result of the athletes' emotions, cognitions, and behaviour throughout the coaching process. Therefore building a model to demonstrate the dyadic nature of the athlete- coach relationship requires more attention.

Although the three models have produced a greater understanding of the coaching process they remain unique in their own right demonstrating the difficulty for researchers to agree to a cohesive way in which to coach.

2.2.1 Dyadic research

Researchers such as d'Argrrippe-Longuville et al. (1998) have investigated the conceptualisation of athlete-coach interactions of expert French judo coaches and elite female judoka (athletes). They conducted a qualitative study that goes beyond previous work to consider the interactions of the dyadic interconnections within a complex coaching environment and associated contextual dynamics. Unfortunately for the purposes of this study, d'Argrrippe-Longuville et al. 's major emphasis was to investigate coach effectiveness and sport leadership styles rather than the dyadic constructs of the athlete- coach relationship. d'Argrrippe-Longuville et al. were pioneers

in identifying the importance of athletes and coaches being mutually interconnected and therefore the coaching process needs to address the dyadic nature of athlete- coach interactions.

Poczwardowski et al. (2002) adopted a phenomenological approach to investigating coaching practice and athlete- coach relationships. The study was conducted with a group of NCAA Division 1 Collegiate gymnasts and their coaches over a four month period. The results identified that coaching practice encompasses a series of dyadic interconnections between the athlete and coach and that these dyadic members are personally responsible for shaping their own coaching environment. Key themes of 'task', 'interpretation', 'meaning' and 'negotiation' were highlighted and Poczwardowski et al. found that these themes have a tendency to influence the social interactions of the dyadic members (Cushion, 2006). This illustrates the complex, multifaceted nature of the coaching process and stresses the individualistic and contextual uniqueness of the dyadic relations. Poczwardowski et al.'s findings raise pertinent questions with regard to how the coaching process is influenced by the dynamic social activity of the dyadic members. For researchers to portray the coaching process as a task orientated series of activities may not address the complexity and scope of the coaching process. To neglect the social interconnections between the athlete and coach potentially may undermine the truthfulness of what coaching processes take place. This is important to the current study as contextual uniqueness is of vital importance for small nations that may be geographically isolated with a small talent pool and limited resources, as this contextual uniqueness may impose parameters from which athletes and coaches work within. Therefore this may in turn influence the coaching environment and dyadic interactions.

Cushion (2007) suggests that coaching practice could be looked upon as a manner of incessantly renegotiating boundaries to define a more adaptable form of activity. Current coaching knowledge will benefit from a greater volume of research addressing the social dynamics and dyadic interconnections within a coach modelling process.

Cushion et al. (2006) recommend five key features of the coaching process that may potentially develop coaching practice and the coaching process:

1. The coaching process is not necessarily cyclical, but is continuous and interdependent.
2. This process (and practice) is continually constrained by a range of 'objectives' that derive from the club, the coach and the athletes.
3. The process is a constantly dynamic set of intra- and inter-group interpersonal relationships. These relationships are locally dialectic between and amongst dyadic members and structures are subject to a wide range of pressures.
4. The coaching process is embedded within external constraints, only some of which are controllable.
5. A pervasive cultural dimension infuses the coaching process through the coach, the club, the players and their interactions.

Lyle (2002) suggests that the role of the coach can be grouped into the participation coach and performance coach, and by doing so, clarifies sport coaching concepts within a conceptual framework. The participation coach and performance coach cater to different target markets and have a considerably different concept of organisational priorities as depicted in the table below.

Table 1.

The roles of participation and performance coaches (Lyle, 2002, p.54)

Participation Coach	**Performance Coach**
Non competition focus	Competition focus
Skill development orientated	Results orientated
Participant less engaged in the coaching process	Performer engaged in the coaching process
Coach is decision maker	Shared decision making- emphasis on athlete empowerment
Little planning	Extensive planning
Time commitment (little)	Time commitment (extensive)

The roles differ in terms of purpose, goals, occupational circumstances, expertise and relationship to competition sport structures (Lyle, 1999, p. 12). The participation coach will focus on the skill development of the participant and is more likely to use teaching and or instructing techniques to aid with the development of the participant. Lyle (2002) states that performance sports coaching is an interpersonal phenomenon that is shaped by a number of factors including the coaches' and athletes' value systems, personal characteristics, sport specificity, and organizational context which leads to having an impact on performance, athlete satisfaction, development and welfare, and coaching practice. The performance coach may have to establish more effective dyadic relationships than participation coaches' due to the roles and tasks necessary for performance.

2.3 Coach Education and the Athlete- Coach Relationship

Coaching practice has been largely based on intuition, feel and historical experiences (Saury & Durand, 1998; Cushion et al., 2003, 2006; Jones et al., 2004). Formalised coach education programmes can assist coaches to gain more and better practical experiences and apprenticeship orientated opportunities by taking advantage of mentoring schemes and critical reflection (Cushion et al., 2003). Coaches engage in a number of learning activities to develop knowledge, including attending formalised coach education courses, informal networks, the internet, reading books and observation of significant others (Bloom, Stevens, & Wickwire, 2003). Occhino et al. (2011) investigated the dynamic social networks in high performance football with the purpose of exploring how coaches interact with others in developing their knowledge within high performance football in Australia. They adopted a qualitative methodology to gain insight into the social knowledge networks of six high performance coaches. The participants in this study preferred learning from significant others as their most meaningful source of information and held their interconnections with experienced football coaches of having the most value.

In an effort to gain more understanding as to how knowledge is accrued by expert coaches, Saury and Durand (1998) studied the coaches of the French sailing team preparing for the 1996 Olympic Games in Atlanta. Saury and Durand noted that coaches use an assortment of coping mechanisms to manage with the set of contextual constraints within a coaching session. These coping mechanisms can include flexible planning strategies and athletes and coaches pooling resources, based on previous shared experiences, to share the power dynamic of the design and implementation of coaching sessions. “The actions of the coaches were full of context-based, opportunist improvisations and extensive management, of uncertainty and contradictions” (Saury &

Durand, 1998, p.263). The study found that the type of sport influences the coaches need to deal with contextually specific nuance. Saury and Durand highlight that the contextual uniqueness of the sport shapes the coaching process.

2.4 Football Expertise in New Zealand

National Sports Organisations in New Zealand are supported by Sport New Zealand (Sport NZ) with regard to coaching strategy and development. Sport NZ's key responsibilities are to lead, enable and invest in National Sporting Organisations to ensure they have suitable coaching resources and national coach development pathways that align with Sport NZ, High Performance Sport New Zealand and the NZ Coaching strategy (http://www.sportnz.org.nz/about-us/our-publications/our-strategies/new-zealand-coaching-strategy/). Sport NZ has a dedicated team of coach development specialists that are responsible for driving the NZ Coaching Strategy, to advocate a national coaching philosophy and to support the National Sporting Organisation's implementation thereof. Sport NZ advocates that *"excellence in sport requires excellence in coaching"* (SportNZ, n.d.) and that the delivery of poor coaching or an absence of coaching will have a detrimental effect on participation numbers and will lead to poor sporting experiences. In New Zealand, National Sporting Organisations are funded through a mechanism of performance orientated results. There are currently 14 targeted sports with the expectation of winning medals at identified pinnacle events, at the Olympic Games, World Championships and Commonwealth Games events respectively. These 14 targeted sports are significantly resourced by SportNZ to different levels of funding.

National Sporting Organisations often share resources and come together in formal and informal networks, however, very rarely do they collaborate in the advancement of sport specific coaching development frameworks. New Zealand

Football developed a coach development framework as part of the 'Whole of Football' plan that was developed in 2010 (NZFootball, n.d.). The coach development framework was developed through a process of researching international best practice on athlete and coach development, education frameworks and consultation with coach education specialists. New Zealand Football has adopted an athlete-centred approach to coaching as recommended by Sport NZ to reflect the NZ Coaching Strategy (SportNZ, n.d.). New Zealand Football has also adopted a 'four corner' approach to coach development, which has been largely underpinned by bio-scientific inquiry to include;

1. Technical/ tactical,
2. Physical,
3. Cognitive and
4. Social/ emotional constructs (Woodman, 1993) as a philosophical base for all coaching modules.

There is ample support for Woodman's (1993) claim that the social/ emotional aspects of coaching are of equal importance for the need to develop and nurture the technical, tactical and physical skills related to athletic enhancement. This line of thinking supports Philippe and Seiler (2006) findings that the coaches' social competencies are necessary for building effective dyadic relationships. Although the four corner approach is prevalent in coach education frameworks amongst many of the targeted sports in New Zealand there is little, if any, coach education offered to coaches to increase their knowledge base on how to develop, and or, maintain athlete- coach relationships.

There seems to be a lack of connection in the intentions of coach development and the preparation of high performance coaches. Coaching programmes would benefit

from education practices that increase the awareness of the importance of establishing and maintaining effective relationships.

Chesterfield et al. (2010) identified that there was a paucity of research on or in coach education and investigated how coaches perceived and responded to the content and assessment processes that advanced football coaches experienced during the completion of the Union of European Football Associations (UEFA) 'A' Licence in the United Kingdom (equivalent to the OFC 'A' Licence).

Chesterfield et al.'s (2010) research utilised a qualitative methodology whereby interpretive interview techniques were implemented as a means of collecting the thoughts, feelings and behaviours of six advanced football coaches. The results indicated that coaches were initially excited about the potential content of the UEFA 'A' Licence course, however, upon completion of the course demonstrated mixed feelings as to whether their initial expectations were met. Chesterfield et al. (p.304) noted that although some coaches used words like "unfulfilled" and "not sufficient" the other participants instantly implemented the prescribed strategies but soon came to rebuff them. The coaches felt that the content of the course did not reflect their current realities of their coaching environment and only snippets of information had any value and transferability to their contextual situation. The study found that coaches bank their previous coaching experiences to form a set of beliefs with regards to coaching appropriateness. This belief system acts as a filter which heavily influences the coaches' ability to accept, reject or resist what concepts and strategies may be championed by the coach educators facilitating the course. They determined that the coaches found the experience to be artificial as they felt they had to adopt coaching styles that were required to meet the examiner requirements in order to demonstrate competence;

however, these behaviours were different from how the coaches would have actually coached a given situation.

The majority of coach education lags behind modern coaching requirements resulting in coaches being somewhat unprepared. On the one hand this leaves functioning dyads vulnerable on the other it justifies the need for contemporary snap-shots of teams/dyads as they function in a contemporary context.

2.5 Gender Difference

Fasting and Pfister (2000) completed a qualitative research study investigating female athletes' expectations and evaluations of their coaches within an elite football environment. The study employed semi-structured interviews with 38 elite female football players from Germany, Norway, Sweden and the Unites States of America. Fasting and Pfister make note of the lack of statistics kept by European football countries with regards to the number of female football teams coached by women. In 1995 25% German, 20% Swedish and 10% Norwegian female football teams in the first division were coached by women. In 2014, New Zealand Football's premier female football competitions, the National Women's League, 20% of teams were led by a female head coach. One may conclude that coaching is a male dominated vocation in high performing football across cultures.

Within Fasting and Pfisters' research the German players identified that female coaches are more empathetic, are more effective with communication and have a greater willingness to cooperate than male coaches. The players were of the opinion that masculine orientated coaching styles demonstrated high levels of aggression, authoritarian leadership styles and coach-centred approaches to coaching. Female athletes suggested that male coaches that wish to coach females need to demonstrate

high levels of empathy and social competence. The Swedish players voice the opinion that female coaches are better psychologists and that there is a distinctive difference coaching males versus females.

Fasting and Pfister (2000) concluded that "players have had positive and negative experiences with male and female coaches and the players prefer a female style of communication that can be described as understanding and caring"(p.103).

Given that NZ women's football functions within a dominantly male oriented framework this may have impact on global coaching culture and in turn how these dyads function. Quite specifically dyads may lack empathy and social competence and are at risk of being coach rather than player centred.

Krane (2007, p. 159) proposes that "to describe all women or all men as identical is fraught with assumptions and inferences" and suggests a more meaningful epistemology may be for researchers to consider socialization factors and motivational climates to address gender identity. Krane believes that by addressing the contextual uniqueness of the environment may lead to advantageous behaviour.

A study completed by Norman and French (2013) explored how high performance female athletes in the United Kingdom experience athlete- coach relationships. The qualitative research was conducted utilising in-depth interviews with 16 women athletes. Norman and French discovered that "gender is relevant within dyadic relationship due to the social construction of gender influences, assumptions and behaviours of both dyadic members" (p. 18). The subjects in the study described how coaches that took the time to get to know the athletes as individuals, rather than just athletes, experienced more positive feelings towards the coaches. Norman and French (p.19) suggest that "coach education would benefit from a greater emphasis on coaches

social skills, and that there should be a stronger socio-cultural element to this curriculum to raise awareness in coaches and challenge the perception". Finally the study advocates that the athletes need to have a greater voice into how coach education programmes are designed in order to meet the needs of the athlete.

2.6 Level of Competition

Jowett, Paull, and Pensgaard (2005) argue that the level of competition that an athlete and coach compete at has a bearing on the level of motivation to establish interdependent relationships. They contend that those who operate within the highest levels of competition demonstrate interdependent relationships due to the risks associated with the level of competition. At a professional level the risks may include remaining in employment, being released from contracts for poor performance, financial rewards, and management of training intensity due the increased risk of injury, burnout, and the potential selection and or de-selection for national representation. Therefore, athletes and coaches may be more motivated to establish interdependent relationships as a way of self-perseveration to minimise, and or, protect themselves from the risks associated with high performance sport (Jowett, Paull, & Pensgaard, 2005).

Jowett and Nezlek (2011) investigated the association between athlete- coach relationships interdependence satisfaction level as a function of competition level. Their findings support current research by determining that the association between athlete-coach relationship interdependence and satisfaction were weaker with lower level competitors compared to that of high level competitors. They argue that higher performers require more support during stressful situations and the athletes and coaches will look for support from one another during stressful events like competing at the highest level.

The three age group teams within this study, represented by the under 17s, under 20s and the Football Ferns, compete at three significantly different levels of competition. The lowest level of competition is played by the under 17s through to the highest level of competition being played by the Football Ferns. It is of interest to determine if the current study reveals the same level of interdependence at all three levels given the relatively unique conditions of their respective environments.

2.7 Team versus Individual Performance

Jowett (2007) has expressed that individual sport performers may not have to be interdependent with other team members to accomplish key performance goals. Athletes in team sport, like football, need to form a collective unit in order to perform effectively. Athletes in team sports not only need to have the support and guidance of their coaches to succeed but also need to have the attention, support, assistance and trust of their team mates. In effect the final performance outcomes are the result of the effort exerted by all participating athletes in a single team. Therefore athletes in team sports need to be personally and instrumentally interdependent. By the very nature of individual sports the athletes have a greater opportunity to interact with their coaches without having to compete with other athletes for face to face interpersonal transactions with their coach. Rhind, Jowett and Yang (2012) completed a study to examine whether there are fundamental differences in how athletes from individual and team sports view the nature of the relationship with their coach. The results indicated the athletes from individual sports reported being closer and more committed to their coach than those athletes in team sports. Rhind, Jowett and Yang noted that no significant differences were identified in relation to complementarity, suggesting that both individual and team athletes feel, think and behave in a similar fashion with regards to being responsive, friendly and ready to do their best. The athletes in individual sports demonstrated that

they believed their coach to have greater levels of trust, respect and appreciation for them as athletes than what was reported for team athletes.

2.8 Length of Relationship

Interdependence theory hypothesises that dyadic partners have the ability to influence other's outcomes. Within interdependence theory dyadic partners are continually reassessing the interpersonal outputs of the relationship to decide to either remain in the relationship or seek alternatives. Investment model is an extension of interdependence theory and asserts that the state of dependence is represented as feelings of commitment (Rusbult & Buunk, 1993). Investment model suggests that individuals feel more committed to their dyadic relationships due to feeling more satisfied. Dyadic partners invest emotional energy and time into relationships. The investment of time intensifies commitment by increasing the cost of terminating the relationship in that leaving the relationship would mean forsaking the relationship. Rusbult and Buunk (1993) suggest that in the early stages of newly established relationships, dyadic partners may experience and perceive specific interpersonal outputs as unique to that relationship and the individuals pay considerable attention to each other's social interactions.

Dyadic relationships over time will encounter problems of interdependence and the interactions associated between the dyadic members become stable over time (Rusbult & Buunk, 1993). The monitoring process that is heavily relied upon by dyadic partners in newly established relationships isn't always maintained and Jowett and Clark-Carter (2006) suggest that the dyadic partners eventually pay less attention as the dyadic members feel that they know what to aspect from social interactions.

Jowett and Nezlek (2011) examined the association between athlete- coach relationship interpersonal dependence and satisfaction level as a function of relationship length. They found that associations between satisfaction and interdependence were stronger in longer dyadic relationships. These findings are consistent with research completed by Jowett and Clark-Carter (2006) that showed dyadic relationships may be maintained for longer periods where the cost of leaving is perceived to be higher. Longer relationships may be more likely to have experienced more interpersonal outputs and events than shorter relationships. Athletes and coaches may consider the time and effort that they invest into building knowledge, experience and expertise into the relationship as investments. Kelley et al. (2003) assert that by investing time into longer relationships a dyadic member may mutually contribute to achieving greater rewards and greater levels of satisfaction.

The researcher of this study could expect athletes in shorter relationships to demonstrate weaker dyadic relationships. This may be depicted by a greater variance of difference in their perceptions of their relationship. If the length of the relationship has a bearing on the ability to perceive the nature of the relationship then one would expect to see a greater variance in how the athletes answered the CART-Q compared to their dyadic partner.

2.9 The Athlete- Coach Relationship

2.9.1 Preliminary research (pre- 2000)

Preliminary research investigating athlete- coach relationships conventionally employed leadership tools to determine the bearing on the athletes. Four major models have been recognised as investigating social behaviour within athlete- coach relationships;

I. The Mediational Model of Leadership was proposed by Smith, Smoll & Curtis (1978). Smith, Smoll and their colleagues (Smith, Noland, Smoll, & Coppel, 1983; Curtis, Smith & Smoll, 1979; Smith, Smoll & Hunt, 1977; Smith & Smoll, 1984; Smoll, Smith, Curtis, & Hunt, 1978) based their research on the development and validation of the Coaching Behaviour Assessment System (CBAS). The CBAS is an observational tool that utilises coding the coaches leadership behaviours observed in a typical coaching practice setting. The tool records actual behavioural actions within the following constructs of: support, instruction and punitive actions. The Mediational Model also attempts to teach coaches to improve their behaviours, reassess their behaviours and determine the effect of these changes on the players' satisfaction and enjoyment (Chelladurai, 1990).

II. The Normative Model of Decision Styles in Coaching was proposed by Chelladurai and Haggerty (1978). Following on from the work completed by Vroom and Yetton (1973), Chelladurai and Haggerty postulated a normative model of decision making in coaching. The model has been implemented to investigate the degree to which athlete participation is affected by the decisions made by coaches in contextually specific situations. The styles of decision making were categorized into autocratic, consultative, and participative or variations thereof in the seven situational attributes of: time pressure, quality requirement, problem complexity, coach's information, group acceptance, coaches' power and group integration. Studies have indicated that the situational difference was considerably more influential than individual difference on the decision style choices. Autocratic styles and democratic styles of decision making had the same preference weighting from both coaches and athletes and

the delegative style of decision making was somewhat rejected as a preferred style (Chelladurai, 1990).

III. The Multidimensional model was proposed by Chelladurai (1978).The Multidimensional model consists of three states of leadership behaviour: required behaviour, preferred behaviour and actual behaviour. This model considers group performance and member satisfaction to be a function of the congruence among the three states and the antecedents of these behaviours are the characteristics of the situation, the leader and the members (Chelladurai, 1990). This line of thinking led to the development of the Leadership Scale for Sports (LSS) by Chelladurai and colleagues (Chelladurai, 1978; Chelladurai & Carron, 1981; Chelladurai & Saleh 1978. 1980). The LSS specified five dimensions of leadership behaviour: training and instruction, democratic behaviour, autocratic behaviour, social support and positive feedback. Saminen and Liukkonen (1996) have implemented the LSS to compare the athletes' perceptions of coaching behaviour with the coaches' actual and perceived behaviour. Saminen and Liukkonen established that athletes felt female coaches' modelled greater levels of democratic behaviours and less autocratic behaviour compared to their male counterparts. The female coaches were more realistic with their actual and perceived behaviours and modelled greater levels of social support. Saminen and Liukkonen noted that male coaches displayed the greatest variance between the coaches' self and athlete ratings.

The first three of these models appear not to be reciprocal in the sense that they focus exclusively on what the coach should do with limited guidance as to which behaviour might benefit a team or sub-set of players. They are intrinsically personality driven talking about styles and dispositions. This research was constructive for

measuring coach behaviours and to promote reflective practices but does not address the dyadic nature of athlete- coach relationships.

IV. Compatibility in coach- athlete relationships as suggested by Carron and Bennett (1977) identified the importance of investigating dyadic interactions between athlete and coach. Using Schutz's (1958, 1966) theory of Fundamental Interpersonal Relations Orientation- Behaviour (FIRO-B) as a foundation, Carron and Bennett built on Schutz's contention that people have a need to express and receive three types of behaviour: inclusion, control and affection in their relationship with significant others. Carron & Bennett proposed that the degree of compatibility on the need to associate with others and to have others associate with the self was the predominant factor in differentiating between compatible and incompatible athlete coach dyads (Horne & Carron, 1985). Horne & Carron note that the individuals perceptions of a significant others behaviour, rather than the behaviour itself, governs the individuals feelings and actions towards the dyadic member.

Horne & Carron (1985) provide insight by describing the LSS as having three advantages over the FIRO-B in assessing sources of dyadic compatibility. The LSS focuses in the specific behaviours while the three behavioural dimensions of inclusion, control and affection within the FIRO-B are more universal. In an attempt to investigate the nature of athlete- coach relationships, Hinde (1997) argues that the utilization of leadership tools should not be a substitute for investigating social behaviour within social relationships. The implementation of the Leadership Scale of Sport is not an appropriate tool to measure the quality and or the nature of relationships between the athlete and coach as the tool implies that relationships are non-dyadic in nature. This lends the researcher of this thesis to investigate a tool that is dyadic in nature whereby

the athletes and coaches thoughts, feelings and emotions are measured, unlike the approach adopted with the Leadership Scale of Sport and FIRO-B. Evidence based research investigating the interpersonal psychosocial factors that may influence the athletes'- coaches' satisfaction and performance of sport is limited. Sports psychology research has concentrated on examining the intrapersonal factors of athletes, and a large volume of the research conducted to date has neglected to involve both relationship members, whilst attempting to examine the dynamics of such a relationship (Jowett, 2006). Jowett's model goes some way to meet the dyadic nature of athlete- coach relationships but remains a questionnaire. Therefore studies like this will always be needed to gain a deeper understanding of the phenomena.

2.10 The Athlete- Coach Relationship

2.10.1 Current research (post 2000).

Phillipe, Sagar, Huguet, Paquet and Jowett (2011) examined the nature and development of the athlete- coach relationship and state that the coach plays a vital role in the athletes' personal growth, mental strength and athlete development. In a coaching context the relationship established between the coach and athlete plays a fundamental role in the athletes' technical/ tactical, physical and psychosocial development. The way in which coaches and athletes interrelate with each other can play a vital role in influencing such factors as satisfaction, enjoyment and motivation (Lorimer & Jowett 2009). The athlete- coach relationship is embedded in the dynamic and complex coaching process. The coach and athlete are mutually bound as members of a dyadic relationship (Jowett, 2005a), coaches are responsible for facilitating high quality experiences and the athlete learns the sport whilst developing psychosocially and emotionally (Jowett & Cockerill, 2003). The coaching process provides the means by

which coaches' and athletes' needs are expressed and fulfilled (Jowett & Ntoumanis, 2004).

Lyle (2002) suggests that performance can be thought of as consisting of a stable and unstable set of variables. Stable elements can be considered the development of learned abilities associated with physical and technical capabilities. However, psychosocial factors can be considered unstable variables. Managing these elements is a method of reducing the unpredictability of performance and very much influenced by the nature of interpersonal relationships between coach and athlete. Interpersonal relationships are in a constant state of flux and require change, development and progression to produce harmonious and stable athlete- coach relationships. Phillipe, Sagar, Huguet, Paquet, and Jowett (2011) suggest the interpersonal relationships must evolve with the growth and development of the athlete and coach and as the evolution of the relationship transforms so does the athletes' and the coaches' sensitivity to change dynamics of being casually and mutually interconnected.

Wylleman (2000) constructed a conceptual model to determine the characteristics that make up an athlete- coach relationship. Wylleman proposed that the relationship comprises of an acceptance- rejection element, a dominance- submission element and a social- emotional element. The acceptance- rejection element refers to the positive and or negative attitudes the dyadic members embrace toward their relationship. The dominance- submission element refers to embracing a stronger or weaker stance towards each other, and the social- emotional element refers to the relational and emotional stance toward each other. Wylleman's conceptual model goes some way to explain the nature of the athlete- coach relationship. However, it has been claimed that the model may require more theoretical detail of when, how and why

behaviours occur and therefore the model has limitations (Phillipe, Sagar, Huguet, Paquet & Jowett, 2011).

Jowett and colleagues conducted a series of qualitative studies in order to determine the nature of the athlete- coach relationship using relational models (Jowett & Ntoumanis, 2004). The researchers initially investigated the definition of the distinctive inter-relationship as a circumstance in which coaches' and athletes' emotions, cognitions and behaviours are reciprocally and casually interconnected. This process provided a platform from which a model has been developed to represent the dyadic athlete- coach relationship (Jowett, 2009) and acknowledged the major elements of the relationship and their interconnections (Jowett & Ntoumanis, 2004). Subsequently the interpersonal constructs of Closeness, Commitment and Complementarity (3Cs) were identified to address the coaches' and athletes' emotions, cognitions and behaviours respectively (Jowett, 2006). Closeness represents the feeling of being emotionally close with one another in the athlete- coach relationship. The qualitative research studies suggested that the feelings of being liked, cared, valued and mutual trust had a positive effect on the coaches' and athletes' intrapersonal and interpersonal factors. The construct of commitment describes a cognitive attachment and long term orientation toward each other (Jowett, 2009). The construct of complementarity reflects the co-operative interactions of coaches' and athletes' responsiveness and affiliation. Jowett and Ntoumanis (2004) suggest that complementary roles, tasks and support were found to play a vital role in the relationship because it enabled both parties to concentrate their efforts towards accomplishing shared goals.

Jowett (2005b) identified co-orientation as the fourth construct which highlights the extent to which the coaches' and athletes' perceptions are interconnected (Rhind & Jowett, 2010), thereby addressing the importance of capturing the reciprocal nature of

the two-person relationship (Jowett, 2006; Poczwardowski et al., 2006). Co-orientation identifies that coaches and athletes are capable of perceiving their relationship from two different perspectives. The coach and athlete embrace the direct perspective, how the athlete/ coach feels, thinks or acts toward the other party (e.g. I trust my coach) and the meta-perspective is how the athlete/ coach believes their coach/ athlete feels, thinks or acts (e.g. My coach trusts me). There are three dimensions associated with assessing the co-orientation of the coach – athlete relationship by comparing both parties direct and meta-perspectives: the actual similarity (i.e. the comparison of the athletes' and coaches' direct perspectives), assumed similarity (i.e. a comparison of an athletes' and coaches' direct perspectives with their meta-perspective), and empathetic understanding (i.e. the comparison of the athletes' direct perspective with the coaches' meta-perspective or a coaches' direct perspective with the athletes' meta-perspective) (Jowett, 2006; Jowett, 2009). The additional conceptualisation of co-orientation addresses the dyadic nature of the athlete-coach relationship.

The 3 Cs successfully defines the quality of the coach- athlete relationship and suggests a methodical process by delineating four interpersonal and interrelated constructs (Jowett, 2006). As a result of the qualitative research completed by Jowett and colleagues (Jowett & Cockerill, 2003), an instrument that measures quantitatively the quality of the coach- athlete relationship has been developed and validated (Balduck & Jowett, 2010; Jowett, 2006; Jowett, 2009; Jowett & Ntoumanis, 2004). A direct perspective version of the11 item Coach Athlete Relationship Questionnaire (CART-Q) (Jowett & Ntoumanis, 2004) and a corresponding 11 item meta- perspective version have been developed. The 22 item Coach Athlete Relationship Questionnaire (CART-Q) (Jowett & Ntoumanis, 2004) consists of a *direct and meta-perspectives* version to measure the interpersonal constructs of the players and coach (see Appendix C). The CART-Q measures both players' and coaches' direct perspective of closeness/ feelings

(4 items; e.g., I like this athlete/ coach), commitment/ cognitions (3 items; e.g., I am close to this athlete/ coach) and complementarity/ behaviours (4 items; e.g., When I coach this athlete I am ready to do my best or When I am being coached I am ready to do my best).The meta- perspective of closeness, commitment and complementarity measures the coaches' and athletes' perceptions of the other relationship member's rating of interpersonal feelings, cognitions, and behaviour respectively. The meta- perspective questions provides scores of meta-closeness (4 items; e.g., My coach/ athlete likes me), meta- commitment (3 items; e.g., My coach/ athlete believes that I am appreciative for the sacrifices he/ she has experienced in order to improve performance), and meta-[complementarity (4 items; e.g., My coach/ athlete is responsive to my efforts).

Of interest to the present study is the detailed nature of the 3 Cs and their relevance to representing the mutual interconnections that are present in the athlete and coach relationship.

Newcomb (1953) postulates that Co-orientation is a function of communication and reflects the mutual perceptions and assumptions of each individual within a dyadic relationship. Co-orientation consists of three dimensions:

1. Actual Similarity,
2. Assumed Similarity and
3. Empathetic Accuracy/ Understanding

Co-orientation will be relied upon to measure the potential magnitude of difference between the athletes and coaches perceptions of the nature of their dyadic relationship.

Chapter 3 Methodology

The epistemological underpinning of this research adopts a constructivist line of inquiry. The approach acknowledges the significance of how contextually specific environments may shape the perceived reality of the individuals, and the associated interpersonal transactions are bound within a continuous cycle of evaluation, which shapes a sense of social reality (Cassell and Symon, 2004). Consequently the current methodology seeks to capture unique aspects of a particular context of interest and compare to a broader body of knowledge in the field.

3.1 Mixed Methods:

Mixed methods research is an evolving practice of methodological inquiry. It is a purposeful application of considering multiple viewpoints and perspectives using a synthesis that includes quantitative and qualitative research (Johnson, Onwuegbuzie, and Turner, 2007). The process of collecting, analysing and mixing both quantitative and qualitative data sets will enhance the understanding of the research problem (Ivankova, Creswell, and Stick, 2006). The present study seeks to use quantitative data to structure detailed qualitative interrogation of phenomena.

3.2 Purpose

Social scientists have embraced mixed methods research as a means of determining a holistic approach to inquiry and to increase understanding by gathering knowledge from the convergence of two or more methods. Greene, Caracelli and Graham (1989) believe that the combination of methodologies, allows for a more rigorous analysis by taking advantage of quantitative and qualitative research. Early social and behavioural scientists have attempted to fuse quantitative and qualitative methodologies to gain a different perspective on social sciences.

Webb, Campbell, Schwartz, and Sechrest (1966) further developed research initially undertaken by Campbell and Fiske (1959) to determine that by adopting a multiple operationalism approach, two or more methods, reduces the uncertainty of interpretation. Webb et al. (1966) believe that by using a means of triangulation, this can produce more credible evidence by minimising error, thus increasing confidence.

Denzin (1978) advanced this previous triangulation discussion and outlined four different types of triangulation: (a) data triangulation, (b) investigator triangulation, (c) theory triangulation, and (d) methodological triangulation. For the purposes of this study data triangulation, investigator triangulation and methodological triangulation have been adopted. Denzin considers a mixed methods approach as a form of *between-method* triangulation as an inherently robust line of inquiry. In this study the triangulation process is utilised to develop a new body of knowledge via a process of comparing existing theory and data which is both confirmatory and generative in the sense that it will seek agreement and difference between the perspectives.

3.3 Design

Researchers have identified a number of mixed methods designs whilst Creswell et al., (2003) determined the most often adopted design structures include concurrent and sequential designs. Creswell et al. postulated that a sequential explanatory design is a popular methodology to be implemented in social and behavioural sciences. This process comprises the collection of quantitative data, analysing the data and then the qualitative data in two consecutive, yet distinctive phases within the study (Ivankova, Creswell, and Stick, 2006). Completing the quantitative aspect first in this study, provided the researcher a general understanding to the research problem and identified potential areas of concern. The qualitative aspect followed this process enabling the

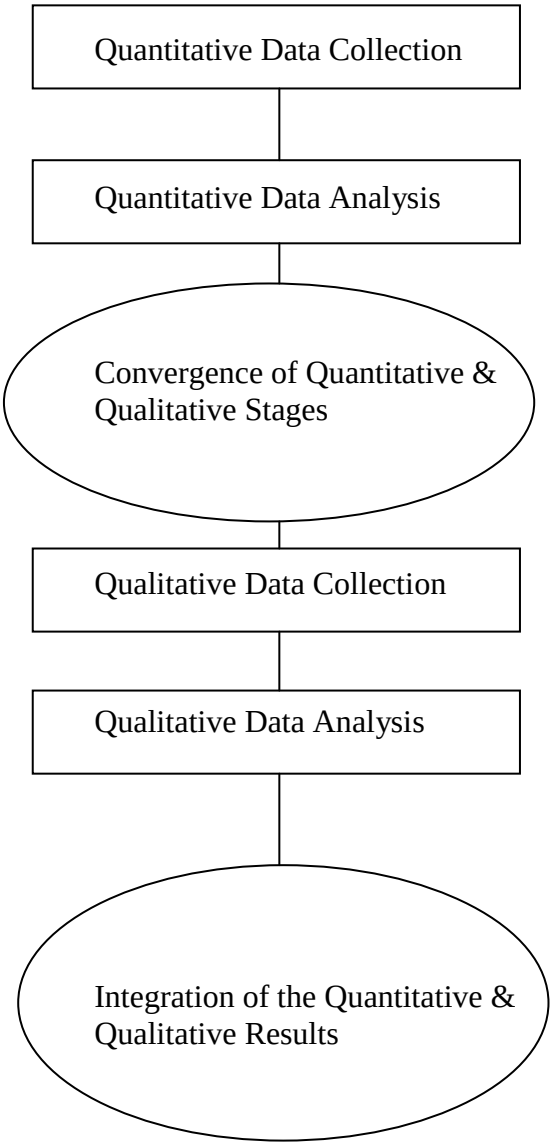
researcher to delve deeper into investigating the participants' emotions, cognitions and behaviours associated to their perceived nature of the dyadic relationship.

A mixed- method approach, using sequential explanatory design was facilitated in this study to combine both quantitative and qualitative analysis (see Figure 1.).

Quantitative research was employed by implementing a Coach- Athlete Questionnaire (CART-Q) to investigate the nature of the inter-relationship constructs of Closeness (emotions), Commitment (cognitions), and Complementarity (behaviours) (3 C's) in the coach-athlete dyad. This data was collected and analysed first prior to investigating the qualitative aspect of this study. This quantitative data shaped the questions in the semi structured interviews and formed the basis for the subsequent thematic analysis. The qualitative data was then collected and analysed to lend interpretive depth to this process. The qualitative research builds on the quantitative phase and the two phases were fused together at the intermediary stage in this study. This process generates a unique body of knowledge that seeks to elaborate on existing agreement and identifies difference in the participants' dyadic relationships. The motivation for this approach is that the quantitative data and ensuing analysis sets the scene by taking a snap shot, at a given point and time, of the interpersonal dyadic relationships. The qualitative data offers an opportunity purify and enhance the statistical data (Ivankova et al., 2006; Creswell, 2003) by searching deeper into the participants emotions, cognitions and behaviours.

Figure 1.

Mixed Method Sequential Explanatory Design Schematic



Six semi structured interviews were completed during the qualitative phase of this research to examine the nature of similarities and differences between the athletes and coaches cognitions, emotions and behaviours. The researcher and participants agreed that 30 minutes was an appropriate duration resulting in individual interviews ranging from 27- 35 minutes in length.

3.4 – Method - Quantitative Research

3.4.1 Participants

A process of purposive sampling was utilised to identify suitable participants with specific characteristics (Higginbottom, 2004). All participants were current squad members of New Zealand Football national teams as part of the female under 17s, under 20s and Football Ferns. The coaches were the current Head Coaches of the under 17s, under 20s and the Football Ferns.

A total number of 67 participants, including 64 elite female football players and the 3 National Head Coaches, were invited to participate in this study. A total number of 47 respondents (70%), representing 44 dyadic relationships volunteered to participate by completing the CART-Q questionnaires.

The average length of the dyadic relationships between the athletes' and coaches' for all three national teams was 2.6 years (SD = 1.16). The average length of dyadic relationships for the athletes' and coach for under 17s was 6 months (SD = 0). The average length of dyadic relationships between athletes' and coach for the under 20s was 1.9 years (SD =0.67) and the average length of dyadic relationships between athletes' and coach for the Football Ferns was 5.41 years (SD =2.81).

3.4.2 Instrumentation

A 22 item Coach- Athlete Relationship Questionnaire (CART-Q) (Jowett & Ntoumanis, 2004) was employed consisting of an 11-item direct, and an 11-item meta-perspective version, to measure the interpersonal constructs of the players and respective coach (Appendix C). All items were measured on a 7-point Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree) with a mid-point of 4 (half way).

Studies completed by Jowett (2006 & 2009) revealed that the direct and meta-perspectives of the 3Cs predict the outcome variables of depth, support, and conflict in a theoretically acceptable manner and are consistent with findings that highly interdependent coach-athlete relationships are predictive of good outcomes (Jowett, 2007). Jowett and Ntoumanis (2004) examined the internal consistency of each of the CART-Q subscales and determined the Cronbachs' α coefficients were α = 0.82 for Commitment, α= 0.87 for Closeness, and α= 0.88 for Complementarity. The α for the higher-order Coach- Athlete relationship scale was 0.93. All coefficients exceed the minimum level of α= 0.70 recommended by Nunnally & Berstein (1994).

3.4.3 Ethical Considerations

The Auckland University of Technology Ethics Committee granted ethical approval for this study on 19 March 2014 (Appendix A). The researcher ensured that the research undertaken under the approval (reference 14/31) occurred within the parameters as set out by the Auckland University of Technology Ethics Committee.

3.4.4 Data Collection

The researcher consulted with the High Performance Manager of New Zealand Football to establish the organisations consent for the research to be conducted. New Zealand Football consulted the Women's Programme Manager/ Head Coach of the Football Ferns prior to consent being given by New Zealand Football for the research to take place. The researcher obtained the permission from Auckland University of Technology's' Ethics Committee (AUTEC) (Appendix A) then contacted the National Coaches to arrange a time to discuss the study (14/31).

After consent was given by the coaches the researcher met the teams, squads, or individual athletes to explain the aims of the study and the confidential and voluntary

nature of the study. Not all athletes live and play in New Zealand, therefore an electronic message was sent inviting non-residential players to complete the CART-Q electronically. The participants were advised that they had the right to withdraw from the study at any stage. The face to face data collection occurred at the training grounds of the under 17s, under 20s and Football Ferns. This was done at the convenience of the teams and took place at a number of locations throughout the Greater Auckland region. Consenting participants who were absent from subsequent trainings were contacted via phone or sent an electronic questionnaire.

The Information Packs and Consent Forms (Appendix D) set out the guidelines for confidentiality and outlined the participant's rights (i.e. voluntary involvement, right to withdraw, and/ or refuse to answer any question, anonymity of all information). Reassurance was given to the participants prior to the questionnaires and semi structured interviews being facilitated. All participants that chose to be involved in the study were required to sign the consent form which is included in the Participant Information Packs (Appendix E).

Information was checked to ensure that it was correct at the time of collection. The consent forms (Appendix D) were placed in a secure envelope and stored in the appropriate manner.

3.4.5 Data analysis

Comparative analysis was completed within the athlete- coach relationships. The mean, standard deviation and Cohen's *d* (Cohen, 1969) were calculated. The magnitude of difference was calculated to identify the greatest levels of similarity and difference from the CART-Q. This formed the basis for the qualitative direction of the study. A MONOVA analysis was not considered necessary as the number of data units was prohibitive and the effect sizes were sufficient for the purpose of the design specified.

3.5 Method- Qualitative Research

3.5.1 Participants

In qualitative research, samples are commonly drawn from units the researcher has identified as being of theoretical importance and relevance (Davidson & Tolich, 2003). It is acknowledged that the validity of this form of sampling relies on the researcher's ability to select suitable cases for study (Roberts & Taylor, 2002).

The original intention of the study design was to interview one athlete from each age group in order to fairly represent the participants of this research project. This selection process would also address the research question to gain a better understanding of the similarities and differences of the athlete's perceptions of the nature of their relationships with their national coach, between the three age groups.

However, due to the disproportionate number of non-respondents from the under 17's athletes, in not completing the quantitative component of this research, it was decided to exclude this age group from further exploration to minimise any prejudice from further findings. From the athletes that consented to participate in the qualitative aspect of this study, three senior athletes were purposively chosen for their experience within New Zealand Football's high performance programme. Athlete 1, 2 and 3 have a direct dyadic relationship with Coach 3 and an indirect dyadic relationship with Coach 2 and Coach 3. Each of the three senior athletes has represented New Zealand in at least one age group prior to being selected for the Football Ferns.

Athlete 1-

Athlete 1 currently plays professional football in the northern hemisphere at the highest level. Athlete 1 has an eight year dyadic relationship with her current National Coach.

Athlete 2

Athlete 2 currently plays professional football in the northern hemisphere at the highest level. Athlete 2 also has an eight year dyadic relationship with her current National Coach.

Athlete 3

Athlete 3 currently plays football in the northern hemisphere. Athlete 3 has a six year dyadic relationship with her current National Coach.

Coach 1

Coach 1 has represented their country of birth in football. Coach 1 holds a Pro Licence coaching qualification and has coached at the Under 20 Women's World Cup as an Assistant Coach and an Under 17 Women's World Cup for New Zealand as a Head Coach.

Coach 2

Coach 2 currently holds a New Zealand International Team Coaching qualification. Coach 2 has attended the men's Club World Cup, two Under 17 World Cups for men and two Under 20 Women's World Cups in the capacity as a Technical Director, Assistant Coach, joint Head Coach or Head Coach.

Coach 3

Coach 3 holds a UEFA 'A' Licence, is currently completing his Pro Licence and is a qualified FIFA Instructor. Coach 3 has attended a number of Under 20 Women's World Cups, two Senior Women's World Cups and two Olympic events in the capacity as a Technical Advisor, Assistant Coach or Head Coach.

3.5.2 Interviews

The interview guide was developed with the collaboration of two academic supervisors, to ensure that the participants' emotions, cognitions and behaviours would be captured to increase the opportunity to gain a purposeful insight into the participants' answers to the CART-Q. (Appendix C). The interview guide (Appendix F) was developed with the intention of identifying potential themes of importance to the dyadic nature of athlete coach relationships within this contextual specific environment. Questions were developed that allowed the athletes and coaches to provide more detail in their responses and to reflect on a deeper level (Rubin & Rubin, 2005). The results from the quantitative research identified potential areas of similarity and difference between the athletes and coaches perceptions of their dyadic relationship. The design of the questions, in the interview guide, was structured to gain more knowledge associated with these areas of interest. In addition to a specific set of questions that addressed the research problem, the benefits of a semi-structured interview approach were that the researcher had scope to enable the participants to explore answers in relevant depth to minimise any ambiguity.

Prior to commencing the semi structured interviews a pilot study was conducted. The pilot study provided the researcher with an opportunity to test the process and structure of the questions and to provide the researcher with an opportunity to become more comfortable with facilitating the interviews. The pilot study was completed with a 22 year old female who had a 5 year dyadic relationship with her male coach and has represented New Zealand at an international level. The interview took place prior to data collection, to allow time to amend the questions or process if necessary. After considerable self reflection by the researcher on his performance, and of his ability to feel comfortable, with allowing the participants to be heard, a number of questions

within the interview guide required modification. There were initially too many questions in the pilot study and they were too narrow, not allowing the athlete to answer the questions in depth.

3.5.3 Procedures

The semi structured interviews with the three athletes were facilitated via Skype. Due to the time differences and high work load of the athletes, consideration was given to the appropriate length of each interview.

Two National Coaches' interviews were completed in person and the third was completed electronically.

Following the interview, the audio files were played back and transcribed by the researcher using word processing software. Once the transcriptions were completed they were compared to the audio files in order to confirm accuracy.

3.5.4 Data analysis

Thematic analysis was conducted in order to search for themes or patterns in the semi-structured interviews with the three athletes and three coaches. Braun and Clarke (2006) advocate that thematic analysis is widely-used as an analytic method in psychology and is compatible with a constructivist paradigm, whereby the realities, meanings and experiences are the effects of a range of discourses operating with the athlete- coach dyad. Braun and Clarkes 6-phase guide was adopted to steer the researcher through the process to increase the opportunity of gaining rich data (Table 2). Thematic analysis allows for the patterned responses within a data set to guide the researcher through a means of identifying particular salient themes of relevance.

Table 2.

Phases of Thematic Analysis (Braun & Clarke, 2006 p. 35)

Phase	Description of process
a. Familiarising yourself with your data	Transcribing data, reading and rereading data, noting initial ideas
b. Generating initial codes	Coding interesting features of the data in a systemic fashion across the entire data set, collating data relevant to each code
c. Searching for themes	Collating code into potential themes, gathering all data relevant to each potential theme
d. Reviewing themes	Checking in the themes work in relation to the coded extracts and the entire data set generating a thematic map (see figure 2) of analysis
e. Defining and naming themes	Ongoing analysis to refine the specifics of each theme, and a holistic view of the analysis generating clear definition and names for each theme
f. Producing the report	The final opportunity for analysis. Selection of vivid compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature producing a scholarly report (thesis)

The data was transcribed verbatim immediately following the semi structured interviews as the experience was still fresh in the researcher's mind. This process was intricate and detailed to ensure participants' words were accurately represented. Once the transcription was completed the audio was played for a second time whilst reading

the written text to ensure that no word or phrase was neglected from the process. While reading and re-reading the interviews the researcher respected Creswell's (2003) recommendation and attempted not to focus explicitly on the material of the text but rather pursue a road map of underlying meanings. As the interviews took place the researcher was made aware of a couple of potential themes, however these were not considered as important to the analysis until the entire process was completed.

The qualitative software tool that was employed for the purpose of coding the text was Weft QDA (Fenton, 2006). The word documents were saved as 'txt' files and up loaded to the programme. At this stage the consolidated (non-coded) text was presented to the two academic supervisors as a point of reference and to question if there were any gaps or nonsensical meaning to any of comments. Coding was facilitated as a medium to reduce the data by systematically sifting through the text to ensure topical themes could be retrieved as data units. This process takes place by highlighting extracts of potential meaning and these are saved into the database with an associated code. The depth of the material was overwhelming at times and the researcher identified 45 pages of coded extracts from the six interviews.

It is worthy to note that phases 3 and 4 were repeated during the 'Searching for themes and Reviewing themes' stages as suggested by Braun and Clarke (2006). After the initial 'Searching for themes' stage the researcher sent the initial findings through to two academic supervisors to validate the potential themes. One of the academic supervisors, a qualitative researcher identified a number of themes that were not initially specified by the researcher, resulting in the process being repeated to account for this learning. Two additional themes eventuated from this process.

For the purpose of this study the predetermined interpersonal psychological constructs of Jowett's 3 Cs model of Closeness, Commitment and Complementarity

were used as a foundation for the structure of the study. The prevalence was recognised if all six participants articulated a given theme and the frequency for which the theme was voiced in their interviews within a given data set.

Chapter 4 Results

4.1 Quantitative Research

Descriptive statistics was compiled in order to assess the mean and standard deviation values of Closeness, Commitment and Complementarity as validated by (Balduck & Jowett, 2010; Jowett, 2006; Jowett, 2009; Jowett & Ntoumanis, 2004). A Cohen's *d* calculation was employed in order to estimate the magnitude of difference between the means of the athletes and coaches responses. The magnitude of difference is represented under the headings of 'Greatest Similarity' and 'Greatest Difference'

Table 3 presents the results from the CART-Q questionnaires completed by the under17 players and respective head coach. Table 4 presents the results from the CART-Q questionnaires completed by the under 20 players, the Football Ferns and respective head coaches. Comparisons between the under17s group and the combined under 20s/ Football Ferns reveal considerable variance in the way in which the groups perceive their dyadic relationships. Differences were observed in 21 of the 22 questions. Question 18, "My athlete/ coach is responsive to my efforts" was the only question to authenticate similar results between the groups, indicating that all age groups think and feel that their dyadic partners do not acknowledge one's effort.

Table 3.

*CART-Q data analysis for the under17s (N= 7)**

CART-Q	M	SD	Cohen's *d*	Greatest Similarity/ Difference
Closeness				
2. My athlete/ coach likes me?	0.98	0.82	1.20	Similarity
7. I appreciate the sacrifices my athlete/ coach has experienced to improve his/her performance.	1.05	0.38	2.77	Difference
Commitment				
9. I am committed to my athlete/ coach.	1.09	0.69	1.57	Similarity
12. My athlete/ coach is close to me.	1.09	0.69	1.57	Similarity
14. My athlete/ coach believe that his/ her football career is promising with me?	1.99	0.90	2.21	Difference
Complementarity				
18. My athlete/ coach is responsive to my efforts.	1.47	0.79	1.87	Difference
19. I am ready to do my best.	0	0	0	Similarity
21. I adopt a friendly stance.	1.47	0.79	1.87	Difference

Note: * = due to the small number of under17 respondents this data was excluded from the results.

Table 4.

CART-Q data analysis for the under 20s and Football Ferns (N=37)

CART-Q	M	SD	Cohen's d	Greatest Similarity/ Difference
Closeness				
4. My athlete/ coach trusts me.	0.73	0.73	1.00	Similarity
6. My athlete/ coach respects me.	1.08	0.60	1.82	Difference
Commitment				
10. My athlete is committed to me.	1.24	0.83	1.50	Difference
14. My athlete/ coach believe that his/ her football career is promising with me.	0.78	0.78	1.00	Similarity
Complementarity				
15. I am at ease with my athlete/ coach.	0.89	0.74	1.21	Similarity
18. My athlete/ coach is responsive to my efforts.	1.41	0.98	1.43	Difference

The quantitative results demonstrate distinctive similarities and difference in the constructs of Closeness, Commitment and Complementarity. The results also show a difference between the under 17s cognitions, emotions and behaviours when compared to the results presented from the under 20s and the Football Ferns.

The magnitude of difference in the under 17s results was greater and more variable than that of the under 20s and Football Ferns results. However due to the low response rate from the under 17s athletes ($N = 7$) no definitive meaning can be extrapolated from these findings. Although there may be potentially points of interest the researcher could not consider the under 17s results as meaningful and was therefore excluded from further investigation.

The following areas (see Table 5) were identified as potential questions of concern to shape the interview guide implemented in the qualitative aspect of this study due to the magnitude of similarity and difference represented between the athletes and coaches' responses from the under 20s, Football Ferns and respective Head Coaches.

Table 5.

Greatest levels of Similarity and Difference from CART-Q data analysis

Construct	Greatest levels of Similarity	Cohen's *d*	Greatest levels of Difference	Cohen's *d*
Closeness	Trust. 'My athlete/ coach trusts me'. (representing meta closeness)	1.00	Respect. 'My athlete/ coach respects me'. (representing meta closeness)	1.82
Commitment	Promising career. 'My career is promising with my athlete/ coach' (representing meta commitment)	1.00	Committed to me. 'My athlete/ coach is committed to me'. (representing meta commitment)	1.50
Complementarity	Being at ease with each other. 'I am at ease with my athlete/ coach'. (representing direct complementarity)	1.21	Responsive to my efforts. "My athlete/ coach is responsive to my efforts'. (representing meta complementarity)	1.43

4.2 Qualitative Research

As a result of the semi structured interviews the following preliminary high level themes were identified as from the initial analysis (see Table 6):

Table 6.

Potential themes identified from semi-structured interviews

Closeness	
Trust	a) Openness And Honesty
	b) Good for the team
Respect	c) Effort being exerted
	d) Best interest of the dyadic member
	e) Two types of respect. Respect for the person and respect for their playing
Commitment	
Promising career	f) Careers
Committed to me	g) Shared Goals
	h) Time
Complementarity	
Being at ease with dyadic member	i) Working together
	j) Striving to be better
	k) Working within set guidelines
Responsive to my efforts	l) Acknowledging effort
	m) Roles responsibilities
	n) Frequency of interpersonal contacts

In accordance with Braun and Clarke (2006) the prevalence of relevant data is a key factor for identifying potential themes from qualitative data. A data unit was considered prevalent if all participants articulated a given theme and priority was given based on the frequency in which it was articulated. Therefore data units that were not articulated by all the participants were eliminated in the initial analysis then a low frequency of articulation resulted in elimination of further themes.

Once the identified themes that did not meet the prevalence threshold were removed, five key themes emerged from the qualitative data analysis:

(a) Openness and honesty - a construct of Closeness

(b) Shared goals -a construct of Commitment

(c) Role responsibilities -a construct of Complementarity

(d) Working together and -a construct of Complementarity

(e) Acknowledging effort. -a construct of Complementarity

The two themes that emerged from the athlete and coach data that demonstrated the greatest levels of similarity were ‘Openness and honesty’, and ‘Working together’.

The three themes that emerged from the athlete and coach data demonstrating the greatest differences were ‘Shared goals’, ‘Role responsibilities’ and ‘Acknowledging others efforts’.

4.2.1 Closeness

Closeness refers to the feelings of being emotionally close within a dyadic relationship. The qualitative studies completed by Jowett and colleagues (Jowett & Meek, 2000; Jowett & Cockerill, 2003; Jowett & Ntoumanis, 2004) identified that the

feelings of being cared for, liked, respected and trusted had a positive effect on the athletes' and coaches' interpersonal relationships.

Trust has been as an area of interest for this study and 'openness and honesty' emerged as an area of importance to all six participants. Table 7 summarizes the hierarchy of the data categories of Closeness presenting the degree of conceptual importance for the athletes and coaches

Table 7.

Hierarchy of data categories of Closeness

Jowett's 3 Cs hierarchy of data categories of Closeness			Researchers findings
Construct	First order probe	Second order probe	Third order theme (As a result of this study)
Closeness		Like	N/A
	Personal Feelings	Trust	**Openness and Honesty**
		Belief	N/A
	Generic Feelings	Respect	N/A

Openness and Honesty

'Openness and honesty' have been identified as of primary importance in establishing effective athlete- coach relationships. When asked '*What does trust look like in an effective athlete coach relationship?'* the athletes voiced that for high levels of trust to be developed and maintained, 'openness and honesty' are two key elements that need to be demonstrated during athlete and coach interactions. One athlete articulated:

> *I have a high level of trust with the coach, he's really open and honest with everything he does and follows through with everything he says. So in terms of my relationship with him and the environment is very open. You have the confidence to say what you feel without any judgement taking place and he really encourages that as well.*

The coaches were presented with the same question and asked to reflect on what trust means to them. The coaches were united in their practices and gave examples of how open and honest discussions are required to build trust and effective relationships. The coaches make the primary assumption that by sharing rich and sometimes personal information, this demonstrates a willingness to be somewhat vulnerable with the premise that the intent is good for both parties and the team. A coach states:

> *I think that in terms of trust I think the biggest level of trust the biggest evidence is when you are talking to players and they are willing to talk about their weaknesses you are prepared to talk about your weaknesses as well with them on an individual level. I'm prepared to admit to a player that is playing in a different position to that I played that I don't have the full technical knowledge of this position but that they can…but if I trust that player I can say that. That they will use it for the right reasons, that will give them confidence or whatever to explore more and in more detail to keep working on it.*

The athletes and coaches stated that confidence in their ability to perform at desired level is developed as a result from having open and honest interactions.

4.2.2 Commitment

Commitment is an independent relation aspect that infers that athletes and coaches have intent to maintain their athletic relationship over time. Commitment denotes the cognitive aspect of the athlete- coach relations. Commitment has been identified as a critical construct in athlete coach relationships (Jowett & Ntoumanis, 2004). However, in this study the data indicated that while answering the question 'Is my athlete/ coach committed to me?' the greatest difference between the athlete-

coaches scores emerged, indicating low levels of actual similarity. This is represented as an area of interest demonstrating the greatest discrepancy levels between the athletes and coaches results. Table 8 summarizes the hierarchy of the data categories of Commitment presenting the degree of conceptual importance for the athletes and coaches.

Table 8.

Hierarchy data categories of Commitment

Jowett's 3 Cs hierarchy of data categories of Commitment			Researchers findings
Construct	First order theme	Second order theme	Third order theme (As a result of this study)
Commitment	Commitment to	Committed	**Shared Goals**
		Close	N/A
	Future Expectations	Promising careers	N/A

Shared Goals

The athletes and coaches articulated that shared goals are an important factor in the dyadic relationship with their athlete/ coach. The responses within the construct of commitment demonstrated that both athletes and coaches agree that shared goals are vital for performance and expected behaviours both on and off the field. When describing '*What would commitment look like in your environment between you and your athlete/ coach?'* one athlete describes the process a coach facilitates in order to negotiate team goals. The athlete states:

> *I would see it as him throwing out ideas, even not ideas and say look we need to do this, I would be like yeah, and I trust you. That's definitely there. It has to happen that he'll shape our own individual goals with us whom we are doing at the moment and then he'll round that off with the team goals then tie it all together. He does that a lot and reminds us a lot of our team goals and the direction we are heading just in the right direction. Obviously we have a lot on our plates sometimes so he brings them up every second meeting or so. We as team set the goals. He initially brings it up that we may need to reset a few things and give us guidelines but the majority of the work is done by us. There have been times where we have had meetings and pushed the coaches out and come up with few ideas or he has left us alone to come up with ideas and they will summarise it later leading to a discussion. Everything is a discussion with him it's never ever set in stone exactly what we are doing; even when it's with team goals he's flexible and willing to change the team depending on how the team is tracking and how the coaching staff are tracking which is lovely.*

The coaches highlight the importance of living the team's shared goals both on and off the field in order for the team to perform as a collective unit and a high performing team. When the coaches were asked *'How does it make you feel when you are working with players that have high levels of commitment?'* one coach stated:

> *It's living the vision of the group with off the field things and on the field things. If you talk about basic terms our vision would be around high performance standards and then what I consider to be healthy family role modelling or characteristics in terms of high performance standards have been having as a coach, having a plan, having slick training sessions and all those outcomes you want from a good training session.*

The athletes and coaches made a point of articulating the term *'High Performance'* when describing their environment to differentiate their environment from lower performing environments.

4.2.3 Complementarity

The athlete and coaches interpersonal behaviours have been methodically defined as the construct of complementarity (Jowett, 2007). Complementarity denotes the behavioural interconnections between the athletes and coaches that are consistent in terms of being, responsive, relaxed and friendly.

Table 9.

Hierarchy of data categories of Complementarity

Jowett's 3 Cs hierarchy of data categories of Complementarity			Researchers findings
Construct	First order theme	Second order theme	Third order theme (As a result of this study)
Complementarity	Reciprocal Behaviour	Roles	**Role responsibilities**
		Tasks	**Working together**
	Helping Transaction	Instructional Support	N/A
		Emotional Support	**Acknowledging Effort**

Role Responsibilities

The athletes and coaches had very clear positions on the roles and responsibilities of both parties in order to demonstrate complementary behaviours. The athletes describe the coaches as taking a professional approach to coaching without

losing the humanistic aspect of the role by allowing the team to take responsibility for taking ownership of a number of tasks and interactions. One athlete noted:

> *He's very encouraging to listen and always asking for questions he is constantly throwing things at the girls of things to improve on either as a team or on individual performance. He's genuine, if we go to him with a problems he will find a solution and two days later he might pull you aside and say here we have come up with this or this what do you think or lets work on that . It's always ideas and sharing rather than telling us what to do. The coach has been really flexible around different aspects of the environment. I think on the communication side of things is something we really have to work on.*

The coaches distinguish the roles required to be successful athletes and coaches in a high performance environment and articulate the importance of recognising these differences. The coaches are pragmatic in their approach and one coach states:

I think a lot of time players can be self-centred because they do need to be selfish, and that's how they are driven. But coaches need to be selfless, so I think that's the difference. If I could see someone improving because of the input I have put in and this has helped to make someone better just by saying well done or some coaching point that I've made that's what is more important to me] [I'd get more benefit from watching someone improve. That's what inspires me to working harder. If I see someone improve that makes me work harder.

Working Together

The coaches comment on how working together as a team can be undermined by individuals not being valued within the team environment and therefore these behaviours need to be addressed for the good of the team. One coach for example states:

> *we want the whole environment to be happy because it just snowballs if you get one or two people that aren't happy or don't feel they are valued and their career is not promising with the coach then that can have ramifications across the team and you need to call on all of these players at some point you need for them all to feel valued and that they have got a future*.

When describing how it feels to be at ease with her coach an athlete states:

> *I think each other needs to care about the others careers I think I need to care about my coaches' career and my coach needs to care about my career. Like see a broader picture to see what's happening. Like all our girls play on more than one team so I think that's important that we have a mutual understanding of the broader picture like what's going on in the team environment*.

A coach explains his thoughts with regards to the blurring of the lines of working together and articulates one of the difficulties of males coaching female athletes. The coach states:

> *It's good not to get too close to players for your personal protection as well and that you are friendly with them but you are not their friends ultimately most of the players are in it for themselves, so they have quite selfish reasons for being in football. You bring them together collectively but if things don't always go their way. Then that's when you want to have that boundary, that comfort zone between you and them …often it can become sour if they don't get what they want out of the situation.*

Here it is interesting that the coach (a male) comments on his need for personal protection and that as a male coach he needs to be mindful of gender differences and implement coaching behaviours as a strategy to protect himself from misinterpretation of his actions.

Another coach states:

> *I am not their best friend however I am their best supporter*.

Acknowledging Effort

Acknowledging others' efforts was articulated in a manner that is important to the participants within their high performance environment. This theme was identified within the construct of complementarity/ behaviours as a result of significant difference observed from 'helping transactions and emotional support.' The athletes' make reference to the coaches' work ethic and the reciprocity that the athletes demonstrate as a result of observing coaching behaviours. One athlete states:

> *I appreciate the effort that goes in and every training session is so painstakingly thought out and in return I think the coaches and Coach 3 appreciate I stay 40 minutes after every training and I come an hour early. I think they appreciate the way you live in a way that have asked you to and that is expected of you and I appreciate that they do what we ask them to do which is to make us into a gold medal team. I think they are doing everything possible and sometimes we can't execute what was asked of us I think they pretty much give us on a platter what we should do in every game.*

The coaches make a comparison between individual sport and team sports and the difficulties of coaching teams. One coach highlights the difference between being a Head Coach, whereby you may have the responsibility of a squad of up to 30 players, and a Goalie Coach that may have a maximum of four athletes. The coach goes on to state:

I think the player would need to see the coach have a genuine interest in them individually. I think that gets ignored in teams' sports. If you are an individual sport it is a lot easier. I think for a goalie coach compared to a team coach and that's one of the challenges of a head coach with the number players that you have to work with. The players need to see you have their best interest in them as a person and respect them, and that's sometimes a challenge in a team environment, say in an effective environment, a lot of interaction between the coaches and players um… in our environment that might mean even behind the scenes an email via phone call or Skype. Like for us and while in the environment you get a balance between that and actually doing the work on the ground because you want to get the best out of the players if a player feels that the coach respects them then they are going to perform better.

The athletes and coaches articulate that acknowledging others' efforts is not initiated as often as either athletes or coaches would like. However, during the qualitative interview process the athletes and coaches mentioned that they could do more for these transactions to take place and that this could be very easy to introduce.

Chapter 5 Discussion

The aim of this study was to explore in depth the nature of the coach-athlete relationships within New Zealand Football's National Female under 17s, under 20s and the 'Football Ferns'. This discussion chapter reviews and interprets the results, integrates the findings with other research and discusses the strengths and limitations of the study. The chapter highlights the advancement of Jowett's 3 Cs model by adding a base of knowledge that is contextually important to the athletes and coaches dyadic relationships within this study.

The key similarities between the athletes and coaches perceptions are;

a) Open and honesty
b) Working together

The key differences were identified as;

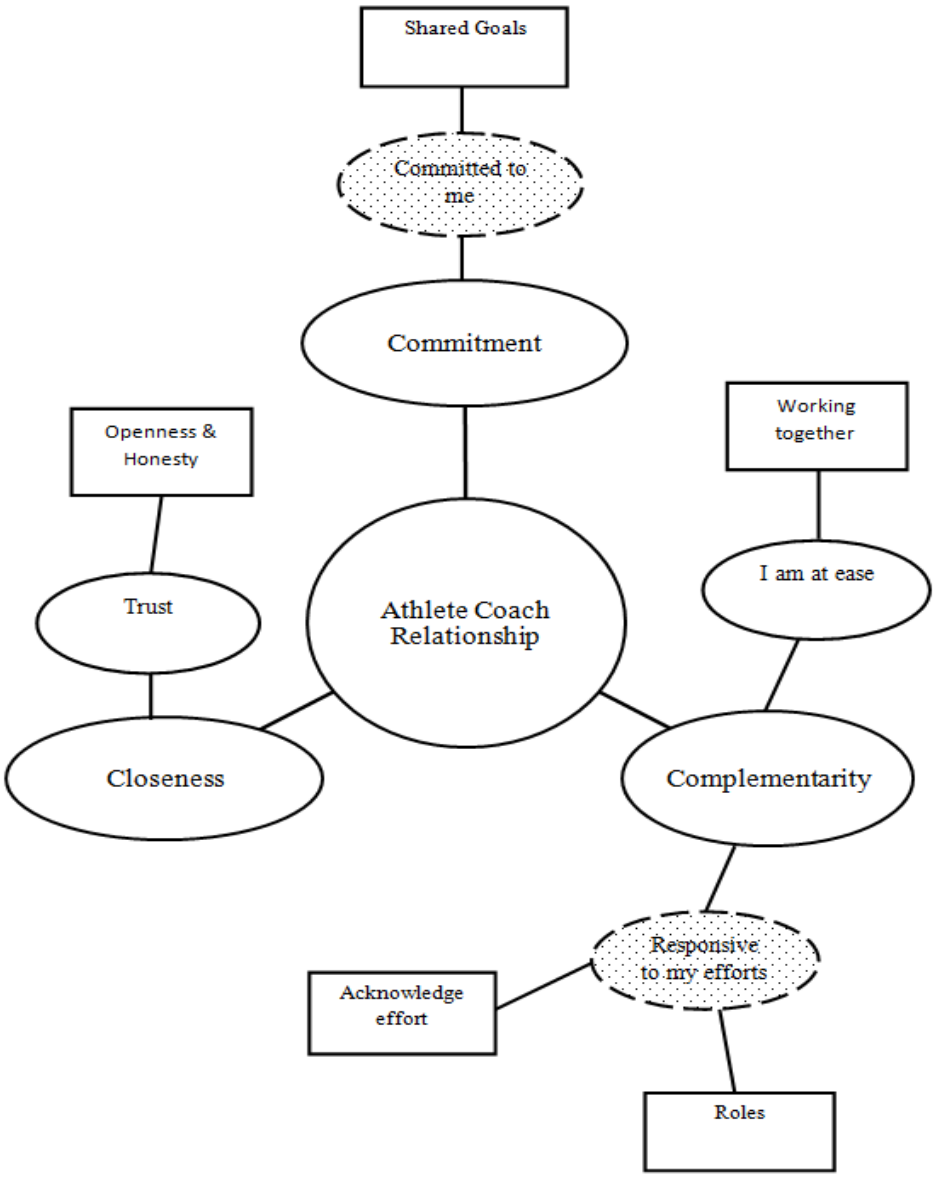
c) Shared goals
d) Role responsibility
e) Acknowledging effort

Figure 2 represents the thematic analysis map that was constructed as a result of the study. The athlete- coach relationship is illustrated showing the three constructs of Jowett and colleagues 3 Cs model of Closeness, Commitment and Complementarity. From within each of these constructs, ‘trust’ and ‘being at ease with the dyadic partners’, demonstrated the greatest levels of similarity as opposed to ‘being committed’ and ‘being responsive to each other’s efforts’ demonstrating the greatest levels of difference.

The findings of this study add to Jowett’s model (see rectangular boxes) by illustrating the contextual nuance of athletes and coaches relationships in this study. The shaded areas of the thematic analysis map indicate the areas from within the constructs that were identified as key differences/ low similarity.

Figure 2.

Thematic network based on Jowett's 3 Cs model and mixed methods approach to 'Examine the nature of athlete coach relationships within New Zealand Football's National Female under 17s, under 20s and the Senior Women's team (the Football Ferns)'.



Key

= High levels of similarity

= High level of difference

= Newly identified themes of relevance

This section will explore, in relation to literature, the five key themes that emerged from analysing the qualitative data:

5.1 Key Similarities

(a) Openness and Honesty

Effective communication is an essential element for effective teams (Yukelson, 2006). Athletes and coaches need to maintain open lines of communication to minimise the misinterpretation of interpersonal interconnections between the dyadic partners. A coach articulates:

> *In our environment I would say that you can be open and honest with each other with the overriding intent that everyone, whether you are giving or receiving the information, it is good for the team.*

Throughout the study both athletes and coaches identify that openness and honesty is a vital aspect to the coaching process and promotes positive emotions.

Qualitative research completed by Jowett and colleagues (Jowett & Meek, 2000; Jowett & Cockerill, 2003) postulate that the ability for dyadic partners to trust one another has an affirmative effect on the coaches and athletes intrapersonal and interpersonal factors (Jowett & Ntoumanis, 2004). Within this research study, openness and honesty have been identified as crucial elements of trust which in turn supports Jowett's construct of closeness. Jowett defines 'closeness as the affective meaning the athlete and coach assign to their relationship (e.g. respect, trust and liking)' (Rhind, Jowett & Yang, 2012, p. 434). 'Openness and honesty' are advantageous for athletes and coaches that wish to establish high levels of trust and more effective dyadic relationships. As high performance athletes require more support during stressful situations, like playing international matches and the demands of having to win, the ability to trust the dyadic partner facilitates support behaviours.

These characteristics have been identified in other studies involving athlete-coach relationships. Bennie and O'Connor (2012) completed a study to examine the perceptions of the athlete- coach relationship within professional team sports. The qualitative study interviewed six male professional coaches and 25 players from cricket, rugby league and rugby union. Bennie and O'Connor's results support Jowett and colleagues 3 Cs model that mutual respect, trust and honesty are key determinants in professional sport settings. Bennie and O'Connor (p. 60) noted 'effective coaches develop openness, honesty and respectful relationships with athletes'. They outline that coaches that display trust for the athlete have a more positive relationships and greater rapport with athletes than those who lack these qualities.

Rhind and Jowett (2009) investigated coaches' and athletes' perceptions of the strategies used to maintain quality relationships. Rhind and Jowett's findings suggest that "*openness* is related to the disclosure of one's feelings and involves the discussion topics both inside and outside the sport environment" (p.15).

Yukelson (2006) recommends that a coach should look to create opportunities for regular interpersonal interconnections and coaches could facilitate regular team meetings as a process for doing so. This can be somewhat more difficult in a professional environment especially for elite female football players from New Zealand. As previously reported the highest level of professional women's football is in the northern hemisphere, therefore the players need to be playing in these environments to ensure they experience the highest levels of competitive football the world has to offer. This is somewhat problematic for coaches not having high levels of contact with the players. A coach offered his perspective that:

> *staying in contact with our players overseas and asking how things are going is probably something that we haven't done so well, if I'm honest, as we should have done, but it is something that we are addressing now because we see the value in it.*

Coaches therefore need to investigate opportunities to increase a number of interpersonal contacts wherever possible. Yukelson suggests:

1. Coaches should aim to consistently use effective communication techniques which include being honest, sincere, genuine, fair and consistent.
2. Coaches should be empathetic and have a genuine concern for the athletes.
3. Coaches should encourage and create opportunities to create an autonomy supportive environment whereby acknowledging effort is plentiful.
4. Coaches need to be aware of what their non-verbal communication messages they may be sending to the athletes.
5. Coaches should attempt to provide clear rationales as to why athlete should or should not behave in a certain manner.

Yukelson recommendations support this study highlighting the importance of the need to be honest, in order to use effective communication techniques.

(b) Working together

Working together is a theme of importance for the participants and is represented in the results by the athletes and the coaches having high levels of similarity. A coach discusses the importance of togetherness and articulates the uniqueness of the environment. The coach describes how the team has chosen to represent working together as a team by referencing the Maori word for togetherness:

> *one of our massive things in our environment is our togetherness which is part of our kotahitanga that's our togetherness as a team, which is a huge part of our core vision [ ] if that falls apart then our vision starts to deteriorate so whilst other international teams will have more money and better players we have a strong togetherness as a team and that's a massive 'x' factor for us*.

Joan Metge, author of New Growth from Old: The Whanau in the Modern World gives a concise description of the meaning of kotahitanga. She states;

> *Kotahitanga – oneness or unity. To achieve this whānau members' must be prepared to invest time and energy in getting to know each other, to work through differences in lengthy discussions aimed at achieving consensus, to keep whānau matters confidential from outsiders and to stand loyally by each other in disputes with outsiders.*
> *Kotahitanga also means accepting responsibility for each other's actions, acting to prevent or control damage and if need be helping to make reparation to outsiders in order to restore the whānau's mana.* (p.102)

These lines of thinking are culturally specific to New Zealand, and to the environment within the athletes and coaches socially interact. This uniqueness is employed as a vehicle to bind the individuals together to increase team cohesion and establish a team identity

Working together can be considered as group cohesion. Cohesion is an integral part of team sports and denotes a degree of togetherness (Carron & Hausenblas, 1998) and can be considered as a process that entails a predisposition for a team to form common bonds in a pursuit to satisfy the affective needs of the individual and the performance needs of the team. Due to the dynamic nature of interpersonal interactions, cohesion may change over time because of the multitude of variables that are involved in a teams' togetherness. Researchers have investigated the effects of athlete- coach relationships on cohesion. Jowett and Chaundy (2004) examined the extent to which athletes' perceptions of their relationship with their coach adds to the prediction of team

cohesion. Using Carron et al.'s (1985) conceptualized framework there are two types of cohesion, task cohesion and social cohesion. Task cohesion is the degree to which the team cooperate, as individuals, to achieve shared goals and social cohesion is the degree to which the players within a team like each other. Jowett and Chaundy (2004) concluded that athlete- coach relationships and leadership styles adopted by the coach are stronger predictors of task cohesion, more so than social cohesion. In this study however 'like' was not identified as an important construct of Closeness. One coach for example states:

> *I think as a coach you don't necessary have to like the players and everything they do if you really dislike them then I think it would be difficult.*

Aristotelis et al. (2013) examined the relationship of cohesion and the antecedents of group cohesion in amateur Greek football. Aristotelis et al. identified that age, experience and the athletes' perception of team performance may have an effect on cohesion. The findings suggest that younger athletes demonstrate variable levels of cohesion throughout the course of the season and this may be regulated due to the lack of experience and their inability to deal with stressful situations. Conversely older athletes are better prepared to deal with concerns associated with competitive sport due to their experience and maturity. Level of experience demonstrated that less experienced athletes presented the highest task and social cohesion at the beginning of the season but these levels diminished throughout the course of the season. More experienced athletes demonstrated fewer variables over the course of the season however presented higher levels of cohesion at the end of the season compared to less experienced athletes. Carron et al. (2005) postulates that it is easier for less experienced athletes, at lower levels of competition, to establish consensus with regards to task and social harmony. This suggests that social cohesion may be easier to attain in younger athletes than task cohesion.

Aristotelis et al. discovered that athletes in winning teams perceive higher levels of team cohesion and losing teams, or less successful teams perceived their teams to demonstrate lower levels of cohesion. Carron et al. (2002) conducted a meta-analysis of 46 studies that investigated the association between team cohesion and team performance. Carron et al. found that task and social cohesion were positively related to team performance and that winning teams are more likely to create and maintain togetherness.

Team cohesion is an important facet of successful teams and requires attention by coaches. A coach can't rely on winning regularly as a tool to increase and maintain team cohesion as there are a number of uncontrolled variables that cannot be managed by the coach.

Coaches can implement a number of strategies to potentially increase team cohesion. Carron et al. (2007) recommends the implementation of Eys et al.'s (2005) proposed strategies a coach could implement to enhance team cohesion;

1. Establish a unique identity for the team
2. Create clarity of roles and responsibilities
3. Create positive group standards
4. Encourage and acknowledge individual sacrifices made for the team
5. Provide and encourage opportunities for athlete input.

The findings of this study identified 'working together' as a key area of concern. The coaches have used the cultural uniqueness of New Zealand to develop a unique identity by adopting 'kotahitanga' to represent the teams' intent to work together and establish team cohesion.

5.2 Key Differences

(c) Shared Goals

Having shared goals were voiced by the participants as a key area of importance. The participants articulated how the process of negotiating shared goals is facilitated, their purpose and how these goals are 'lived'.

An athlete states:

> *We've established this vision group and the team voted on who best live the vision the best and we pretty much laid it out in order to be a successful team, there are certain guidelines that have been set out.*

By allowing the athletes to take responsibility for establishing shared goals is in line with an athlete-centred approach to coaching, by enabling the athletes the opportunity to be heard, critically think and make decisions by themselves. Kidman and Lombardo (2010) believe that an athlete-centred approach is a means of implementing a social constructivist methodology to gain a better understanding of the athletes, psychological, cognitive and physical needs. A football coach that adopts an athlete-centred philosophy allows the athletes to take some ownership for their development and enhances the athletes' opportunities abilities to be accountable for socio-cultural interactions. The collective input from the team to agree on a set of shared goals can provide a clear focus for what the team wishes to achieve. This process can minimise the risk of ambiguity of what the team stands for, what the team wants to achieve, how they may going about doing so. Team goals can also reduce role ambiguity by ensuring the there is an opportunity for the team members to discuss the roles and responsibilities of each individual. Goal setting is an effective strategy to direct attention, activates effort, enhances determination and can lead to new strategies to enhance performance (Larsen & Engell, 2013). Team success is not measured at an individual athlete level

therefore the importance of shared goals of the team is not only appropriate but would appear to be essential for team success.

The findings of this study are consistent with Jowett and Cockerill (2003) research investigating the nature and significance of the athlete- coach relationship with 12 Olympic medallists. Their qualitative research revealed that positively framed statements, information exchange, acceptance and common goals led to themes of shared knowledge and understanding. The participants reported that they were frequently engaged with their coaches in discussions about goals.

Locke and Latham (2006) suggest that goal setting for groups in an effective strategy for enhancing performance, however, the group element adds a layer of complexity, as goal conflicts between individuals may occur. If an athlete holds personal goals that are not compatible with teams goals can have a detrimental effect of the teams' ability to work as an effective unit. This comment draws attention for the need for athletes and coaches to meet on a regular basis, to discuss their personal and shared goals in order to minimise any conflict that may surface during the dyadic partnership. Researchers have noted that group goals effects are mediated only by group effort whereby individual goals are mediated by task strategy and individual effort (DeShon, Kozlowski, Schmidt, Milner & Wiechman, 2004; Locke & Latham, 2006).

Senécal, Lochead and Bloom (2008) completed a study to determine whether goal setting is an effective team building intervention to increase perceptions of team cohesion. The study involved 86 female high school basketball players and the results highlighted the importance of having shared goals. The results suggest that athletes that participate in teams with shared goals may perceive higher levels of cohesion compared to teams that do not. Senécal, Lochead and Bloom believe that as the basketball players are made more aware of the process of sharing goals and their importance, this increases

the players' awareness therefore the value placed on shared goals increases amongst the team.

The setting of shared goals are a useful coaching tool to ensure that the athletes are fully aware of what direction the team wishes to go in and can clearly define expectations of behaviour and performance. Prior to enabling the team to collectively establish a set of team goals the coach would need to consider taking into account;

1. An understanding of the athlete's personal goals to ensure they are compatible with potential team ideology.

2. An understanding of the National Sports Organisations goals for the team.

3. An understanding of the support staffs personal goals.

4. Awareness of the coaches' personal goals.

Shared goals need to be addressed on a regular basis throughout the season to reflect the dynamic nature of a team environment.

(d) Role responsibilities

Role responsibilities are a significant area of interest for the athletes and coaches demonstrating low levels of actual similarity between athletes and coaches. The results show that although the athletes and coaches perceive that they have a good understanding of their roles there are discrepancies in the interpretations between dyadic partners. An athlete describes how she feels as a result of the coach completing their duties and states:

> *Absolutely confident with everything we do with new ideas or pulling you aside for a chat on your performance perspective or a personal perspective. So if you say something that you disagree with the coach then it's just a comment, it's not a personal attack. You know he's not talking from a pride perspective it's purely a performance perspective which is really important in a high performance environment.*

Complementary roles were found to be of significance in the athlete coach relationship (Jowett & Meek, 2000; Jowett & Cockerill, 2003). Jowett (2003) asserts that coaches and athletes need to be receptive and responsive to each other's actions and that complementary behaviours aim to enhance each other's efforts towards reaching the goals set and achieving success. The roles an athlete and coach play within the dyadic relationship has been identified as a key determinant of reciprocal behaviours and the construct of complementarity.

Role specificity can be defined as a set of expected behaviours based upon a series of patterns of behaviours or tasks individuals are expected to perform, acting in a given position, within a specific social context (Eys, Schinke & Jeffery, 2007; Lyle, 2002). These expectations are a set of agreed or shared assumptions attached to that role that drive the behaviours within a framework of acceptable and unacceptable duties. Communication is necessary to ensure that effective role ambiguity is minimised. Eys et al. (2005) identified a theoretical framework of factors that may influence the transmission and reception of role responsibilities. This framework highlights the interpersonal connections that occur between two individuals, the role sender and the focal person. Eys, Schinke and Jeffery (2007) distinguish these two roles as being synonymous with that of the coach and athlete.

Research investigating role ambiguity has been shown to mediate the relationship between intra-role conflict and role efficacy (Beauchamp & Bray, 2001).

The findings indicated a higher degree of role conflict was associated with role ambiguity which resulted in lower perceptions in role efficacy. This may be due to a perceived conflict between expected and actual behaviours but more importantly it undermines particular aspects of role/goal acceptance. An example of this may be a ‘holding mid-fielder ‘ wishing to control play by holding onto the ball and the coach not believing the player has the capability of this particular task, therefore directs the athlete to distribute the ball as quickly as possible. Beauchamp et al. (2002) added to this research proposing a four dimension conceptual model of role ambiguity and postulate that athletes need to have a clear understanding regarding;

a) The person’s range of responsibilities.
b) The behaviours required to fulfil the responsibilities.
c) How the individual assess themselves with regard to fulfilling the role’s obligations.
d) The consequences of the responsibilities not being fulfilled.

Beauchamp et al. established that the clarity of roles was positively related to self- efficacy in performing successfully resulting in increased role performance. This points out the importance of role clarity within the athlete- coach relationship as role clarity has an association with role efficacy and increased levels of performance.

Lyle (2002) highlights that the perceived role of the coach can lead to conflict if not clearly defined. Lyle suggests that a coach may see their role as:

a) Developing the athletes to have a sense of self reliance with the aim of becoming redundant
b) Mediating between performer goals and the athletes achievements and
c) To reduce the unpredictability of performance.

It is worth noting that Eys, Schinke and Jeffery (2007) believe that effective communication is a key element in assuring role clarity and as the level of competition increases so does the athletes to contribution to having a responsibility for establishing the team vision becomes more significant. The results of this study indicate that the coaches have identified that due to the players being based overseas at professional club the opportunity to communicate with the players is difficult to address. Eys, Schinke and Jeffery highlight that professional athletes have a greater bi-directional communication with their coaches' and this may increase the opportunity for the athletes and coaches to discuss roles and responsibilities, increase role clarity and in turn hold each dyadic member accountable for them. If this is the case one could argue that the length of the relationship may have a bearing on role clarity in that the longer the dyadic relationships have more opportunity to ensure that each dyadic member is fully aware of their specific roles and responsibilities within the team. As professional sport teams interact within a dynamic environment coaches could look to regularly provide opportunities to discuss role responsibilities with individuals, sub groups and the team as a whole unit to minimise the risk of role ambiguity.

(e) Acknowledging Effort

Acknowledging effort was identified as a theme of relevance for dyadic partners. This theme was identified as a result of the participants displaying significant differences in how they perceive their dyadic partner being responsive to their efforts. Both athletes and coaches identify the importance of expressing their acknowledgement toward their dyadic partner, however the results of this study suggests that these transactions do not take place as often as the athletes or coaches would expect, want and need. One athlete states:

> *I don't think the coach is the most credit giving person. My coach is not the type to just throw out comments "willy-nilly". I don't think the coach is very complementary at all unless I have something that I want to talk about.[…]I've never had the coach just come up to me be like how are you, only like if we were saying hello for the first time in a while. If I went up to my coach and talked to him then he would talk to me but I don't think he would initiate it. I can't imagine so.*

Jowett and colleagues (Jowett, 2009; Jowett & Cockerill, 2003; Jowett & Ntoumanis, 2004) identified 'Helping Transactions' and 'Emotional Support' to be two important sub-sets of complementary behaviours. Acknowledging dyadic partners' efforts emerged from Jowett's 3 Cs model from the second order theme of Emotional Support.

Potrac, Jones and Cushion (2007) analyzed the coaching behaviours of top level professional English football coaches by implementing the Arizona State University Observation Instrument (ASUOI) throughout the course of a given season. The data demonstrated that the coaches utilized high levels of praise and this may be a result of the power dynamic that exists between the athletes and coaches. Although Potrac, Jones and Armour (2002) reported that high levels of praise can be facilitated by coaches to increase athlete self efficacy and confidence levels, Carriera da Costa and Pieron (1992) suggest that acknowledging effort is a function of appropriateness. Low levels of acknowledging others' efforts were very much evident in this study and may be a result of the perceived environmental appropriateness by the athletes and coaches. With the onset of professionalism of women's football the function appropriateness may have been somewhat lost in the thinking that now athletes and coaches are in paid employment, effort is an expectation therefore losing the need to acknowledging effort.

The feelings associated with dyadic partners not being responsive to the individual's efforts, does not seem to be asymmetrical in any way. Both athletes and

coaches highlight the importance of acknowledging others' efforts and articulate the positive feelings coupled with being the recipient of being complimented for one's effort. However, athletes and coaches recognize that these transactions could be initiated with greater frequency.

The degree of appropriateness is an area requires further investigation. This could be addressed by more open and honest communication between the athletes and coaches with regards to their expectations and needs around being acknowledged for their efforts and giving acknowledgement for others' efforts. This may in turn increase the awareness of the task and potential strategies that could be implemented by athletes and coaches to address this concern.

The qualitative analysis clearly demonstrates that Coach 3 displays and promotes autonomy- supportive behaviours towards his interpersonal interactions with dyadic partners. Mageau and Vallerand (2003) state that a autonomy- supportive style of coaching implies that the coaches present opportunities for athletic choice, promotes task relevance, provides explanation for defining expectations, acknowledges athletes' feelings and perspectives, encourages athletes to take responsibility for new initiatives and prevents ego-orientated athlete behaviour (p. 898). Studies have shown that autonomy- supportive behaviours are closely associated with a sub-theory of Self Determination theory, Basic Needs theory (Ryan & Deci, 2000). Self Determination theory advocates that the social context that a person is immersed in influences the degree to which one may be intrinsically motivated (Adie & Jowett, 2010). Basic Needs theory assumes the three constructs of competence (feelings of confidence and self efficacy), relatedness (feelings of interconnections with others), and autonomy (feelings of freedom to determine one's own actions and behaviour) are essential ingredients for growth and social development.

Transformational leadership is evident from the coaches' behaviours as outlined in the qualitative analysis. Arthur, Hardy and Woodman (2012) propose that for coaches to develop effective relationship building with players they may need to look to;

1. Create inspiration vision for the future performance,
2. Support to achieve the vision and
3. Present the challenge(s) to achieve the vision.

Coach 3 goes beyond Arthur, Hardy and Woodman's model by promoting an environment whereby the athletes and coaches have an equal stake in setting the team's vision. For the coach to allow the athletes and coaching staff to jointly 'create inspiration vision for the future' enriches the Transformational leadership model. This process empowers the athletes to take ownership for their development and enhance the athletes' capability to be accountable for socio-cultural interactions.

Chapter 6 Limitations

This study provided a unique opportunity to determine the nature of the athlete-coach dyadic relations of the under 17s, under 20s and the Football Ferns and their respective Head Coaches. The results of the study reflect a snap shot of the athletes' and coaches' perceptions of their dyadic relationships. This does not take into account where in the teams' competitive year the study took place. Due to the nature of international football, the three squads, would be at different periods either leading up to or off the back of competing at world cup events or world cup qualifiers. The study does not have the scope to generalise these findings across other levels of competition, other countries nor what might take place in male international football teams in New Zealand.

The low response rate from the under 17s athletes (*N*=7) is another limitation and although there are a number of interesting trends the researcher cannot draw any conclusions when comparing the under 17s with under 20s and Football Ferns results. The low response rate from the under 17s led the researcher to having to exclude this age group from the qualitative aspect of this study. Although the quantitative analysis included the under 17s, the under 20s and the Football Ferns, the qualitative research resulted in three dyadic relationships being represented from only one of the teams. Represented by Athlete 1, 2 and 3 having a dyadic relationship with Coach 3.The initial intent was to facilitate semi structured interviews to include one dyadic relationship from each of the three age groups.

Completing more semi structured interviews, to represent three dyadic relationships per team, would bolster the scientific rigour of this study and would assist the researcher in gaining a better understanding of the nature of the coach-athlete relationships within New Zealand Football's National Female under 17s, Under 20s and

the Senior Women's team (the 'Football Ferns'). This would provide the researcher with more contextually rich data and may lead the researcher to make more comparisons of the dyadic relationships between the three age groups. However, to complete this would fall outside the requirements of a Masters Degree.

Further research using a mix methods approach would add a greater breadth and depth to understanding the nature of athlete- coach dyadic relationships. Using Jowett's CART-Q questionnaire to determine the magnitude of difference in the perceptions of the athlete and coaches thoughts, emotions and behaviours and the implementation of facilitating semi structured interviews would add to the contextual nuances and reality of the nature of examining interpersonal relationships between athletes and coaches.

Chapter 7 Conclusion

The athlete- coach relationship is embedded in the dynamic and complex coaching process, the coach and athlete are mutually bound as members of a dyadic relationship (Jowett, 2005a). The differences between the perceived interpersonal dynamics of the relationship have a direct association with athlete performance, athlete satisfaction and the development and welfare of the athlete (Lorimer & Jowett, 2009). These similarities and differences of the perceived emotions, cognitions and behaviours were examined to highlight the dyadic nature of the athlete- coach relationships within New Zealand Football's National Female under 17s, under 20s and the Football Ferns and their respective Head Coaches with the aim of identifying key areas of similarity and difference.

Jowett and colleagues (Jowett, 2009; Jowett & Meek, 2000; Jowett & Cockerill, 2003; Jowett & Ntoumanis, 2004) conceptualisation and operationalisation of the 3 Cs framework has formed the basis for this study.

The results from this study demonstrate that the athlete- coach dyadic relationships have distinctive emotions, cognitions and behaviours that validate high levels of similarity and difference.

The New Zealand female high performance football environment has a number of unique constructs that form the basis for which athletes and coaches interact. The geographical isolation of New Zealand, the small talent pool, the necessity of the athletes having to play in the world's leading domestic competitions in the northern hemisphere and financial resources have a bearing on how the team must function in order to perform on the world's stage. This uniqueness acts a framework work from which the coaches set their plans and interact with the athletes.

The athletes and coaches have similar perceptions with regards to ‘trust’ being a construct of ‘closeness’ and ‘roles’ as a construct of ‘complementarity’. The athletes and coaches have demonstrated the greatest discrepancies ‘being in commitment to the dyadic partner’ as a construct of ‘commitment’, ‘tasks’ and ‘emotional support’ as constructs of ‘complementarity’ behaviours.

As a result the following themes were identified as areas of significance:

1. Openness and honesty
2. Working together
3. Shared goals
4. Role responsibilities and
5. Acknowledging effort

Communication is the key delivery mechanism to ensure that the above areas of significance can be addressed. Coaches have a responsibility to encourage and create autonomy supportive environments be genuine, empathetic and believe that athlete-coach relationships are of importance in relation to athlete development, team cohesion and performance.

Current coach education programmes do not cater for advancing coaching knowledge in establishing or maintaining athlete- coach relationships. The reliance on coaches’ previous life experiences, to act as an acceptable framework to establish meaningful and effective relationships cannot be relied upon by national sports organisations to not address the athletes needs.

Further advancement in the research of the effectiveness of athlete- coach relationships is required to increase the awareness of this phenomenon. Small developing football nations could look to incorporate more coaching material into their

coach education frameworks that addresses the need to establish and maintain effective athlete- coach relationships. Future studies should look to include a qualitative analysis aspect onto Jowett's CART-Q to gain a deeper understanding of this phenomenon within elite women's football programmes from other nations.

References

Adie, J. & Jowett, S. (2010). Meta-perceptions of the coach- athlete relationship, achievement goals, and intrinsic motivation among sport participants. *Journal of Applied Psychology, 40*(11). 2750-2773. doi:10.1111/j.1559-1816.2010.00679.x

Ainsworth, M. D. S., Bllehar, M C., Waters, E., & Wall, S. (1978). *Patterns of attachment: Assessed in the strange situation and at home.* Hillsdale, NJ: Erbaum.

Aristetlois, G., Evangelos, B., Ioannis, G., Stergios, K., Ioannis. I., & Antonios, S. (2013). The relationship of group cohesion with the antecedents for soccer teams. *Journal of Physical Education and Sport, 13*(1), 66- 72. doi:10.7752/jpes.2013.01011.

Balaguer, I., Gonzalez, L., Fabra, P., Castillo, J. M., & Duda, J. (2012). Coaches' interpersonal style, basic psychological needs and the well- and ill- being of young soccer players: A longitudinal analysis. *Journal of Sport Science, 30*(15). 1619- 1629. doi:10.1080/02640414.2012.731517.

Balduck, A. L., & Jowett, S. (2010). Psychometric properties of the Belgian coach version of the coach-athlete relationship questionnaire (CART-Q). *Scand J Med Sci Sports, 20*(5), 779-786. doi:10.1111/j.1600-0838.2009.01020.x

Beauchamp, M. R., & Bray, S. R. (2001). Role ambiguity and role conflict within interdependent teams. *Small Groups Research, 32*, 133- 157.

Beauchamp, M. R., & Bray, S. R., Eys, M. A., & Carron, A. V. (2002). Role ambiguity, role efficacy and role performance: Multidimensional and meditational relationships within interdependent sports teams. *Group Dynamics: Theory Research and Practice, 6*, 229- 242. doi:10.1037//1089-2699.6.3.229.

Bennie, A., & O'Connor, D. (2012). Coach- athlete relationships: A qualitative study of professional sports teams in Australia. *International Journal of Sport and Health Science, 10*, 58- 64.

Berscheid, E. (1994). Interpersonal Relationships. In. *Annual Review Psychology.* Vol. 45. 79- 129.

Berscheid, E. (1999). The greening of relationship science. *American Psychologist, 54*, 260- 266.

Berscheid, E., Snyder, M., & Omoto, A. M. (1989). Issues in studying close relationships: Conceptualising ad measuring closeness. In C. Hendric (Ed.), *Close Relationships Vol. 10: Review of personality and social psychology* (pp. 63- 91). Newbury Park, CA: Sage.

Bloom, G. A., Stevens, D. E., & Wickwire, T. L. (2003). Expert coaches' perceptions of team building. *Journal of Applied Sport Psychology, 15*(2), 129- 143. doi:10.1080/10413200305397.

Bowlby, J. (1969/ 1982). *Attachment and loss: Vol. 1. Attachment.* (2nd Ed.) New York, NY: Basic Books.

Bowlby, E. (1973). *Attachment and loss: Vol. 2. Separation anxiety and anger*. New York, NY: Basic Books.

Braun, V. and Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2). pp. 77-101. doi: 10.1191./1478088706qp063oa.

Bull, S. J., Albinson, J. G. & Shambrook, C. J. (1996). *The mental game plan: Getting psyched for sport*. Cheltenham, UK: Sport Dynamics.

Campbell, D. T., & Fiske, D. W. (1959). Convergent discriminant validation by the multitrait- multimethod matrix. *Psychological Bulletin, 56,* 81- 105.

Carriera Da Costa, F., & Pieron, N. (1992). Teaching effectiveness: Comparison of more or less effective teachers in an experimental teaching unit. In.T. Williams, L. Almond and A. Sparkes. (Eds.) *Sport in Physical Activity: Moving Towards Excellence.*London: E & FN Spon.

Carron, A, V., & Bennet, B. B. (1977). Compatbility in the coach- athlete dyad. *Research Quarterly, 48,* 671- 679.

Carron, A. V., & Hausenblas, H. A. (1998). *Group dymanics in sport* .(2nd Ed.). Morgantown. WV: Fitness Information Technology.

Carron, A. V., Colman, M. M., Wheeler, J., & Stevens, D. (2002). Cohesion and performance in sport: A meta-analysis. *Journal of Sport and Exercise Psychology, 24,* 168- 188.

Carron, A. V., Hausenblas, H. A., & Eys, M. A. (2005). Group dynamics in sport (3rd Ed.). Morgantown, WV: Fitness Information Technology.

Carron, A. V., Widmeyer, W. N., & Brawley, L. R. (1985). The development of an instrument to assess cohesion in sports teams: The group environment questionnaire. *Journal of Sport Psychology, 7,* 244- 266.

Cassell, C. & Symon, G. (2004). *Essential guide to qualitative methods in organizational research*. Thousand Oaks, CA: Sage Publications.

Charlesworth, R. (2001). *The Coach-Managing for success*. MacMillan by Pam MacMillan, Australia. Pty. Ltd.

Chelladurai, P. (1978). *A multidimensional model of leadership.* Unpublished doctoral dissertation, University of Waterloo.

Chelladurai, P. (1984). Leadership in sports. In J. Silva & R. Weinberg (Eds.), *Psychological foundations of sport* (pp. 329 -441). Champaign. IL: Human Kinetics.

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

Chelladurai, P., & Carron, A. V. (1981). Applicability to youth sports of the leadership scale of sports. *Perceptual and Motor Skills, 53,*361- 362.

Chelladurai, P. & Haggerty T. R. (1978). A normative model of decision styles in coaching. *Athletic Administrator, 13,* 6-9.

Chelladurai, P. & Haggerty T. R. (1989). Decision style choices of university basketball coaches and players. *Journal of Sport & Exercise Psychology, 11,* 201- 215.

Chelladurai, P., & Saleh, S. D. (1978). Preferred leadership in sports. *Canadian Journal of Applied Sport Sciences, 3,* 85- 92.

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

Chesterfield, G., Portac, P., & Jones, R. (2010). 'Studentship and 'impression management' in an advanced soccer coach education award. *Sport, Education and Society, 15*(3), 299- 314. doi:10.1080/1357332.2010.493311

Cohen, J. (1969).*Statistical Power Analysis for the Behavioral Sciences,* 1st Edition, Lawrence Erlbaum Associates, Hillsdale (2nd Edition, 1988)

Côté, J., Salmela, J. H., & Russell, S. (1995). The Coaching Model: A Grounded Assessment of Expert Gymnastic Coaches Knowledge. *Journal of Sport and Exercise Psychology, 17* (1), 1- 17.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage Publications.

Curtis, B., Smith, R. E., & Smoll, F. L. (1979). Scrutinizing te skipper: A study of leadership behaviour in the dugout. *Journal of Applied Psychology, 64* (4), 391- 400.

Cushion, C. J. (2007). Modeling the Complexity of the Coaching Process. *International Journal of Sports Science & Coaching, 2*(4), 395- 401.

Cushion, C. J., Armour, K. M., & Jones, R. L. (2003). Coach education and continuing professional development: experience and learning to coach, *Quest, 55,* 215- 230.

Cushion, C. J., Armour, K. M., & Jones, R. L. (2006). Locating the coaching process in practice: models 'for' and 'of' coaching. *Physical Education and Sport Pedagogy, 11,* (1), 83-99. doi:10.1080/17408980500466995.

d' Arripe-Longueville, F., Fournier, J. F., & Dubois, A. (1998). The Perceived Effectiveness of Interactions between Expert French Judo Coaches and Elite Female Athletes. *The Psychologist, 12,* 317- 332.

Daly, J.A. and Parkin, D.A. (1991). *Better Coaching: Advanced Coach's Manual*. (pp 3-14).

Davidson, C. (2003). *Social science research in New Zealand: Many paths to understanding*. Pearson Prentice Hall.

Davidson, C., & Tolich, M. (2003). Competing traditions. In C. Davidson & M. Tolich (Eds.), *Social science research in New Zealand: Many paths to understanding* (2nd ed.), (pp. 23-38). Auckland: Pearson Education.

Davis, L. & Jowett, S., (2013). Attachment Styles within the Coach-Athlete Dyad: Preliminary Investigation and Assessment Development. In *Journal of Clinical Sport Psychology.* Vol. 7. (pp. 120- 145). doi:10.1080/02640414.2014.898183.

Davis, L., Jowett, S. & Lafreniere, M. K. (2013). An Attachment Theory Perspective in the Examination of Relational Processes Associated with Coach- Athlete Dyads. In *Journal of Sport Psychology.* Vol. 35. 156- 167.

Dawson, P. Dobson, S. & Gerrard, B. (2000). Estimating Coaching Efficiency in Professional Team Sports: Evidence from English Association Football. *Scottish Journal of Political Economy, 47(4),* 399-421. doi:10.1111/1467-9485.00170.

DeShon, R.P., Kozlowski, W. J., Shcmidt, A. M., Milner, K. R., & Wiechmann, D. (2004). Multiple- goal, multilevel model for feedback effects on the regulation of individual and team performance. *Journal of Applied Psychology, 89,* 1035-1056. doi:10.1037/0021-9010.89.6.1035.

Deci, E.L. & Ryan, R.M. (1980). The empirical exploration of intrinsic motivational processes. In *Advances in Experimental Social Psychology.* Vol. 13. 39-80. doi:10.1016/S0065-2601(08)60130-6.

Deci, E.L. & Ryan, R.M. (1985). *Intrinsic Motivation and Self-Determination in Human Behaviour.* New York: Plenum Press.

Denzin, N. K. (1978). *The research act: A theoretical introduction to sociological methods.* New York: Praeger Oaks, CA: Sage.

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

Duda, J., & Hayashi, C. T. (1998). Measurement issues in cross-cultural research within sport and exercise psychology. In J. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 471-483). Morgantown: Fitness Technology.

Eys, M. A., Carron, A. V. (2001). Role ambiguity, task cohesion and task self-efficacy. *Small Group Research, 32,* 356- 373. doi:10.1177/104649640103200305.

Eys, M. A., Carron, A. V., Beauchamp, M. R. and Bray, S. R. (2005). Athletes' perceptions of sources of role ambiguity. *Small Group Research, 25*, 534- 550. doi:10.1177/1046496404268533.

Eys, M. A., Schinke. R. J., & Jeffery, S. M. (2007). Role perceptions in sport groups. In M. R. Beauchamp & M. A. Eys, *Group Dynamics in Exercise and Sport Psychology- Contemporary themes* (pp. 99- 116). New York: Routledge.

Fasting, K., & Pfister, G. (2000). Female and male coaches in the eyes of female elite soccer players. *European Physical Review, 6,* 91- 110. doi:10.1177/1356336X000061001.

Felton, L. & Jowett, S. (2013). Attachment and well being: The mediating effects of psychological needs satisfaction within coach- athlete relational contexts. *Psychology of Sport and Exercise, 14,* 57- 62. doi:10.1016/j.psychsport.2012.07.006.

Fenton (2006). *Weft QDA (version 1.0).*Retrieved from http:// www.pressure.to/**qda**/.

Franks, I., Sinclair, G., Thomson, W., & Goodman, D. (1986). *Analysis of the coaching process,* Science, Periodical, Research Technology and Sport, 1, January. pp. 1-12.

Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis,11,* 255-274. doi:10.3102/01623737011003255.

Hardy, L., & Jones, G. (1994). Current issues and future directions for performance-related research in sport psychology. *Journal of Sport Sciences, 12,* 61- 92. doi: 10.1080/02640419408732158.

Higginbottom, G. M. (2004). Sampling issues in qualitative research. *Nurse Researcher, 12*(1), 7. doi:10.7748/nr2004.07.12.1.7.c5927.

Hinde, R. A. (1997). *Relationships: A dialectical perspective*. London: Psychology Press.

Ivankova, N. V., Creswell, J. W., & Stick, S. L. (2006). Using Mixed- Methods Sequential Explantory Design: From Theory to Practice. *Field Methods, 18*(1), 3-20. doi:10.1177/1525822X05282260.

Jackson, B., Knapp, P., & Beauchamp, M. R. (2009). The Coach- Athlete relationship: A tripartite efficacy perspective. *The Sports Psychologist, 23,* 203- 232.

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research, 1*(2), 112- 133. doi:10.1177/15568806298224.

Jones, R. L., Armour, K. M. & Protrac, P. (2004). *The cultures of coaching.* London: Longman.

Jowett, S. (2003). When the honeymoon is over: A case study of a coach- athlete relationship in crisis. *Sport Psychologist, 17,* 444- 460.

Jowett, S. (2005a). The coach- athlete partnership. *The Psychologist, 18*(7), 412- 415.

Jowett, S. (2005b). *On repairing and enhancing the coach-athlete relationship. In S. Jowett & M. Jones* (Eds.). Leicester: British Psychological Society.

Jowett, S. (2006). Interpersonal and Structural features of Greek Coach-Athlete dyads Performing in Individual Sports. *Journal of Applied Sport Psychology, 18,* 69-81. doi:10.1080/10413200500471335.

Jowett, S. (2007). Interdependence analysis and the 3 + 1 Cs in the coach- athlete relationship. In S. Jowett and D. Lavallee (Eds.), Social psychology in sport (pp. 15 -27). Champaign, IL: Human Kinetics.

Jowett, S. (2009). Validating Coach-Athlete Relationship Measures with the Nomological Network. *Measurement in Physical Education and Exercise Science, 13*, 34-51. doi:10.1080/10913670802609136.

Jowett, S., & Chaundy, V. (2004). An investigation into the impact of coach leadership and coach- athlete relationship on group cohesion. *Group Dynamics: Theory Research and Practice, 8(4),* 302- 311. doi: 10.10037/1089-2699.8.4.302.

Jowett, S., & Clark- Carter, D (2006). Perceptions of empathetic accuracy and assumed similarity in the coach- athlete relationship. *British Journal of Social Psychology*, *45*, 617- 637. doi:10.1348/014466605X58609.

Jowett, S., & Cockerill, I. M. (2003). Olympic Medallists' perspective of the athlete-coach relationships. *Psychology of Sport and Exercise, 4*, 313-331. doi:10.1016/S1469-0292(02)00011-0.

Jowett, S., & Meek, S. (2000). The coach- athlete relationship in married couples: An exploratory content analysis. *The Sport Psychologist, 14,* 157- 175.

Jowett, S., & Nezlek, J. (2011). Relationship interdependence and satisfaction with important outcomes in coach-athlete dyads. *Journal of Social and Personal Relationships, 29*(3), 287- 301. doi:10.1177/0265407511420980.

Jowett, S., & Ntoumanis, N. (2004). The Coach-Athlete Relationship Questionnaire (CART-Q): development and initial validation. *Scand J Med Sci Sports, 14*(4), 245-257. doi:10.1111/j.1600-0838.2003.00338.x.

Jowett, S., Paull, G., & Pensgaard, A. M. (2005). Coach- athlete relationship. In J. Taylor & G. S. Wilson (Eds.), *Applying Sport Psychology: Four Perspectives*, (pp. 153- 170). Champaign, IL: Human Kinetics.

Jowett, S., & Wylleman, P. (2006). Interpersonal relationships in sport exercises: Crossing the chasm. *Psychology of Sport and Exercise, 7*, 119-123.

Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence.* Canada: Wiley. doi:10.1016/j.psychs-port.2005.08.001.

Kelley, H. H.,Holmes, J. G., Kerr, N. L., Reis, H. T., Rubult, C. E., & Van Lange, P. A. M. (2003). *An atlas of interpersonal situations*. New York, NY: Cambridge University Press.

Kidman L. (2001). *Developing decision makers: An empowerment approach to coaching*. Innovative Print Communications.

Kidman, L. & Hanrahan, S. J. (2004). *The coaching process: A practical guide to improve you effectiveness,* Sydney, AU: Thompson Learning.

Kidman, L. & Lombardo, B. J. (2010). *Athlete centred coaching: Developing decision makers* (2nd Ed). Worcester, UK: IPC Resources.

Kiesler, D. J. (1997). *Contemporary interpersonal theory research and personality, psychopathology, and psychotherapy.* New York. Wiley.

King, J. & Kelly, J. (1997). *The Cult of the Manager*. London: Virgin Publishing Ltd.

Krane, V. (2007). *Gendered social dynamics in sport*. In E. R. Beauchamp and M. A. Eys (Eds.), Group Dynamics in Exercise and Sport Psychology: Contemporary themes. (pp. 159- 176) London and New York. Routledge Francis and Taylor.

Larsen, C. H., & Engell, C. (2013). The art of goal setting: A tale of doing sport psychology in professional football. *Sport Science Review*, *22*(1-2), 49- 76. doi:10.2478/ssr-20130004.

Locke, E. A., & Latham, G. P. (2006). New direction in goal-setting theory. *Association for Psychological Science, 15*(5), 265- 268.

Lombardo. B. J (2001) Coaching in the 21st Century- Issues concerns and solutions. Rhode Island College, USA.

Lorimer, R. (2013). The development of empathetic accuracy in sports coaches. *Journal of Sport Psychology in Action, 4,* 26- 33. doi: 10.1080/21520704.2012.7066696.

Lorimer, R., & Jowett, S. (2009). Empathic accuracy, met-perspective, and satisfaction in the coach athlete relationship. *Journal of Applied Sport Psychology.* 21(2): 20-212. doi:10.1080/10413200902777289.

Lyle, J. (1999). *The coaching process: principles and practice for sport*, Oxford, Butterworth-Heinemann, ch.1, pp. 3-24.

Lyle, J. (2002). *Sports Coaching Concepts; A framework for coaches' behaviour*. London & New York: Routledge.

Kunnanatt, J. T. (2008). Emotional intelligence: theory and description, a competency model for interpersonal effectiveness. *Career and Development International, 13*(7), 614-629. doi:10.1108/13620430810911083.

Maddocks, J. (2009). Creating an emotionally intelligent organization. *The Coaching Psychologist, 5,* (1), 27-32.

Mageau, G., & Vallerand, R. J. (2003). The coach- athlete relationship: a motivational model. *Journal of Sport Sciences. 21*, 883-904. doi:10.1080/0264041031000140374.

Metge, J. (1995). *New Growth from Old: The Whanau in the Modern World*. Victoria University Press: Wellington.

Mordal-Moen, K., & Green, K. (2012). Physical education teacher education in Norway: A case study of student teachers' perceptions. *Sport, Education & Society.* doi:10.1080/13573333.2012719867.

New Zealand Football. (n.d). *The Whole of Football Plan*. Retrived August 18, 2014, from http://www.nzfootball.co.nz/whole-of-football.

Newcomb, T. M. (1953). An approach to the study of communicative acts. *Psychological Review, 60,* 393- 404.

Norman, L., & French, J. (2013). Understanding how high performance women athletes experience the coach- athlete relationship. *International Journal of Coaching Science, 7*(1), 3-24.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd Ed.). New York: McGraw-Hill.

Oceania Football Confederation. (n.d.) Education. *Retrieved October 2014.* http://www.oceaniafootball.com/ofc/Technical/tabid/1026/PageContentType/Education/language/en-US/Default.aspx.

Occhino, J., Mallett, C., & Rynne, S. (2012). Dynamic social networks in high performance football coaching. *Physical Education and Sport Pedagogy, 18* (1), 90- 102. doi:10.1080/17408989.2011.631003.

Phillipe, R. A., Sagar, S.S., Huguet, S., Paquet, Y., & Jowett, S. (2011). From Teacher to Friend: The Evolving Nature of the Coach- Athlete Relationship. *International Journal of Sport Psychology 42*(1), 1- 23.

Phillipe, R. A., & Salier, R. (2006). Closeness, co-orientation and complementarity in coach- athlete relationships: What male swimmers say about their male coaches. *Psychology of Sport and Exercise, 7,* 159- 171.

Phillips, M.G. (2000). *From Sidelines to Centre Field: A history of sports coaching in Australia*. Sydney: University of New South Wales Press, (pp x-xv).

Poczwardowski, A., Barott, J. E., & Henschen, K. P. (2002). The athlete and coach: Results of an interpretive study. *International Journal of Sport Psychology, 33,* 116- 140.

Poczwardowski, A., Barott, J., E, & Jowett, S. (2006). Diversifying approaches to research on athlete-coach relationships. *Psychology of Sport and Exercise, 7,* 125-142. doi:10.1016/j.psychsport.2005.08.002.

Poczwardowski, A., Barott, J. E., & Peregoy, J. E. (2002). The athlete and coach: Their relationship and its meanings. Methodological concerns and research process. *International Journal of Sport Psychology, 33,* 98- 115.

Potrac, P., Jones, R., & Armour, K. (2002). It's all about getting respect: The coaching behaviours of an expert English soccer coach. *Sport, Education and Society, 7* (2), 183-202. doi:10.1080/1357332022000018869.

Potrac, P., Jones, R., & Cushion, C. (2007). Understanding power and the coach's role in professional English soccer: A preliminary investigation of coach behaviour. *Soccer and Society, 8*(1), 33- 49. doi:10.1080/14660970600989509.

Rees, T., Ingledew, D. K., & Hardy, L. (2005). Attribution in Sport Psychology: Seeking Congruence between Theory, Research and Practice. In. *Psychology of Sport and Exercise.* Vol. 6. 189- 204.

Rhind, D. J. A., & Jowett, S. (2010). Initial evidence for the criterion-related and structural validity of the long versions of the Coach-Athlete Relationship Questionnaire. *European Journal of Sport Science*, *November 10*(6), 359-370. doi:10.1080/17461003699047.

Ryan, R. M., & Deci, E. L. (2000). Self Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well Being. In. *American Psychologist.* Vol. 55(1). 68- 78. doi:10.1037/0003-066X.55.1.68.

Roberts, K. L., & Taylor, B. (2002). Nursing research processes: An Australian perspective. Nelson.

Rubin, H. J., & Rubin, I. S. (2005). *Qualitative Interviewing*. The art of hearing data, (2nd Ed.). Tousand Oaks, CA: Sage Publications.

Rusbult, C. E., & Buunk, B. P. (1993). Commitment processes in close relationships: An interdependence analysis. *Journal of Personality and Social Psychology, 50,* 744- 753. doi:10.1177/026540759301000202.

Rusbult, C. E., & Van Lange, P. A. (2003). Interdependence, Interaction and Relationships. *Annual Review of Psychology*. *Vol. 54*. 351- 375. doi:10.1146/annurev.pysch.54.101601.145059.

Salminen .S., & Liukkonen, J. (1996). Coach- athlete relationship and coaching behaviour in training sessions. *International Journal of Sport Psychology, 27,* 59-67.

Saury, J. & Durand, M. (1998). Practical knowledge in expert coaches: on site study of coaching in sailing. *Research Quarterly for Exercise and Sport, 69*(3), 254-266. doi:10.1080/02701367.1998.10607692.

Schmidt, U., McGuire, R., Humphrey, S., Williams, G., & Grawer, B. (2005). Team cohesion. In J. Taylor and G. S. Wilson (Eds.), *Applying sport psychology: Four perspectives* (pp. 171- 183). Champaign, IL: Human Kinetics.

Sencel, J., Loughead, T. M., & Bloom, G. A. (2008). A season-long team beuilding intervention: Examining the effect of team goal setting on cohension. *Journal of Sport & Exercise, 30,* 186- 199.

Sieber, S. D. (1973). The integration of fieldwork and survey methods. *American Journal of Sociology, 73,* 1335- 1359.

Smith, R. E., Noland, W. S. Z., Smoll, F. L., & Coppel, D. B. (1983). Behavioural assessment in youth sports: coaching behaviours and children's attitudes. *Medicine and Science in Sport and Exercise, 15*(30), 208- 214.

Smith, R. E., Smoll, F. L., & Curtis, B. (1978). Coaching behaviors in little league baseball. In F.L. Smoll & R.E. Sith (Eds.), *Psychological perspectives on youth sport* (pp. 173- 201). Washington, D.C: Hemisphere.

Smith, R. E., Smoll, F. L., & Hunt, E. (1977). A system for the behavioural assessment of athletic coaches. *Research Quarterly, 48,* 401- 407. doi:10.1080/10671315.1977.10615438.

Smoll, F. L., & Smith, R. E. (1984). Leadershi research in youth sports. In. J. M. Silva III, & R. S. Weinberg (Eds.), *Psychological fundations of sport* (pp. 371- 386). Champaign, IL: Human Kinetics.

Smoll, F. L., Smith, R.E., Curtis, B. & Hunt, E. (1978). Toward a mediational model of coach-player relationships. *Research Quarterly, 49,* 528- 541. doi:10.1080/10671315.1978.10615567.

Solomon, G., & Lobinger, B. (2011). Sources of expectancy information among coaches. A cross cultural investigation. *Thoeries and Applications, 1,* 46- 57.

Sport New Zealand. (n.d). *New Zealand Coaching Strategy*. Retrived August 18, 2014, from http://www.sportnz.org.nz/about-us/our-publications/our-strategies/new-zealand-coaching-strategy/.

Thibaut, J. W., & Kelley, H. H. (1959). The social psychology of groups. New York, NY: Wiley.

Thibaut, J. W., & Kelley, H. H. (2007). *The social psychology of groups* (4th Ed.). New York, NY: Wiley.

Thewell, R. C., Andrew, M. L., Weston, N. J. V., & Greenlees, I, A. (2008). Examining the relationship between emotional intelligence and coaching efficacy. *The Sport Psychologist,* 6, 224-235.

Trzaskoma-Bicserdy, G., Bognar, J., Revesz, R., & Geczi, G. (2007). The Coach-Athlete Relationship in Successful Hungarian Individual Sports. *International Journal of Sports & Coaching, 2*(4), 485- 495. doi:10.1260/17479540778335975.

Vroom, V. H., & Yetton, P. W. (1973). *Leadership and decision- making*. Pittsburg: University of Pittsburg Press.

Webb, E. J., Campbell, D. T., Schwartz, R. D., & Sechrest, L. (1966). *Unobtrusive measures*. Chicago: Rand McNally.

Williams, A. M. (2000). Perceptual skill in soccer: Impications for talent identification and development. *Journal of Sports Sciences, 18,* 737- 750. doi:10.1080/02640410050120113.

Wood, J. T., & Duck, S. (1995). Off the beaten track: New shores for relationship research. In J.T. Wood, & s. Duck (Eds.), *Understanding relationships: Off the beaten track* (pp1-21). London: Sage.

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

Woodman, L. (1994). Coaching. In W. Vamplew & K. Moore & J. O'Hara & R. Cashman & I. F. Joblings (Eds), *Oxford Companion to Australian Sport* (pp.102-103). Melbourne: Oxford University Press.

Wylleman, P. (2000). Interpersonal relationships in sport. Unchartered territory in sport psychology research. *International Journal of Sport Psychology*, *21*, 555- 572.

Yang, S. X., & Jowett, S. (2010). An examination of the psychometric properties of the Chinese coach- athlete relationship questionnaire (CART-Q). *International Journal of Coaching Science*, *4*(2), 73- 89. doi:10.1016/j.psychsport.2011.07.010.

Yang, S. X., & Jowett, S. (2012). Psychometric properties of the coach-athlete relationship questionnaire (CART-Q) in seven countries. *Psychology of Sport and Exercise*, *13*, 36-43. doi:10.1016/j.psychsport.2011.07.010.

Yang, S. X., & Jowett, S. (2013). Conceptual and measurement issues of the complementarity dimension of the athlete – coach relationship across cultures. *Psychology of Sport and Exercise*, *14*, 830- 841. doi:10.1016/j.psychsport.2013.06.003.

Yukelson, D. (2006). Communicating effectively. In. J. M. Williams (Ed.), *Applied Sport Psychology: Personal growth to peak performance* (5th ed., pp. 174- 191). New York: McGraw Hill.

Appendices

Appendix A

AUT UNIVERSITY | AUTEC SECRETARIAT

19 March 2014

Tony Oldham
Faculty of Health and Environmental Sciences

Dear Tony

Re Ethics Application: **14/31 Examining the nature of interpersonal coach-athlete dyads between New Zealand national representative female football players and national head coaches.**

Thank you for providing evidence as requested, which satisfies the points raised by the AUT University Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 19 March 2017.

As part of the ethics approval process, you are required to submit the following to AUTEC:

- A brief annual progress report using form EA2, which is available online throughhttp://www.aut.ac.nz/researchethics. When necessary this form may also be used to request an extension of the approval at least one month prior to its expiry on 19 March 2017;
- A brief report on the status of the project using form EA3, which is available online through http://www.aut.ac.nz/researchethics. This report is to be submitted either when the approval expires on 19 March 2017 or on completion of the project.

It is a condition of approval that AUTEC is notified of any adverse events or if the research does not commence. AUTEC approval needs to be sought for any alteration to the research, including any alteration of or addition to any documents that are provided to participants. You are responsible for ensuring that research undertaken under this approval occurs within the parameters outlined in the approved application.

AUTEC grants ethical approval only. If you require management approval from an institution or organisation for your research, then you will need to obtain this. If your research is undertaken within a jurisdiction outside New Zealand, you will need to make the arrangements necessary to meet the legal and ethical requirements that apply there.

To enable us to provide you with efficient service, please use the application number and study title in all correspondence with us. If you have any enquiries about this application, or anything else, please do contact us at ethics@aut.ac.nz.

All the very best with your research,

Kate O'Connor
Executive Secretary
Auckland University of Technology Ethics Committee

Cc: Dwayne Woolliams dwoolliams@gmail.com

Auckland University of Technology Ethics Committee
WA606F Level 6 WA Building City Campus
Private Bag 92006 Auckland 1142 Ph: +64-9-921-9999 ext 8316 email ethics@aut.ac.nz

Appendix B

NEW ZEALAND FOOTBALL

8/12/13

To whom it may concern,

New Zealand Football fully supports the study of *examining the nature of coach athlete relationships of our National female under 17's, under 20's and Football Ferns* to be facilitated by Dwayne Woolliams.

New Zealand Football will assist Dwayne with gaining access to the coaches and players and will approve use of our letterhead and logo on documents required for the study.

We are very much looking forward to receiving his findings in order to potentially add benefit to potential coach development initiatives.

Yours sincerely

Fred de Jong
High Performance Manager

NEW ZEALAND FOOTBALL
NORTH HARBOUR STADIUM, OTEHA VALLEY ROAD, ALBANY, AUCKLAND, NEW ZEALAND
PO BOX 301-043, ALBANY, AUCKLAND, NEW ZEALAND
TELEPHONE: (64 9) 414-0175, FACSIMILE: (64 9) 414-0176
WWW.NZFOOTBALL.CO.NZ

Appendix C

The *Coach* – Athlete Relationship Questionnaire (CART-Q) *meta*

This questionnaire aims to measure the quality and content of the coach-athlete relationship. Please read carefully the statements below and circle the answer that indicates whether you agree or disagree. There are no right or wrong answers. Please respond to the statements as honest as possible and relevant to how you personally think a specific athlete from your team or squad feels about you.

.....Strongly Disagree				Moderately		Strongly Agree
1. I like my coach	1	2	3	4	5	6	7
2. My coach likes me	1	2	3	4	5	6	7
3. I trust my coach	1	2	3	4	5	6	7
4. My coach trusts me	1	2	3	4	5	6	7
5. I respect my coach	1	2	3	4	5	6	7
6. My coach respects me	1	2	3	4	5	6	7
7. I appreciate the sacrifices my coach has experienced to improve performance	1	2	3	4	5	6	7
8. My coach appreciates the sacrifices	1	2	3	4	5	6	7

I have experienced to improve performance							
9. I am committed to my coach	1	2	3	4	5	6	7
10. My coach is committed to me	1	2	3	4	5	6	7
11. I am close to my coach	1	2	3	4	5	6	7
12. My coach is close to me	1	2	3	4	5	6	7
13. I think my football career is promising with my coach	1	2	3	4	5	6	7
14. My coach believes that his/ her football career is promising with me	1	2	3	4	5	6	7
15. I am at ease with my coach	1	2	3	4	5	6	7
16. My coach is at ease with me	1	2	3	4	5	6	7
17. I am responsive to my coaches efforts	1	2	3	4	5	6	7
18. My coach is responsive to my efforts	1	2	3	4	5	6	7

19. I am ready to do my best	1	2	3	4	5	6	7
20. My coach is ready to do his/ her best	1	2	3	4	5	6	7
21. I adopt a friendly stance	1	2	3	4	5	6	7
22. My coach adopts a friendly stance	1	2	3	4	5	6	7

Jowett, S. (in press). Validating coach-athlete relationship measures with the nomological network. *Measurement in Physical Education and Exercise Science.*

Jowett, S. (in press). Factor Structure and Criterion Validity of the Meta-Perspective Version of the Coach-Athlete Relationship Questionnaire (CART-Q). *Group Dynamics: Theory, Research, and Practice.*

Appendix D

NEW ZEALAND FOOTBALL

Consent Form

AUT UNIVERSITY

Project title: ***Examining the Nature of Interpersonal Coach-Athlete Dyads between New Zealand National Representative Female Football Players and National Head Coaches***

Project Supervisor: ***Tony Oldham***

Researcher: ***Dwayne Woolliams***

- O I have read and understood the information provided about this research project in the Information Sheet dated 16/12/13.
- O I have had an opportunity to ask questions and to have them answered.
- O I understand that I may withdraw myself or any information that I have provided for this project at any time, without being disadvantaged in any way.
- O If I withdraw, I understand that all relevant information including tapes and transcripts, or parts thereof, will be destroyed.
- O I agree to take part in this research.
    - O I agree to take part in the questionnaire/ survey
    - O I agree to take part in a 30 minute interview: YesO NoO
- O I understand that notes will be taken during the interviews and that they will also be audio-taped and transcribed.
- O I wish to receive a copy of the report from the research (please tick one): YesO NoO

Participants signature: .....

Participants Name: .....

Participants Contact Details (if appropriate):

.....

.....

.....Date:

Approved by the Auckland University of Technology Ethics Committee on 19/03/2014 AUTEC Reference number 1431

Note: The Participant should retain a copy of this form

Approved by the Auckland University of Technology Ethics Committee on *19/3/2014 final ethics approval was granted*, AUTEC Reference number *1431*.

Appendix E

Participant Information Pack

Date Information Sheet Produced:

15/12/13

Project Title

Examining the Nature of Interpersonal Coach-Athlete Dyads between New Zealand National Representative Female Football Players and National Head Coaches

An Invitation

You are invited to take part in a research project about your involvement in Football and particularly your relationship with your coach within New Zealand Football's Under 17's Under 20's and or Football Ferns. This project aims to determine how athletes and coaches perceive the nature of their relationship and where differences or similarities arise.

I am Dwayne Woolliams, a Masters student at AUT University and I will be facilitating this project.

I am an employee of New Zealand Football involved with programme standards. I am not connected with the high performance group in any way. This research is primarily targeted at understanding coaching relationships as part of my Masters studies.

Your participation in the project will involve a 15 minute survey at a typical squad training. I wish to facilitate a 30 minute interview with 6 participants as a follow up to the survey for those that would like the opportunity to say more.

Your participation is entirely voluntary at all times. This means you can choose to withdraw from the study at any stage. Your involvement in this study or withdrawal from it will not cause you any harm.

It is important to note that no identifying factors will be used in the study. This means your name, and any other identities will remain anonymous at all times. Therefore New Zealand Football and coaches will not be made aware of your individual thoughts/ answers.

What is the purpose of this research?

I am undertaking this research to gain a better understanding of the nature of athlete-coach relationships within New Zealand Football's Nation Female under 17's, Under 20's and Football Ferns.

New Zealand Football understands that coach-athlete relationships are important to performance, athlete satisfaction and the development and welfare of the athlete. Therefore effectively examining the coach-athlete relationship can assist New Zealand Football with designing coach education material and assist with the development of better relationships at all levels of play.

I would like also to determine if the length or level of your relationship with your coach has any bearing on how you and you perceive your relationship.

Approved by the Auckland University of Technology Ethics Committee on *19/3/2014 final ethics approval was granted,* AUTEC Reference number *1431*.

How was I identified and why am I being invited to participate in this research?

You have been approached for this study because:

- You are have been identified as a player in the wider squad of the Under 17's, Under 20's or Football Ferns

What will happen in this research?

If you choose to take part in this study you will be asked to:

- Sign a consent form to say that you would like to be involved. Give this to my Research Assistant to place in an envelope for me to collect.
- I will arrange to conduct the survey during a typical squad training session at a time best suited to the team. You will also be given the opportunity to have a support person with you during the survey if you wish.
- The survey will once again be returned for summarising in a sealed envelope.
- For those that have consented to participate in a 30 minute interview
    - I will arrange a time to meet at a time best suited to you, at a typical squad training session
    - The interview will be recorded by a digital voice recorder.
    - There is the option to conduct the interview via skype or by phone if needed.

What are the discomforts and risks?

Any discomfort or risk is unlikely. However, due to the nature of discussing relationships you may be required to reflect on negative experiences.

How will these discomforts and risks be alleviated?

You don't need to answer any questions that you don't want to and are free to withdraw from the study at any time. Upon withdrawal all information you have provided will be removed from the study. You will have the opportunity to read your answers to your survey and change your answers. Those that participate in the interviews will have the opportunity to read the transcript of their interview and change or withdraw any comments.

Contact details for the Health, Counselling and Wellbeing Centre and Youth line listed below if you feel you need to discuss any issues. The supervisor of this project is a Sport Psychologist and he has offered his services if you feel you have experienced any discomfort as a direct result of participating in this study.

What are the benefits?

By taking part, your information and experiences will be used with the aim to improve coach education programmes and to improve the nature of athlete-coach relationships. This might entail helping coaches identify that

1. It's important to athlete performance and satisfaction
2. What constitutes a healthy athlete-coach relationship
3. How might the coach establish/ maintain healthy athlete- coach relationships.

Approved by the Auckland University of Technology Ethics Committee on *19/3/2014 final ethics approval was granted*, AUTEC Reference number *1431*.

How will my privacy be protected?

Your consent form and survey results are separate documents and your name will never by recorded next to your responses in either the survey or the interview. Only myself and my research assistant will have access to consent forms. Any written documentation survey results, transcripts, reports, publications, presentations or study discussions you will remain anonymous. This means your name, team, and other names or locations spoken of in the study will remain unknown. Where anidentifier is required for written purposes I will allocate an alpha numeric coding system to ensure anonymity.

The High Performance department at New Zealand Football and coaches may be aware of your involvement but at no time will they see or hear your personal responses.

What are the costs of participating in this research?

The only cost to you as a participant is your time. You will be required to complete a survey that is estimated to take 15 minutes and for those participants that have consented to attend an interview, it is expected that this process should take approximately 30 minutes.

What opportunity do I have to consider this invitation?

You have three weeks to consider this invitation. If you would like more information before signing the consent form you are welcome to contact me using the details provided below.

How do I agree to participate in this research?

If you would like to take part in this study you will need to sign the consent form attached and return to my Research Assistant at a squad training session or place in the box provided.

Will I receive feedback on the results of this research?

If you would like to receive a summary of the findings of this research please tick the below on the consent form. A summary of the findings will be available with 12 months of completion of the project and copies will be made available if requested.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor,

Name: *Tony Oldham,*

Email address: *tony.oldham@aut.ac.nz*

Work phone number: +64 (09) 9217057

Concerns regarding the conduct of the research should be notified to the Executive Secretary of AUTEC, Kate O'Connor, *ethics@aut.ac.nz*, 921 9999 ext 6038

Whom do I contact for further information about this research?

Researcher Contact Details:

Name: *Dwayne Woolliams*

Email address: *dwayne.woolliams@nzfootball.co.nz*

Phone number: *021465836*

Approved by the Auckland University of Technology Ethics Committee on *19/3/2014 final ethics approval was granted*, AUTEC Reference number *1431*.

Appendix F

Interview Guide

Q 1: What does TRUST look like in an effective athlete-coach relationship

Q 1: So how important is it in the Ferns environment that there are high levels of TRUST with you and your coach?

Q 1: What behaviours would be observed between you and your coach if you had high levels of TRUST?

Q2: Could you explain to me what RESPECT means to you within the athlete-coach relationship?

Q2: How does it make you feel when there is a mutual RESPECT between athlete and coach?

Q2: What behaviour could I expect to see between an athlete and coach with high levels of mutual RESPECT?

Q3: What would COMMITMENT look like in the Ferns environment between you and the coach?

Q3: How does it make you feel when you are working with coaches with high levels of COMMITMENT then?

Q3: How do you behave when your coaches are COMMITTED to you?

Q 4: How important is it that a high performance coach and athlete need to feel that their career is PROMISING with each other?

Q 4: How would it make you feel if your coach felt that his career was PROMISING with you in the team?

Q4: How would this feeling affect yours and your coaches' behaviour?

Q5: How important is it to feel comfortable or AT EASE with the Ferns coach?

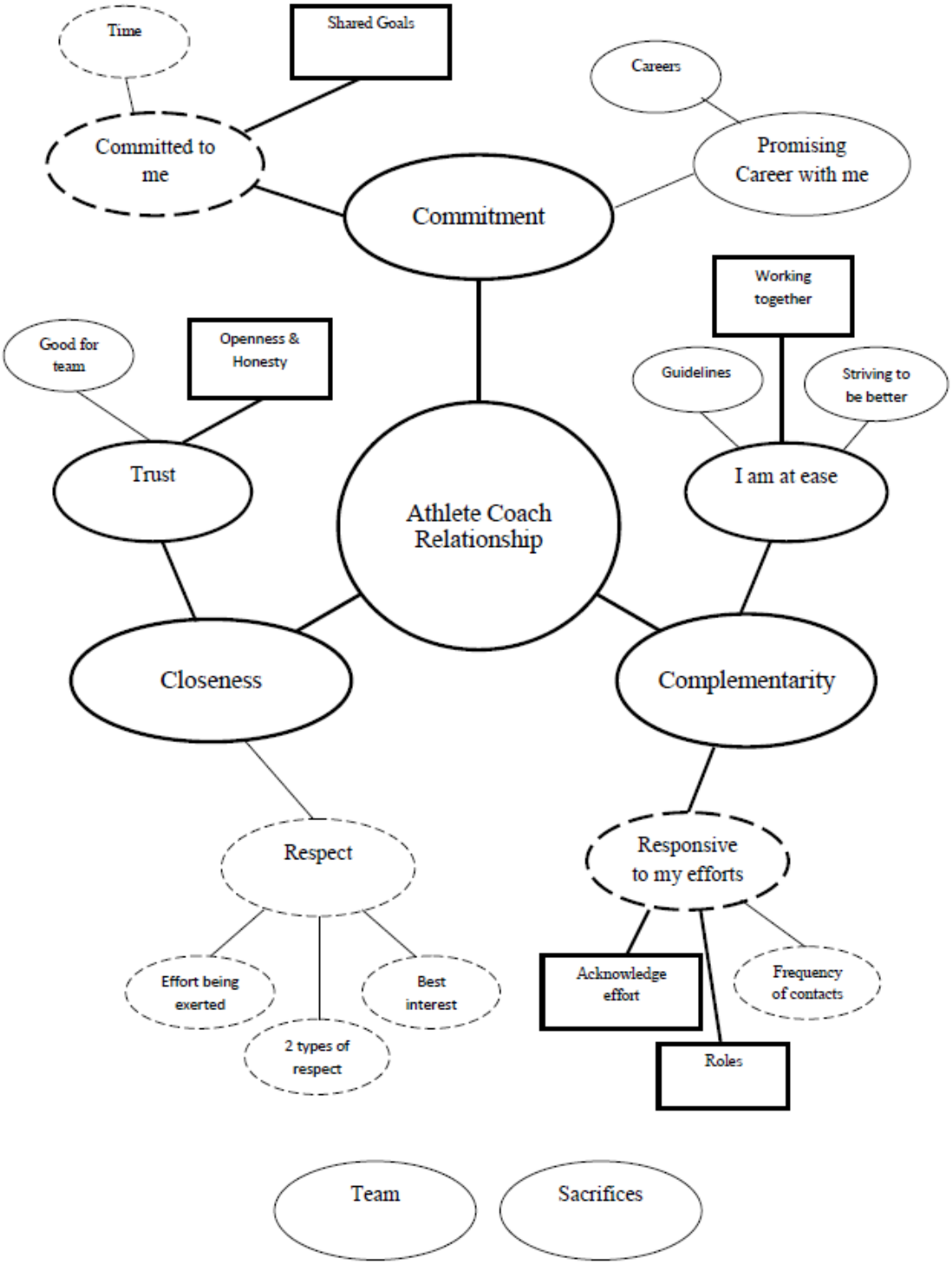
Q5: Would your behaviour change around coaches that you feel more comfortable with?

Q6: A question in the questionnaire was "if your coach was RESPONSIVE to your efforts", how important would it be for you to know or feel that the coach is being responsive to your efforts?

Q6: So if that was taking place then how would that make you feel?

Appendix G

Thematic network based on Jowett's 3 + 1C model (2005b) and mixed methods approach to Examining the nature of athlete coach relationships within New Zealand Football's National Female Under 17s, Under 20s and the Senior Women's team (the Football Ferns).



Appendix H

CART-Q data analysis for the Under 17s

CART-Q	M	SD	Cohen's d	Greatest Similarity/ Difference
Closeness				
1. I like my athlete/ coach	1.47	0.79	1.87	
2. My athlete/ coach likes me	0.98	0.82	1.20	Greatest Similarity
3. I trust my athlete/ coach	1.71	0.69	2.48	
4. My athlete/ coach trusts me	1.11	0.90	1.24	
5. I respect my athlete/ coach	1.32	0.53	2.46	
6. My athlete/ coach respects me	1.50	0.98	1.53	
7. I appreciate the sacrifices my athlete/ coach has experienced to improve his/ her performance	1.05	0.38	2.77	Greatest Difference
8. My athlete/ coach appreciates the sacrifices I have experienced to improve performance	0.84	0.69	1.21	
Commitment				
9. I am committed to my athlete/ coach	1.09	0.69	1.57	Greatest Similarity
10. My athlete/ coach is committed to me	1.47	0.79	1.87	
11. I am close to my athlete/ coach	1.22	0.76	1.61	
12. My athlete/ coach is close to me	1.09	0.69	1.57	Greatest Similarity
13. I think my coaching/ playing career is promising with my athlete	1.76	1.07	1.65	
14. My athlete/ coach believes that his/ her football career is promising with me	1.99	0.90	2.21	Greatest Difference
Complimentarity				
15. I am at ease with my athlete/ coach	1.62	0.95	1.70	
16. My athlete/ coach is at ease with me	1.62	0.95	1.70	
17. I am responsive to my athlete/ coaches efforts	1.37	0.98	1.41	
18. My athlete/ coach is responsive to my efforts	1.47	0.79	1.87	Greatest Difference
19. I am ready to do my best	0	0	0	Greatest Similarity
20. My athlete/ coach is ready to do his/ her best	0.84	0.69	1.21	
21. I adopt a friendly stance	1.47	0.79	1.87	Greatest Difference
22. My athlete/ coach adopts a friendly stance	1.35	0.79	1.71	

Appendix I

CART-Q data analysis for the Under 20s and Football Ferns

CART-Q	M	SD	Cohen's d	Greatest Similarity/ Difference
Closeness				
1. I like my athlete/ coach	0.92	0.72	1.27	
2. My athlete/ coach likes me	0.97	0.69	1.42	
3. I trust my athlete/ coach	1.08	0.83	1.30	
4. My athlete/ coach trusts me	0.73	0.73	1.00	Greatest Similarity
5. I respect my athlete/ coach	1.14	0.71	1.59	
6. My athlete/ coach respects me	1.08	0.60	1.82	Greatest Difference
7. I appreciate the sacrifices my athlete/ coach has experienced to improve his/ her performance	1.41	1.12	1.26	
8. My athlete/ coach appreciates the sacrifices I have experienced to improve performance	1.19	0.97	1.23	
Commitment				
9. I am committed to my athlete/ coach	1.19	.091	1.31	
10. My athlete is committed to me	1.24	0.83	1.50	Greatest Difference
11. I am close to my athlete/ coach	0.76	0.68	1.11	
12. My athlete/ coach is close to me	0.68	0.63	1.08	
13. I think my coaching/ playing career is promising with my athlete	1.27	0.96	1.32	
14. My athlete/ coach believes that his/ her football career is promising with me	0.78	0.78	1.00	Greatest Similarity
Complimentarity				
15. I am at ease with my athlete/ coach	0.89	0.74	1.21	Greatest Similarity
16. My athlete/ coach is at ease with me	1.05	0.78	1.35	
17. I am responsive to my athlete/ coaches efforts	1.35	0.95	1.42	
18. My athlete/ coach is responsive to my efforts	1.41	0.98	1.43	Greatest Difference
19. I am ready to do my best	1.22	0.85	1.42	
20. My athlete/ coach is ready to do his/ her best	1.19	0.84	1.41	
21. I adopt a friendly stance	0.89	0.66	1.36	
22. My athlete/ coach adopts a friendly stance	1.05	0.74	1.42	